STATE OF NORTH CAROLINA
RADIOLOGICAL EMERGENCY RESPONSE PLAN

I. PURPOSE

A. PURPOSE

The purpose of this plan is to provide for the coordinated use of State resources in response to an incident at one of the Nuclear Power facilities affecting North Carolina. This plan and associated local plans and procedures establish an off-site emergency operations framework to provide for integrating the State's response with that of other governmental jurisdictions and response organizations.

B. SCOPE

The plan applies to all State and County government departments and agencies as well as private sector organizations and agencies which are tasked to provide assistance in a disaster or emergency situation at a Nuclear Power facility. It describes the fundamental policies, strategies, and general concept of operations to be used in control of the event from its onset through the post disaster phase.

C. ORGANIZATION

The plan consists of the following:

Part 1. The State Plan describes the purpose, scope, situation, policies, and concept of operations for State activity in response to an event at a Nuclear Power facility. The State Plan assigns functional responsibilities to appropriate state departments and agencies, as well as private sector groups and volunteer organizations. Part 1 also contains Annexes A through K which provide detailed information for specific response areas.

Part 2. Individual County Plans describing the purpose, scope, situation, policies, and concept of operations for local County activity in response to an event at the local Nuclear Power facility. Plans are grouped in sections by individual Nuclear Power facility.

Distribution List showing organizations and agencies that have been given copies of the plan.

II. CONCEPT

A. PLANNING

1. Emergency planning efforts for nuclear power plants are based on the Emergency Planning Zone (EPZ) concept. An EPZ is considered the area that could be affected by an accident at one of the nuclear power facilities. The Nuclear Regulatory Agency/Environmental Protection Agency (NRC/EPA) in NUREG–0654 recommended defining two areas, one as a short term “plume exposure pathway” emergency planning zone

(10-mile radius) and one as a long term “ingestion exposure pathway” emergency planning zone (50-mile radius). In a particular emergency, protective actions might well be restricted to a small part of the planning zone. On the other hand, for the worst possible accident, protective actions may need to be taken outside the planning zone. The EPZ concept is illustrated in Section VIII, FIGURE-1.

2. The 10-mile radius of the plume exposure EPZ is based primarily on the following considerations:

   a. Projected doses from traditional design basis accidents would not exceed Protective Action Guide (PAG) levels outside the zone.

   b. Projected doses from traditional design basis accidents would not exceed Protective Action Guide (PAG) levels outside the zone.

   c. Projected doses from most core melt sequences would not exceed PAG levels outside the zone.

   d. For the worst core melt sequences, immediate life threatening doses would generally not occur outside the zone.

   e. Detailed planning accomplished within the 10-mile zone would provide a base for expansion of response efforts, if necessary, into the 50-mile zone.

3. The 50-mile radius of the ingestion exposure EPZ is based on the following considerations:

   a. The downwind range, potentially threatened by contamination, would generally be limited to about 50-miles or less from the power plant due to wind shifts, wind speed during the release, and time for radioactive decay.

   b. There may be a conversion of atmospheric iodine suspended in the atmosphere for long time periods to chemical forms that do not readily enter the ingestion pathway.

   c. Much of any particulate material from a radioactive plume would be deposited on the ground within 50 miles of the facility.

   d. Projected contamination generally would not exceed PAG levels outside the 50-mile EPZ.

4. Many public and private organizations share the responsibility of safeguarding the public's health and safety. It is essential that the response of all parties be fully integrated. This PLAN has been jointly developed, coordinated and exercised with participating organizations, and provides for the integrated response activities of identified parties.

Through joint participation each organization will have a clear understanding of the role it will play in the event of an emergency.

B. OPERATIONS

1. The primary responsibility for directing and conducting emergency operations in the plume exposure pathway, 10-mile EPZ rests jointly with local and State governments. During the initial period after notification of an accident, emergency actions required to protect the people in the affected area are the responsibility of the local governments concerned; although advice will be available from the State and Federal agencies during this time. (See Section VIII, FIGURE-2) Therefore, both local and State governments must prepare plans and response mechanisms for the plume exposure pathway EPZ.

2. The Department of Crime Control and Public Safety (CCPS) is responsible for emergency operations conducted by the State in accordance with North Carolina State Statute 166A. (See Section VIII, FIGURE-4).

3. The Director, North Carolina Division of Emergency Management (NCEM), is responsible for planning, organizing, directing and supervising emergency operations conducted by the State (See Section VIII, FIGURE-4).

4. The Director, NCEM, has a staff of specialists representing State agencies, state level volunteer and non-profit organizations, and state level corporate associations tasked to assist in carrying out his duties. This staff is organized into a State Emergency Response Team (SERT) for which the Director or designated representative serves as the leader.

5. The SERT is comprised of representatives from State agencies, state level volunteer and non-profit organizations, and state level corporate associations who have knowledge of their organizations' resources and have the authority to commit those resources to emergency response. The primary operating location for the SERT is the State EOC (SEOC) in Raleigh. SERT activity may also be conducted through Regional Coordination Centers (RCC) located in each of the three NCEM Branch offices. The SEOC can be activated on a limited or full-scale basis as deemed appropriate by the SERT Leader. In the event of full activation (Level 2 or Level 1), all SERT agencies will be represented in the EOC on a 24-hour basis. The Division of Emergency Management provides support staff for the SERT. Upon activation of the SERT, agencies are authorized, in coordination with the SERT leader, to initiate and continue actions to carry out assigned missions, including tasking of designated support agencies.

6. A representative from each tasked organization is available to respond on a 24/7 basis.

7. The time required after notification to fully assemble the SERT in the State Emergency Operations Center (SEOC) is shown in a table maintained by NCEM.

8. During the time SERT is being assembled, other necessary actions required of the State government (e.g. declaration of a State of Disaster by the Governor or establishing contact with local governments and other parties concerned) will be completed.

9. When the SERT is established to the satisfaction of the SERT Leader, there are two conditions under which the State will assume responsibility for directing State agency participation in emergency operations and coordinating actions involving both state and local agencies.

   a. A request from the county or counties concerned for the SERT to assume direction and control authority (Option A).

   b. A State of Disaster has been declared (Option B).

   See Section VIII, FIGURE 2 for Direction and Control responsibilities and relationships between State and counties

10. The exact time at which is stated in the SERT message dispatched to each county concerned, the licensee and the State Warning Point. This message (See Section VIII, FIGURE 3) states either:

Option A

At the request of the county or counties concerned, SERT assumes direction and control authority effective at the specified date, time and location.

or;

Option B

A State of Disaster has been declared; SERT assumes direction and control authority effective at the specified date, time and location.

NOTE

When a State of Disaster is declared by the Governor, the State has the authority to assume responsibility for directing and conducting emergency operations. This is not meant to negate local governments' continuing responsibility to protect the people prior to the establishment of SERT as described above.

11. Directing and conducting emergency operations, in conjunction with local response agencies, in the 50-mile ingestion exposure pathway EPZ is the responsibility of the State, rather than local response organizations.

12. The owning Utility has the primary responsibility for planning and implementing emergency measures within the boundaries of the effected location, to include corrective actions at the site, protective measures and

aid for persons on-site. Since facility operators cannot do this alone, they must make advance arrangements with State and local organizations for special emergency assistance such as ambulance, medical, hospital, fire and police services.

13. The Utility has primary responsibility for accident assessment. This includes prompt evaluation of any potential risk to the public health and safety, both on site and off site, and timely recommendations to State and local governments.

14. After declaration of an event, Unusual Event or higher emergency classification, the affected Utility will provide initial notification and any recommendations for protective measures within 15-minutes, with follow-up information and data on the situation at no more than 60-minute intervals, or more frequently if necessary.

15. The Emergency Notification Form (EM Form - 78 (See Annex F) provides the notification to off-site agencies by the facility operator as set forth in Nuclear Regulatory Commission guidance, NUREG-0654, Appendix 1. Identification and classification of the emergency along with other event information is provided to the off-site agencies via this form.

16. Emergency communication links among State, local, and Federal agencies, and between State government and 10-mile EPZ nuclear plant utilities are staffed 24 hours a day. (See Section VI, Emergency Communications).

17. In summary, this plan contains emergency guidelines to be implemented throughout the EPZ. In developing the emergency response concept of operations, two time frames were considered.

    a. During the initial period, when an emergency condition exists at the power plant but is not serious enough to warrant a declaration of a State of Disaster by the Governor, the State will provide assistance to local governments in the affected area and direct the actions of State forces employed in an emergency response role.

    b. In the follow-on period, when the emergency condition has escalated and the Governor has declared a State of Emergency, the State assumes responsibility for direction and control of off site emergency operations.

III. ORGANIZATION and RESPONSIBILITIES

A. This section describes the organization and the primary responsibility for emergency response by State and local organizations and the individual nuclear power facilities. It also specifically establishes the responsibilities of various supporting organizations and provides basic procedures to assure that each principal response organization is staffed on a continuous basis to respond to and to augment the initial response.

B. PRINCIPAL RESPONSE ORGANIZATIONS

1. LOCAL

a. BRUNSWICK NUCLEAR PLANT (PROGRESS ENERGY) – SOUTHPORT, NC

(i) The county governments (and municipal governments in the counties) within the 10-mile EPZ are:

Brunswick	New Hanover

(ii) The county governments (and municipal governments in the counties) within the 50-mile IPZ (to include 10-mile counties) are:

Bladen	Onslow	Sampson
Columbus	Pender	Horry, SC

b. HARRIS NUCLEAR PLANT (PROGRESS ENERGY) – NEW HILL, NC

(i) The county governments (and municipal governments in the counties) within the 10-mile IPZ are:

Chatham	Lee
Harnett	Wake

(ii) The county governments (and municipal governments in the counties) within the 50-mile EPZ (to include 10-mile counties) are:

Alamance	Hoke	Randolph
Caswell	Johnston	Robeson
Cumberland	Montgomery	Sampson
Durham	Moore	Vance
Franklin	Nash	Wayne
Granville	Orange	Wilson
Guilford	Person	

c. MCGUIRE NUCLEAR STATION (DUKE POWER) – HUNTERSVILLE, NC

(i) The county governments (and municipal governments in the counties) within the 10-mile EPZ are:

Catawba	Lincoln	Iredell
Gaston	Mecklenburg	

(ii) The county governments (and municipal governments in the counties) within the 50-mile IPZ (to include 10-mile counties) are:

	North Carolina	
Alexander	Davidson	Stanly
Anson	Davie	Union
Burke	Forsyth	Wilkes
Cabarrus	Montgomery	Yadkin
Caldwell	Rutherford	
Cleveland	Rowan	

	South Carolina	
Cherokee	Lancaster	
Chester	York	

d. CATAWBA NUCLEAR STATION (DUKE POWER) – ROCK HILL, SC

(i) The county governments (and municipal governments in the counties) within the 10-mile EPZ are:

Gaston Mecklenburg York, SC

(ii) The county governments (and municipal governments in the counties) within the 50-mile IPZ (to include 10-mile counties) are:

	North Carolina	
Anson	Cleveland	Iredell
Burke	Lincoln	Stanly
Cabarrus	Rutherford	Union
Catawba	Rowan	

	South Carolina	
Cherokee	Kershaw	Spartanburg
Chester	Lancaster	Union
Chesterfield	Newberry	Fairfield

2. STATE

a. DEPARTMENT OF CRIME CONTROL AND PUBLIC SAFETY

b. DEPARTMENT OF ENVIRONMENT & NATURAL RESOURCES

c. DEPARTMENT OF JUSTICE

d. DEPARTMENT OF CORRECTION

e. DEPARTMENT OF HEALTH & HUMAN SERVICES

f. DEPARTMENT OF TRANSPORTATION

g. DEPARTMENT OF AGRICULTURE

h. DEPARTMENT OF INSURANCE

i. DEPARTMENT OF ADMINISTRATION

j. DEPARTMENT OF COMMERCE

k. WILDLIFE RESOURCES COMMISSION

3. FEDERAL

a. NUCLEAR REGULATORY COMMISSION (NRC)

b. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

c. DEPARTMENT OF ENERGY (DOE)

d. ENVIRONMENTAL PROTECTION AGENCY (EPA)

e. DEPARTMENT OF HOMELAND SECURITY (DHS)

f. DEPARTMENT OF HEALTH AND HUMAN SERVICES (HHS)

g. FOOD AND DRUG ADMINISTRATION (FDA)

h. DEPARTMENT OF TRANSPORTATION (USDOT)

i. DEPARTMENT OF AGRICULTURE (USDA)

j. NATIONAL WEATHER SERVICE (NWS)

k. Others as required

4. PRIVATE SECTOR

a. PROGRESS ENERGY

b. DUKE ENERGY

c. GLOBAL NUCLEAR FUEL – AMERICAS, LLC

d. SPRINT TELEPHONE COMPANY

e. LOCAL INDEPENDENT TELEPHONE SERVICE COMPANIES

f. LOCAL RADIO AND TELEVISION STATIONS

g. PRIVATE HOSPITALS

h. THE SALVATION ARMY

i. THE AMERICAN RED CROSS

j. VOLUNTEER ORGANIZATIONS

C. RESPONSIBILITIES

1. The Departments of Crime Control and Public Safety (CCPS) and Environment and Natural Resources (DENR) are the two state agencies that have major responsibility for coordinating off-site response to emergencies resulting from an accident at one of the nuclear power facilities. CCPS has the lead for direction and control, and DENR has the lead for technical assistance and expertise. All State resources deemed necessary, will be made available to support the response mission.

2. Tasked departments will accomplish the following general tasks and any other tasks assigned by the SERT leader.

   a. Provide personnel, equipment, and facilities.

   b. Develop and maintain supporting plans, procedures, and alerting lists for this plan, subject to review and approval by CCPS.

   c. Plan and provide for the safety of employees and protection of State property in the event of an emergency.

   d. Coordinate actions with SERT and with departments having related tasks.

   e. Train personnel for assigned emergency tasks.

   f. Participate in exercises to test emergency plans and procedures.

3. <u>STATE GOVERNMENT DEPARTMENT RESPONSIBILITIES</u>

   a. NORTH CAROLINA DEPARTMENT OF CRIME CONTROL AND PUBLIC SAFETY (CCPS)

      Assemble the SERT, serve as the central public information agency in disaster operations, and provide to the Governor situation reports and recommendations on: activation of the National Guard, activation of the Emergency Management Assistance Compaq (EMAC), activation of the Southern Mutual Radiological Assistance Plan (SMRAP); and evacuation and subsequent reentry and recovery of the affected areas.

(i) Division of Emergency Management

(1) Prepare and maintain the State Radiological Emergency Response Plan for Nuclear Power facilities affecting North Carolina as an annex of the North Carolina Emergency Operations Plan (EOP) in coordination with DENR and other tasked agencies.

(2) Operate the State EOC Operations Center on a 24-hour basis as the Radiological Waning Point.

(3) Maintain the State EOC in Raleigh on a 24-hour basis for use as the primary operating locations for the SERT.

(4) Provide support to SERT members in the field and local governments through the Regional Response Centers (RCC).

(5) Provide and coordinate all communications with Federal government agencies and contiguous states.

(6) Establish communications with the applicable local National Weather Service Office for long-range weather reports and validation of individual facility meteorological data.

(7) Augment the DENR Radiation Protection Section (RPS) with additional personnel for the mobile laboratory and field teams, if requested.

(8) Provide a SERT REP Technical Advisor.

(9) Provide a SERT Liaison to the Utility EOF.

(ii) State Highway Patrol

(1) Coordinate all law enforcement support functions.

(2) Operate the State Warning Point on a 24-hour basis as the back-up Radiological Waning Point.

(3) Provide immediate assistance to Utility management and local authorities during initial onset of the emergency.

(4) Transport SERT emergency personnel to the scene of the emergency when directed.

(5) Establish and maintain communication links between Utility management, local authorities, SERT, and the Secretary of CCPS, or his designee, when directed.

(6) Provide communications support to SERT, including DCI terminals and operators.

(7) Assist with traffic control activity for evacuation in the vicinity of shelters, reroute traffic around contaminated area, and report traffic problems to SERT.

(8) Establish assigned security roadblocks to reroute traffic and prevent entry into contaminated zones designated by SERT.
(9) Maintain a log of all persons and vehicles entering and leaving a designated zone subsequent to evacuation.
(10) Direct contaminated persons and vehicles to designated decontamination stations.
(11) Provide assistance to county and municipal law enforcement agencies in warning and evacuating persons in the designated zones.
(12) During a State of Disaster, provide or coordinate all law enforcement activity necessary for the protection of life and property.
(13) Supervise the movement of all pedestrian and motor vehicle traffic in and adjacent to a designated zone.
(14) Provide any service or logistical support directed by the Governor, the Secretary of CCPS, SERT, or by the Patrol Commander or his designee, the appropriate Zone Director, or Troop Commander.
(15) Provide a patrol car to escort the Radiation Protection mobile laboratory to the area of an accident and provide sufficient security personnel for the mobile laboratory during the emergency.
(16) If available and requested, provide a patrol car for back-up communications to each county EOC and the effected Plant,

(iii) North Carolina National Guard (Office of the Adjutant General)
(1) Be prepared to provide the following aviation support when a State of Disaster has been declared:
(a) Short notice helicopter transportation for personnel or equipment directly involved with efforts to prevent the immediate loss of life or limb.
(b) Aerial evacuation of personnel from threatened areas.
(c) Emergency transportation of lifesaving supplies and equipment.

NOTE
Due to lack of life support equipment in National Guard helicopters, other means of transporting patients requiring life support should be considered.

(2) Be prepared to furnish ground transportation as follows:

(a) Provide trucks and buses with drivers to transport individuals and groups being evacuated from contaminated or threatened areas.
(b) Provide trucks and drivers for transporting supplies and equipment.
(c) Provide trucks and drivers for hauling potable water.

(3) Provide radio equipment for use by National Guard SERT Representatives.
(4) Provide equipment and personnel to conduct search and rescue missions.
(5) Provide equipment and personnel to establish and operate field kitchens for mass feeding, as needed.
(6) Assist in decontamination as follows:
(a) Provide personnel to operate portable showers.
(b) Provide personnel and equipment to assist in decontamination of equipment, roads, and structures.
(c) Assist in operating decontamination points as required.
(7) Protect public and private property.
(8) Provide assistance for traffic control and law enforcement during evacuation and reentry phases of an emergency operation.
(9) Provide emergency medical assistance.
(10) Make armories and other National Guard facilities available for use as shelters or other support functions when not required for National Guard use.
(11) Provide generators and light sets as required for nighttime operations.
(12) Provide wreckers to support evacuation.
(13) Be prepared to provide other support as required.
(14) Manage radiation exposure of National Guard personnel and maintain exposure records.

(iv) Civil Air Patrol
Provide volunteers for:
(1) Aerial courier and messenger service.
(2) Light transport flights for movement of personnel and supplies.
(3) Fixed, mobile, and airborne communications.
(4) Search and rescue missions.

(v) Alcohol Law Enforcement
(1) Detect violations of alcohol control laws.
(2) Provide law enforcement as directed.
(3) Assist in search and rescue missions.

(4) Provide any other services as directed.

b. NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (DENR)

(i) Division of Environmental Health

(1) Radiation Protection Section (RPS)

(a) Determine the severity level of radiation release and report level to SERT.

(b) Dispatch RPS emergency personnel to the incident area as appropriate.

(c) Establish and supervise a system for radiological monitoring to exclude the monitoring of the general population (individuals and vehicles) during evacuation.

(d) Designate a SERT representative to coordinate technical activities.

(e) Direct all off-site radiation-related technical activities during recovery operations.

(f) Recommend protective measures for the public and emergency workers.

(g) Recommend measures to reduce the spread of radioactive contamination.

(h) Determine the types of radiological technical expertise required from Federal, State, and local agencies, and private organizations and request their assistance through SERT.

(i) Recommend activation of the Southern Mutual Radiological Assistance Plan (SMRAP).

(j) Arrange with public and private agencies to provide back-up support for monitoring and laboratory analysis. Assist NCEM in maintaining a list of radiological laboratories.

(k) Provide radiological technical direction to other agencies.

(l) Provide technical direction for radiological safety criteria during recovery operations.

(m) Review recommendations for protective actions from the affected nuclear power facility.

(n) Make recommendations for protective actions, evacuation, reentry, and recovery.

(o) Monitor the procurement, distribution and storage of thermoluminescent dosimeters (TLDs) or equivalent technology individual personnel monitors.

(p) Supervise the collection, readout, and badge change-out for the TLD Program.

Analyze and maintain complete dosimetry records for the TLD Program.

(q) Coordinate with DHHS/Public Health to identify fixed and supporting medical care facilities willing to accept and able to treat suspected or actual radiation contaminated victims.

(r) Serve as lead agency for radiological damage assessment for land, crops, livestock, and other personal property.

(s) Recommend location of available field meteorological stations in the vicinity of the affected nuclear power facility.

(t) Coordinate with DENR/Waste Management decontamination and waste disposal activities.

(u) Coordinate with DHHS to develop a medical response plan for off site consequences of nuclear emergencies.

(v) Coordinate with DHHS to develop a system for follow-up of individuals exposed to radiation. Information such as location at time of emergency, radiation dose, contamination, treatment, and release status will be recorded.

(w) Coordinate with DHHS to develop and maintain a list of qualified radiological medical consultants who, if required, can assist State and local medical authorities.

(2) Environmental Health Services Section

(a) Dairy and Food Protection Branch

(1) Collect milk samples for radiological analysis in coordination with RPS. Embargo contaminated milk where required.

(2) Provide liaison with local health departments, and provide assistance and consultation as needed.

(3) Assist in technical decision to prohibit use of water sources.

(4) Halt or restrict the use of non-drinking water as deemed necessary.

(5) Consult with the Water Quality & Water Resources Divisions on restrictions placed on the use of public drinking water.

(6) Collect samples of surface water in coordination with RPS.

(b) Public Water Supply Section
- (1) Notify and update local water supply operations on the status of hazardous situations.
- (2) Order local water supply plants to cease operations and close intake systems where deemed necessary.
- (3) Provide technical assistance and supervision to local public water supply operations.

(ii) Division of Water Quality & Division of Water Resources
- (1) Coordinate requests for emergency drinking water and provide technical assistance when requested for the treatment and distribution of emergency drinking water.
- (2) At the request of the owners, provide technical assistance for water supplies serving more than 15 connections or 25 people.

(iii) Division of Waste Management
- (1) Coordinate with RPS the removal of radiologically contaminated materials.
- (2) Coordinate with RPS specifications and design criteria for temporary disposal sites.
- (3) Provide liaison with local health departments having solid wastes responsibilities for construction of temporary storage sites.
- (4) Prior to the emergency, identify temporary storage sites for contaminated material.
- (5) Locate and arrange for the provision of solid wastes disposal equipment.
- (6) When directed, dispatch State or regional personnel to the SEOC immediately.

(iv) Division of Forest Resources
- (1) Provide equipment and personnel for decontamination operations, including earth moving and wash down.
- (2) Provide air and land transportation.
- (3) Provide local area communications.
- (4) Provide emergency feeding.
- (5) Act as guides in forest areas.
- (6) Provide local weather measuring team.
- (7) Assist in the warning and notification operations in areas surrounding lakes and rivers.

(v) Division of Parks and Recreation

(1) Provide equipment and personnel to assist in control activities in or near State parks.
(2) Regulate or prohibit entry into and use of contaminated State parks.
(3) Provide living areas for emergency workers.
(4) Act as guides in State park areas.
(5) Provide assembly areas for equipment and personnel.
(6) Provide transportation and communications in State park areas.
(7) Assist in the warning and notification operations on lakes, rivers and in the surrounding areas as directed by SERT. (See Annex G.)

(vi) Division of Marine Fisheries

(1) Monitor and collect specimens of fish and shellfish in coordination with RPS.
(2) Close contaminated areas to the taking of game fish and shellfish.
(3) Embargo both processed and unprocessed fish, if necessary, under authority delegated by the Department of Agriculture.
(4) Perform law enforcement assistance as directed.
(5) Provide air, water, and land transportation and assist in rescue.
(6) Provide consultation in marine life management and biology.
(7) Assist in the warning and notification procedures within the Brunswick Nuclear Power Plant 10-mile EPZ.

(vii) North Carolina Wildlife Resources Commission

(1) Monitor and collect specimens of fish and wildlife in coordination with RPS.
(2) Close contaminated areas to the taking of game fish and wildlife.
(3) Embargo both processed and unprocessed fish, if necessary, under authority delegated by the Department of Agriculture.
(4) Act as guides in woodland areas.
(5) Perform law enforcement assistance as directed.
(6) Provide air, water, and land transportation and assist in rescue.
(7) Provide consultation in wildlife management and biology.
(8) Collect samples of migratory forms of game fish and wildlife, if necessary.
(9) Assist in the warning and notification procedures for the following areas:

(a) Along the Cape Fear River within the Brunswick Nuclear Power Plant 10-mile EPZ
(b) Jordan Lake, the Cape Fear, Deep and Haw Rivers and surrounding area.
(c) Lake Norman, the Catawba River and surrounding area.

c. NORTH CAROLINA DEPARTMENT OF AGRICULTURE and CONSUMER SERVICES

(i) Food and Drug Protection
(1) Restrict the sale, production, distribution and warehousing of livestock, produce, and processed food products, as necessary.
(2) Provide radiological sampling support in coordination with RPS.

(ii) Food Distribution
Locate and provide food commodities for evacuees when directed.

(iii) Livestock Feed
Locate and report sources of uncontaminated feed for livestock.

d. NORTH CAROLINA DEPARTMENT OF JUSTICE

(i) State Bureau of Investigation (SBI)
Investigate violations of North Carolina Criminal Code and assist other law enforcement agencies.

(ii) Division of Criminal Information (DCI)
Provide terminal equipment and operators to the State EOC and terminal equipment to SERT for use during emergencies.

e. NORTH CAROLINA DEPARTMENT OF HEALTH & HUMAN SERVICES (DHHS)

(i) Division of Public Health Services
(1) Coordinate with DENR/RPS to develop a medical response plan for off site consequences of nuclear emergencies.
(2) Coordinate with DENR/RPS to develop a system for follow-up of individuals exposed to radiation. Information such as location at time of emergency, radiation dose, contamination, treatment, and release status will be recorded.

(3) Coordinate with DENR/RPS to develop and maintain a list of qualified radiological medical consultants who, if required, can assist State and local medical authorities.
(4) Coordinate with CCPS/NCEM and DENR/RPS to develop and maintain the radiological drug annex (Annex K) for this plan.
(5) Coordinate with DENR/RPS to recommend radiological drug (Ki) administration to emergency workers and the general public during an event at a nuclear power facility.
(6) Coordinate public health functions including the general public potassium iodide program. (See Annex K).
(7) Laboratory Services Section
Provide laboratory evaluation of suspected radioactive samples of all types, utilizing, if necessary, back-up facilities at North Carolina State University and the University of North Carolina at Chapel Hill.

(ii) Division of Social Services
(1) Coordinate overall shelter operations to support county shelter management.
(2) Coordinate shelter operations at designated shelters and support the American National Red Cross in shelter management.

(iii) Division of Mental Health, Developmental Disability and Substance Abuse Services
(1) Provide mental health and crisis counseling.
(2) Provide medical support and inpatient services as a secondary role.

(iv) Division of Health Services Regulation ,Emergency Medical Services Section, Office of Emergency Medical Services
(1) Coordinate with DENR/RPS to identify fixed and supporting medical care facilities willing to accept and able to treat suspected or actual radiation contaminated victims.
(2) Provide training programs for medical support personnel to care for off-site victims in cooperation with the Division of Emergency Management.
(3) Coordinate emergency medical services at radiation accident sites and shelters.
(4) Provide technical information on available emergency medical personnel.

(5) Provide radiation safety training assistance to emergency medical personnel through existing Emergency Medical Training programs.
(6) Insure plans for marshaling ambulance and rescue resources are current.
(7) Coordinate rescue resources with Fire and Rescue Service Division, Department of Insurance, as per Standard Operating Procedure for Resource Management in support of State Emergency Response.

f. NORTH CAROLINA DEPARTMENT OF CORRECTION

(i) Prisons Division
(1) Provide transportation, uniformed personnel, and services, to include law enforcement, as directed.
(2) Provide food service support by preparing and delivering food to designated congregate care centers and EOCs as necessary.
(3) Provide a plan for evacuating or otherwise protecting inmates and employees in the evacuation zone.
(4) Provide within available stocks, clothing and towels to support decontamination actions at designated locations.

(ii) Corrections Enterprises
(1) Provide containers (drums) for packaging contaminated material.
(2) Provide signage and barricades as necessary to cordon off contaminated areas.
(3) Provide food stocks to designated congregate care centers.
(4) Provide within available stocks, clothing and bedding material to designated congregate care centers.

g. NORTH CAROLINA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS

(i) Erect and maintain signs, lights, barricades or other traffic control devices needed to maintain or control traffic along the affected routes or detour routes.
(ii) Erect and maintain signs, barricades or other traffic control devices needed to assist law enforcement control of cordoned areas.
(iii) Continuously evaluate and report road conditions to SERT.
(iv) Upon request, provide vehicles for the movement of personnel.
(v) Provide radio communications support.

(vi) Upon request, assist in the identification, containment, or removal of hazardous materials and of evacuation impediments such as snow, sleet, or construction equipment.

h. NORTH CAROLINA DEPARTMENT OF INSURANCE

(i) Coordinate fire and rescue service support and resources with Emergency Medical Services, Department of Environment, Health, and Natural Resources, as per Standard Operation Procedures for Resource Management in Support of State Emergency Response.
(ii) Provide damage assessment support.

i. NORTH CAROLINA DEPARTMENT OF ADMINISTRATION

(i) Provide purchase and contract support for procurement of emergency supplies and equipment.
(ii) Operate State telephone exchange on a 24-hour basis upon activation of State EOC.

j. NORTH CAROLINA DEPARTMENT OF COMMERCE

(i) Promptly notify select industries within the 10 mile EPZ of the emergency situation.
(ii) Provide on going information concerning the emergency situation to select industries.

4. LOCAL GOVERNMENT, COUNTY BOARDS of COMMISSIONERS, and CITY COUNCILS
   a. Protect the local population prior to the establishment of SERT.
   b. Assist in the execution of this plan on order of the Governor or his representatives.
   c. Develop supporting plans, procedures and checklists.
   d. Provide county level management for Care Center Operations. (See Part 2, Section 1 through 4 for specific location)

5. THE AMERICAN RED CROSS
   a. Provide emergency Reception and Care Center management assistance to the impacted counties.
   b. Provide assistance to individual families.
   c. Augment local medical personnel and equipment.
   d. Assist in individual and mass feeding

6. THE SALVATION ARMY
   a. Assist in individual and mass feeding.
   b. Provide clothing, food, furniture, and household supplies.
   c. Assist in individual and mass feeding

7. HOSPITALS
Provide emergency treatment for emergency workers and members of the general public who are potentially injured and/or radiological contaminated.

8. NORTH CAROLINA ASSOCIATION of RESCUE SQUADS
Coordinate rescue resources with Emergency Medical Services, Department of Human Resources, and Fire and Rescue Service, Department of Insurance.

9. PRIVATE BUSINESSES, INDUSTRIES and ELECTRIC UTILITY COMPANIES
Develop emergency plans as required to support their particular type of business or industrial operation.

10. SOUTHERN INTERSTATE NUCLEAR COMPACT
Provide by agreement through the Southern Mutual Radiation Assistance (SMRAP) Plan, personnel, equipment, laboratory analysis, and other resources for radiological emergencies outside the State's capabilities or for accidents occurring near mutual borders.

11. FEDERAL GOVERNMENT

a. FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
Arrange with DOE/NNSA for assistance from the following assets:
(i) Federal Radiological Monitoring And Assessment Center (FRMAC) - To collect, analyze, evaluate, assess, interpret, and distribute off-site radiological data.
(ii) Radiological Assistance Program (RAP) - A deployable, tailored, capability to provide assistance to Federal agencies, state, tribal and local governments, for incidents involving nuclear/radiological materials.
(iii) Aerial Measuring System (AMS) – A deployable airborne capability to detect, measure, and track ground and airborne radioactivity over large areas.
(iv) Atmospheric Release Advisory Capability (ARAC) - A laboratory-based capability for providing real-time computer modeling capability to assess events involving the release of hazardous radiological materials in the atmosphere.
(v) Radiation Emergency Assistance Center/Training Site (REAC/TS) - A medical consultative or deployable capability to provide advice on health issues associated with radiological incidents.

b. U.S. DEPARTMENT OF ENERGY (DOE), NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)
(i) Radiological Assistance Program (RAP), Savannah River Site Office

(1) The Radiological Assistance Program (RAP) is a deployable, tailored, capability to provide assistance to Federal agencies, state, tribal and local governments, and to private businesses or individuals for incidents involving nuclear/radiological materials. RAP teams are equipped with personnel protective equipment, radiation detection and monitoring instruments, air sampling equipment, gamma spectroscopy systems, communications equipment, and other emergency response devices. A RAP team is fully mobilized within two hours of activation and should arrive on-scene with in six hours. The team comes equipped to maintain response capability, without local support, for 48 hours after arrival.

(2) Deploy one or more RAP teams to assist DENR/RAD Protection accomplish the following:

(3) Search for, detect, and identify radioactive materials

(4) Radiological monitoring and sampling to characterize the radiation environment

(5) Data assessment and evaluation (hazards and risks)

(6) Mitigative advice/consultation

(7) Support “Hot Line” operations

(ii) Federal Radiological Monitoring and Assessment Center (FRMAC), Nevada Site Office

(1) The Federal Radiological Monitoring and Assessment Center (FRMAC) is an interagency organization to assist the states, local and tribal governments in their mission to protect the health and well being of their citizens with:

(2) Verified radiation measurements

(3) Interpretations of radiation distributions based on Environmental Protection Agency (EPA), Food and Drug Administration (FDA), or local Protective Action Guidelines

(4) Characterization of overall radiological conditions

(5) The FRMAC deploys in a phased response after activation.

(a) Phase I deploys within 4 hours

(b) Phase II deploys within 12 hours

(c) Phase III deploys within 24 hours

(6) (Travel time is not included in the above time sequence)

(7) eploy FRMAC resources as requested by SERT to provide:

(8) Identification of presence of radiological materials via Aerial Measuring System (AMS)

(9) Coordination of Federal offsite radiological environmental monitoring and assessment activities
(10) A common set of all offsite radiological monitoring data in an accountable, secure, and retrievable format
(11) Monitoring data and interpretations, including exposure rate contours, dose projections, and any other requested radiological assessments
(12) Public information support
(13) Data assessment support to SERT by Home Team personnel during deployment operations

c. U.S. NUCLEAR REGULATORY COMMISSION, REGION II
(i) Provide liaison personnel to coordinate NRC communication with SERT
(ii) Provide direct consultation to SERT for activity associated with the Utility response to the event.

d. U.S. DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE (NWS)
(i) Provide current and long-range meteorological data products through local NWS stations for specified nuclear power facility locations.
(ii) Provide access through local NWS stations to the National Oceanic and Atmospheric Administration (NOAA) tone alert radio system as required for EAS notifications.

D. COORDINATING INSTRUCTIONS

1. Management of the tasks to be undertaken during the conduct of emergency operations will require the resources and efforts of more than one government agency.

2. Some tasks may require the efforts of various combinations of Federal, State, and local agencies.

3. Some State agencies have the resources and the capability to accomplish the same task.

4. To attempt to fix responsibility for a single task with one agency of government in a pre-determined manner would deny the SERT leader the flexibility required to respond to a situation that could (and probably would) be changing continually.

5. State agency heads, division directors, section chiefs, and other supervisors are responsible for preparing their organizations to accept the role of "lead agency." This responsibility includes planning, organizing, coordinating, and directing the accomplishment of an assigned task or function, when so directed by the SERT Leader.

E. PRIMARY and SUPPORT RESPONSIBILITY SUMMARY

1. The basic organizational units and responsible individuals for North Carolina State Government are:

Government Entity	Title of Key Individual
Department	Secretary
Section	Chief
Division	Director
Branch	Head

2. Section VIII, FIGURE-4 lists the major functions associated with emergency operations, the major response organizations, and the level of responsibility for the function. The ranking member of the unit of government participating in or performing the special function is responsible for organizing, training, equipping, committing, and controlling personnel for emergency response.

3. The fact that a unit of government (or Key individual) is assigned primary responsibility for a specific function does not necessarily mean that the unit possesses the required capability to perform all tasks included in the function. The term "primary responsibility" is intended to mean "responsible for carrying out the function or seeing that it is carried out." Personnel with primary and support responsibilities are to be employed in a cohesive manner under the direction of the individual in charge of the unit with primary responsibility.

4. The policy development and major decision-making elements of the direction and control function are carried out as prescribed by the Governor.

5. The overall operational elements of the direction and control function are the responsibility of the Secretary of CCPS. The Secretary has delegated to the Director, NCEM the authority to act in his behalf in all matters related to and dealing with the operational aspects of command and control in the conduct of emergency response actions.

6. The Director, NCEM, utilizes SERT for overall command and control and other functions for which CCPS is primarily or secondarily responsible.

7. SERT is available and on call 24 hours a day. (SERT Activation Time Table is maintained separately by NCEM)

8. Although Section VIII, FIGURE-4 lists major functions and responsibility assignments, these are not intended to be all-inclusive, but rather to summarize the operational concept employed. All assigned government agencies will examine their capabilities to support the plan's concept of operations and be prepared to perform other unspecified tasks.

9. Direction, control and coordination relationships among the various response organizations are illustrated in Section VIII, FIGURES 5 & 6.

IV. EXECUTION, PROCEDURES and METHODOLOGY

A. EMERGENCY CLASSIFICATION SYSTEM

1. The emergency classification and action level scheme used in this plan is consistent with that established by 10 CFR 50, Appendix E.

2. The State, local governments and the individual nuclear power facilities use classification systems based on examples contained either in NRC NUREG-0654, Appendix 1, or the Nuclear Utility Management and Resource Council (NUMARC) document NUMARC/NESP-007, Rev. 2. State and local governments will rely on information and recommendations provided by the individual nuclear power facility for determination of minimum initial off-site response measures.

3. Classification of emergency events is based on the potential degradation of plant safety levels, indications of a security threat or a combination of each of these events.

   a. Classification due to potential degradation of plant safety levels is where certain key plant parameters indicating jeopardy or failure of three (3) fission product barriers: 1) fuel cladding; 2) reactor coolant system pressure boundary and 3) containment. The challenge or breach of any two (2) barriers would be classified as a Site Area Emergency, and the challenge or breach of all three barriers is a General Emergency.

   b. Classification due to a security threat ranges from indications of a security threat to events that result in an actual loss of physical control of the facility.

4. The classification system is further complemented by the evaluating and classifying of emergency conditions that are based on the severity of events which may not be related to failure of one (1) or more fission product barriers, but which may also threaten safe plant operation.

5. The four classes of emergencies are:

   Unusual Event
   Alert
   Site Area Emergency
   General Emergency

6. Rationale for Emergency Classification

   a. The Unusual Event classification is to provide early and prompt notification of events (potential degradation of plant safety levels

or indications of a security threat) which could lead to more serious conditions or consequences. A gradation is provided to assure full response preparations for more serious indicators.

b. The Alert classification is to provide early and prompt notification of events (potentially significant or actual degradation of plant safety levels or a security threat to site personnel or equipment) which could lead to more serious conditions or consequences. A gradation is provided to assure full response preparations for more serious indicators.

c. The Site Area Emergency classification reflects conditions (actual or likely major failures of plant functions needed for protection of the public or security events that result in intentional damage or malicious acts) where some significant releases are likely or are occurring, but current information does not indicate core melting. In this situation, full mobilization of emergency personnel in the near site environs is indicated and monitoring teams and associated communications are dispatched.

d. The General Emergency classification involves actual or imminent substantial core degradation or melting with the potential for loss of containment or security events that result in an actual loss of physical control of the facility. The immediate action for this classification is for sheltering (staying inside) rather than evacuation until an assessment can be made that:
   (i) an evacuation is indicated and
   (ii) an evacuation, if indicated, can be completed prior to significant release and arrival of radioactive material in the affected areas.

e. Examples of Protective Response Actions for the four emergency classifications are illustrated in Section VIII, FIGURE-8.

B. WARNING and NOTIFICATION METHODS and GUIDELINES

1. The following guidelines will be used for the notification of State and Local response organizations by the individual nuclear power facility and for the notification of emergency personnel by the response organizations. The SEOC Communications Center is designated as the Warning Point for activity involving fixed nuclear facilities effecting North Carolina. The State Warning Point (SHP Troop C Communications Center) is the designated backup for fixed nuclear facility activity.

2. The initial notification and follow-up messages of any one of the four classes of an emergency action level (Unusual Event, Alert, Site Area Emergency, or General Emergency) are transmitted from the individual nuclear power facility to the SEOC Communications Center, State and County Warning Point, and their emergency operations centers (EOCs). Selective Signaling System (a dedicated telephone system) is to be used

as the primary means to transmit the initial and follow-up notifications from the individual nuclear power facility to the State and County Warning Points. Back-up means of communication will be commercial telephone. (If the State and County EOC's are established, the Decision Line (separate dedicated telephone system) may be used prior to use of the commercial telephone). A tertiary means of communication will be voice radio.

3. Messages may be received over systems other than the Selective Signaling System (SSS) (commercial telephone or voice radio). The EM Communications Officer or SHP Telecommunicator will determine the method of authentication. (If transmitted by radio, the message must be authenticated by code word.) These transmissions should be authenticated by one of the following methods:

   a. The nuclear power facility authenticates the message by responding with the correct code word associated with the authentication code list number requested by either the SEOC Communications Center, State or Risk County Warning Points or EOCs.

   b. Upon completion of the call, the EM Communications Officer or SHP Telecommunicator will call back to the initiating facility control room or EOF to verify report is authentic.

   c. The Emergency Notification Form (NCEM Form – 78) format for reporting an emergency situation to the State and County Warning Points is represented in Annex F. The same format will be used for initial and follow-up messages.

   d. Off-site agency response to an initial or follow-up message will be initiated only after all the following criteria have been met:

      (i) Voice notification from the utility that an initial or follow-up message (by message Number) has been transmitted via Voice, FAX or Internet.

      (ii) The Off-site agency verifies a clear readable copy (Hand written or print from FAX or Internet) of the referenced message (by message Number) has been received.

      (iii) A copy of the applicable message has been provided to the EOC Director/SERT Leader.

   e. The system to provide early warning and clear instruction to the populace within the plume exposure pathway EPZ is described in Annex C and in Section IV.B.8. of the individual County sections of this plan.

C. NOTIFICATION and COORDINATING INSTRUCTIONS

1. The Operations Officer or Telecommunicator on duty will complete the Emergency Notification Form at the time the report is being transmitted. (See Annex - F)

2. NCEM is responsible for supplying the State and County Warning Points and the individual nuclear power facility with the code word authenticator list with the effective dates clearly noted.

3. NCEM Operations Center is responsible for creating the authentication code list and providing to warning points and communication centers within the EPZ counties.

D. NOTIFYING, ALERTING, AND MOBILIZING COUNTY EMERGENCY RESPONSE PERSONNEL

1. The detailed procedures for notifying and mobilizing emergency response personnel in the counties are described in the individual county plans and applicable portions of Annex-G.

2. The situation, classification of emergency and the emergency action level will determine the response level of the affected counties. Actions necessary to protect the people in the affected areas will be the responsibility of the county governments until the State assumes direction and control

E. NOTIFYING, ALERTING, AND MOBILIZING STATE EMERGENCY RESPONSE PERSONNEL.

1. When notification of any one of the four classes of an emergency action level is received at the State EOC, the Emergency Management Duty Officer notifies the NCEM Director, on-call representative for RPS, REP Program Manager and other NCEM personal In Accordance With (IAW) local procedures.

2. Upon notification, RPS has the option to take one of the following actions, based upon the nature of the event:

   a. Contact the individual nuclear power facility to verify the message and to obtain a first hand report of the actual situation and the actions being taken to bring the situation under control. The report also will include any predictions, estimates and forecasts of the effects the problem may have on the public and the environment, the areas that are or could be affected, and recommended protective actions that should be taken.

   b. Analyze the information received from the individual nuclear power facility and report the results to the appropriate NCEM personnel, along with recommendations for consideration.

3. The Director, NCEM, or designee will take such actions to assure the appropriate emergency response. Some potential actions are:

   a. Request RPS activate its response organization.
   b. Notify key members of SERT to assemble.
   c. Activate the State EOC.
   d. Inform officials of higher levels of government of the situation.
   e. Release appropriate statements to the media.
   f. Take any other actions necessary to cope with the emergency.

4. Procedures have been developed to disseminate information concerning emergency conditions, instructions to be followed and protective actions to be taken by people within about a 10-mile radius of the individual nuclear power facility. The system and procedures are described in Annexes C, D and E, and in Individual County REP plans.

5. Messages for the public concerning specific protective actions, such as sheltering and evacuation are referenced in Annex D.

6. Organizations identified in Individual County REP plans are tasked with zone warning responsibilities will be given the additional responsibility of identifying within their zone hearing impaired households and provide "knock-on-the-door" type notification to meet the warning needs of this special group of people.

7. SERT will notify inter- and intra- state transportation agencies anytime protective actions decisions are considered. (Agency phone lists are maintained separately by NCEM)

F. ACCIDENT ASSESSMENT

The following systems and equipment will be used by RPS to assess and monitor actual or potential off-site consequences of a radiological emergency at any of the nuclear power facilities.

1. RPS Survey Teams and Assessment Capability.
   a. One RPS survey team can be deployed within two hours to the vicinity of any of the nuclear power facilities once the decision has been made that a deployment is necessary. Two additional RPS survey teams can be deployed within 12 hours of notification.
   b. RPS survey teams are usually composed of two radiation specialists. If necessary, survey teams can be composed of one RPS radiation specialist and one individual with radiation awareness training.
   c. RPS will use any or all of the following transportation means:
      (i) Privately-owned vehicles.
      (ii) Highway Patrol vehicles.
      (iii) State vehicles.
      (iv) Aircraft.
      (v) The Mobile Radiation Laboratory.

2. General Field Monitoring Capability
   a. RPS is responsible for the coordination of all field monitoring, including airborne plume location and tracking, and for assessment of radiological data.
   b. For sophisticated field monitoring, three survey teams and the mobile laboratory from RPS are equipped with:
      (i) Particulate and iodine air samplers. (Survey teams only)
      (ii) Survey team communications to RPS, the plant site, and from the mobile lab to SERT.
      (iii) Plotting and recording equipment for geographical indication of data sampling.
      (iv) Portable survey equipment designed to measure contamination and radiation levels.

3. Field Measurement of Airborne Radioiodine
   a. RPS is equipped with air sampling equipment for both particulate and iodine determination. The equipment is portable and can be battery powered.
   b. A mobile laboratory is available for field analysis of collected environmental samples.
   c. Based on RPS minimum sample collection and counting times, the minimum detectable level for radioiodine concentrations in air is below 10 -7 microcuries per cubic centimeter in the presence of noble gases and background radiation.

4. Identification of key isotopes can be performed at the Public Health laboratory in Raleigh.

5. The following State organizations will provide support for RPS field monitoring:
   a. State Highway Patrol.
   b. Division of Emergency Management.
   c. NC Wildlife Resources Commission, Division of Enforcement.
   d. N.C. Department of Environment, and Natural Resources, Forest Resources Division.
   e. NC Department of Transportation.

6. The Mobile Radiation Laboratory is the focal point for RPS survey team sample processing activity and can serve as a forward operating location for RPS. The following communication systems available on board:

   a. Satellite radio / telephone service for communication with survey teams and SEOC.
   b. Cellular telephone service.

2. RPS Projections for Off Site Consequences
   a. Upon initial notification by the State EOC that an accident has occurred, RPS will use data supplied by the facility operator, to compute and project off-site consequences.

b. Computer programs and other calculating methods will be employed throughout the response period to project or assess population and emergency worker exposures based on data from the facility operator, RPS monitoring data, and any other sampling data available.

3. Relationship of Environmental Radiation Measurement to Protective Action Guide (PAG).
   a. All facility operator release data and environmental radiation and radioactivity data will be accumulated and analyzed by RPS.
   b. RPS will use these data to project expected future radiation levels both in areas being physically surveyed or sampled and in areas not surveyed.
   c. RPS will use all available data to project the public radiation dose. This projection will be based on current EPA recommendations and models for the expected duration of release and inhalation or ingestion of radioactive material, to the extent that these parameters are not reliably known.
   d. The current projected radiation dose to the public will be continually compared to the PAGs shown in Section VIII, Figure 8. RPS will recommend the appropriate protective action to the SERT Leader or the appropriate county Emergency Management Coordinators.
   e. These protective action recommendations will take into consideration both existing conditions, such as time of day and weather, and the projected radiation dose, which may be avoided by the following the protective action recommendation.

G. PUBLIC EDUCATION and INFORMATION

The population living within the plume exposure pathway requires two types of public information: educational information and emergency-related information.

1. Educational information is intended to: (1) acquaint the public with the effects of radiation on the human body and the environment; (2) explain precautions to minimize these effects; (3) explain the methods used to alert and notify the public of an emergency. State and local governments along with Progress Energy and Duke Energy share a joint responsibility for disseminating this type of information. Progress Energy and Duke Energy are responsible for the production and distribution of emergency information brochure for each of the facilities they operate. The means by which this type of information is made available to the public on a continuing basis may include, but is not necessarily limited to:

   a. Annual dissemination of safety information brochures from each of the nuclear power facilities.
   b. Magazines, periodicals, newsletters and bulletins published by local governments, business, and industry.

c. Establishment of a system to allow utility personnel to address civic, religious, social, and occupational organizations in the vicinity of each of the nuclear power facilities.
d. Preparation of news material for television, radio, and newspapers.
e. Displays or literature in such locations as individual commercial nuclear facility visitor and education centers, public libraries, community centers, headquarters for volunteer fire departments and rescue squads, lobbies in hotels and office buildings, local airport terminals and school buildings.

2. Emergency-related information is broadcast to the public over radio and television stations and limited information over the tone-alert weather radios. This information is divided into two categories: emergency instructions and emergency information.

a. Emergency Instructions are urgent messages that are broadcast over the Emergency Alert System (EAS) and are preceded by an alert tone. These messages consist of information necessary for the public to effectively react to the emergency situation, including instructions concerning sheltering and evacuation.
b. Emergency Information provides follow-up information to the public, expanding the information provided in emergency instructions that were previously broadcast. This information is also vital to public knowledge and includes evacuation zone descriptions, closing of schools outside the 10-mile EPZ, and protection of livestock and pets.
c. The information and instructions will be prepared immediately before or during an announced emergency period. As the emergency condition changes, updated information and instructions will be transmitted to the public.
d. The SERT Public Information Officer and staff are responsible for assuring a continuous release of information through the EAS and press releases to the local media. These public announcements will be prepared from data provided by the individual nuclear power facility Public Information / Public Relations Officer and the RPS component of SERT.
e. The Director, NCEM, or designee will represent the State in the preparation and instructions and press releases.
f. Knowledge of the potential duration of a release and the time available before expected off-site exposures is important in determining specific public instructions. Therefore, the RPS component of SERT must make available to the Public Information staff all data necessary to prepare bulletins and statements for the public.
g. The SERT Public Information Officer is responsible for overall coordination of public information activities among State agencies, local governments, and Progress Energy or Duke Energy.

3. The two principal points of contact available to media personnel to obtain current information during an emergency are:

   a. The Joint Information Center (JIC) is located at the following locations:

Brunswick Nuclear Plant	- Brunswick Community College, Shallotte
Harris Nuclear Plant	- Progress Energy Customer Service Center, Raleigh
McGuire Nuclear Station	- Duke Energy Center, Charlotte
Catawba Nuclear Station	- Duke Energy Center, Charlotte

   b. SERT Public Information Officer at the State EOC.

4. Prior to the establishment of SERT, the media can contact the State EOC in Raleigh, the individual County EOCs listed below or the utility public relations office for the facility concerned:

   a. Brunswick Nuclear Plant (Progress Energy) – New Hanover or Brunswick Counties
   b. Harris Nuclear Plant (Progress Energy) - Chatham, Harnett, Lee, or Wake Counties
   c. McGuire Nuclear Station (Duke Energy) – Iredell, Catawba, Lincoln, Gaston, Mecklenburg or Cabarrus Counties.
   d. Catawba Nuclear Station (Duke Energy) – Gaston or Mecklenburg Counties.

5. Public information staffs should refer to Section VI, for details and procedures for communicating with the public. Additional information is located in Annexes C, D and E.

6. Any rumors detected will immediately be reported to the JIC Public Information Officer who will coordinate response, and recommend a course of action to the SERT Leader.

7. State and local governments annually, at a minimum, will inform the news media on the status of plans to cope with off-site consequences of radiological accidents at any of the facilities. The SERT, local government and utility public information staffs will jointly prepare and present programs to the media as part of preparation activity for biannual facility exercises. The presentations will include:

   a. A briefing on the status of State, local and utility emergency response plans.
   b. An orientation on radiation and its effects on people and the environment.
   c. Procedures and points of contact for the media to obtain pertinent information.
   d. Other information as requested by the media.

8. Prior to an exercise, public information staffs should inform the media as to the scope of the exercise. They should also prepare news releases encouraging the public to participate, including information on how to do so.

H. PROTECTIVE RESPONSE for PLUME EXPOSURE PATHWAY

1. A range of guidelines and protective actions has been developed for emergency workers and the public in the plume exposure pathway.

   a. Evacuation routes, shelters, traffic control points, roadblocks, decontamination stations, hospitals, and the population distribution around the individual nuclear power facility are shown on the Operations Map. Radiological monitoring points are maintained separately by DENR/RPS for each of the nuclear power facilities.

   b. Notification. (See Section IV.B., Warning and Notification Methods and Procedures, Annexes C, G, and Individual County Plans.)

2. <u>DOSE PROJECTIONS AND PROTECTIVE ACTIONS</u>

   a. Computerized dose projections, supplemented by field and laboratory measurements of radioactive contamination, radiation level, and airborne radioactivity will be used by RPS to assess projected exposure due to inhalation, direct radiation, or consumption of contaminated food, milk, and water.

   b. Basic protective actions for the public and emergency workers will be based on recommendations found in Environmental Protection Agency (EPA) in EPA 400-R-92-001, and on those of the US Department of Health and Human Services (US DHHS), and the Federal Food and Drug Administration (FDA) regarding human food and animal feed as published in the Federal Register.
      (i) Area evacuation of all or segments of the population.
      (ii) Advising people to stay indoors.
      (iii) Administration of potassium iodide (KI) as a thyroid-blocking agent
      (iv) Control of water supply intake.
      (v) Diversion, embargo, or destruction of agricultural products.
      (vi) Other appropriate actions (e.g., advising the public to wash home grown produce prior to consumption).

   c. The senior RPS representative on SERT is responsible for recommending the appropriate protective actions to the SERT Leader for decision and implementation.

3. RADIOLOGICAL MONITORING and ANALYSIS RESPONSIBILITY

   a. Under this plan RPS, supported by other State agencies and departments, is responsible for radiological monitoring, supervising decontamination, and laboratory analysis for individual dose assessment. Monitoring and sampling equipment to be employed during an emergency response is portable and powered by battery to allow for establishing monitoring points at any accessible and necessary location.

   b. The affected counties, with assistance and advice from the state, are responsible for monitoring activities at Public Reception Centers and Emergency Worker Centers.

   c. Sampling of water, soil, food and vegetation is supported by: the US Department of Agriculture, the NC Department of Agriculture, and the NC Department of Environment and Natural Resources as reflected in Part-1, Section III.

4. TRANSPORTATION for EVACUATION

   a. GENERAL

      (i) The primary means of evacuation will be private vehicles and any available buses.
      (ii) Pick-up points/routes for those without transportation will be established as required and publicized in an appropriate emergency information message.
      (iii) Mobility-impaired persons will be identified, as is reasonable possible, within each county segment located in the 10-mile EPZ and provided specialized transportation as required.
      (iv) Identification can be facilitated through the use of special needs response form in the individual nuclear power facility Emergency Planning Information Brochure.
      (v) Supporting transportation will be supplied by the following State organizations:
      (vi) North Carolina National Guard.
      (vii) Wildlife Resources Commission.
      (viii) Division of Forest Resources, Department of Environment and Natural Resources.
      (ix) Division of Highways, Department of Transportation.

   b. SPECIAL FACILITY POPULATION

      (i) Students in the public school system will be transported on school buses and other available transportation to pre-designated relocations centers. Special school brochures are provided to each household in the 10-mile EPZ advising parents as to the pairing of each school to the

corresponding relocation center. This information will also be broadcast in an appropriate Special Information message.

(ii) Hospital and/or family care patients within the 10-mile EPZ will be evacuated utilizing emergency medical vehicles for non-ambulatory patients and available buses and vans for the ambulatory. County EMS will coordinate evacuation. Mutual aid agreements with surrounding counties will be invoked when necessary.

(iii) Identification of mobility-impaired persons can be facilitated through the use of the special needs response of the utility Emergency Planning Information Brochure and the Progress Energy or Duke Energy listing of system customers on life support equipment.

(iv) The N.C. Department of Corrections will provide transportation for prisoners in both State and local correctional institutions.

c. PROCEDURES to EXPEDITE EVACUATION

(i) Since the objective of evacuation is to protect the health of the threatened population, the main goal of evacuation will be to safely move the population out of a threatened area.

(ii) Vehicles determined to be or suspected to be contaminated will be impounded at the reception center and not decontaminated during evacuation as such an action would hinder the movement of the population out of the threatened area. Security will be established to protect the impounded vehicles.

(iii) Contaminated vehicles maybe decontaminated after the evacuation is completed if the decision to decontaminate is made by local authorities.

(iv) Evacuees will be provided transportation from the point of impoundment to reception centers. Arrangements will be made to provide transportation from the reception center locations to other points, if needed.

(v) Evacuation routes outside the 10-mile EPZ will be surveyed to insure the availability of suitable storage sites for impounded vehicles. The selection of such sites will depend upon existing conditions at the time of the accident.

(vi) The following major highways and roads within the 10-mile EPZ of each facility are designated as evacuation routes and have a projected traffic capacity under emergency conditions as shown:

(a) Brunswick Nuclear Plant (Progress Energy)

(1) U.S. 421 running north-south with a capacity of approximately 1,000 vehicles/ hour/lane.
(2) U.S. 17 running northeast and southwest with a capacity of approximately 850 vehicles/hour/lane.
(3) North Carolina secondary highways running north-south and east-west with a capacity of approximately 850 vehicles/hour/lane.

(b) Harris Nuclear Plant (Progress Energy)

(1) US 1, US 64 and US 401: - 1,500 vehicles/ hour/lane.
(2) NC 42, NC 55 and NC 751: - 1,500 vehicles/hour/lane.
(3) Secondary roads shown on the operations map are 1,000 vehicles/hour/per/lane.

(c) McGuire Nuclear Plant (Duke Energy)

(1) Interstate 77 and Interstate 85: 2000 vehicles/hour/lane
(2) U.S. 21 and U.S. 321: 1624 vehicles/hour/lane.
(3) N.C. 16, N.C. 27, N.C. 49, N.C. 73, N.C. 115, N.C. 150, N.C. 273, N.C. 275: 1624 vehicles/hour/lane.
(4) Secondary roads as shown on the operations map, - 1512 vehicles/hour/lane.

(d) Catawba Nuclear Plant (Duke Energy)

(1) Interstate 77 and Interstate 85: 1,550 vehicles/ hour/lane.
(2) U. S. 21 and U. S. 321: 600 vehicles/hour/lane.
(3) N. C. 160, N. C. 274, N. C. 49, N. C. 279: 1,200 vehicles/hour/lane.
(4) Secondary roads as shown on the operations map.

(vii) Local police and sheriffs' departments, assisted by the State Highway Patrol, will control access to evacuated areas.
(viii) The affected counties are responsible for the operation of shelters.
(ix) As under normal conditions, the State Department of Transportation and municipal public works departments will

be responsible for clearing evacuation routes of such impediments as snow, ice, debris or equipment.

5. CONSIDERATIONS for PROTECTIVE ACTIONS

a. The primary recommended protective actions are sheltering in-place and/or evacuation. Recommendations will be based upon an evaluation of comparative dose reduction factors that are expected through either sheltering or evacuation or a combination of the two. The approach providing the largest dose reduction will be selected.

b. A survey of residential, institutional and commercial structures within the plume EPZ was conducted to determine protection factors of those structures for both direct and inhalation exposure. This data, included in EPA 400-R-92-001, is referred to so the SERT leader will have a sound estimate of "shelter effectiveness" to aid him in his choice of protective action options.

c. It is specifically noted that an evacuation (when feasible before plume passage) takes into consideration; total elimination of dose, risks of injury to the population, cost, weather, time constraints and inconvenience. Accordingly, the shelter option should be thoroughly evaluated in relation to the protection factor afforded by typical structures within the plume EPZ. Also, consideration should be given to sheltering if the expected result is the reduction of population dose below the evacuation PAG's outlined in Section VIII, FIGURE-8.

d. The principal considerations in making protective action decisions are Total Effective Dose Equivalent (TEDE) and thyroid Committed Dose Equivalent (CDE) values, source release, duration, and cloud arrival times; estimated delay and implementation time for protective action; and the nature of available sheltering structures and mode of evacuation.

e. RPS is responsible for evaluation of all monitoring and facility release data and projection of anticipated individual dose (TEDE) in the absence of protective actions. In general, RPS will recommend public protective actions to the SERT Leader when projected individual doses exceed those provided in PAGs in Section VIII, FIGURE-8.

f. Should the dose rate permit, evacuees may be allowed back into the area on a temporary basis to check pets, livestock, etc. Entry will be permitted only at manned security roadblocks. Evacuees reentering known contaminated areas shall have dosimetry, dose record card and a permit from the local County Emergency Management Office. Evacuees requesting to reenter must display the permit; identify themselves and the purpose of their trip, and enter and exit through the same security road block.

6. PROTECTIVE ACTIONS for 50-MILE INGESTION EXPOSURE PATHWAYS

a. The ingestion exposure pathways contain water, fish, meat, milk and crops. In the event of airborne and liquid releases of radioactive materials, RPS will project potentially affected areas based on release data from the facility operator and any other available environmental measurement data. The techniques for projecting airborne releases are similar to those referred to in Section IV. F. (Accident Assessment) and will be shown on ingestion pathway maps during an emergency.

b. RPS will define and implement a sampling and analysis program involving the following steps for each appropriate ingestion pathway:

(i) Projection of the potentially affected area(s).
(ii) Radiological sampling and analysis sufficient to establish the distance to which levels may exceed ingestion PAGs.
(iii) Radiological sampling and analysis sufficient establish the breadth at which levels may exceed ingestion PAGs.
(iv) Provide the SERT Leader recommendations for appropriate protective actions.

c. Upon the known or suspected release of radioactive material from the individual nuclear power plant, the RPS SERT representative will request a planning meeting appropriate SERT agencies to:

(i) Identify various existing ingestion pathways and set priorities (e.g., crops nearest harvest first or pasture and dairy cattle in case of radioiodine releases).
(ii) Identify numbers, types, locations, and volume of samples to be collected.
(iii) Coordinate specific agencies sampling tasks and give instructions on delivery of samples for analysis. Subsequent planning meetings will be held for more detailed monitoring and for follow-up sampling and analysis.

d. In cases where projections based on facility operator release data exceed ingestion PAGs recommended by FDA for food and animal feed, RPS may recommend to the SERT leader initiation of precautionary embargoes, instructions to the public, and other protective actions pending final evaluation of sample collection and radiological analysis.

e. Upon the determination that any ingestion pathway PAG is exceeded, RPS will recommend appropriate protective actions to the SERT leader. These actions may include:

(i) Embargo and diversion or disposal of commercial agricultural products, milk, and other dairy products.
(ii) Placing cattle on stored feed.

(iii) Embargo and destruction of fish.
(iv) Restricting or halting use of non-drinking water.
(v) Controlling water supply intakes.
(vi) Closing or controlling areas to prevent the taking of game animals and commercial or sports fish.
(vii) Releasing advisories instructing the public to wash vegetables or to dispose of specified garden or farm products intended for personal consumption.
(viii) Other actions as required.

f. Similar monitoring activities will continue until radioactivity levels are below the ingestion PAGs.

7. RESPONSIBILITIES for PLANNING and IMPLEMENTING PROTECTIVE ACTIONS

a. NC DEPARTMENT of CRIME CONTROL and PUBLIC SAFETY, DIVISION of EMERGENCY MANAGEMENT
(i) Maintain ingestion pathway map.
(ii) Through the SERT Leader, act on protective actions recommended by RPS.
(iii) Participate in meetings on ingestion pathway monitoring in the State EOC.

b. NC DEPARTMENT OF ENVIRONMENT and NATURAL RESOURCES, DIVISION of ENVIRONMENTAL PROTECTION
(i) Radiation Protection Section
(a) Accumulate and evaluate all radiological data and provide CCPS with data for ingestion pathway map.
(b) Project and determine areas exceeding ingestion PAGs.
(c) Determine needs for ingestion pathway sampling and analysis, and coordinate necessary meetings for implementation.
(d) Recommend protective actions to the SERT Leader.
(e) Arrange for back-up analytical laboratory assistance from other state, federal, and private laboratories.
(f) Collect environmental samples and make other radiological measurements.
(g) Coordinate removal and/or disposal of contaminated material.

(ii) Environmental Health Section
(a) Collect milk samples for radiological analysis, in coordination with RPS. Coordinate with Dept of Agriculture to embargo contaminated milk where required.

(b) Provide liaison with local health departments, and provide technical assistance and consultation as needed.

(iii) Water Quality Section
- (a) Provide expert consultation regarding use of and restrictions on water sources.
- (b) Notify and update local water supply operators on status of radioactive contamination.
- (c) Provide local water supply operators technical assistance and supervision for special or unusual treatments.
- (d) Order local water supply plants to cease operations and close intake systems.
- (e) Halt or restrict the use of non-drinking water.
- (f) Provide data on public water supplies for ingestion pathway land use maps to CCPS.
- (g) Collect water samples for radiological analysis in coordination with RPS.
- (h) Consult with Water Resources Section on public drinking water restrictions.

c. NC DEPARTMENT of AGRICULTURE
- (i) Provide agricultural statistical data such as livestock and crop projection, to Agriculture Extension service, when necessary.
- (ii) Restrict the sale, production, and distribution of livestock, produce, dairy and processed food products.
- (iii) Coordinate with DENR/Environment Health to embargo identified contaminated milk where required.
- (iv) Provide expert consultation regarding livestock, dairy, agricultural, and processing practices in the 50-mile radius of the plant.
- (v) Locate and report sources of uncontaminated feed for livestock.
- (vi) Collect soil and vegetation samples for radiological analysis, in coordination with RPS.

d. NC DEPARTMENT of HEALTH and HUMAN RESOURCES, LABORATORY SERVICES
Provide laboratory evaluation of potentially radioactive samples of all types.

e. MARINE FISHERIES DIVISION
- (i) Close affected areas to the taking of fish and shellfish.
- (ii) Assist RPS collect samples of fish and shellfish.
- (iii) Provide expert consultation in marine life management and biology.

f. WILDLIFE RESOURCES COMMISSION

(i) Close affected areas to the taking of fish and wildlife.
(ii) Assist RPS collect samples of fish and wildlife.
(iii) Provide expert consultation in wildlife management and biology.

g. US DEPARTMENT of AGRICULTURE, STATE EMERGENCY BOARD
(i) Provide expert consultation in agricultural practices and crop status.
(ii) Coordinate any required agriculture support with county AES personnel.
(iii) Inform member agencies as to the progress of agriculture support operations.

h. COUNTY RURAL AREA DEVELOPMENT FOOD and AGRICULTURAL COUNCIL, USDA AGRICULTURAL STABILIZATION and CONSERVATION SERVICE OFFICES
(i) Maintain files and aerial photographic maps of farms indicating current agricultural activities and crops.
(ii) Identify representative farms to be sampled within 50 miles of the plant.
(iii) Provide on request from SERT, current agricultural crop information for use with the State ingestion pathway operations map.
(iv) Assist in collect of agricultural samples for radiological analysis.
(v) Maintain lists of the name and location of facilities located in North Carolina that regularly process milk and agricultural products originating in the ingestion pathway EPZ.

i. Although lists of facilities located outside North Carolina that process food originating in the ingestion pathway EPZ are not maintained, this plan calls for the embargo or diversion of contaminated food close to its origin and prior to its reaching processors. RPS will recommend that SERT notify the appropriate health service agencies in the event of radiological contamination of the ingestion pathway.

I. RADIOLOGICAL EXPOSURE CONTROL

1. RADIATION DOSE LIMITS

a. RPS will use the EPA recommended PAGs as the maximum acceptable levels of radiation exposure for the public and emergency workers during an emergency.

b. The SERT Leader has decision-making authority for all operations. The senior RPS representative on SERT is responsible for making recommendations to the SERT Leader.

2. DOSIMETRY

   a. Emergency workers in the vicinity of each of the nuclear power facilities have been given training in the use of current dosimetry and radiation detection instrumentation as necessary to accomplish their duties associated with this plan.

   b. NCEM will support RPS by issuing additional low-range (0-200mR) and/or mid-range (0-20 R) dosimeters to any person who could be exposed to radiation while performing their duties associated with this plan.

   c. NCEM will oversee the procurement, and distribution of thermoluminescent dosimeters (TLDs) or equivalent technology individual personnel monitors to the 10-mile EPZ counties and to state personnel who may be exposed to radiation levels. TLDs for local emergency personnel have been supplied to each county within the plume exposure pathway. TLD procurement contracts will contain requirements for individual monitor analysis by an appropriately licensed National Institute of Standards and Technology (NIST), Standards Services Division, National Voluntary Laboratory Accreditation Program (NVLAP) facility. RPS is responsible for reviewing the TLD procurement contract to insure the analysis facility is an appropriately licensed (NVLAP) facility.

   d. RPS is responsible for seeing that the TLDs are read and analyzed by an appropriately licensed (NVLAP) facility. RPS will monitor the dosage levels to make appropriate recommendations concerning the health and safety of the individuals concerned.

   e. The dosimetry described above can be supplemented with other personal dose assessment techniques, including urinalysis and whole body counting.

3. DOSIMETRY GUIDELINES AND RECORDS

   a. Deployment, recall, analysis, and replacement of dosimetry will be coordinated by RPS and NCEM.
   b. Each person assigned self-reading dosimeters will be instructed to:
      (i) Charge the dosimeter at the beginning of the shift and record the results on the form provided.
      (ii) Periodically check the dosimeter, record the results and the accumulated exposure, recharge the dosimeter (if necessary), and record these results on the forms provided.
      (iii) At the end of the shift, record the final reading, accumulated exposure, and the total exposure for the shift.

(iv) Upon instruction from RPS, turn in a copy of the self-reading dosimeter record form for analysis by RPS.

(v) Immediately leave the radiation area should self-reading dosimeter results indicate that PAGs, as determined by RPS, for emergency personnel may be exceeded and turn in the record form and TLDs for RPS analysis.

4. RPS PROCEDURES for TLDs

a. Maintain a record of individual TLD distributions.

b. Based on survey data, plant release data, and/or personnel dosimetry data, project potential emergency personnel radiation exposure.

c. If actual exposures exceed 10 percent of the PAGs for emergency personnel, consider recall and replacement of TLDs and self-reading dosimeter record forms.

d. Analyze TLD readouts and compare with self-reading dosimeter results.

e. Maintain records of TLD readouts and provide timely advisement to each person, contingent upon the severity of their condition.

f. In the event that the PAGs have been exceeded or might be exceeded if work were to resume, recommend that individuals be removed from radiation areas.

5. In addition to the preceding dosimetry for emergency personnel, RPS will periodically recommend to the SERT leader additional actions designed to assure protection of emergency personnel. These recommendations will take into consideration actual or potential external radiation exposure and airborne radioactivity levels. The recommendations will include instructions to avoid or limit the duration of stay in specified areas or use specific protective equipment, apparel, or procedures in these areas.

6. RPS will also maintain permanent records of any other dosimetry such as urinalysis or whole body counting for individuals exposed.

7. PROCUREMENT, STORAGE, AND DISTRIBUTION OF TLDS

a. RPS and NCEM will establish and operate a TLD program to meet the emergency needs generated by the nuclear power plants.

b. The number of TLDs and supporting equipment needed will be determined by RPS in coordination with other potential users at the State and local levels.

c. TLDs for local government emergency workers will be stored in each county within the 10-mile EPZ at sites appropriate to the efficient and proper distribution for that specific county.

d. Emergency response distribution of TLDs in each county will be under the control of the local Emergency Management Office.

e. TLDs for State emergency workers will be distributed on the direction of SERT Leader based on the recommendation of RPS. Some TLDs may be redistributed to key personnel and locations.

8. DOSAGE CONTROL

a. During the course of the emergency, RPS will review exposure records and make recommendations to the SERT Leader to assure that workers' exposures remain below EPA recommended PAGs. During the emergency phase, RPS will operate on a 24-hour per day basis to monitor the dose received by emergency personnel.

b. RPS representatives on SERT will maintain communication with the appropriate authority on-site at the individual nuclear power facility to assure that exposure levels of emergency workers moving on and off-site are below EPA recommended PAGs.

c. The goal under this plan is to prevent emergency workers from receiving a radiation dose in excess of the stated PAGs. The senior RPS representative may recommend to the SERT leader that emergency workers be allowed to exceed the PAGs if workers cannot be rotated and the activities involved are critical to public protection. The SERT leader has final approval authority. Permission to exceed 25 rem (TEDE) will be done on a voluntary basis only. Volunteers must be fully informed of the potential health consequences prior to undertaking the mission.

d. Whenever possible, emergency workers will be removed from the area before any dose is received.

9. DECONTAMINATION AND WASTE DISPOSAL

a. RPS is responsible for the coordination of monitoring, decontamination, and waste disposal actions described in Basic, Section III.

b. When any monitoring station obtains radiation readings equal to or greater than the designated contamination "trigger levels" the following actions:

c. Notify the RPS representative on the SERT.

d. Be prepared to take steps to decontaminate.

e. Be prepared to assist in the collection and containment of radiological contaminated material such as clothes, and decontamination supplies.

f. A radiation specialist may, if necessary, be dispatched to the scene to supervise the decontamination and waste disposal activities.

10. SHELTER MONITORING ACTIVITIES

a. Local governments are responsible for Reception Center monitoring and Congregate Care Center registration activities throughout the emergency.

b. State government agencies will provide shelter monitoring support upon local request to SERT. Details are contained in the County portions of this PLAN.

J. RECOVERY, REENTRY, and POST ACCIDENT OPERATIONS

1. Recovery, reentry, and post accident operations require a continuous estimate of the existing radiological emergency through the analysis of radiological monitoring reports, air samples, and samples of foodstuffs, foliage, and water collected within the EPZ.

2. Collection and analysis are performed by radiological monitoring teams and health physics teams supplied by Progress Energy or Duke Energy, RPS, and Federal agencies.

3. The Chief, RPS will review reports and findings of the radiological monitoring teams and health physics teams. When it is determined that radiation levels are no longer a threat to the public, RPS will recommend to the SERT leader that reentry and recovery operations begin. To assure that the PAGs will not be exceeded as a result of reentry, RPS will periodically evaluate the projected dose commitment due to the continued presence of radioactive contamination and radiation levels.

4. The evaluation will be based upon Environmental Protection Agency recommendations contained in EPA 400-R-92-001. Manual of Protective Actions Guides and Protective Actions for Nuclear Incidents, US Department of Health and Human Services (US DHHS), and the Federal Food and Drug Administration (FDA) regarding human and animal feed. Direct radiation exposure, airborne contamination, deposited contamination, terrestrial and aquatic food pathways, and water contamination will be considered in the evaluation.

5. The Director, NCEM, will confer with local government officials, representatives from Federal agencies, and others as necessary

regarding the recommendation for reentry. When the decision and necessary agreements have been reached, the Director, NCEM, will recommend to the Governor the date and time reentry and recovery operations should begin.

6. Upon receipt of directions from the Governor to start reentry operations, the Director, NCEM, will direct SERT Leader to proceed with reentry and recovery operations in coordination with local governments.

K. OPERATIONAL STEPS FOR REENTRY

1. The public information staff will prepare information and instructions for release by the media.

2. State and local law enforcement officials will staff traffic control points.

3. Reception and Care Center managers will assist evacuees with preparation for returning to evacuated areas.

4. SERT will monitor and observe reentry and recovery operations and report as necessary to the Director, NCEM.

5. During the reentry, the Director, NCEM, will maintain liaison with local government officials and other interested parties to assure that reentry operations precede as planned.

V. SUPPORT RESOURCES, PROCEDURES, FACILITIES and EQUIPMENT

A. EMERGENCY RESPONSE SUPPORT and RESOURCES

The Director, NCEM, or designee, is authorized to request services and assistance from this organization for the State of North Carolina. The names of individuals and associated authentication procedures are contained in a special alerting and notification List maintained in the office of the Director, NCEM, and filed with DOE Regional Coordinating Office.

1. US DEPARTMENT OF ENERGY (DOE), NATIONAL NUCLEAR SECURITY ADMINISTRATION (NNSA)

   Requests for DOE/NNSA radiological emergency assistance may be made through the Savannah River Site Office (803-725-333) near Aiken, South Carolina. A 24-hour duty station is maintained to receive and process requests for emergency assistance. Other assistance will be coordinated by FEMA.

   The types of assistance that can be made available through DOE/NNSA range from advice and information to supplying radiological survey assistance teams. The principal resources most likely to be requested from this agency by the State of North Carolina are:

a. FEDERAL RADIOLOGICAL MONITORING AND ASSESSMENT CENTER (FRMAC) **-** Designed to collect, analyze, evaluate, assess, interpret, and distribute off-site radiological data in support of the coordinating agency (ca), involved in state(s), and tribal governments. FRMAC will coordinate the federal resources used in responding to the off-site monitoring and assessment needs at the scene of a radiological emergency.

b. RADIOLOGICAL ASSISTANCE PROGRAM (RAP) **-** A deployable, tailored, capability to provide assistance to Federal agencies, state, tribal and local governments, and to private businesses or individuals for incidents involving nuclear/radiological materials. The RAP team is designed and prepared to respond to any type of radiological incident from lost sources to nuclear power plant incidents, from terrorist use of radioactive materials to a nuclear weapons incident. In general, RAP responds to a wide range of radiological incidents or accidents.

c. AERIAL MEASURING SYSTEM (AMS) – A deployable airborne capability of fixed and/or rotary wing aircraft to detect, measure, and track ground and airborne radioactivity over large areas. AMS assets are located at both Nellis AFB, NV and Andrews AFB, MD.

d. ATMOSPHERIC RELEASE ADVISORY CAPABILITY (ARAC) **-** A laboratory-based (Lawrence Livermore National Laboratory [LLNL]) capability for providing real-time computer modeling capability to assess events involving the release of hazardous radiological materials in the atmosphere. ARAC provides realistic plots, or maps, of potential dose and exposure assessments and estimates of the path of nuclear contaminants released into the atmosphere.

e. RADIATION EMERGENCY ASSISTANCE CENTER/TRAINING SITE (REAC/TS) **-** A medical response center providing a 24-hour capability for radiological treatment, consulting, and/or deployment with equipment and personnel to an incident site. REAC/TS can provide dose assessments, diagnosis, treatment, advice, recommendations, and consultation for all types of radiological injuries/illnesses resulting from a nuclear/radiological incident. REAC/TS provides training and education capabilities for U.S. and foreign medical and emergency management professionals**.**

2. NUCLEAR REGULATORY COMMISSION (NRC)

Technical personnel to serve as special advisors and consultants to SERT.

B. OTHER SOURCES OF ASSISTANCE

6. The Southern Mutual Radiation Assistance Plan (SMRAP), maintained by the Southern Emergency Response Council, contains procedures by which assistance on a mutually supporting basis can be made available by the southern states. A copy of this plan is maintained by RPS.

7. Technical staff personnel and other resources will be made available by universities, utilities and private industry in accordance with letters of agreement on file in the RPS office.

8. Professional Health Physics personnel can be obtained through the Emergency Management Assistance Compact (EMAC) or the "Team of Radiological Emergency Volunteers" (TOREV) of the NC Chapter of Health Physics Society.

C. RADIOLOGICAL LABORATORY SUPPORT

1. Additional laboratory services will be available from Federal agencies and their contractors, including but not limited to agencies listed in Section VIII, FIGURE-9.

2. Further laboratory analysis assistance is available from SMRAP Signatory States.

D. RESOURCES SUPPORT COORDINATION

1. Resources and support assistance from sources external to State and local governments may be required to conduct emergency operations within the Emergency Planning Zone (EPZ). To assure that these resources are committed in an efficient and effective manner, the SERT leader will designate a SERT member to serve as the State's representative at the Emergency Operations Facility for the effected utility.

2. The effected Utility will designate a company representative to serve with SERT at the State EOC in Raleigh and at the applicable Regional Response Center (RDD).

3. Each county within the plume exposure EPZ will be assigned a county liaison through the State EOC. The liaison will maintain communication with the assigned county representative throughout the event.

E. MEDICAL and PUBLIC HEALTH SUPPORT

1. There are two conditions resulting from a nuclear power plant accident that may require medical treatment: contaminated injuries and radiation sickness.

a. Contaminated injuries: These are open wounds that have been contaminated by radioactive particles. Decontamination and medical treatment may be required to prevent the incorporation of contamination.

(i) Because traumatic injuries are not caused typically by a nuclear accident, there would be few (if any) contaminated and injured persons to be treated in the event of an emergency at the any of the nuclear power plants effecting North Carolina.
(ii) Persons who are only contaminated (and not injured) have no need for hospitalization, and are simply decontaminated at Reception Centers thru showering and other non-medical cleansing methods.

b. Radiation sickness: This would occur due to very high doses of radiation. It is expected the high levels of radiation will be contained within the plant site boundary; however, hospitals in the area are capable of treating radiation sickness for the first 48 hours. Specified hospitals near each of the nuclear power facilities have the capability of treating severe cases.

2. Hospitals accredited by the Joint Commission on Accreditation of Hospitals (JCAH) must be able to demonstrate "the emergency management of individuals who have actual or suspected exposure to radiation or who are radioactively contaminated" (from the JCAH Accreditation Manual for Hospitals.) Required capabilities include radiation monitoring, contamination isolation and disposal, and patient decontamination.

F. HOSPITAL AND MEDICAL SERVICES FOR CONTAMINATED INDIVIDUALS

1. RPS personnel are available to assist DHHS with evaluation of the radiological capabilities and procedures of North Carolina hospitals to accept and treat radiation accident victims. RPS and DHHS will maintain a record of each hospital radiological capabilities.
2. Few hospitals in the State have the internal capability to evaluate radiation exposure and internal contamination. These limitations are adequately compensated for by the following:

a. RPS has executed formal agreements with three in-state corporations (Progress Energy, Duke Energy, Global Nuclear Fuel) which have whole body counting equipment that can be used in support of the emergency response plan. In addition, the Federal government and its contractors can provide whole body counting assistance.
b. DENR and several medical institutions in the State are capable of providing urinalysis to determine body burdens of radioactivity in victims. This is supplemented through available support from Federal and private commercial laboratories.

c. RPS is prepared to arrange for complex blood studies to assess the amount of whole body radiation exposure. This includes the use of limited capabilities of major state medical institutions and services provides by Federal (NRO) agencies and their medical consultants.

d. In addition to available local and regional hospitals, Oak Ridge Radiation Emergency Assistance Center/Training Site (REAC/TS), Oak Ridge, Tennessee, is available to provide expert consultation for attending physicians and state-of-the-art facilities for care and treatment of severe radiation.

3. RPS standard procedures and reference materials related to medical support include:

   a. Current lists of names, addresses, phone numbers and administrators of all hospitals.

   b. Guidelines for selecting appropriate facilities to receive contaminated victims and for determining the quantity and type of support to be provided to those facilities.

4. Refer to Section VIII, FIGURE-12 for a list of local and regional hospitals in the vicinity of each of the nuclear power facilities that will support the individual facility and the surrounding communities in the event of a radiological emergency. Hospitals listed are capable of treating contaminated injured patients.

5. Radiological survey instrumentation may be provided by RPS staff or advisors to the listed hospitals. RPS also may make recommendations to the SERT leader for additional support from the Federal government, if needed.

G. TRANSPORTATION OF RADIATION VICTIMS

2. The Emergency Medical Services (EMS) Section, Facility Services Division, DHHS is responsible for developing guidelines to marshal ambulance and rescue resources and for coordinating emergency services at radiation accident sites and reception centers.
3. SERT will advise EMS of the medical facilities to evacuate, and facilities capable of receiving contaminated patients.
4. EMS staff will determine the number of vehicles needed and dispatch them to a local staging area as required.
5. At staging areas, EMS personnel will be issued dosimeters, briefed on the nature and extent of the accident, and assigned missions.

H. EMERGENCY FACILITIES and EQUIPMENT

1. North Carolina State Government conducts emergency command and control functions from the State EOC located in the sub-basement area of the Administration Building at 116 W. Jones Street, Raleigh, N.C. 27603-

1335. The State EOC will serve as the SERT command and control facility.

2. The State EOC is equipped with an emergency power plant, a communications center, eating facilities and other necessities required for continuous operation over an extended period.

3. When directed the SERT will establish an alternate command and control facility at the Disaster Recovery Operations Center (DROC), 1830-B Tillery Place or the National Guard Headquarters, Raleigh, 4105 Reedy Creek Road. Arrangements have been made for use of a designated area in both of these facilities by the SERT. The National Guard facility is equipped with emergency power, a communications center and other necessities required for continuous operations over an extended period.

4. Procedures are established to alert, notify and assemble the SERT. The times required for notification of members of SERT to the establishment of the State EOC under varying conditions are maintained by NCEM.

5. Radiological monitoring equipment used by the State government agencies is inventoried, inspected, and calibrated according to manufacturer's specifications.

6. A limited amount of radiological equipment are maintained by the Planning and Information Branch, NCEM, to augment any that become inoperable during a radiological emergency event. (See Attachment 3)

7. The off-site meteorological capability available in the vicinity of each of the nuclear power facilities is provided by the individual facility, the local National Weather Service Office (See list below), and the local weather measurement teams provided by the Division of Forest Resources. Wind speed and direction, temperature and vertical gradient, precipitation, and dew point data will be provided.

    a. Brunswick Nuclear Plant - NWS Wilmington. NC
    b. Harris Nuclear Plant - NWS Raleigh, NC
    c. McGuire & Catawba Nuclear Stations - NWS Greer, SC

1. Field monitoring data collected within the EPZ of the affected facility during an emergency condition will be transmitted or delivered to the mobile radiological laboratory operated by RPS. The laboratory will be positioned in a location, which in the judgment of the Chief, RPS SERT operations is best suited to accomplishing the assigned mission. This mobile laboratory is equipped with cellular telephones, satellite radio / telephones and radio communication on the Emergency Management network, and one radio on the State Highway Patrol network.

VI. EMERGENCY COMMUNICATIONS

A. COMMUNICATION NETWORKS

Provisions have been made for communication networks to support emergency response organizations throughout the course of an emergency. These networks are formed using commercial telephone service, Progress Energy and Duke Energy communications systems, and State and Federal government communications systems.

B. EMERGENCY RESPONSE FACILITIES

To assure that an immediate level of alert and notification readiness is available, the following emergency response facilities are staffed 24 hours a day.

1. The Control Room of each commercial nuclear facility.

2. The State and County Warning Points.

3. State Emergency Operations Center (SEOC), Communications Center.

4. The National Weather Service Forecast Office(s) for North Carolina.

C. PERSONNEL AVAILABILITY

1. Key personnel for CCPS and RPS are available 24 hours a day.

2. The time required for notification of members of SERT thru the establishment of the State EOC under varying conditions are shown in SERT Activation Time Table, maintained by NCEM.

D. ADDITIONAL COMMUNICATIONS SYSTEMS

1. Commercial telephone is the primary means of communication with contiguous States and some State and Federal agencies.

2. The FEMA National Radio System (FNARS) has terminals installed in States' EOCs providing voice radio or Teletype communication among state governments. This system is capable to provide communications with the Department of Energy, Regional Center in Aiken, South Carolina.

3. The National Warning System (NAWAS), another special telephone system, has terminals located at the State EOC and the State and County Warning Points and National Weather Service Offices.

4. Notification to other Federal agencies will be made through FEMA, Region IV.

   a. Atlanta Office Main Number: (770) 220-5200
      Fax Number: (770) 220-5230

b. Thomasville MERS Operation Center (24-hr Operations)
Main Number: (229) 225-4756 (800) 792-6196

E. COMMUNICATIONS BETWEEN STATE and LOCAL GOVERNMENT

1. A dedicated commercial telephone system (Decision Line) is the primary means of communication between the primary decision makers at the SEOC, individual RCC, the individual nuclear power plant Emergency Operations Facility (EOF) and the EPZ County EOCs.

2. Commercial telephone, satellite radio/telephone, two-way radio, fax and DCI terminals are the back-up means of communications. (Individual RCC locations and the utility EOF are not equipped with DCI terminals)

F. COMMUNICATIONS BETWEEN NUCLEAR POWER UTILITIES, STATE and LOCAL GOVERNMENTS

1. The primary means of communication between the SERT and each of the nuclear power facilities will be the Selective Signaling System (SSS). Back-up communication between these two points will be commercial telephone lines, satellite radio/telephone systems. The systems could be expanded, as required, by the addition of temporary base stations; mobile units and hand carried portable units.

2. The dedicated SSS circuit is the primary means of communication between each of the nuclear power facilities, the State and County Warning Points and EOCs. When plant operations personnel activate this party-line circuit, telephones on the dialed circuit (Warning Points or EOCs) ring simultaneously. The lines may remain open for two-way communication throughout an emergency.

G. ADDITIONAL BACK-UP COMMUNICATIONS

1. If requested and available, the North Carolina State Highway Patrol can position a radio-equipped patrol car at the affected County EOC and at the effected nuclear power facility EOF to provide additional back-up communications.

2. Amateur Radio operators, when necessary, will position their equipment at County EOCs, SEOC, reception and congregate centers and any other appropriate locations to provide back-up communication between these sites.

3. In an extreme emergency, when other forms of communications are not possible, State Highway Patrol vehicles can be used to transport hard-copy messages.

H. FIELD ASSESSMENT TEAM COMMUNICATIONS

1. Two-way voice radio base station equipment and satellite radio/telephone link have been installed at State EOC to communicate with the RPS mobile lab and/or Field Survey Teams.

2. Space will be provided at the State EOC for installation of temporary base station equipment for accident assessment teams furnished by Federal response organizations.

I. COMMUNICATIONS for ALERTING EMERGENCY RESPONSE PERSONNEL

1. The Selective Signaling System lines are the primary means of transmitting the initial notification of an event from each of the nuclear power facilities to the State and County Warning Points. Commercial telephone, satellite telephone, fax machines and voice radios are the back-up means of communication. Messages from the plant continue to go to the County Warning Points until directed otherwise; the State and County Warning Points will relay messages to key individuals.

2. Key members of SERT and RPS are on call 24 hours a day. One or more of these members will be notified by telephone from the State Warning Point or State EOC of an emergency condition at one of the nuclear power facilities. A list of these individuals with business and non-business telephone numbers is posted at the State EOC. During evenings, weekends and holidays, key staff members from RPS and NCEM are equipped with digital pagers and/or cell phones. The State Warning Point or State EOC will notify appropriate personnel upon receipt of the initial notification.

J. PERIODIC COMMUNICATIONS TESTS

1. Each of the communication links is tested on a regular basis.

   a. FNARS. Tested once each week between NCEM and FEMA Regional Center in Thomasville, Georgia.

   b. NAWAS. Tested at the national and State level (at the State Warning Point) once every eight hours on an unscheduled basis.

   c. FM Voice Network: Operated daily by NCEM Operations Staff, Area Offices and County EM Offices. Also used to contract NCEM mobile units in and around the Raleigh Area.

   d. Selective Signaling System. Selective Signaling System will be tested in accordance with the communications test plan for each of the nuclear power facilities and the State and applicable County Warning Points.

e. Decision Line. Decision Line will be tested in accordance with the communications test plan for each of the nuclear power facilities and the State and applicable County Warning Points.

2. The state telephone conferencing system will be tested monthly with State and County emergency management organizations and others as necessary.

K. COMMUNICATION PLANS

The individual Communications officials as listed in Section VIII, FIGURE-14 are responsible for preparing and implementing communications plans in support of emergencies at each of the nuclear power facilities.

L. COMMUNICATION TO THE PUBLIC

1. The primary means of communication to the public are messages broadcast via commercial radio and television stations. NOAA tone-alert radio weather radio provides an additional system for notification. (Required by Harris Nuclear Plant license).

2. The National Weather Service Office operates NOAA weather radio transmission stations that serve the areas included in the 10-mile EPZ for each of the nuclear power facilities. (Harris Nuclear Plant license requires individual radio receivers to be provided by Progress Energy to residences within a 5-mile radius of the plant).

3. The resources listed above are more than adequate to provide communication to 100 percent of the public within a 10-mile radius of each of the nuclear power facilities.

4. The type of information broadcast by radio and television stations and the method of transmission are dictated by the specific condition existing at the individual facility.

   a. When a normal or "non-emergency" condition exists, informational and educational items are broadcast to the public by radio and television stations as scheduled by each broadcaster.

   b. EAS will be activated when an emergency condition develops to the extent that the public should be warned and informed either to be prepared or to take some kind of protective action.

5. The National Weather Service office serving the affected area will activate EAS and transmit the alert tone, information, and instructions to radio and television stations serving the area within a 10-mile radius of each of the nuclear power facilities. When the transmission is received, the receiving stations will retransmit to the public as often as necessary, if requested. As the emergency condition changes, revised information and instructions will be transmitted to keep the public aware of the circumstances.

6. The National Weather Service will also activate the National Weather Service (NOAA) radio stations to broadcast EAS messages related to the emergency condition.

7. The Local Primary (LP-1) station near each of the nuclear power facilities (See Annex E) will receive and retransmit the EAS message through the North Carolina EAS in accordance with the procedures specified in the North Carolina Emergency Alert System Plan.

8. Time permitting; newspapers serving the area could publish special editions containing information and instructions to the public.

9. Coordinating Instructions Communications

   a. During normal non-emergency periods, radio and television spots, special programs, special announcements by National Weather Service radio, and newspaper articles concerning nuclear plants will be linked with and related to information shown in the emergency brochure, and by other sources used in the EPZ.

   b. Announcements and advisories transmitted to the public during periods when an emergency condition exists may (and probably will) refer to information published and distributed during non-emergency periods, such as:
      (i) Geographical areas or political subdivisions within a 10-mile radius of the effected facility.
      (ii) Evacuation travel routes and shelter facilities
      (iii) Educational information on radiation.
      (iv) Instructions concerning the use of drugs or medicines to offset the effects of radiation.
      (v) Instructions on how the public will be alerted and informed of an emergency condition, or a potential threat.

   c. Emergency information and instructions transmitted to the public will be prepared jointly by Progress Energy or Duke Energy and local and State government public information staffs.

   d. Planning for use of EAS is the responsibility of NCEM.

VII. PLANS, EXERCISES, DRILLS, and TRAINING

A. EVALUATION of PLANS and SKILLS

To evaluate the emergency response plans and to develop and maintain skills, training programs, periodic exercises and drills will be conducted. Inadequacies identified as a result of exercises and drills will be corrected through plan revisions and training modification.

B. RESPONSIBILITY for PLAN DEVELOPMENT, PERIODIC REVIEW, and DISTRIBUTION

1. The Director, NCEM, as the designated Emergency Planning Coordinator is responsible for the development, updating, and distribution of emergency plans and for the coordination of these plans with other response agencies at Federal, State, and local levels.

2. The REP Program Manager will:

   a. Provide guidance for individuals responsible for the planning effort.

   b. Have overall authority and responsibility for radiological emergency response planning.

   c. Ensure that this plan and supporting plans are reviewed, updated, and certified current on an annual basis. Any update will take into account the need for changes identified by drills and exercises. Revised pages will be dated and marked where changes have been made.

3. Each organization will update the telephone numbers associated with this plan and supporting internal procedures at least quarterly.

   NOTE: See Attachment 2 (Supporting Plans and their Sources)

C. RADIOLOGICAL EMERGENCY RESPONSE TRAINING

1. Radiological emergency response training at Federal, State and local levels will be provided to those individuals who may be called upon to assist in an emergency, including participants under mutual aid agreements.

2. Training at all levels will emphasize practical application and experience. In-place exercises, drills, sub-systems exercises, tabletop exercises, emergency operations simulations, and field exercises will be stressed.

3. Shown below are the types of training available and the agency responsible for arranging or conducting the training.

   a. Team Leadership and Coordination. Appropriate representatives of State and local government will attend Federal level training provided by the Emergency Management Institute (EMI) as well as other meetings, seminars, and workshops when available.

   b. Accident Assessment. RPS is responsible for training personnel in accident assessment. Training will consist primarily of accident assessment organization, procedures, and reports. RPS training

can be conducted in conjunction with biannual nuclear facility exercises.

c. Radiological Monitoring. Local Emergency Management agencies are responsible for arranging local agency radiological training in those counties in the vicinity of each of the nuclear power facilities. RPS will ensure proper Radiological Monitoring training for RPS Field Survey Teams.

d. Law Enforcement and Firefighting. The State Highway Patrol, Alcohol Law Enforcement Division, Motor Vehicles License and Theft Section, Wildlife Resources Commission, and Forest Services have instructors and are responsible for training their personnel.

e. Emergency Medical Service and Rescue. The Emergency Medical Service (EMS) Section of DHHS is responsible for the Emergency Medical Training (EMT) for State level EMS and rescue personnel.

f. Local Emergency Response. Training of local emergency management and emergency response personnel is the responsibility of the local Emergency Management Director. This responsibility is met through conducting the County Training Program; fundamental courses for Radiological Monitors, State-sponsored EMT, Federally sponsored emergency response operation training, and participation in various training exercises and drills.

g. Medical Support. Training for medical support personnel is the responsibility of the local Emergency Management Coordinator in conjunction with hospital and ambulance providers concerned. This responsibility can be met through the use State sponsored EMT and special training provided by hospitals or NCEM.

h. Communications. Training for communications personnel is the responsibility of the department or agency to which they are assigned. Training at the integrated response level necessary to implement this plan will be accomplished during drills and annual exercises.

4. State and local governments will conduct radiation emergency response training for personnel scheduled to operate within the plume and ingestion exposure pathway EPZs. Refresher training will be offered on an annual basis commencing with individual training and culminating with a field exercise.

D. DRILLS

1. Elements of emergency response organizations will conduct specialized drills according to the following schedule: (See Section VIII, FIGURE-12)

2. Each element of an emergency response organization that conducts periodic drills is responsible for preparing and conducting the drills within the required time frame.

3. Elements of emergency response organizations may wish to conduct drills jointly. For example, radiological monitoring drills may be conducted jointly with communications drills.

4. Emergency medical drills may be included as a part of the scheduled nuclear power plant exercise.

5. Drill plans will include, but not be limited to, the items described in paragraph E.6 below.

E. EXERCISES

1. NCEM is responsible for the development of all nuclear power facility exercises conducted by the State.

2. An exercise will be conducted involving each of the nuclear power facilities in North Carolina on a biennial basis to test the Plan and the integrated response capabilities of participating organizations for that facility.

3. Exercise scenarios will be varied to insure that all major elements of the plan are tested within a six-year period.

4. Within each six-year period, at least one biennial exercise should begin between 6:00 p.m. and 4:00 a.m., and one should be unannounced.

5. Principal Exercise Participants:

   a. The Office of the Governor

   b. North Carolina State Government Departments/Agencies:

      (i) Department of Administration
      (ii) Department of Agriculture
      (iii) Department of Commerce
      (iv) Department of Correction
      (v) Department of Crime Control and Public Safety
      (vi) Department of Economic and Community Development
      (vii) Department of Environment and Natural Resources
      (viii) Department of Health & Human Services
      (ix) Department of Justice (DCI)

(x) Department of Transportation
(xi) Department of Insurance
(xii) Wildlife Resources Commission

6. Local Risk County Governments:
   a. Elected officials,
   b. Appointed officials
   c. Chiefs and operating units of emergency services

7. Local Host County Governments:
   a. Elected officials,
   b. Appointed officials
   c. Chiefs and operating units of emergency services

8. Progress Energy

9. Duke Energy

10. The American Red Cross

11. The Salvation Army

12. Federal agencies with emergency response obligations

13. National Weather Service office(s) serving the EPZ

14. Radio and television stations serving the EPZ

15. Volunteer emergency service organizations

16. Agreement medical care facility and medical transporter

17. NCEM and the involved Utility location are responsible for establishing a control group for each exercise. Composed of representatives of the organizations shown in Paragraph 4 above, the control group is responsible, under the direction of NCEM, for the planning and conduct of the exercise.

18. Exercise plans will be developed under the direction of NCEM in coordination with local governments, Duke Energy or Progress Energy. These plans should include, but are not limited to the following:

    a. Criteria for evaluation during of the exercise.
    b. Date(s), time period(s), location(s), and participating organizations.
    c. An Extent of Play (EOP) indicating how each of the criteria for evaluation will be demonstrated.
    d. A time schedule of real and simulated initiating events.
    e. A narrative summary describing the conduct of the exercise.
    f. A description of the arrangements and advance materials to be provided to evaluators, controllers and official observers.

F. EVALUATION and CRITIQUE

1. NCEM will conduct a critique of the exercise and/or drill events as necessary. The critique will be conducted as soon as possible after the exercise or drill, with all key players, controllers and evaluators in attendance.

2. NCEM will be responsible for recording information obtained during the Federal exercise critique, evaluating it, and implementing needed improvements in this plan and State government emergency response procedures.

VIII. FIGURES

EMERGENCY PLANNING ZONE (EPZ) PLUME and INGESTION CONCEPTS

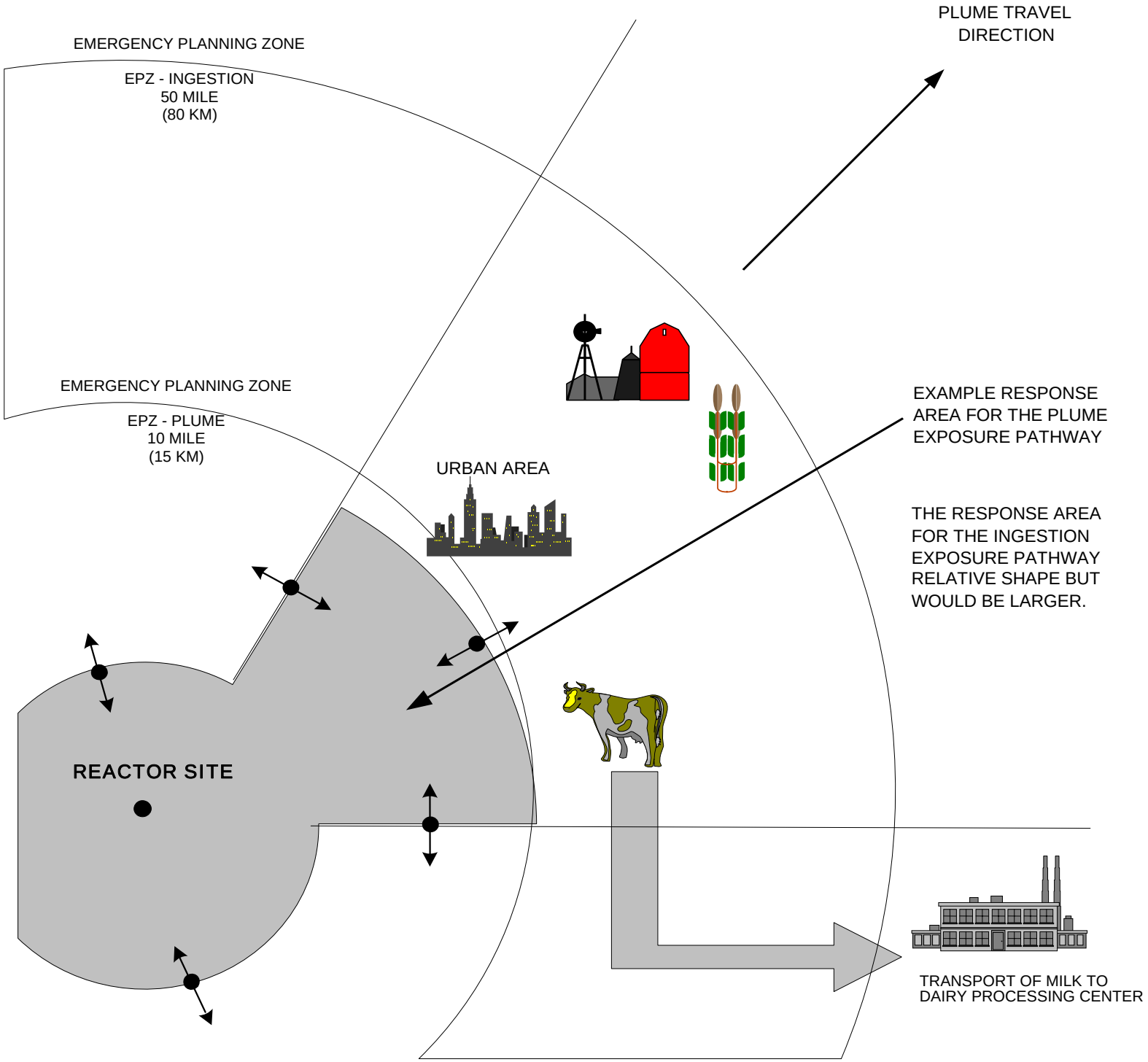

FIGURE-1

Indicates Variable Response Boundary

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DIRECTION and CONTROL RESPONSIBILITIES PHASED RELATIONSHIPS and PRIMARY INFORMATION FLOW

CONDITION	RELATIONSHIP	PRIMARY INFORMATION FLOW
Prior to an Emergency	State and local government have an equal and mutual responsibility to plan	As necessary between the State and local government and the Plant
Nuclear power plant accident occurs. Emergency class is declared.	Local government direct and control. State government assist	Initial notification goes from the Plant to the SEOC Communications Center, Warning Point, and County Warning Points. State Warning Point, SEOC Communications Center and County Warning Points notify key individuals.
Accident conditions at the nuclear plant escalates.	Local government direct and control. State government assist	Plant to Government Emergency Notification Messages: Option 1 - Messages from the plant continue to go to State and County Warning Points until directed otherwise; SEOC Communications Center and Warning Point will pass messages to key individuals. (This option should be used only when the other options are not feasible. Option 2 or 3, or a combination of the two is preferred) Option 2 - As directed by the level of government concerned, messages from the plant go to one key individual at the State and Counties. Option 3 - As directed by the level of government concerned, messages from the plant go from the plant to the State EOC (SERT) and County EOCs.
Accident conditions at the plant escalates; local government requests the State assume Direction and Control authority and control messages dispatched	State government directs and controls Local government assists	Messages from the plant go to SERT and County EOCs
Accident conditions at the plant escalate; State of Disaster or Emergency declared; State assumption of direction and control message dispatched.	State government directs and controls Local government assists	Messages from the plant to go to SERT and County EOCs.

FIGURE-2

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MESSAGE FORMAT
STATE ASSUMPTION of DIRECTION and CONTROL AUTHORITY

The following formats will be used to transfer direction and control authority to the State of North Carolina. The message will be initiated by the SERT and authorized by the SERT leader. The message will be transmitted by a method that produces a hard-copy.

COUNTY REQUEST LETTER

DATE: (DATE)

FROM: (NAME), SERT Leader

TO: (NAME), Chairman - (County Name) County Board of Commissioners
(NAME), Chairman - (County Name) County Board of Commissioners
(NAME), (Utility Emergency Response Director Title) - (Utility)

SUBJECT: State Assumption of Direction & Control Authority

1. At (TIME) the State of North Carolina was requested by (NAME) county or counties, to assume direction and control authority for (FACILITY NAME) event response activity.
2. In response to this request, the State Emergency Response Team (SERT) has been activated and will assume direction and control authority for (FACILITY NAME) event response activity at:

   (TIME) (DATE)

   Each addressee should acknowledge receipt and understanding of this message via FAX with the State EOC (SEOC) Communications center immediately upon receipt.

1st Endorsement

DATE: (DATE)

TO: (NAME), SERT Leader

FROM: _____, _____
(PRINT NAME) (PRINT TITLE)

Acknowledge receipt and understanding of State of North Carolina assumption of direction and control.

_____
(SIGNATURE)

FIGURE-3
(Page 1 of 2)

STATE OF DISASTER DECLARATION LETTER

DATE: (DATE)

FROM: (NAME), SERT Leader

TO: (NAME), Chairman - (COUNTY NAME) County Board of Commissioners
(NAME), Chairman - (COUNTY NAME) County Board of Commissioners
(NAME), (UTILITY EMERGENCY RESPONSE DIRECTOR TITLE) - (UTILITY)

SUBJECT: State Assumption of Direction & Control Authority

1. In response to event activity at the (FACILITY NAME), (STATE OFFICIAL) has declared a State of Disaster for:

   (AREA / COUNTIES EFFECTED)

2. As a result of this declaration, the State Emergency Response Team (SERT) has been activated and will assume direction and control authority for (FACILITY NAME) event response activity at:

   (TIME) (DATE)

3. Each addressee should acknowledge receipt and understanding of this message via FAX with the State EOC (SEOC) Communications center immediately upon receipt.

1st Endorsement

DATE: (DATE)

TO: (NAME), SERT Leader

FROM: _____, _____
(PRINT NAME) (PRINT TITLE)

Acknowledge receipt and understanding of State of North Carolina assumption of direction and control.

_____
(SIGNATURE)

FIGURE-3
Page 2 of 2

PRIMARY and SUPPORT RESPONSIBILITY SUMMARY

FUNCTION	ORGANIZATION	PRIMARY	SUPPORT
Command & Control	-Dept. Crime Control & Public Safety	x	
Warning	-Dept. of Crime Control & Public Safety	x	x
	-Dept. of Environment, and Natural Resources		
	-National Weather Service		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	x
	National Weather Service	X	x
	Local Telephone Company(s).		x
	Duke Energy / Progress Energy	x	x
Accident Assessment	-Dept. of Environment and Natural Resources	x	
	-Duke Energy / Progress Energy	x	
	-Dept. of Crime Control and Public Safety		x
	-US Dept. of Energy (IRAP)		x
	-Southern Emergency Response Council (SMRAP)		x
	-US Environmental Protection Agency		x
	-US Nuclear Regulatory Commission		x
Public Health and Sanitation	-Dept. of Environment and Natural Resources		x
	-County Health Departments in the EPZ	x	
	-US Dept. Health and Human Services		x
Social Services	-Dept. of Health and Human Services	x	
	-County Social Services Organizations in the EPZ		x
	-American Red Cross		x
	-Salvation Army		x
Fire & Rescue	-Dept. of Crime Control & Public Safety	x	
	-Dept. of Transportation		x
	-Dept. of Health and Human Services		x
	-Dept. of Insurance		x
	-Local government fire and rescue units serving the EPZ		x
	-Volunteer fire and rescue organizations serving the EPZ		x

FIGURE-4

PRIMARY and SUPPORT RESPONSIBILITY SUMMARY

FUNCTION	ORGANIZATION	PRIMARY	SUPPORT
Traffic Control	-Dept. of Crime Control & Public Safety	x	
	-Dept. of Transportation		x
	-County Sheriff's Depts. in the EPZ		x
	-Municipal Police Depts. in the EPZ		x
Emergency Medical Services	-Dept. of Health and Human Services	x	x
	-NC Assoc. of Rescue Squads		x
	-Rescue organizations in the EPZ		x
	-Ambulance providers serving in the EPZ		x
	-Hospitals in the EPZ		x
Law Enforcement	-Dept. of Crime Control & Public Safety	x	
	-Dept. of Justice		x
	-Dept. of Environment and Natural Resources		x
	-County Sheriff's Depts. in the EPZ		x
	-Municipal police Depts. in the EPZ		
Transportation	-Dept. of Crime Control & Public Safety	x	
	-Dept. of Correction		x
	-Dept. of Transportation		
	-Dept. of Environment and Natural Resources		x
	-Public school transportation systems in the EPZ		x
Protective Response	-Dept. of Crime Control & Public Safety	x	x
	-Dept. of Environment and Natural Resources		x
	-Dept. of Agriculture		x
	-Dept. of Transportation		x
	-US Nuclear Regulatory Commission		x
	-US Dept. of Energy		x
	-US Environmental Protection Agency		x
	-Emergency Service providers in EPZ		x
	-National Weather Service		
	-Radio and television stations serving the EPZ		x
Radiological Exposure Control	-Dept. of Environment and Natural Resources	x	
	-Dept. of Crime Control & Public Safety	x	x
	-Dept. of Transportation		x

FIGURE-4
Page 2 of 2

State Direction, Control and Coordination Chart

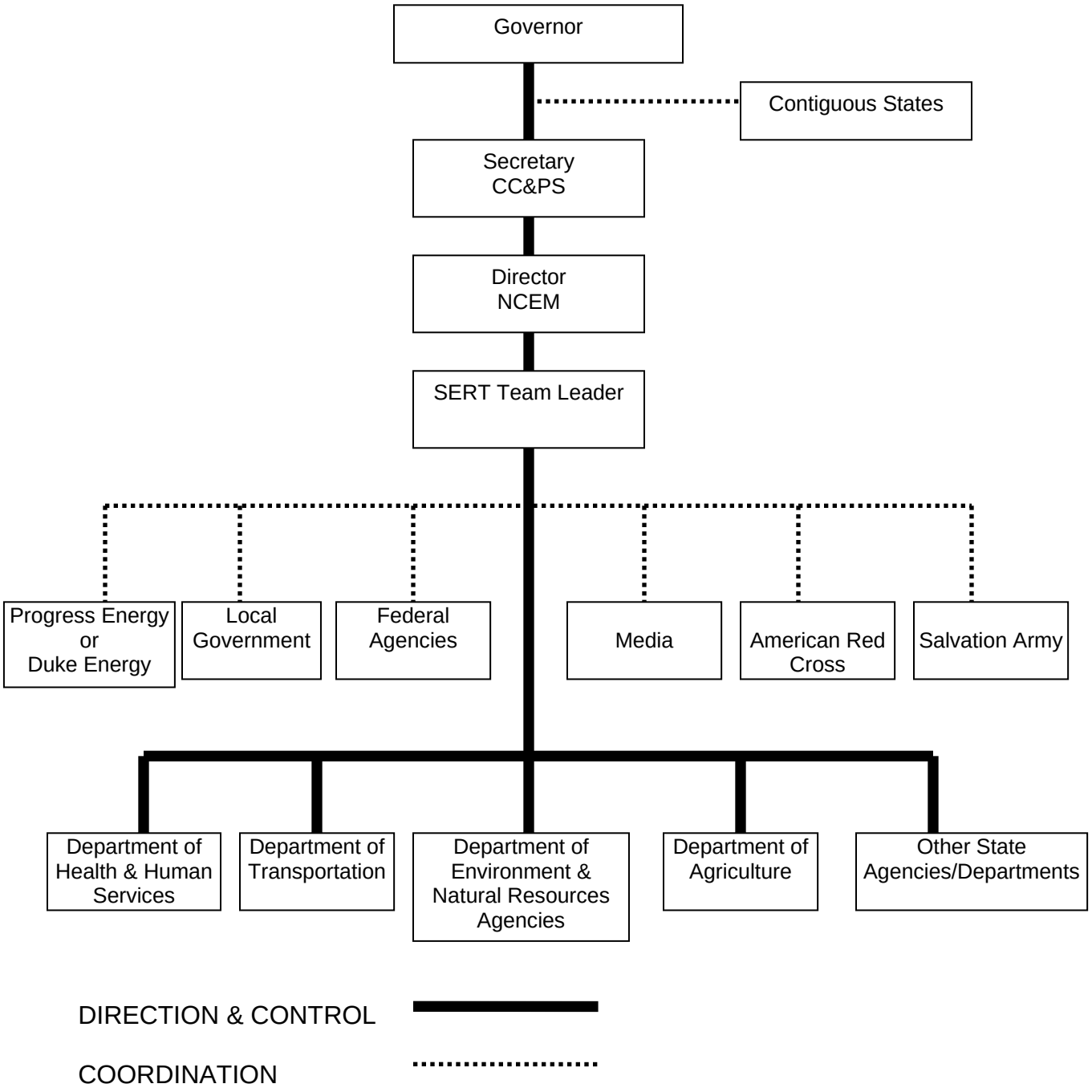

FIGURE-5

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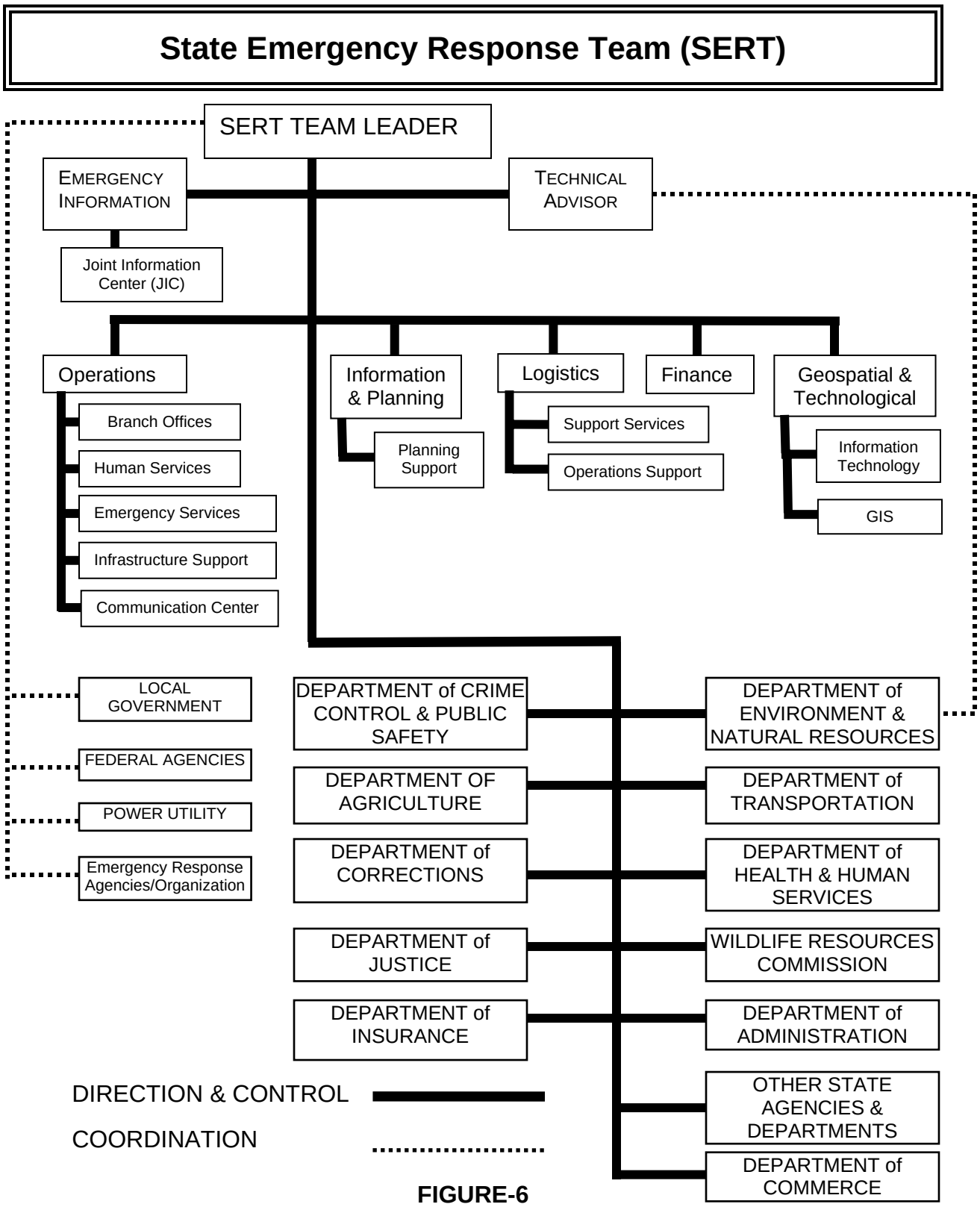
State Emergency Response Team (SERT)
SERT TEAM LEADER
EMERGENCY INFORMATION
TECHNICAL ADVISOR
Joint Information Center (JIC)
Operations
Branch Offices
Human Services
Emergency Services
Infrastructure Support
Communication Center
Information & Planning
Planning Support
Logistics
Support Services
Operations Support
Finance
Geospatial & Technological
Information Technology
GIS
LOCAL GOVERNMENT
FEDERAL AGENCIES
POWER UTILITY
Emergency Response Agencies/Organization
DEPARTMENT of CRIME CONTROL & PUBLIC SAFETY
DEPARTMENT OF AGRICULTURE
DEPARTMENT of CORRECTIONS
DEPARTMENT of JUSTICE
DEPARTMENT of INSURANCE
DEPARTMENT of ENVIRONMENT & NATURAL RESOURCES
DEPARTMENT of TRANSPORTATION
DEPARTMENT of HEALTH & HUMAN SERVICES
WILDLIFE RESOURCES COMMISSION
DEPARTMENT of ADMINISTRATION
OTHER STATE AGENCIES & DEPARTMENTS
DEPARTMENT of COMMERCE
DIRECTION & CONTROL
COORDINATION

FIGURE-6

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EMERGENCY CLASSIFICATION and PROTECTIVE RESPONSE EXAMPLES

EMERGENCY CLASSIFICATION LEVEL (EAL)	LICENSEE ACTIONS	SERT ACTIVATION LEVEL STATE/LOCAL OFF-SITE ACTIONS
UNUSUAL EVENT		**LEVEL IV ACTIVATION**
Description Unusual events are in process or have occurred which indicate a potential degradation of the level of safety of the plant or indicate a security threat to facility protection. No releases of radioactive material requiring off-site response or monitoring are expected unless further degradation of safety system occurs. Purpose Purpose of off-site notification is to (1) assure that the first step in any response later found to be necessary has been carried out, (2) bring the operating staff to a state of readiness, and (3) provide systematic handling of unusual events information and decision making.	1. Promptly inform State and/or local off-site authorities of nature of unusual condition as soon as discovered. 2. Augment on-shift resources as needed. 3. Assess and respond. 4. Escalate to a more severe classification, if appropriate or 5. Closeout with verbal summary to off-site authorities; followed by written summary within 24 working hours.	1. Provide fire or security assistance if requested. 2 Alert to stand by status key emergency personnel. 3. Stand by until verbal closeout or escalate to a more severe classification.
ALERT		**LEVEL III ACTIVATION**
Description Events are in process or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of intentional malicious dedicated efforts of a hostile act. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels. Purpose Purpose of off-site alert is to (1) assure that emergency personnel are readily available to respond if the situation becomes more serious or to monitoring if required, and (2) provide off-site authorities current status information.	1. Promptly inform State/Local authorities of alert status and reason for alert as soon as discovered. 2. Augment resources and activate on-site Technical Support Center and on-site Operational Support Center. Activate EOF if recommended by site. 3. Assess and respond. 4. Dispatch on-site monitoring teams and associated communications. 5. Provide periodic plant status updated to off-site authorities. 6. Provide periodic meteorological and, if any releases are occurring dose estimates for actual releases. 7. Escalate to a more severe class, if appropriate. 8. Close out or recommend reduction in emergency class by verbal summary to off-site authorities followed by written summary within 8 hours of closeout or class reduction.	1. Provide fire or security assistance if requested. 2. Bring EAS to stand by status. 3. Alert key emergency personnel and bring emergency operations centers to at least stand by status. 4. Escalate to a more severe class, if appropriate. 5. Maintain alert status until verbal close out or reduction of emergency class.

FIGURE-7
(Page 1 of 3)

EMERGENCY CLASSIFICATION LEVEL (EAL)	LICENSEE ACTIONS	SERT ACTIVATION LEVEL STATE/LOCAL OFF-SITE ACTIONS
SITE AREA EMERGENCY		**LEVEL II ACTIVATION**
Description Events are in process or have occurred which involve an actual or likely major failures of plant functions needed for protection of the public or security events that result in intentional damage or malicious acts; (1) toward site personnel or equipment that could lead to the likely failure of or; (2) prevents effective access to equipment needed for the protection of the public. Any releases are not expected to result in exposure levels which exceed EPA Protective Action Guideline exposure levels beyond the site boundary. Purpose Purpose of the Site Area Emergency declaration is to (1) assure that response centers are manned, (2) assure that monitoring teams are dispatched, (3) assure that personnel required for evacuation of near-site areas are at duty stations if situation becomes more serious, (4) provide consultation with off-site authorities, and (5) provide updates for the public through off-site authorities.	1. Promptly inform State/Local off-site authorities of Site Area Emergency status and reason for emergency as soon as discovered. 2. Augment resources by activating on-site Technical Support Center, on-site Operational Support Center, and Emergency Operations Facility. 3. Assess and respond. 4. Dispatch on-site and off-site monitor teams and associated communications. 5. Dedicate an individual to provide plant status updates to off-site authorities and periodic press briefings. 6. Make senior technical and management staff on-site available for consultation with NRC and State on a periodic basis. 7. Provide meteorological and dose estimates to off-site authorities for actual releases via a dedicated individual or automated data transmission. 8. Provide release and dose projections based on available plant condition information and foreseeable contingencies. 9. Escalate to General Emergency class, if appropriate, or 10. Close out or recommend reduction in emergency class by briefing of off-site authorities at EOF and by phone, followed by written summary within 8 hours of closeout or class reduction.	1. Activate public notification system. 2. Provide public within about 10 miles periodic updates on emergency status. 3. Augment resources as needed. 4. Dispatch key emergency personnel and associated communications. 5. Alert to standby status other emergency personnel (e.g., those needed for evacuation) and dispatch personnel to near-site duty stations. 6. Provide off-site monitoring results to licensee, DOE, and others and jointly assess them. 7. Continuously assess information from licensee and off-site monitoring with regard to changes to protective actions already initiated for public and mobilizing evacuation resources. 8. Recommend placing milk animals within 2 miles on stored feed and assess need to extend distance. 9. Provide press briefing with licensee. 10. Escalate to General Emergency class, if appropriate. 11. Maintain Site Area Emergency status until closeout or reduction of emergency class.

FIGURE-7
(Page 2 of 3)

EMERGENCY CLASSIFICATION LEVEL (EAL)	LICENSEE ACTIONS	SERT ACTIVATION LEVEL STATE/LOCAL OFF-SITE ACTIONS
GENERAL EMERGENCY		**Level I Activation**
Description Events are in process or have occurred which involve actual or imminent substantial core degradation or melting with potential for loss of containment integrity or security events that result in an actual loss of physical control of the facility. Releases can be reasonably expected to exceed EPA Protective Action Guideline exposure levels offsite for more than the immediate site area. Purpose Purpose of the General Emergency declaration is to (1) initiate predetermined protective actions for the public, (2) provide continuous assessment of information from licensee and off-site organization measurements, (3) initiate additional measures as indicated by actual or potential releases, (4) provide consultation with off-site authorities and (5) provide updates for the public through off-site authorities.	1. Promptly inform State/Local off-site authorities of General Emergency status and reason for emergency as soon as discovered (Parallel notification of State/Local) 2. Recommend sheltering for 2 mile radius and 5 miles downwind and assess need to extend distances. Consider advisability of evacuation (projected time available vs. Estimated evacuation times) 3. Augment resources of activating on-site Technical Support Center, on-site Operational Support Center and Emergency Operations Center. 4. Assess and respond. 5. Dispatch on-site and off-site monitoring teams and associated communications. 6. Dedicate an individual for plant status updates to off-site authorities and periodic press briefings. 7. Make senior technical and management staff on-site available for consultation with NRC and State on a periodic basis. 8. Provide meteorological and dose estimates to off-site authorities for actual releases via a dedicated individual or automated data transmission. 9. Provide release and dose projections based on available plant condition information on foreseeable contingencies. 10. Close out or recommend reduction of emergency class by briefing of off-site authorities at EOF and by phone, followed by written summary within 8 hours of closeout or class reduction.	1. Activate immediate public notification of emergency status and provide periodic public updates. 2. Augment resources as needed. 3. Dispatch key emergency personnel and associated communications. 4. Dispatch other emergency personnel to duty stations within 5 mile radius and alert all others to stand by status. 5. Provide off-site monitoring results to licensee, DOE and others and jointly assess them. 6. Continuously assess information from licensee and off-site monitoring with regard to changes to protective actions already initiated for public and mobilizing evacuation resources. 7. For actual or projected severe core damage accidents or loss of control of facility, recommend evacuation for 2 mile radius and 5 miles downwind (unless conditions make evacuation dangerous) and assess need to extend distances. Advise the remainder of plume EPZ to go indoors and listen to Emergency Alert System Messages. 8. Recommend placing milk animals within 10 miles on stored feed and assess need to extend distance. 9. Provide press briefings, perhaps with licensee. 10. Maintain General Emergency status until closeout or reduction of emergency class.

FIGURE-7
(Page 3 of 3)

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Recommended Protective Actions to Avoid Whole Body and Thyroid Dose From Exposure to a Gaseous Plume		
GENERAL PUBLIC		
Projected Population Dose TEDE*	**Recommended Actions**	**Comments**
<0.1 rem	No actions based on risk from radiation dose	
0.1 to 1 rem	In-place Sheltering. Monitor environmental radiation levels.	Not to be interpreted as an additional lower level PAG for in-place sheltering.
1 to 5 rem (TEDE*) **5 rem (CDE**)**	Evacuate General Public In-place sheltering acceptable alternative for high risk conditions	High risk may be due to immobility, infirmity or adverse health condition. Evacuation / In-place sheltering normally initiated at 1 rem. In-place sheltering is preferred action and provides equal or greater overall protection.
5 to 10 rem	Evacuate General Public In-place sheltering acceptable alternative when both immobile, infirmed persons and high-risk conditions are present.	10 rem is maximum dose for in-place shelters unless it will provide greater protection than evacuation. The possibility of shelter failure should be considered for in-place sheltering recommendations at projected doses >10 rem
Possible Inhalation of Radioiodine 25 rem(CDE)**	See Annex K	

* TEDE = Total Effective Dose Equivalent; ** CDE = Committed Dose Equivalent (To the thyroid from radioiodine)

FIGURE-8

Recommended Protective Actions to Avoid Whole Body and Thyroid Dose From Exposure to a Gaseous Plume			
EMERGENCY WORKERS			
DOSE LIMITS	**ACTIVITY**	**CONDITIONS**	**COMMENTS**
1 rem	All Activities	Cumulative dose reading. Consider implementing worker rotation or other methods to maintain dose as low as reasonably possible (ALARA).	1 rem is the "Administrative Limit" Value for Emergency Workers
5 rem	All Activities	Implement worker rotation or other methods to maintain dose as low as reasonably possible (ALARA)..	5 rem is the "Turn Back" Value for Emergency Workers
10 rem	Protecting Valuable Property	Lower dose not reasonably possible	Only when protection of valuable property justifies potential increased health risk.
25 rem	Lifesaving or protection of large populations	Lower dose not reasonably possible	Justified in situations where dose incurred by emergency worker executing his task will significantly lower the projected dose for the population being protected.
> 25 rem	Lifesaving or protection of large populations	**VOLUNTARY BASIS ONLY** Volunteers must be fully aware of health risks involved	Awareness must include more than numerical values at which acute or delayed health effects will occur.

FIGURE-8
Page 2 of 2

RADIOLOGICAL LABORATORY SUPPORT

A copy of the Radiological Laboratory response times is maintained on file in the State Emergency Management Office and/or SEOC.

FIGURE-9

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EVACUATION TIME ESTIMATES

A copy of the Evacuation Time Estimate for each facility is maintained on file in the Emergency Management Office and/or EOC.

FIGURE-10

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EMERGENCY PLANNING ZONE PLUME and SUB-ZONES, EMERGENCY EVACUATION ROUTES

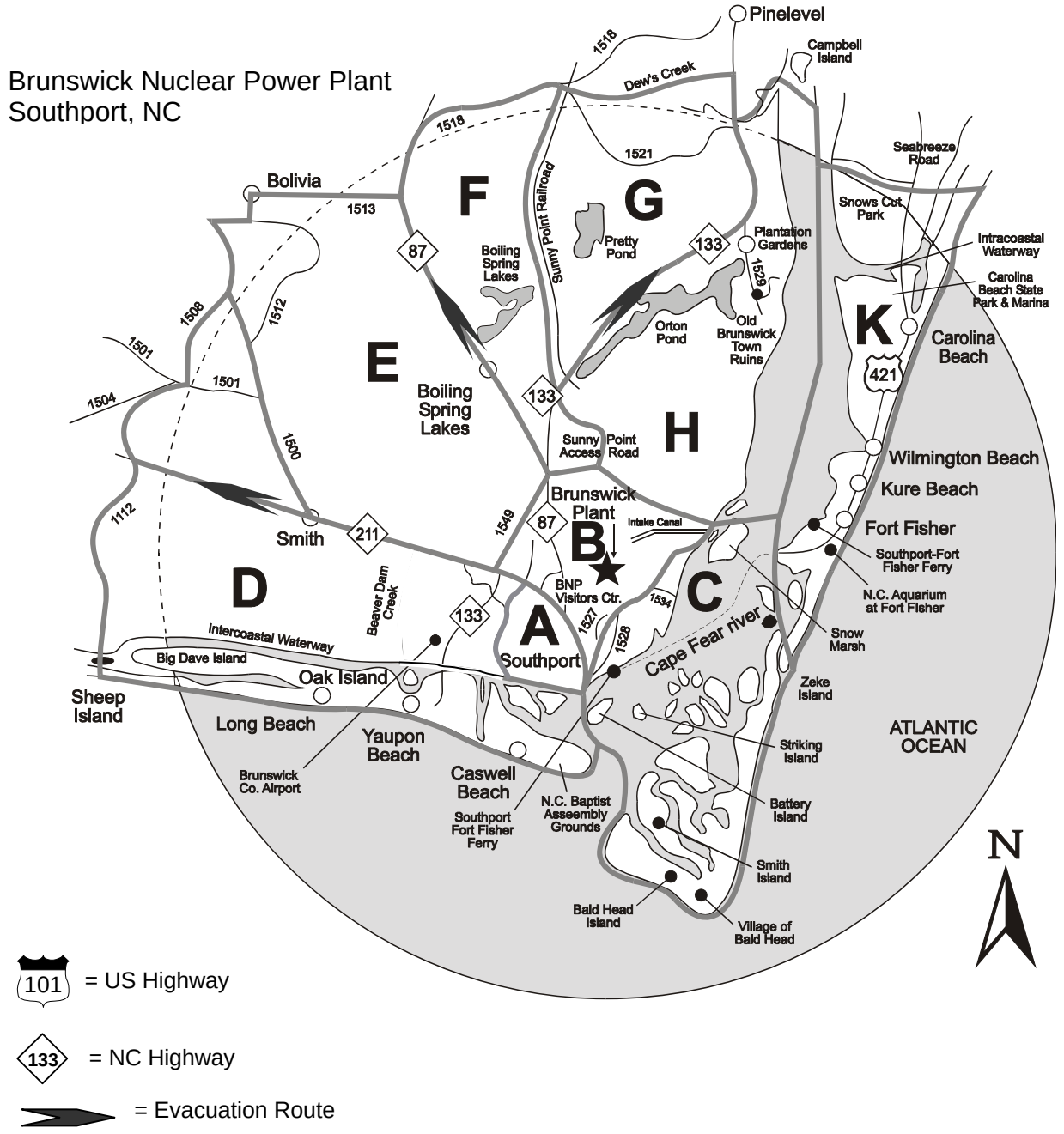

Figure 11
Page 1 of 4

Harris Nuclear Power Plant
New Hill, NC

FIGURE-11
Page 2 of 4

McGuire Nuclear Power Station
Huntersville, NC

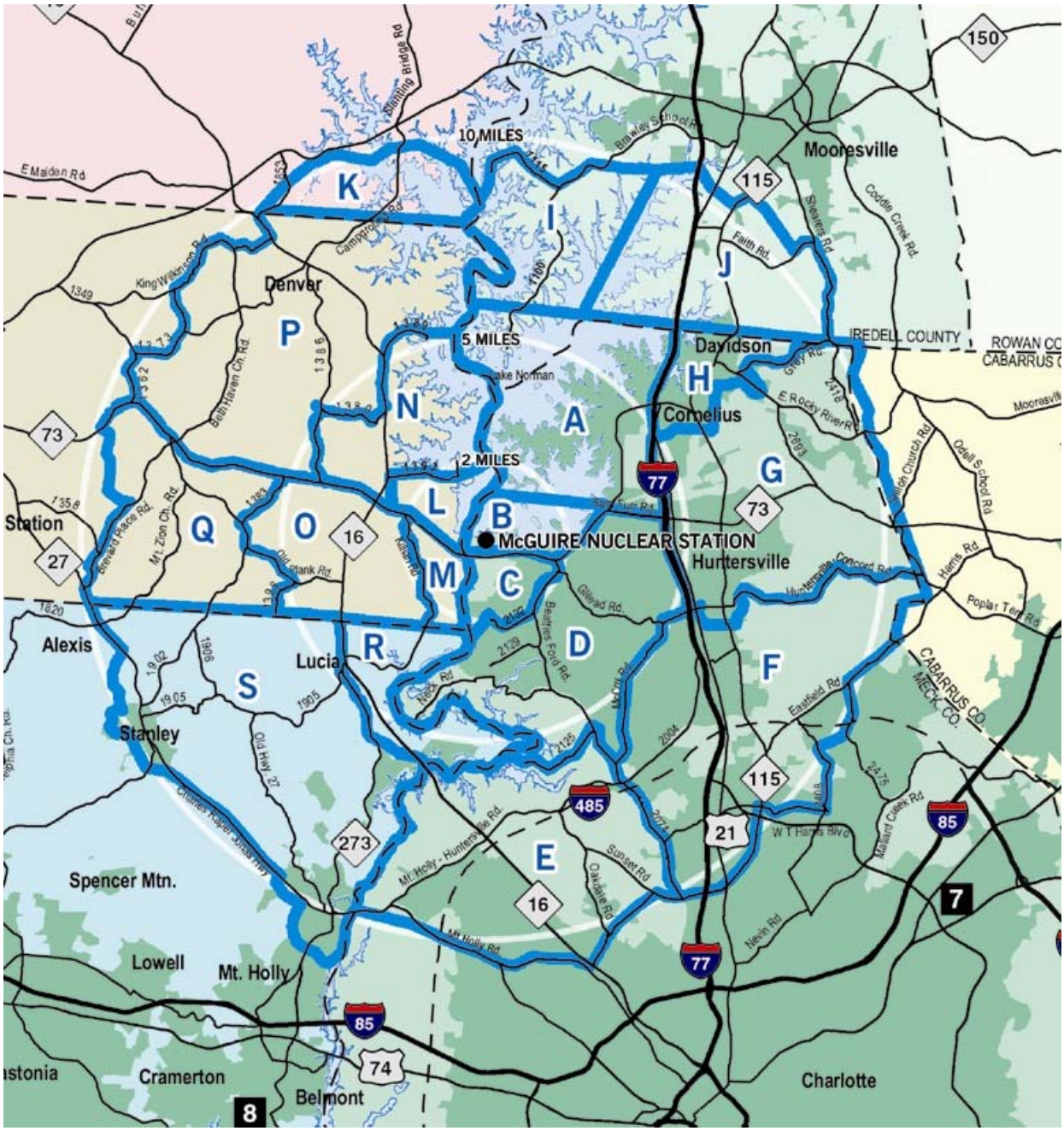

FIGURE-11
Page 3 of 4

Catawba Nuclear Power Station
York, SC

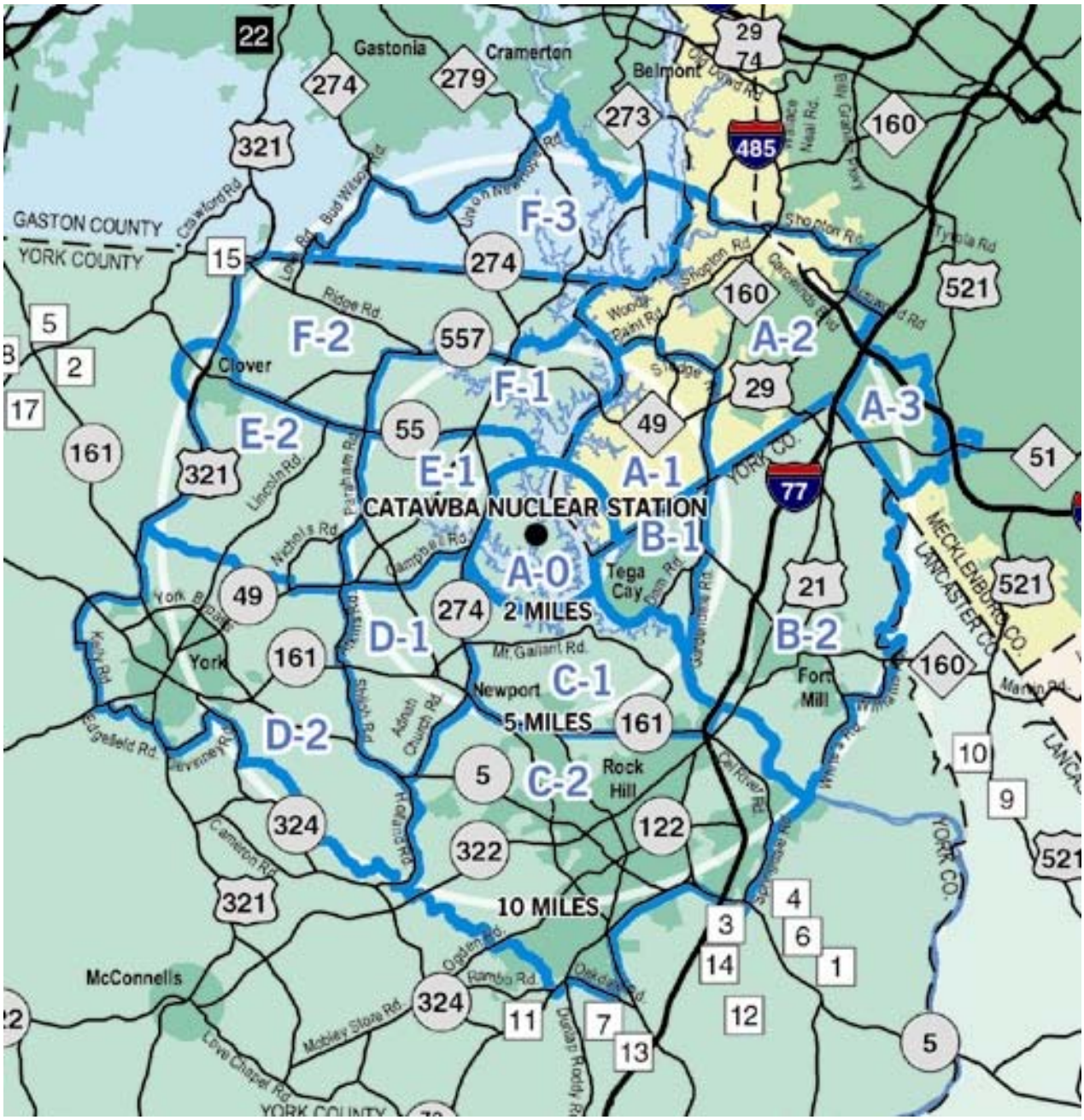

FIGURE-11
Page 3 of 4

MEDICAL and PUBLIC HEALTH SUPPORT

Each of the following hospitals has a plan, equipment and capability to treat (decontamination and evaluation) a limited number of radiologically contaminated patients at one time. Radiological survey instrumentation is maintained at each hospital and additional instrumentation may be provided by RPS staff or advisors to the hospitals listed. Duke University Medical Center, Durham and North Carolina Memorial Hospital, Chapel Hill have the additional capabilities and expertise to treat victims of severe radiation exposure.

BRUNSWICK NUCLEAR POWER PLANT
Southport NC

J. Arthur Dosher Memorial Hospital

NOTE: Due to location within the plume exposure pathway (EPZ), this hospital **can NOT be used** during General Emergency EAL.

Location: 924 Howe Street, Southport, NC
Bed Capacity: 40
Fixed Heliport: Yes
Distance from Brunswick Plant: 3 miles
Contact Person: Nursing Supervisor
This is the primary hospital for the Brunswick Plant.
Hospital has written agreements to administer to Brunswick Plant personnel exposed to radiation. Progress Energy has agreed to augment the hospital with health physics personnel.

New Hanover Regional Medical Center

Location: 2131 South 17th Street, Wilmington
Bed Capacity: 524
Fixed Heliport: Yes
Distance from Brunswick Plant: 30 miles
Contact Person: Hospital Administrator
Health physics consultant personnel are available from Wilmington Manufacturing Department, Nuclear Energy Products Division, Global Nuclear, Castle Hayne; Progress Energy, Southport; and Radiation Management Corporation, Wilmington.

FIGURE-12

HARRIS NUCLEAR POWER PLANT
New Hill, NC

Rex Hospital
Location: 4420 Lake Boone Trail, Raleigh, NC
Bed Capacity: 394
Fixed Heliport: No (Use of parking lot possible).
Distance from Harris Plant: 22 miles
Contact Person: Emergency Room Charge Nurse
This is the primary hospital for the Harris Plant.

WakeMed-Raleigh
Location: 3000 New Bern Avenue, Raleigh, NC
Bed Capacity: 515
Fixed Heliport: Yes (Near Emergency Room)
Distance from Harris Plant: 31 miles

Betsy Johnson Regional Hospital
Location: 800 Tilghman Drive, Dunn, NC
Bed Capacity: 101
Fixed Heliport: Yes, (Near Emergency Room)
Distance from Harris Plant: 45 miles
Contact Person(s): Risk Manager or Head Nurse, RN

MCGUIRE NUCLEAR POWER STATION
Huntersville, NC

University Memorial Hospital
Location: Harris Blvd and Highway 29, Charlotte, NC
Bed Capacity: 130
Heliport: Yes
Distance from McGuire Station: 18 miles
This is the primary hospital for the McGuire Station

Carolina's Medical Center
Location: 1000 Blythe Blvd, Charlotte, NC
Bed Capacity: 853
Location: 1000 Blythe Boulevard
Heliport: Yes, and Helicopter Service
Distance from the McGuire Station: 19 miles

Lake Norman Medical Center
Location: 610 East Center Avenue, Mooresville, NC
Bed Capacity: 121
Heliport: Yes
Distance from the McGuire Station: 15 miles
Contact Person: Administrator

FIGURE-12

Iredell Memorial Hospital, Inc

Location: Corner Brookdale Drive & Hartness Road, Statesville, NC
Bed Capacity: 206
Heliport: Yes
Distance from McGuire Station: 25 miles
Contact Person: Administrator

Davis Community Hospital

Location: Old Mocksville Rd. at U.S. 64 at I-40, Statesville, NC
Bed Capacity: 180
Heliport: Yes (Paved parking area outside E.R)
Distance: 29 miles
Contact: Administrator

Catawba Memorial Hospital

Location: Fairgrove Church Road, Hickory, NC
Bed Capacity: 233
Heliport: Yes
Distance from McGuire Station: 26 miles

Frye Regional Medical Center

Location: 420 N. Center Street, Hickory, NC
Bed Capacity: 218
Heliport: At Airport - 10 minutes away
Distance from McGuire Station: 32 miles

Cabarrus Memorial Hospital

Location: 920 Church Street, North, Concord, NC
Bed Capacity: 440
Heliport: Yes (Asphalt pad behind hospital)
Distance from McGuire Station: 21 miles

Lincoln County Hospital, Inc.

Location: Off 321 By-Pass South, Lincolnton, N.C.
Bed Capacity: 110
Heliport: Yes
Distance from McGuire Station: 18 miles

CATAWBA NUCLEAR POWER STATION
York, SC

Carolina's Medical Center

Location: 1000 Blythe Boulevard, Charlotte, NC
Bed Capacity: 853
Heliport: Yes, and Helicopter Service
Distance from the Catawba Station: miles
This is the primary hospital for the Catawba Station

FIGURE-12
Page 3 of 3

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SPECIALIZED DRILL SCHEDULE

ORGANIZATION	ELEMENT	TYPE OF DRILL	SCHEDULE
State	CCPS/NCEM	Communications	Monthly
		Radiation Monitoring	Annually
County	Emergency Management Agency	Communications	Monthly
	County & City Fire Depts.	Fire	In accordance with individual facility requirements.
	Emergency Medical Service (EMS)	Emergency Medical	Annually
Progress Energy	Brunswick & Harris Plants	Communications	Annually
Duke Energy	McGuire & Catawba Stations	Communications	Annually
		Radiation Monitoring	Annually
DENR	RPS	Communications	Annually
		Radiation Monitoring	Annually
		Health Physics	Semi annually
County Hospitals**	Emergency. Depts.	Emergency Medical	Annually

** Hospitals that serve the Emergency Planning Zone.

FIGURE-13

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COMMUNICATION PLANS

FACILITY	ORGANIZATION	COMMUNICATION REPRESENTATIVE
	Progress Energy Duke Energy	Emergency Coordinator Offsite Agency Communicator
	Emergency Management	Logistics Chief
	SERT	Communications Officer
Brunswick NP	New Hanover County	County Communication Officer
	Brunswick County	County Communication Officer
	U.S. Coast Guard, Sector North Carolina	Communications Officer
Harris NP	Chatham County	County Communication Officer
	Harnett County	County Communication Director
	Lee County	County Communication Officer
	Wake County	Director, Emergency Management Agency
McGuire NS	Cabarrus County	County Communication Officer
	Catawba County	County Communication Officer
	Gaston County	County Communication Officer
	Iredell County	Emergency Services Director
	Lincoln County	Emergency Services Director
	Mecklenburg County	Mecklenburg County, Communication Supervisor
Catawba NS	Gaston County	County Communication Officer
	Mecklenburg County	Mecklenburg County, Communication Supervisor

Figure 14

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ATTACHMENT 1

AUTHORITIES, WRITTEN AGREEMENTS and REFERENCES

Copies of required documents are maintained on file in the NC Division of Emergency Management.

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ATTACHMENT 2

SUPPORTING PLANS

Copies of required documents are maintained on file in the NC Division of Emergency Management.

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ATTACHMENT 3

EMERGENCY INSTRUMENT INVENTORY

The inventory of radiological equipment maintained or issued through the NC Division of Emergency Management or the DENR Radiation Protection Section is maintained at each respective office.

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ATTACHMENT 4

EMERGENCY ACTION LEVEL and PROTECTIVE ACTION FLOWCHARTS

PROGRESS ENERGY and DUKE ENERGY Emergency Action Level (EAL) and Protective Action flowcharts are maintained on file in the individual County EOC, State EOC and the NCEM REP office.

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ATTACHMENT 5

PROTECTION FACTORS FOR DIRECT AND INHALATION EXPOSURE

This information is provided in the EPA Manual of Protective Guides and Protective Actions for Nuclear Incidents (EPA 400-R-92-001), Tables C-6 and C-7.

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ATTACHMENT 6

RADIOLOGICAL SAMPLING AND MONITORING POINTS

The NC DENR Radiation Protection Section maintains radiological sampling and monitoring point's maps.

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RADIOLOGICAL PLAN ANNEXES

NOTE: The letters “I” and “O” are not used as section designators.

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