

SITE SPECIFIC PLAN

PART 4, SCORERP



CATAWBA NUCLEAR STATION

December 2024

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I. INTRODUCTION

The Catawba Nuclear Site (CNS) Site Specific Plan, Part 4, South Carolina Operational Radiological Emergency Response Plan (SCORERP) provides for the guidance, coordination and utilization of state and other resources in support of local governments in the event of a radiological incident at CNS, Duke Energy Corporation, located in York County. The CNS Site Specific Plan forms an integral part of the SCORERP and addresses matters pertaining directly to CNS not already addressed in the SCORERP Basic Plan.

II. PURPOSE

To protect the populace and property in areas that may be affected by a radiological incident at CNS and to provide for off-site recovery.

III. SITUATION AND ASSUMPTIONS**A. Situation**

1. CNS is located on the western shore of Lake Wylie and is approximately 6 miles north of the city of Rock Hill, SC. The geographic coordinates are: Latitude 35° 3' 5" North and Longitude 81° 4' 10" West (See figure 1). CNS is owned and operated by Duke Energy Corporation, whose corporate headquarters is in Charlotte, North Carolina.
2. CNS Units 1 and 2 pressurized water reactors became operational in 1985 and 1986 respectively. They have a production capability of 2,290,000 kilowatts of power. Duke Energy Corporation's Lake Wylie Dam and Hydroelectric Station are located approximately 4.5 miles southeast of the site.
3. The 10-mile Plume Exposure Pathway Emergency Planning Zone (EPZ) that surrounds the station encompasses only York County in South Carolina. Portions of Gaston and Mecklenburg Counties in North Carolina also lie within the 10-mile EPZ of CNS (See Figure 1). York County has formulated a detailed radiological emergency response annex to the county Emergency Operations Plan (EOP) that supports the operational framework of the SCORERP.
4. York, Chester, Fairfield, Newberry, Cherokee, Spartanburg, Union, Kershaw, Lancaster, Chesterfield, and Laurens Counties in South Carolina and also Rutherford, Cleveland, Gaston, Burke, Lincoln, Catawba, Union, Anson, Mecklenburg, Stanly, Cabarrus, Iredell and Rowan Counties in North Carolina lie within the 50-mile Ingestion Exposure Pathway Emergency Planning Zone (See Figure 2).
5. CNS prevailing winds are from the southwest.

B. Assumption

1. A radiological incident could occur at CNS that may cause an off-site hazard to residents and property. Planning for a radiological incident will facilitate an effective response.

2. Retention of existing licenses for Nuclear Power Plants (NPPs) is dependent on effective emergency operations of state/local jurisdictions and of the licensee, in accordance with NUREG-0654, FEMA REP-1, REV. 2.
3. A radiological incident at CNS that presents off-site radiological hazards will involve the governments of counties within the 10-mile EPZ, both in South and North Carolina. Therefore, state government will be required to provide direction, coordination and support in accordance with the State Code of Regulations 58-1 and 58-101.

IV. CONCEPT OF OPERATIONS

A. General

Under the direction of the Governor, South Carolina Emergency Management Division (SCEMD) and York, Cherokee, Chester, Lancaster and Union Counties will coordinate off-site response to a radiological incident at CNS. Through the SCEMD Director, and the State Emergency Operations Center (SEOC), the Governor will exercise direction and control of state emergency operations. The Governor of South Carolina or his/her designee (normally the Director of SCEMD), will coordinate all state agencies, departments and local emergency response organizations mobilized pursuant to this plan. The South Carolina Emergency Operations Plan (SCEOP) designates Emergency Support Functions (ESFs), to ensure adequate response and efficient use of state resources. ESF responsibilities and procedures are contained in the SCEOP and its supporting Standard Operating Procedures (SOP). In the event of a radiological incident at CNS, federal agencies will provide support to the State under the provisions of the Nuclear/Radiological Incident Annex (NRIA) to the Response and Recovery Federal Interagency Operational Plans.

B. Specific

1. Alert and Notification
 - a. See Annex 1 (Alert and Notification)
 - b. Alert and Notification procedures are designed to inform and instruct the populace in EPZs, and to notify federal, state and local Radiological Emergency Response (RER) forces.
 - (1) In the event of an incident at CNS, the primary means of alerting agencies and response forces is Duke Emergency Management Network (DEMNet), which is a teleconferencing system that operates using both VoIP (primary) and satellite phone technology (secondary). Only one technology is required to consider the system functional. The backup system for DEMNet is a commercial telephone.

- (2) A fixed siren system is the primary means of alerting the public within the 10-mile EPZ. Route alerting by local response agencies is the backup to the sirens.
- (3) Public protective actions will be communicated to residents via the Integrated Public Alert and Warning System (IPAWS) when deemed appropriate by the Command Group and approved by the SCEMD Director or the Director's designee.
- (4) IPAWS messages will be coordinated through Emergency Support Function-15 (ESF-15) with the State Warning Point utilizing existing plans and procedures for the system. (South Carolina IPAWS Plan, ESF-15 SOP, State Warning Point SOP.

2. State Emergency Operation Center (SEOC)

- a. The SEOC located at SCEMD, 2779 Fish Hatchery Road, West Columbia, SC 29172 may be activated upon notification of an ALERT Emergency Classification Level (ECL). Direction and control of State emergency response forces will emanate from the SEOC.
- b. The South Carolina Department of Public Health (SCDPH) and South Carolina Department of Environmental Services (SCDES), under the auspices of ESF-8 and ESF-10, will be co-located in the SEOC. A SCDES technical representative will be dispatched to the Duke Energy Corporation Emergency Operations Facility (EOF) located in the Duke Energy Building, 9700 David Taylor Dr., Charlotte, NC 28262. A SCDHEC technical representative will also be dispatched to the affected county or counties.
- c. Duke Energy Corporation will provide a technical representative to the SEOC and the York County EOC.
- d. SCEMD will provide Radiological Emergency Preparedness (REP) and/or Regional Emergency Manager (REM) liaison officers to both host and risk county EOCs and the Duke Energy Corporation Emergency Operations Facility (EOF).

3. Local

County/Municipal governments are responsible for local radiological emergency response within their jurisdictions, except for technical radiological assessment. County/Municipal governments will coordinate with the Governor of SC or his/her designee (normally the director if SCEMD) along with state agencies, departments and local emergency response organizations pursuant to this plan. Once the SEOC personnel have validated the request and verified available resources, additional assets may be furnished to aid local agencies.

4. Traffic Management

- a. Upon declaration of a Site Area Emergency (SAE) ECL, ESF-16 (Emergency Traffic Management) led by the South Carolina Highway Patrol (SCHP) will coordinate the occupation of designated Traffic and Access Control Points (TACPs) with the County Sheriff or Chief law enforcement officer within the 10-mile EPZ.

The purpose of TACPs is to provide assistance during an evacuation and prevent access to restricted areas. TACP locations are depicted in Figure 1 as Traffic Control Points.

- b. The SC Department of Natural Resources (SCDNR), in coordination with the York County Office of Emergency Management, York County Sheriff's Office, Tega Cay Police Department, NC Wildlife Resources Commission-Enforcement Division (NCWRC), and Charlotte-Mecklenburg Police Department, will conduct water and air operations to evacuate hunters, fishermen, boaters, and campers from the affected areas of Lake Wylie and the Catawba River.
- c. Duke Energy Corporation security personnel will control entrance into the site proper, EOF and utility Joint Information Center
- d. Only pre-designated forms of identification will be honored at security at access control points as outlined in the SCORERP Basic Plan, Attachment D.
- e. Local authorities are responsible for security and traffic control within their jurisdictions during all phases of a radiological incident. ESF-13 (Law Enforcement) will coordinate requests from local authorities when additional personnel/equipment is required.

5. Radiological Monitoring and Decontamination

- a. See SCORERP Basic Plan, Annex 6 (Radiological Exposure Control)
- b. County teams with specialized training will conduct radiological monitoring and decontamination of evacuees, emergency workers, emergency vehicles and equipment with technical assistance provided by SCDES, as required.
- c. Cherokee, Chester, Lancaster, Union and York counties have designated radiological monitoring and decontamination points. The location of each monitoring and decontamination point is contained in county EOPs.
 - (1) York County will monitor and decontaminate emergency workers.
 - (2) Cherokee, Chester, Lancaster, and Union will monitor and decontaminate evacuees.

- d. York County maintains its own radiological laboratory. York County is responsible for the calibration, maintenance, and distribution of radiological monitoring equipment for York County emergency workers.
 - e. SCEMD is responsible for the calibration and maintenance of radiological monitoring equipment for Cherokee, Chester, Lancaster, and Union Counties.
 - f. The South Carolina Radiological Equipment and Personnel Redistribution Standard Operating Procedures can be activated to provide personnel and equipment support in the event of an incident at CNS.
6. Evacuation
- a. When a State of Emergency has been declared, the Governor may issue orders to evacuate all or portions of the 10-mile EPZ surrounding CNS (See Figure 1). Orders for evacuation of the 2-mile EPZ may precede orders for evacuation of other zones within the 10-mile EPZ.
 - b. Evacuations will be ordered at the General Emergency ECL unless it is deemed unsafe or unfavorable due to a hostile action-based incident or other impediment(s). Evacuation could be ordered at the Site Area Emergency or ALERT ECLs if the potential for further degradation of plant conditions appears imminent.
 - c. During a rapidly progressing incident, CNS officials may recommend evacuation to county authorities who may then, direct and coordinate evacuation of impacted zones.
 - d. The Sheriff (as chief law enforcement officer of the affected county) will, in conjunction with the SCHP and other law enforcement agencies, coordinate evacuation activities in accordance with the affected county EOP.
 - e. Residential Population based on 2020-2022 KLD ETE update and population.

(1) Population Densities and Evacuation

ZONE	Population
A-0	4,225
A-1	16,513
A-2	57,578
A-3	3,908
B-1	17,391
B-2	71,573
C-1	21,605
C-2	76,582
D-1	4,215

D-2	16,449
E-1	6,323
E-2	9,500
F-1	15,247
F-2	11,239
F-3	7,923
Total	340,271

NOTE: Please see the Evacuation Time Estimate (ETE) study for all evacuation information.

- (2) Evacuation Time Estimate for 90% of the total EPZ: 4:50
- (3) Population Distribution Map (See Figure 3).
- f. Emergency Planning 10 Mile Evacuation Zone, Landmark and Boundary Descriptions (see Table 1).
- g. York County has designated evacuation routes for persons living, working, and transiting the 10-mile EPZ. These routes lead to reception centers/shelter areas (See Figure 1).
- h. York County will provide transportation to those evacuees who are transportation. The number of individuals needing transportation will be determined through the special assistance card in the Duke Emergency Preparedness mailer. State assistance may be requested. Special transportation needs are addressed in the York County EOP.
- i. All evacuees that arrive at the shelters or reception centers will be processed as outlined in Annex 2 (Reception Centers and Shelters). Each evacuee, including those who elect not to accept temporary shelter, will be monitored, registered and processed. For control and re-entry purposes, each county will maintain records for contacting evacuees. Temporary housing should be located at least five miles from the EPZ outer boundary (15 miles from the nuclear facility site).
- j. See SCORERP Basic Plan for reentry, return, and relocation information.
- 7. Radiological Exposure Control
See SCORERP Basic Plan, Annex 6 (Radiological Exposure Control)
- 8. Transportation
 - a. The CNS 10-mile EPZ is covered by a road system that provides multiple primary and alternate routes for evacuation and access to the area. There are no known obstacles that would impede rapid evacuation or response.
 - b. York County has plans for acquiring emergency transportation in the event of a radiological incident. The means for evacuating schools, jails,

hospitals, nursing homes, the functional needs and residents without private transportation are identified in the York County EOP.

- c. State transportation resources may be requested to augment county transportation requirements.

9. Medical

- a. See Annex 3 (Medical and Public Health Support)
- b. See SCORERP Basic Plan, Annex 5 (Medical and Public Health Support)

10. Communications

- a. In the event of an emergency at CNS, the site is capable of notifying the National Weather Service, state and local emergency response networks on a 24-hour basis. The CNS Emergency Coordinator or his designee is responsible for notifying the State Warning Point (SWP)/SEOC and York County Warning Point or EOC. Communications between the CNS, National Weather Service, State and local emergency operations centers are maintained through the following means:
 - (1) A DEMNet line connects the CNS Control Room, Technical Support Center (TSC) and EOF with SWP/SEOC and York County WP and EOC. This conference line is used to provide initial and updated information concerning CNS status.
 - (2) Standard commercial and satellite telephone lines are available at CNS for communications with all state and local organizations. The satellite telephone is the primary backup communications tool for CNS.
 - (3) A conference bridge line will be established by SCEMD as the primary means for offsite response organizations' (OROs) protective action discussion and decision making.
 - (4) A DEMNet conference decision line (DL) is located in the Duke Energy EOF, SEOC, York County EOC and North Carolina SEOC and EOCs. This DL is the secondary communication line for decision making on protective actions and/or coordination for siren activation.
- b. County communications officers are responsible for communications within their jurisdictions during a radiological emergency. Their responsibilities include the activation of communications systems, the maintenance and operation of the primary and alternate systems on a 24-hour basis and reporting the system's status during an emergency. The responsible party is the York County Communications Officer, responsible to the Director, York County Office of Emergency Management.

- c. Communications with local governments in the 10-mile EPZ will be tested weekly. Communications with federal emergency response organizations shall be tested quarterly. The Duke Energy EOF will test the DEMNet conference line on a monthly basis and the DL on a quarterly basis. Communications between the nuclear station, State, and local EOCs, and field assessment teams shall be tested annually. Communication drills will also include the aspect of understanding the content of messages.

11. Training

County directors and directors of State agencies are responsible for assuring that Radiological Emergency Response (RER) training is conducted in accordance with the SCORERP Basic Plan, Annex 2 (Training).

12. Drills and Exercises

- a. See SCORERP Basic Plan, Annex 4 (Exercises and Drills)
- b. Exercises are designed to test all elements of emergency preparedness plans pertaining to CNS and the capability of support elements in the 10-mile EPZ cited in such plans. A biennial exercise will be conducted and will involve mobilizing state and local government personnel and resources adequate to verify capability to respond to an incident scenario (simulated emergency) at CNS. The exercise will be evaluated and critiqued by FEMA.
- c. Drills are supervised periods of instruction designed to test, develop and maintain skills of individuals who form a part of radiological emergency response organizations. County directors shall ensure that drills are conducted by qualified instructors in the frequency listed below:
 - (1) Communications Drills: See SCORERP Basic Plan, Annex 4.
 - (2) Fire Drills: Annually, CNS will include Bethel Volunteer Fire Department to participate in at least one fire drill.
 - (3) Medical Service (~~MS~~) Drills (MSD)
 - (a) Annually, CNS is evaluated by the NRC. A simulated, contaminated/injured casualty from CNS will be treated and then transported by local EMS, commonly known as MS-1 Drill.
 - (b) Annually, the State and county EMS are evaluated by FEMA. A simulated, radiologically contaminated/injured casualty from the CNS 10-mile EPZ general population will be treated and transported by the county EMS provider (commonly known as MSD). This requirement will be rotated between South Carolina, which has the primary medical facility (Piedmont Medical Center, York County),

and North Carolina, which has the back-up medical facility (Atrium Healthcare – Main Campus, Mecklenburg County.)

V. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES

- A. State (See SCORERP Basic Plan, paragraph VIII)
- B. Local (See York County EOP)
- C. Organizational Relationships (See Figure 4)

VI. ADMINISTRATION AND LOGISTICS

- A. See the South Carolina Emergency Operations Plan (SCEOP), Annex ~~X~~^{Section VIII}, “(Administration, Logistics, and Finance”.
- B. Counties provide their own administrative and logistics support. Requests for augmentation may be submitted in accordance with the SCEOP.

VII. DIRECTION AND CONTROL

- A. SEOC

The SEOC is located at 2779 Fish Hatchery Road, West Columbia, SC 29172.

- B. County Emergency Operations Center

York County: 149 West Black Street, Rock Hill, SC 29731.

- C. York County Joint Information Center

York County JIC: (Primary) South Carolina Emergency Management Division 2779 Fish Hatchery Rd, West Columbia, SC 29172

- D. Catawba Nuclear Station

- 1. The EOF is located in the Duke Energy Customer Contact Center, 9700 David Taylor Drive Charlotte, NC 28262
- 2. The utility JIC is located at, 525 S. Tyron Street, Charlotte, NC.

TABLE 1- CNS 10-MILE EPZ MAP ZONE DESCRIPTIONS

ZONES	LANDMARK DESCRIPTIONS	BOUNDARY DESCRIPTIONS
A-0	Allison Creek Estate, Allison Creek Rd, Concord Rd, Concord Shores, Forestwinds, Handsmill on Lake Wylie, Hudson Rd, Liberty Hill Point, Mallard Pointe, Palm Tree Cove, Tioga Pointe, Torrence Branch, West Liberty Hill Rd., Windswept Cove	In York County, the 2-mile EPZ is bordered on the North by both sides of SR 1099 (Lake Wylie Rd); on the East by Lake Wylie; on the South by the southern-most inlet of Lake Wylie; and on the West by SC 274.
B-1	Dam Rd, Gold Hill Rd (west of Hwy. 160), Tega Cay.	In York County, Zone B-1 is bordered on the North by the North Carolina/South Carolina State Line; on the East by SC 160, SR 99 (Dam Rd), and SR 741 (Gardenview Rd); on the South by Catawba River; and on the West by Lake Wylie.
B-2	Anne Springs Close Greenway, Avery Lakes, Bailes Farm, Bailiwyck, Baxter, Carowinds, Doby Bridge Rd, Forest Lake, Fort Mill, Fox Hill, Gold Hill Rd (east of Hwy. 160), Gray Rock, Greenway Industrial Park, Hamilton Place, Heritage U.S.A, Huntington Place, Knights Bridge, Knights Castle, Lakemont Industrial Park, Peachtree Place, Regent Park, Riverview, Springfield, Steele Meadows, Sutton Rd, Tara Plantation, Waterstone, White Grove, White Mills Plantation, Willow Brook.	In York County, Zone B-2 is bordered on the North by North Carolina/South Carolina State Line; on the East by Lancaster County Line, SR 253 (Williams Rd), SR 36 (Doby Bridge Rd) and SR 158 (White's Rd); on the South by Catawba River; and on the West by SC 160, SR 99 (Dam Rd), and SR 741 (Gardenview Rd).
C-1	Boatshore, Bristol Park, Brookwood, Bryant Field Industrial Park, Camelot Woods, Cedar Forest Acres, Cedarwood, Churchill Heights, City of Rock Hill (north of Celanese Rd), Creekside, Crystal Lakes, Devonshire, Forest Hills, Gallant Meadows, Glenwood Acres, Harlinsdale, Hickory Hill, Kimberly Woods, Lakewood, Laurel Creek, Monterey Hills, Museum Rd, Paces Landing, Park Creek, River Pines, Silver Lakes, Trexler Acres, Twin Lakes, Willow Acres, Windwood.	In York County, Zone C-1 is bordered on the North by the southernmost portion of lake Wylie; on the East by the Catawba River and I-77; on the South by SC 161; and on the West by SC 274.
C-2	Arcade Mill, Belair Acres, Brittany Place, Cato Estates, City of Rock Hill (south of Celanese Rd), College Downs, Country Club Estates, Country Oaks, Coventry Estates, Eastview Rd, Fairlawn, Falls Rd, Hallmark Estates, Heathridge, Heckle Blvd, Hickory Oaks, Highland Creek, Hutchinson Place, Iredell Way, Lakeview Acres, Meadow Lakes, Miller	In York County, Zone C-2 is bordered on the North by SC 161; on the East by the Catawba River; on the West by SR 81 (Adnah Church Rd), SR 102 (Eastview Rd), and SR 157 (Holland Rd); on the South from SR 157 (Holland Rd) Southeast along Fishing Creek to Ogden Rd, travel Northeast on Ogden Rd, Southeast on Robertson Rd to Hwy. 121, South on Oakdale Rd to Taylors Creek, North along Taylors Creek to Hwy. 901, North on Hwy.

	Pond, Oak Park Rd, Oakhurst, Oakwood Acres, Olewoods, Quiet Acres, Ragin Estates, Ravencroft, Rawlinson Woods, Red Oaks, Riverwalk, Rock Hill Industrial Park, Royal Oaks, Sharonwood, Shorewood, Steeple Chase, Squire Estates, Sturgis Estates, Sunset Park, Swan Meadows, Westerwood, Wintercrest, Winthrop University, Woodbridge, Woodfield, Woodvale, York Technical College.	901 to Southland Park, East perimeter of Southland Park, parallel Hwy. 121, 72 pass old trash dump, Hwy. 21 to Springdale Rd, Northwest on Springdale Rd to Catawba River.
D-1	Adnah Church Rd, Campbell Rd, Farmstead Rd area, Ivywood, Mallard Creek, Providence Heights, Rollingwood Circle, Shiloh Rd, Tirzah Rd, Wedgefield Dr, Windsong, Windy Run	In York County, Zone D-1 is bordered on the North by SR 80 (Campbell Rd); on the East SC 274 and SR 81 (Adnah Church) on the South by SC 5; and on the West by SR 156 (Beth Shiloh Rd) and SR 181 (Atkins Rd).
D-2	Branch Rd, Countryside Estates, Derby Downs, Fairhope Rd, Gordon Rd, Hwy. 5 York By-pass, Limestone Rd, Lincoln Forrest, Pioneer Rd, Turkey Farm Rd, Shiloh Farms, York.	In York County, Zone D-2 is bordered on the North by SR 172 (Old Limestone Rd) and SC 49; on the East by SR 181 (Atkins Rd), SR 102 (Eastview Rd), and SR 157 (Holland Rd); on the South from Hwy. 324, Southeast along Fishing Creek to Hwy. 324; and on the West by SR 711 (Kelly Rd), SR 75 (Sutton Spring Rd), SR 104 (Spring Lake Rd) and US 321.
E-1	Bethel Forest Subdivision, Bethelfields, Campbells Crossing, Charter Oaks, Clearcreek, Crosswinds, East Liberty Hill Rd, Ferguson Acres, Kingsbury Rd (south of Hwy. 55), Mountain View Rd, Newport Acres, The Hylands, Tidewood Lane, Twin Streams, Vander Lakes.	In York County, Zone E-1 is bordered on the North by SC 55; on the East by SC 274; on the South by SR 80 (Campbell Rd) and SC 49; and on the West by SR 181 (Sherrer Rd), SR 819 (Nichols Rd) and SR 54 (Paraham Rd).
E-2	Brightwood Dr, Brown Rd, Calabash Rd, Clearcreek Rd, Clover, Cloverbrook, Jim McCarter Rd, McCarter's Acres, Meadow Rd, Nichols Estate, Ormand Rd, Ramble Rd, St. Paul Church Rd, The Farms, Wood Rd, Woodland.	In York County, Zone E-2 is bordered on the North by SC 55; on the East by SR 54 (Paraham Rd), SR 819 (Nichols Rd) and SR 181 (Sherrer Rd); on the South by SC 49, SR 818 (Woods Rd), and SR 172 (Old Limestone Rd); and on the West by US 321 to include the entire incorporated city limits of Clover.
F-1	Autumn Cove, Barclay Acres, Bethel School Rd, Camp Thunderbird, Chandler Woods, Forest Oaks, Johnson Rd, Lake Wylie Rd, Lake Wylie Woods, Marina Way Rd, Morningside Rd, Paddlers Cove, River Hills.	In York County, Zone F-1 is bordered on the North by SC 557, SC 49, SC 274 and the east-west inlet of Lake Wylie, just North of SC 49; on the East by Lake Wylie; on the South by SR 1099 (Lake Wylie Rd) and SC 55; and on the West by SR 54 (Paraham Rd).
F-2	Amity Estates, Bowling Green, Brandon Rd, Cameron Acres, Clover Meadows, Fewell Rd, Green Pond Rd, Kendrick Rd, Lake Wyle Mobile Home Park, Lakedale, Love Rd, Longlea Estates, Meadow Wind, Oakridge Rd, Pole Branch Rd, Ridge Rd, Ridgewood, River Oaks Rd, Singing Pine Drive, Southwoods, State Line Rd, The Landing.	In York County, Zone F-2 is bordered on the North by the North Carolina/South Carolina Line; on the East by Lake Wylie; on the South by a Lake Wylie inlet, SC 274, SC 557, SR 54 (Paraham Rd) and SC 55; and on the West by US 321 to exclude the city limits of Clover.

STATE TRAFFIC CONTROL POINTS	
ST-01	SC-49, SC 55, and SC 274
ST 02	SC-49 and Liberty Hill Road (paved)
ST 03	SC-274 and S-80
ST 04	SC-274 and S-1081
ST 05	Daimler Blvd and Charlotte Hwy

CATAWBA NUCLEAR STATION PRIMARY EVACUATION ROUTES

- A-0 North on SC 274 to SC 49, east to NC 160. North to Billy Graham Pkwy. North to I-85. North to NC 49 North on NC 49 to UNC Charlotte shelter.
North on NC 49 to I-77. North to I-85. North to NC 49. North on NC 49 to UNC Charlotte shelter.
North on NC 49 to Arrowhead Rd. East to I-77 North. North to NC 49. North on NC 49 to UNC Charlotte shelter.
- B-1 Gold Hill Road to I-77 north. North to I-85. North to NC 49. North on NC 49 to UNC Charlotte shelter.
- B-2 East on SC 160 to Hwy. 521 (south) to Marvin Rd., Marvin Rd become New Town Rd. as it crosses the state line into NC, continue on New Town Rd., turn right onto Crane Rd., turn left at Marvin Ridge High School/Middle School.
- C-1 Mt. Gallant Rd to Celanese Rd (SC 161). South on I-77 to US 21. Exit south on US 21 to SC 5. East to US 521. South on Main Street. West on Woodland Drive to Lancaster High School shelter.
- C-2 South on I-77 to SC 9. East to Lewisville High School or Lewisville Middle School shelter.
South on SC 72 to Saluda Rd (SC 121), south to Chester Senior High School shelter.
South on I-77 to East SC 97 to SC 99. South on SC 99 to SC 138, right (west) on SC 138 to Great Falls School Complex shelter.
- D-1 SC 49 west to SC 9. North on SC 9 to Armory Rd. to First Baptist Church Family Life Center, Lockhart, SC.
SC 49 west to Union, SC and to Union High Complex.
- D-2 SC 49 west to SC 9. North on SC 9 to Armory Rd. to First Baptist Church Family Life Center, Lockhart, SC.
SC 49 west to Union, SC and to Union High Complex.
- E-1 SC 55 west to SC 5. North to US 29 West to Rutherford St. in Blacksburg. Left on Rutherford St. to Blacksburg High School shelter. (Additional shelters will be opened as needed)
- E-2 SC 55 west to SC 161. North to NC 161. North to Business NC 74. West to Phifer Rd. South to Kings Mountain Middle School and Kings Mountain High School shelters.
- F-1 SC 49 to NC 160. North to Billy Graham Pkwy. North to I-85. North to NC 49. North to UNC Charlotte shelter.
- F-2 NC Hwy 74 (Wilkinson Blvd.) East or West toward Cramerton area. South onto Lakewood Rd. Go a quarter mile and the entrance to school is on the left.

FIGURE 1 - CATAWBA NUCLEAR STATION 10-MILE EPZ MAP

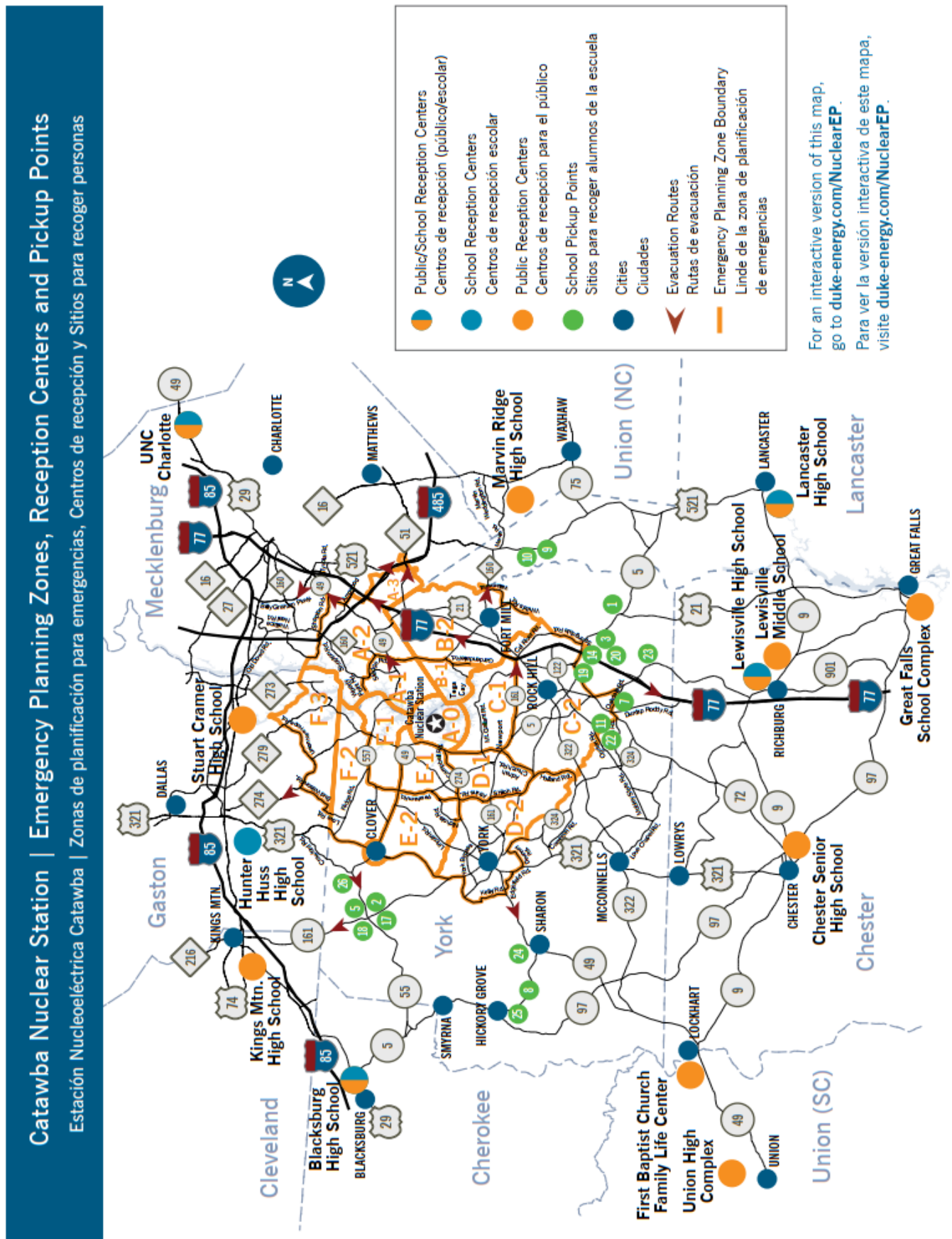


FIGURE 2-CNS 50-MILE INGESTION EXPOSURE PATHWAY EMERGENCY PLANNING ZONE

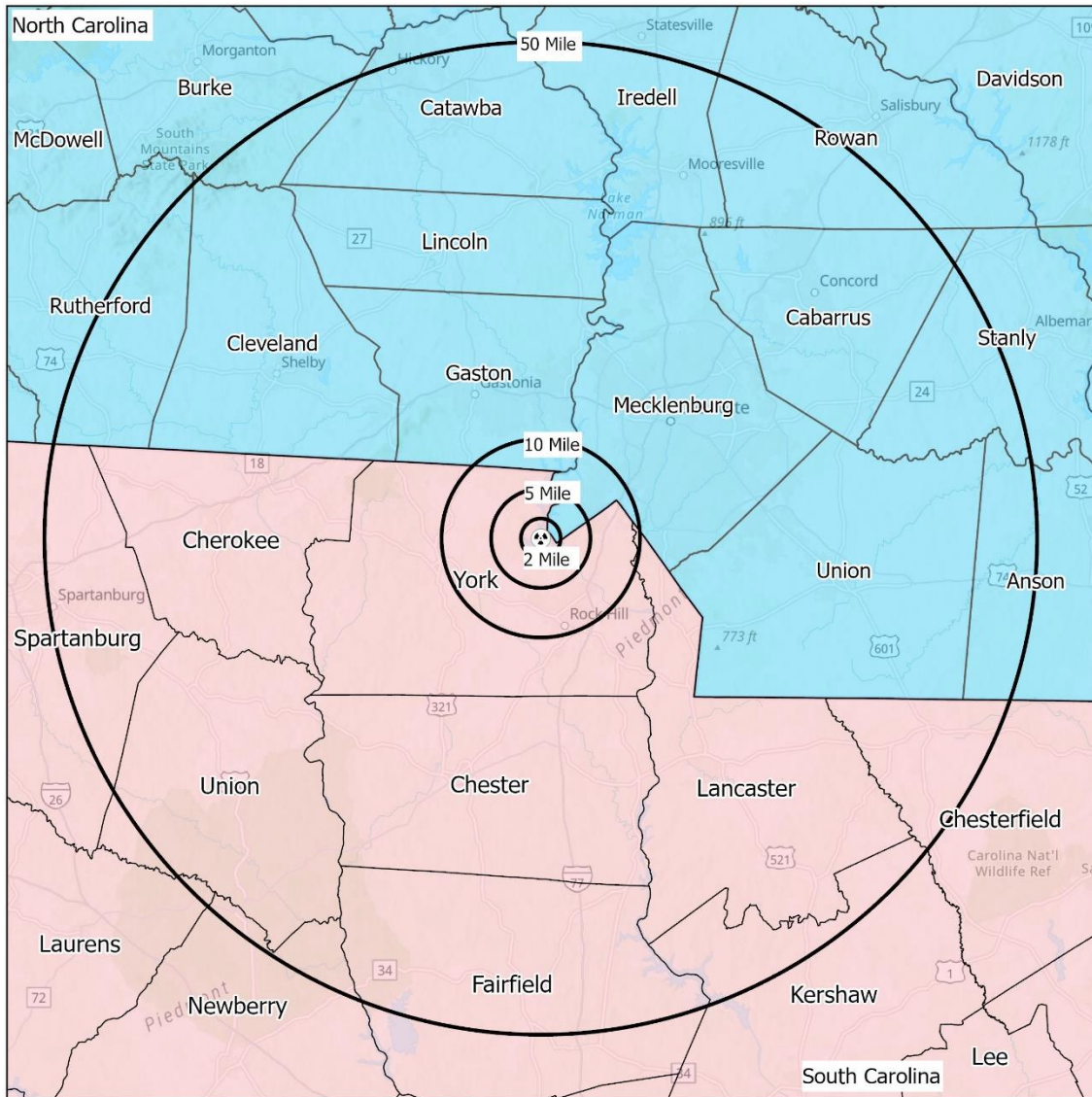


FIGURE 3-CNS 10-MILE EPZ POPULATION DISTRIBUTION MAP

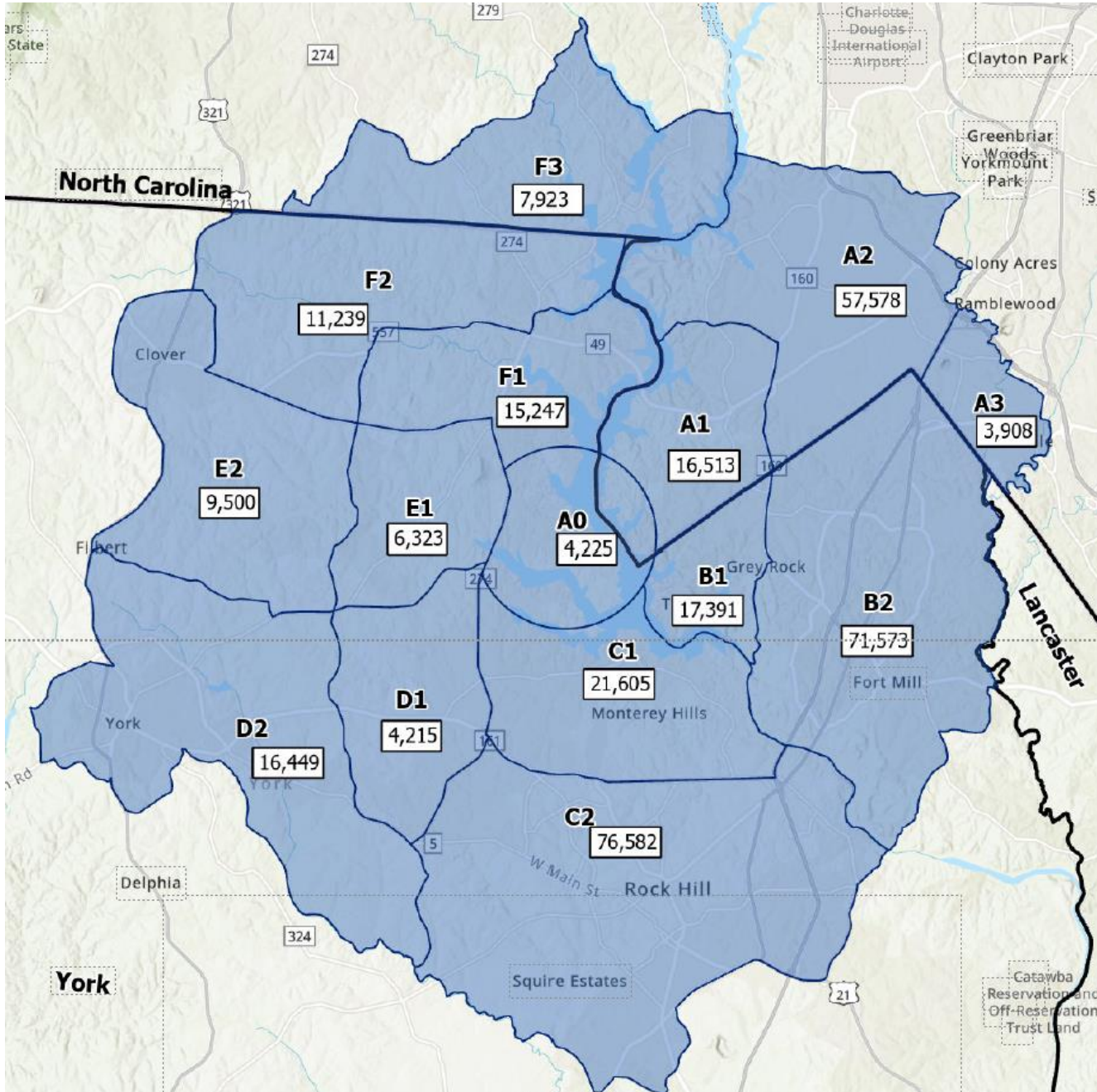
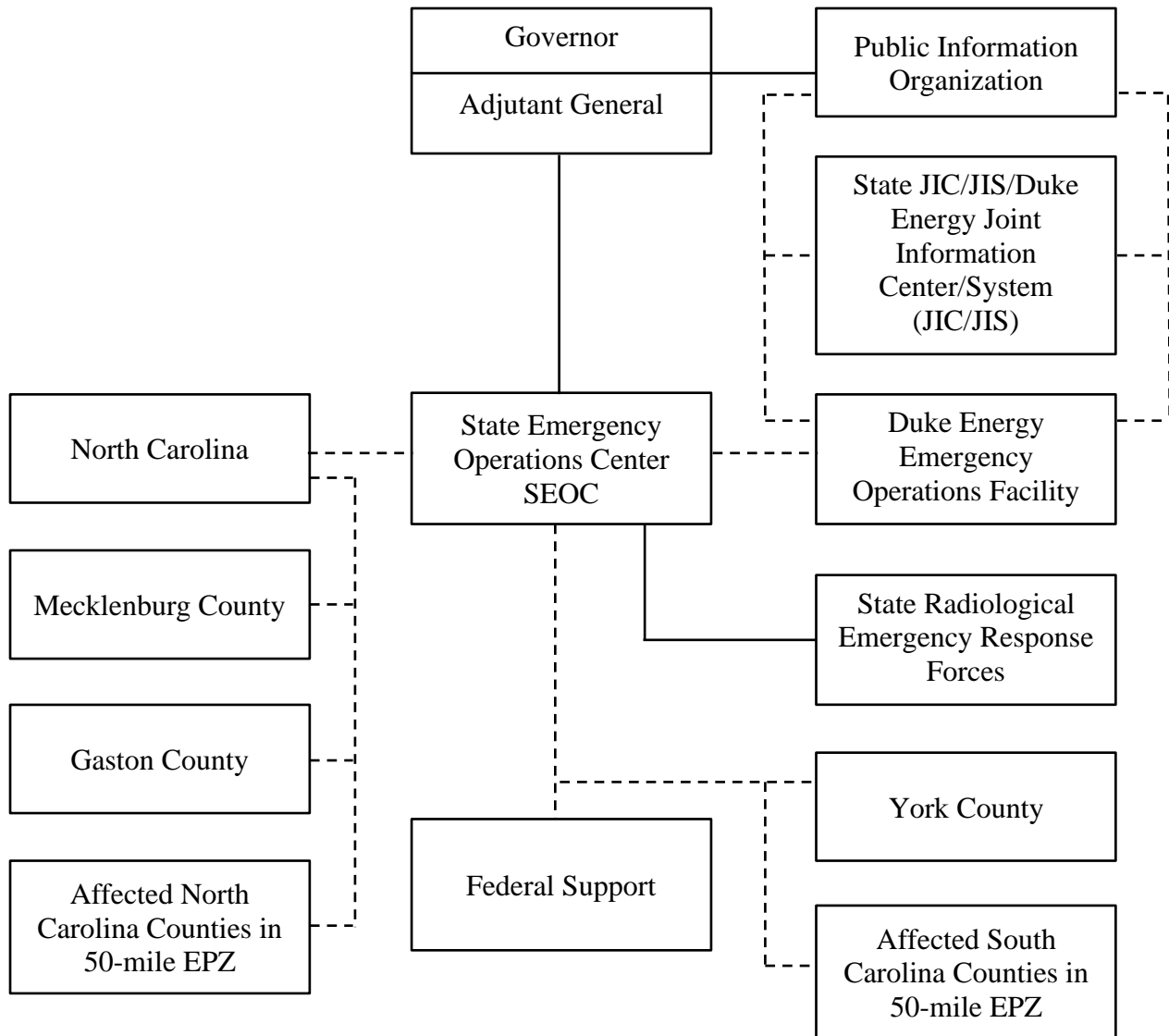


FIGURE 4—ORGANIZATIONAL RELATIONSHIPS



Affected Counties in 50 – mile EPZ:

North Carolina		South Carolina	
Anson	Iredell	Cherokee	Lancaster
Burke	Lincoln	Chester	Laurens
Cabarrus	Mecklenburg	Chesterfield	Newberry
Cleveland	Rowan	Fairfield	Spartanburg
Gaston	Rutherford	Kershaw	Union
Union	Stanly	York	
Catawba			

———— Direction
 ----- Coordination

FIGURE 5 – EMERGENCY NOTIFICATION FORM

NUCLEAR POWER PLANT EMERGENCY NOTIFICATION FORM

MESSAGE # _____ Confirmation Phone #: _____ AUTHENTICATION CODE #: _____

Lines 1 – 6 are required for INITIAL Notifications

1. EVENT: <input type="checkbox"/> DRILL <input type="checkbox"/> ACTUAL DECLARATION <input type="checkbox"/> TERMINATION (ONLY Lines 1, 2, & 4 required)			
2. AFFECTED SITE:			
<input type="checkbox"/> BRUNSWICK <input type="checkbox"/> CATAWBA <input type="checkbox"/> HARRIS <input type="checkbox"/> MCGUIRE <input type="checkbox"/> OCONEE <input type="checkbox"/> ROBINSON			
3. EMERGENCY CLASSIFICATION			
<input type="checkbox"/> UNUSUAL EVENT <input type="checkbox"/> ALERT <input type="checkbox"/> SITE AREA EMERGENCY <input type="checkbox"/> GENERAL EMERGENCY			
4. EAL # _____		Declaration Date: ____/____/____ Time: _____	
		Termination Date: ____/____/____ Time: _____ (mark "N/A" for EAL # & Description)	
EAL DESCRIPTION: _____			

5. RELEASE TO THE ENVIRONMENT (caused by the emergency): <input type="checkbox"/> NONE <input type="checkbox"/> IS OCCURRING <input type="checkbox"/> HAS OCCURRED			
6. PROTECTIVE ACTION RECOMMENDATIONS:			
<input type="checkbox"/> NONE			
<input type="checkbox"/> EVACUATE: _____			
<input type="checkbox"/> SHELTER: _____			
<input type="checkbox"/> CONSIDER THE USE OF KI (POTASSIUM IODIDE) IN ACCORDANCE WITH ORO PLANS AND POLICIES			
<input type="checkbox"/> OTHER: _____			

Lines 7-11 are NOT required for INITIAL notifications. Lines 7-11 may be provided separately for follow-up notifications.

7. PROGNOSIS: Upgrade in classification or PAR change is likely before the next follow-up notification ☐ Yes ☐ No

8. SITE UNIT(S) STATUS:

AFFECTED UNIT

☐ YES Unit 1 - _____ % Power Shutdown: Date ____/____/____ Time _____

☐ YES Unit 2 - _____ % Power Shutdown: Date ____/____/____ Time _____

☐ YES Unit 3 - _____ % Power Shutdown: Date ____/____/____ Time _____

9. METEOROLOGICAL DATA:

Wind direction from: _____ degrees Wind Speed: _____ mph Precipitation: _____ inches

Stability Class: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Lines 10 - 11 are completed for follow-up notifications, IF Line 5 IS OCCURRING or HAS OCCURRED is selected

10. AIRBORNE RELEASE CHARACTERIZATION: ☐ GROUND ☐ MIXED ☐ ELEVATED

MAGNITUDE UNITS: ☐ Ci ☐ Ci/sec ☐ μ Ci/sec

Noble Gases: _____ Iodines: _____ Particulates: _____

11. DOSE PROJECTION: Projection period: _____ Hours Estimated Release Duration _____ Hours

Performed: _____ Date ____/____/____ Time: _____	DISTANCE	TEDE (mrem)	Thyroid CDE (mrem)
	Site Boundary		
	2 Miles		
	5 Miles		
	10 Miles		

12. REMARKS (As Applicable): _____

13. APPROVED BY: _____ TITLE: _____ Date ____/____/____ Time _____

14. NOTIFIED BY: _____ Date ____/____/____ Time _____

15. RECEIVED BY (ORO use only): _____ Date ____/____/____ Time _____

EM-78 / Nuclear Power Facility Emergency Notification Form / March 2016 revision