After Action Report

H.B. Robinson Nuclear Plant

Radiological Emergency Preparedness Exercise

Exercise Date: May 16, 2023

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Executive Summary

On May 16, 2023, the offsite response organizations of the H.B. Robinson Nuclear Plant 10-mile emergency planning zone participated in a partial plume exposure pathway exercise. Federal Emergency Management Agency Region IV Radiological Emergency Preparedness Program staff evaluated the exercise and out-of-sequence activities conducted on April 12 and 19-20, 2023. This report outlines the evaluation results of the exercise and out-of-sequence activities.

The exercise aimed to assess the level of state and local preparedness in responding to an incident at the H.B. Robinson Nuclear Plant. It was conducted in accordance with Federal Emergency Management Agency policies and guidance concerning the exercise of state and local radiological emergency response plans and procedures. The federal approval of the formal submission of the radiological emergency response procedures for the H.B. Robinson Nuclear Plant by the state of South Carolina was granted on July 31, 1970. The qualifying emergency preparedness exercise was conducted on March 11 and 12, 1981. The previous biennial exercise was conducted on May 18, 2021.

Officials and representatives from participating agencies and organizations demonstrated knowledge of their emergency response plans and procedures and successfully implemented them during the exercise and out-of-sequence activities. All jurisdictions met their exercise objectives and successfully demonstrated the corresponding core capabilities identified in Section 2.2 of this report. There were no level 1 or level 2 findings, however, a planning issue was identified. This planning issue concerns the South Carolina Emergency Management Division's sounding of the sirens without a follow up activation of the Integrated Public Alert and Warning System.

It was apparent that a great deal of training and practice was conducted by the offsite response organizations to successfully demonstrate the ability to protect the health and safety of the public. All participating agencies provided the necessary support and resources to respond to an incident at the H.B. Robinson Nuclear Plant. FEMA wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success.

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Section 1: Exercise Overview

Exercise Name	2023 H.B. Robinson Nuclear Plant Radiological Emergency Preparedness Exercise	
Type of Exercise	Partial Participation Radiological Emergency Preparedness Exercise	
Exercise Date	May 16, 2023	
Out of Sequence Date	April 12, 2023, Practice Exercise April 18 – 20, 2023 Schools, Traffic Control Point, Waterway Clearance	
Program	Radiological Emergency Preparedness Program	
Mission Area	Response	
Scenario Type	Partial Plume Phase Radiological Emergency / No Release	
Participating Organizations	See Appendix C for the list of participating organizations	
Locations	See Appendix D for the extent of play agreement and exercise locations	
Points of Contact	Robert Spence South Section Chief FEMA Region4 3005 Chamblee-Tucker Road Atlanta, Georgia 30341	Robert B. Nash Robinson Site Specialist FEMA Region 4 3005 Chamblee-Tucker Road Atlanta, Georgia 30341
	Danilyn Bock Radiological Emergency Preparedness Manager South Carolina Emergency Management Division 2779 Fish Hatchery Road West Columbia, South Carolina 29172	Dana McGill Radiological Emergency Preparedness Coordinator South Carolina Emergency Management Division 2779 Fish Hatchery Road West Columbia, South Carolina 29172

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Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

FEMA administers the Radiological Emergency Preparedness Program pursuant to the regulations found in Title 44 of the Code of Federal Regulations (44 CFR) Parts 350, 351, 352, 353 and 354. 44 CFR Pt. 350 codifies 16 planning standards that form the basis for radiological emergency response planning for the licensee, state, local, tribal, and territorial governments impacted by the emergency planning zones established for each nuclear power plant site in the United States. United States Nuclear Regulatory Commission regulations also codify the 16 planning standards for the licensee. 44 CFR Pt. 350 sets forth the mechanisms for the formal review and approval of state, local, tribal, and territorial government radiological emergency response plans and procedures by FEMA. One of the Radiological Emergency Preparedness Program cornerstones established by these regulations is the biennial exercise of offsite response capabilities. During these exercises, affected state, local, tribal, and territorial governments demonstrate their abilities to implement their plans and procedures to protect the health and safety of the public in the event of a radiological incident at a nuclear plant.

The results of this exercise, together with reviews of the radiological emergency response plans and verification of the periodic requirements set forth in NUREG-0654/FEMA-REP-1, Rev.2, the annual letter of certification, and staff assistance visits, enabled FEMA to provide a statement with the transmission of the final after-action report to the United States Nuclear Regulatory Commission. This statement verifies that the affected state, local, tribal, and territorial plans, and preparedness are: (1) adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological incident; and (2) capable of being implemented.

The federal approval of the formal submission of the radiological emergency response procedures for the H.B. Robinson Nuclear Plant by the state of South Carolina was granted on July 31, 1970, and the qualifying emergency preparedness exercise was conducted on March 11 and 12 1981.

2.2 Exercise Core Capabilities and Objectives

Core capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. Using the Homeland Security Exercise and Evaluation Program methodology, the exercise objectives meet Radiological Emergency Preparedness Program requirements and objectives. The capability targets to be demonstrated were negotiated with the state of South Carolina and risk counties. The core capabilities scheduled for demonstration during this exercise were:

- **Operational Coordination:** Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
- **Situational Assessment:** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.
- **Public Information and Warning:** Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and

culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

- **Environmental Response/Health and Safety:** Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities.
- **On Scene Security, Protection and Law Enforcement:** The capability to ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within the affected areas and also for response personnel performing lifesaving and life-sustaining operations.
- **Critical Transportation**: The capability to provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

These core capabilities, when successfully demonstrated, meet the exercise objectives. The objectives for this exercise were as follows:

- **Objective 1: Emergency Operations Management** – Demonstrate the ability to alert, notify, and mobilize response personnel and facilities; provide direction and control; make precautionary and protective action decisions; and implement those decisions.
- **Objective 2: Exposure Control** – Demonstrate the ability to manage radiological exposure and dose to emergency workers.
- **Objective 3: Alert and Notification** – Demonstrate the ability to activate the prompt alert and notification system and provide accurate emergency information and instructions to the public and news media in a timely manner. Provide and maintain reliable communication with emergency personnel.
- **Objective 4: Detect, Measure, Sample, Analyze, and Assess** – Demonstrate the ability to perform plume-phase analysis and dose assessment, measurements and sampling, field monitoring teams' management, plume-phase analysis and dose assessment, and laboratory operations.
- **Objective 5: Operate** – Demonstrate the ability to establish appropriate traffic and access controls.

2.3 Exercise Scenario

The following is a summary of the scenario developed by Duke Energy to drive exercise play.

After an earthquake and validated seismic alarms, H.B. Robinson Nuclear Plant declares an Unusual Event emergency classification level. Operations personnel attempt to take the unit offline with a rapid down power. A larger earthquake occurs, causing a loss of offsite power and damage to several plant components. An automatic reactor trip signal is initiated and does not trip the reactor. An alert emergency classification level is declared due to anticipated transient without scram.

After an auxiliary feedwater pump failure, the steam generator levels fall below critical safety functions. The H.B. Robinson Nuclear Plant declares a Site Area Emergency classification level for a potential loss of the both the reactor coolant system barrier and the fuel cladding barrier. The plant uses “Flex” equipment to refill the steam generators. There is no General Emergency classification level or radiological release in this scenario.

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Section 3: Analysis of Capabilities

3.1 Exercise Evaluation and Results

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the May 16, 2023, plume exposure pathway exercise and out of sequence activities on April 12, 2023, and April 18 - 20, 2023.

Each jurisdiction and functional entity were evaluated based on the demonstration of core capabilities, Radiological Emergency Preparedness Program objectives, and capability targets as delineated in the FEMA Radiological Emergency Preparedness Program Manual dated December 2019. Capability targets are listed by number and the demonstration status of those capability targets are indicated by the use of the following terms:

- **Met (M):** The jurisdiction or functional entity performed all activities under the objective/capability target to the level required per the work plan and/or the extent-of-play agreement, with no Level 1 or Level 2 Findings evaluated under that objective/capability target during the current activity and no unresolved prior Level 2 Finding(s).
- **Level 1 Finding (L1):** An observed or identified inadequacy of organizational performance during an assessment activity that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant.
- **Level 2 Finding (L2):** An observed or identified inadequacy of organizational performance during an assessment activity that is not considered, by itself, to adversely impact public health and safety.
- **Plan Issue (P):** An observed or identified inadequacy in the ORO's emergency plan/implementing procedures, rather than in that of the ORO's performance.
- **Not Demonstrated (N):** For a justifiable reason, the jurisdiction or functional entity did not perform assessment activities under the objective/capability target as specified in the extent-of-play agreement.

3.2 Summary Results of Exercise Evaluation

The Homeland Security Exercise and Evaluation Program methodology is an analytical process used to assess the demonstration of specific capabilities during an exercise. A capability provides a means to perform one or more capability targets under specified conditions and to specific performance standards. Core capabilities form the foundation of the FEMA Region 4 Radiological Emergency Preparedness Program evaluations. Each jurisdiction's standalone capability summaries are provided below.

- **Operational Coordination:** The state technical officer and county emergency management directors established and maintained a unified and coordinated operational structure. The overall decision-making process integrated critical stakeholders and enabled protective action decisions to be made without undue delay. They achieved success quickly by coordinating decisions with the concurrence from all involving timely school relocations; functional needs persons, institutionalized persons, waterway clearance; agricultural precautions; hunting and fishing advisory; and establishment of reception center and emergency worker decontamination stations.

- **Situational Assessment:** State dose assessment personnel provided decision makers relevant information regarding radiological and plant conditions. Although, there were no protective action decisions made and no radiological release in this exercise, the Department of Health and Environmental Control prepared timely precautionary actions for the State of South Carolina and demonstrated the dose assessment and potassium iodide authorization processes through interview.
- **Public Information and Warning:** Alert and notification of the public occurred via the outdoor warning system (simulated), Emergency Alert System messages (simulated), news releases, and press conferences. The state of South Carolina and Chesterfield, Darlington, and Lee Counties' public information officers and spokespersons developed and distributed timely and coordinated emergency information to the public and media.

  During the exercise the leadership decided to sound the sirens and second time without putting out an EAS message. According to their plans and procedures they are supposed to put out an EAS message out. This is now a planning issue where the plan must be change. To meet the requirement of ANS license for Robinson.

  Environmental Response/Health and Safety: Darlington County emergency worker decontamination was conducted during an out of sequence event for courtesy evaluation. Lee and Florence County reception center and congregate care events were conducted during additional out of sequence phases. Chesterfield County reception center, congregate care, and emergency worker decontamination will be conducted out of sequence at a later date. These are also considered training opportunities to train new emergency workers against their plans and procedures.
- **On Scene Security, Protection and Law Enforcement**: Representatives from the South Carolina Department of Public Safety and the Darlington County Sheriff's Office and Lee County Sheriff's office discussed their abilities to activate and maintain traffic and access control points to support an evacuation from the 10-mile emergency planning zone. The pre-designated points would be manned by trained officers who were familiar with exposure control equipment and record keeping.
- **Critical Transportation**: All participants were knowledgeable and well trained on plans and procedures as well as primary and alternate communication systems. Each participant was educated on the four protective actions: Cancellation of the School Day, Early Dismissal, Shelter in Place and Evacuation to Pick-up Point. Each interviewee clearly elaborated school duties and responsibilities conducted in conjunction with the previously mentioned protective action recommendations. Each interview was conducted in accordance with the Extent of Play Agreement. Darlington and Chesterfield during out of sequence week

3.3 Jurisdictional Summary Results of Exercise Evaluation

3.3.1 State Jurisdiction

3.3.1.1 State of South Carolina

Operational Coordination Capability Summary:

The South Carolina Emergency Operations Center personnel established and maintained a unified and coordinated operational structure and process that appropriately integrated all critical stakeholders. The state emergency response team established and maintained communications, coordination with the risk counties, and made precautionary recommendations and decisions necessary to protect public health and safety.

The state warning point used a reverse calling system to notify personnel to report to the state operations center. The state emergency operation center was manned and operational in a timely manner. The warning point's multiple communications capabilities included an 800-megahertz radio system; a dedicated telephone line between the plant and participating entities; land line, cellular, and satellite telephones; and a web-based emergency management system. All communications systems remained operational without interruption during the exercise. There was sufficient space and equipment to support emergency response efforts in the state emergency operations center. Each emergency support function had its own office area for conducting individual operations within the state emergency operations center. Maps and status boards were visible and available to the staff for reference and situational awareness.

Command staff at the South Carolina Emergency Operations Center along with County Directors provided direction and control of the overall response effort. They carried out the essential management functions of the response effort, shared information, and facilitated a coordinated response. The technical officer coordinated recommendations from the utility and state agencies and then used a conference call with risk counties, the utility, and appropriate agencies to synchronize response efforts and ensure situational awareness. The operations officer and technical officer conducted staff briefings at least hourly in the state emergency operations center and on the conference calls. Plant status was provided as well as activities of state and local agencies. Unmet needs were also discussed.

The state emergency response team selected and implemented pre-planned precautionary protective actions. The technical officer used the coordination conference call with risk counties and appropriate state agencies to reach concurrence. Precautionary actions recommended and implemented by state agencies included instructing the public to stay tuned to television and radio; a hunting and fishing advisory; clearing waterways; and instructing farmers to activate agricultural plans.

Protective actions for emergency workers included ensuring the availability of exposure control equipment. During the Site Area Emergency classification, emergency workers were issued potassium iodide in case it was needed. Additionally, the dosimetry redistribution plan was implemented to augment current dosimetry and survey equipment availability in the field.

The simulated accident did not progress to a General Emergency and there was no release of radioactivity. Although no protective action decisions were required based on the scenario, it was stated that they would have been coordinated and concurred in the same manner as the precautionary actions, if required

For this capability the following radiological emergency preparedness capability targets were met: 1.1., 1.2, 1.4, and 3.1.

3.3.1.2 Waterway Clearance

Public Information and Warning Capability Summary:

Plans for the activation and management of waterway clearance in Darlington County were validated by interview with representatives from Darlington County Emergency Management and the South Carolina Department of Natural Resources. All participating staff were trained, knowledgeable in their role, and knew where to reference information on radiological exposure limits, protective countermeasures, and record keeping. Representatives explained the role of officers to locate the public on the waterway and provide pre-scripted instructions. Those pre-scripted instructions come specifically from the South Carolina Department of Natural Resources plan. The instructions direct the public to clear the waterways and stay tuned to local media. Darlington County Emergency Management supports and concurs with these instructions.

The representatives simulated mobilizing officers to conduct waterway clearance at three locations on Lake Robinson at Easterling's Landing, Johnson's Landing, and Sonovista Landing on Prestwood Lake and deployment of four officers with two boats in approximately thirty minutes. A reserve boat and crew would be prepared to support continuous operational periods. Rostering, and mobilization activities typically occur at an alert emergency classification level with deployment at Site Area Emergency.

Resources are mobilized through the state warning point and Darlington County simultaneously. The representatives report to the county emergency operations center to retrieve kits and take to the state department of motor vehicle office where other officers would meet for equipment distribution and just-in-time training. Darlington County distributes kits that contain labels, an emergency preparedness booklet, maps, exposure limit job aids, instructions for potassium iodide, an exposure record, and simulated permanent record dosimeters. Darlington County can get more dosimeters from the state dosimetry re-distribution plan.

For this capability the following capability targets were MET: 3.2.

3.3.1.3 Dose Assessment

Operational Coordination Capability Summary:

South Carolina Department of Health and Environmental Control personnel demonstrated the ability to assess plant conditions and provide recommendations for preplanned precautionary actions to decision makers in response to a radiological incident at the H.B. Robinson Nuclear Plant. When notified of an incident, dose assessment personnel responded to the state emergency operations center in Columbia, South Carolina. The dose assessment group was led by the emergency response coordinator. The emergency response coordinator had the overall responsibility for dose assessment and protective action recommendations. The emergency response coordinator was assisted by a technical team.

The dose analyst monitored plant parameters and meteorological data with assistance from the emergency operations facility state liaison. The utility liaison and the state liaison provided real time plant status information and followed trends for numerous plant monitors. There were no utility protective action recommendations or radiological releases in this exercise. The dose analyst did not perform any hypothetical dose projections but entered the meteorological data into the software program in preparation for receiving effluent release rates for noble gases, radioiodine, and particulates from the utility. The dose assessment computer model calculated projected thyroid and total effective dose at varied downwind distances, which could be readily compared to protective action guidelines. Although field teams did not participate in this exercise, the dose analyst explained how field survey

exposure rates would be compared using the dose projection software. The dose analyst also demonstrated a spreadsheet to calculate iodine and particulate concentrations from field team air sample data.

Following the Site Area Emergency declaration, the emergency response coordinator made recommendations to the state for waterway clearing, hunting/fishing advisory, and an agricultural advisory for farmers to implement applicable emergency plans within the 10-mile emergency planning zone. Precautionary actions were documented on a protective action recommendations chart. There were no additional protective action recommendations or a declaration of a General Emergency for this exercise. Protective action decision making was the responsibility of the risk counties.

The emergency response coordinator, in consultation with the designated public health physician, was responsible for authorizing the use of potassium iodide by emergency workers, institutionalized individuals, and the general public. Since there was no radiological release, there was no authorization for ingestion of potassium iodide. Distribution of potassium iodide was authorized for emergency workers and institutionalized populations. Potassium iodide ingestion decisions for the general public would be based on child thyroid dose projections.

The emergency response coordinator explained that the state used a default correction factor of five to account for subsequent calculation of total effective dose. The state would not typically calculate an incident specific dosimeter correction factor but was aware of how to use the computer modeling software to perform that calculation. The default dosimetry correction factor and administrative exposure limit were sufficient to ensure that total effective dose would remain below federal guidelines.

For this capability the following radiological emergency preparedness capability targets were met: 1.3, 1.4, and 4.5

3.4 Joint Operations

3.4.1 Joint Information System/Center

Public Information and Warning Capability Summary:

State, county, and utility public information officers and spokespersons successfully demonstrated the public information and warning core capability in response to a simulated radiological incident at the H.B. Robinson Nuclear Plant.

Following notification of an Alert, the state public information officer received notification via a mass communications system from the state warning point to report to the state emergency operations center. The state public information officer and team, which included the news release writer, joint information center manager/Integrated Public Alert and Warning System coordinator were pre-positioned in the joint information center in accordance with the extent of play agreement. Additionally, a public information officer and manager, representing the South Carolina Department of Health and Environmental Control, arrived later in the morning. Upon receipt of the notification to report for duty, the joint information system public information coordination line was set-up. This line allowed utility and county public information officers and spokespersons not in the joint information center to call in and share information with one another for the duration of the exercise. The joint information center was declared operational shortly thereafter.

Adequate space, ample communications systems, and necessary supplies and equipment were available to the state public information officer and team. All communications systems were operable and sufficient to support response operations. The primary means of communication within the joint information system was a public information coordination

line. While each entity functioned within its respective organization, information was shared as it was occurring or had occurred.

The state public information officer attended and participated in county coordination calls while the remainder of the team stayed in the joint information center and listened to the calls over a conference telephone. This allowed them to hear firsthand the decisions being made and concurred upon by county and state officials. Hearing this conservation allowed the team to edit pre-scripted news releases quickly and accurately. As each call was finishing a tailored news release was available within minutes for review, approval, and signature. The state public information officer was responsible for overseeing the state news release development, review, and approval process and disseminating approved news releases on behalf of the state. This process included a public information news release writer drafting each release and the division director, chief of staff, chief of plans, radiological emergency preparedness program manager, and/or state public information officer reviewing and approving each news release. Once approved, the public information news release writer emailed the approved news release to an exercise-specific media distribution list.

The Integrated Public Alert and Warning System coordinator was responsible for drafting, obtaining review, approval, and signatures through the same process used for news releases. Once approved, the coordinator worked with the state warning point supervisor to ensure the activation process was followed and messages were disseminated. These products were produced both in English and Spanish. In total, three state news releases were published, and one message (in English and Spanish) was sent via the Integrated Public Alert and Warning System.

Notification of the public concerning events at the H.B. Robinson Nuclear Plant was accomplished by activating the approved alert and notification system which consists of fixed sirens and the emergency alert system. The Integrated Public Alert and Warning System was utilized to activate the emergency alert system, wireless emergency alert, and National Oceanic and Atmospheric Administration. In total, three state news releases were concurred upon and approved by the offsite response organizations via the decision line and notionally disseminated, and one emergency alert system and wireless emergency alert message was sent via the Integrated Public Alert and Warning System. The approved emergency alert system and wireless emergency alert messages was sent to a test laboratory to ensure various parts of the message met content guidelines and word count restrictions. During the second siren activation, an emergency alert system message was not sent.

Two media telebriefings were conducted via the virtual audio/video communications platform. The participants included public information officers from the state, counties, and the utility. The state public information officer conducted a pre-conference caucus to discuss critical information and key decisions, as well as the speaking order, based on this information. Once each public information officer had spoken, the mock media was given an opportunity to ask questions. Information provided to the mock media during the briefing was accurate and consistent with the protective action decisions.

The Joint Information Center manager/Integrated Public Alert & Warning System coordinator, and news release writer all responded to rumors and media inquiries from the public information hotline. Queries included information about the movement of school children, the governor's state of emergency, the impact of the earthquake, and a potential radiological release. They were able to respond to these questions without seeking additional expertise. If they were unable to answer these questions on their own, they would consult the state public information officer. There were no rumor trends either on the state or counties' information lines which had to be addressed.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 3.1, 3.2, and 3.3.

3.4.2 Emergency Operations Facility

Operational Coordination Capability Summary:

The Operational Coordination capability was successfully demonstrated by the state of South Carolina liaisons and Duke Energy staff. The South Carolina Emergency Management Division liaison, and the South Carolina Department of Health and Environmental Compliance Coordinator shared situational information and discussed precautionary actions with the Duke Energy Emergency Operations Facility staff. The state liaisons provided relevant offsite actions and information to facility staff without delay. The state liaisons maintained situational awareness by monitoring the ongoing actions of the emergency operations facility staff and the states conference bridge line. Each state liaison was equipped with multiple communication devices in addition to the facility communication devices. There were no communication failures during the exercise.

For this capability the following radiological emergency preparedness capability targets were met: 1.2.

3.5 Risk Jurisdiction

3.5.1 Chesterfield County

Operational Coordination Capability Summary:

Chesterfield County Emergency Management staff successfully demonstrated their ability to coordinate and execute emergency response activities during a radiological emergency at H.B. Robinson Nuclear Plant. Initial notification of an unusual event at the plant was received in the Chesterfield County Emergency Operations Center by the administrative assistant, who verbally verified receipt of the call and the initial emergency notification form. The notification was also received by the 911 dispatchers in the adjacent room. Subsequent notifications occurred in the same manner.

The emergency operations center was fully staffed and activated in a timely manner. The Chesterfield County Deputy Director initiated the mobilization of the county crisis management team and key personnel using a short message service system with a preset distribution list. The deputy director also notified key personnel via a cellular text group and affirmed the response.

During the radiological emergency, the emergency management director made coordinated protective action decisions for Chesterfield County. Decisions were made in accordance with plans and procedures, and with input from the crisis management team, which included liaisons from South Carolina Emergency Management and Duke Energy, as well as county emergency support function liaisons. The director conducted the initial situation and safety briefing for the emergency operations center staff, with subsequent briefings made primarily by the deputy director after receiving updated notification forms from the plant. Updates regarding controller injects were briefed by the administrative assistant. Briefings were held immediately following the review of updated plant information. Situational awareness was maintained throughout the response.

The Chesterfield County Emergency Operations Center was well-equipped to support emergency response operations. The facility had sufficient digital and analog displays, redundant communications platforms, plans, and procedures. During the exercise, the facility's internet became inoperable. However, staff sustained internet access through incorporation of a mobile broadband cellular kit until primary internet access was restored.

County leadership routinely updated the facility emergency classification and operational control level board and used several customized checklists that directly correlated with the county plans. Additional maps and facility diagrams were available as needed. Two primary communications systems were used throughout the exercise: a web-based secure line with the state and utility and cellular phones. Backup communications comprised landlines, an 800-megahertz two-way radio system, ultra-high frequency radio, high-frequency radio, satellite radio, and email. There were no communications delays or failures observed.

Chesterfield County successfully accomplished emergency worker exposure control management through interview with the Chesterfield County Radiological Officer. The radiological officer, who was also the deputy director, confirmed that each agency's field supervisors or designees were responsible for managing exposure and maintaining exposure records. The county emergency operations center staff would issue dosimetry and potassium iodide tablets primarily to law enforcement and emergency medical services personnel. Dosimetry equipment and potassium iodide for emergency workers are stored at the emergency operations center. As the equipment was issued, the radiological officer would perform a safety briefing using a field guide, outlining procedures for dosimetry usage and reporting, as well as explaining the possible side effects of potassium iodide. The radiological officer would provide just-in-time training on dosimetry and potassium iodide as needed. Responders were also briefed on where to return the equipment, what to do once they reached turnback limits, and how to request permission to exceed established exposure limits. Equipment, supplies, and potassium iodide quantities were verified previously during a staff assistance visit conducted on February 28, 2023. Distribution was simulated during the exercise.

During the exercise, the director collaborated with the deputy director and staff to successfully relocate schools and evacuate ambulatory and non-ambulatory special needs individuals. The director also initiated the setup of the reception and congregate care center in preparation for a potential evacuation. Evacuation of schools was coordinated between the emergency management director and the Chesterfield County School District representative in the emergency operations center. The precautionary actions were made at the Alert emergency classification level due to prevailing winds blowing toward emergency planning zones E-1 and E-2 in Chesterfield County. The county made no additional protective actions during the exercise. A potassium iodide decision was not required for emergency workers, and per the extent of the play agreement, potassium iodide would not be distributed to the general public.

The precautionary protective action decision to relocate students from McBee Elementary School, McBee High School, and Plainview Elementary School, was coordinated with input from all emergency support functions. The Chesterfield County School District, Director of Transportation and Safety, began preparing for school relocation at the alert emergency classification level; however, the decision to relocate students was only authorized once the site area emergency was declared and ahead of a potential radiological release. The director of transportation and safety explained by interview the process for notifying school administrators of the ongoing incident at H.B. Robinson Nuclear Plant and the activation of the Chesterfield County School District Emergency Operations Plan. Students would be relocated to Chesterfield Ruby Middle School using school buses parked at each school during the school day. Additional buses would be brought in from schools outside of the 10-mile emergency planning zone if needed. Information related to school relocation and the reunification of students with their guardians would be shared via social media and through the school district's mass notification system.

The precautionary protective action decision to evacuate ambulatory and non-ambulatory special needs individuals within the 10-mile emergency planning zone was coordinated in

the emergency operations center and with input from representatives from Lifeguard Emergency Medical Services and the Chesterfield County Sheriff's Office. Through interview, it was explained that Lifeguard Emergency Medical Services would use ambulances to evacuate residents requiring medical transport, and the Chesterfield County Sheriff's Office would evacuate non-ambulatory residents and residents without transportation using county resources. Dispatchers within the Chesterfield County E911 Center would coordinate notification of residents requiring transportation services.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 1.2, 1.3, 1.4, 1.5, 2.1, 2.2, 3.1, and 5.4.

Public Information and Warning Capability Summary:

Chesterfield County successfully demonstrated alert and notification of the public. Chesterfield County residents were alerted of the emergency by a simulated siren activation and the activation of the emergency alert system utilizing the integrated public alert warning system. The deputy director stated that each risk county can activate the siren system, and the state operates the integrated public alert and warning system to activate the emergency alert system messages and wireless emergency alerts. Shortly after activating a silent test of the sirens, the county generated a performance report for the siren system. No sirens failed in the county; thus, no backup route alerting was required. The sirens were successfully activated via a silent test twice during the exercise with no failures in Chesterfield County.

The Chesterfield County Public Information staff consisted of a public information officer, deputy and administrative support staff to assist with the management of messaging during the exercise. An additional Chesterfield County public information liaison may be sent to the joint information center to help coordinate county messaging, if necessary. News releases were drafted from pre-scripted templates. Draft news releases were emailed to a group which included the director of emergency management and the state public information officer. The Chesterfield County public information officer coordinated all messages including review and modification with the state public information officer to ensure all messages were consistent in content and the news was released at coordinated time intervals with the other risk county, state, and utility news releases. All messaging was timely, clear, and consistent with the protective actions.

For this capability the following radiological emergency preparedness capability targets were met: 3.2, and3.3.

3.5.2 Lee County

Operational Coordination Capability Summary:

Lee County Emergency Management Division staff successfully demonstrated the ability to identify, alert, and mobilize emergency operations center staff in a timely manner. Staff were positioned before the start of the exercise in accordance with the approved extent of play agreement. Additional agency representatives reported to the emergency operations center after receiving notional one-on-one notification from the emergency management director. The director explained the mass notification system used to alert and mobilize staff through an interview. In addition, the emergency management director described scalable staffing commensurate with the emergency operations center's activation level in response to the utility's emergency classification levels.

Lee County received initial notification of an incident at the H.B. Robinson Nuclear Plant through the utility's dedicated phone line. Subsequent updates to pertinent data and changes to the emergency classification level were communicated to the director, assistant director, and all other emergency operations center staff in the same manner. As a result,

the emergency operations center was activated at the Site Area Emergency classification level. Equipment and resources were sufficient to support continuous operations, including a twenty-four-hour staffing roster, job aids, checklists, plans, maps, audio-visual displays, and redundant communications systems.

The emergency operations center staff maintained situational awareness throughout the incident. The director received frequent incident and plant status updates from the utility. The assistant director disseminated emergency notification forms and shared applicable information with emergency operations center staff as it was received. The director followed plans and utilized checklists to manage the incident successfully. The director participated in all coordination calls with key stakeholders. The director discussed potential decisions with the appropriate emergency operations center staff.

Lee County decision-makers concurred with the following precautionary measures: relocation of a school to open a reception center and congregate care facility; waterway clearance; agricultural, park, hunting, fishing advisory, emergency worker, functional needs population, and institutionalized person protective measures, no potassium iodide distribution, and traffic and control points. A staff assistance visit was conducted in February to validate dosimetry, equipment inventories, calibration dates, potassium iodide inventories, and expiration.

At Site Area Emergency, the director discussed precautionary protective actions for residents. The director pointed out that residents with access and functionality within the 10-mile emergency planning zone are requested to register annually. No requests were received this year. The American Red Cross and South Carolina Department of Health and Environmental Control representatives confirmed that no residents with special needs resided within the zone. School representatives simulated precautionary actions and discussed sheltering students outside of the 10-mile emergency planning zone. School representatives discussed the ability to contact parents using the school messenger notification system to provide instructions as the emergency progressed. Law enforcement and fire support were available upon request as specialized transportation vehicles. Potassium iodide was not a consideration for emergency workers or the public due to the scenario.

The 911 and emergency operations centers had adequate communications systems, including radios, satellite phones, and internet (email). The primary means of communication between Lee County and H.B. Robinson Nuclear Plant was the Duke Emergency Management Network (dedicated communications, decision line). The primary means of communication with other entities were landlines, cellular phones, and computers (with internet capabilities). The communications officer utilized an 800-megahertz radio to message the state communications center (as a backup communications demonstration). Additional emergency operations center capabilities included very high-frequency radio and satellite telephones. County Amateur Radio Emergency Services volunteers would be utilized to provide backup emergency communications in an extended emergency. No communication failures were observed; however, backup communications were used.

Traffic and access control were successfully accomplished through an interview with the Lee County Deputy Sheriff. The deputy stated that the emergency management director requested the implementation of traffic and access control points after receipt of the Site Area Emergency classification. Lee County has two designated traffic control locations that can be appropriately manned to support evacuation. The deputy was aware that impediments would be removed by public works or a local towing company and reported to the public information officer or equivalent. The Deputy Sheriff was knowledgeable of their duties and responsibilities for county traffic and access control.

For this capability the following radiological emergency preparedness capability targets were met: 1.1., 1.2., 1.4, 1.5, 2.1, 2.2, 3.1, and 5.4.

Public Information and Warning Capability Summary:

Lee County Emergency Operations Center staff successfully demonstrated the ability to provide an alert signal followed by an instructional message to populated areas in the 10-mile planning zone. After discussion and concurrence with staff from Chesterfield, and Darlington Counties, and the South Carolina Emergency Operations Center, Lee County agreed to conduct one silent siren test and another simulated siren activation through concurrence. Although the capability exists for any of the three risk counties to activate the sirens, Darlington simulated activation of the sirens within the 10-mile emergency planning zone. The first activation and subsequent message instructed residents to stay tuned for emergency information. The second siren sounding alerted residents to the following precautionary actions: close the waterways, restrict fishing, hunting and park areas. An activate agricultural plans. There were no siren failures identified. News releases were concurred upon and approved by Lee County director via the decision line and notionally disseminated. During the second siren activation an emergency alert system message was not sent. If a siren had failed, the Deputy Sheriff stated that his officers, city police and fire/emergency medical staff would coordinate route alerting for the siren coverage area. Fire/Rescue and Department of Natural Resources' vehicles with loudspeaker broadcast capability could also be used.

Lee County Emergency Operations Center staff successfully demonstrated the capability to deliver coordinated, prompt, reliable, and actionable information, and instructions to the public. Immediately after sirens were sounded, the Emergency Management Division Director, with concurrence from the county administrator, authorized issuance of Lee County Media Release #1. The message was titled: Alert Declared; Residents are asked to continue to stay tuned for emergency information and furnished the latest information regarding the emergency classification of an ALERT at the H.B. Robinson Nuclear Plant. Prior to release, the pre-scripted message was reviewed by the state joint information center and then authorized for release through the joint information system to all media and the public.

During interview with the public information officer, subsequent releases would be from a folder of pre-approved, pre-scripted messages and would be reviewed and authorized for release as previously described. Due to the short duration of this scenario, no other releases were coordinated from Lee County. Public inquiry calls were received in the emergency operations center and routed to the appropriate staff for resolution. All responses were timely, accurate, and consistent with the latest emergency information.

For this capability the following radiological emergency preparedness capability targets were met: 3.2 and 3.3.

3.5.3 Darlington County

Operational Coordination Capability Summary:

Darlington County Emergency Operations Center staff demonstrated effective procedures to alert, notify, and mobilize emergency personnel and activate facilities promptly during the H.B. Robinson Nuclear Plant exercise. The Darlington County Emergency Management Director received notification via email from the utility. The utility also notified the county via a dedicated phone line. These dedicated phones were in the emergency operations center and at the county warning point. The initial notification was an Unusual Event emergency declaration, and, in accordance with their plans, the county did not activate its emergency operations center until the Alert emergency declaration 90 minutes later. In accordance with the extent of play, personnel were prepositioned nearby, and upon receiving notification from

the automated call-down system, they quickly staffed the emergency operations center, and it was declared operational within 20 minutes of the Alert emergency declaration.

Darlington County Emergency Management established and maintained a unified and coordinated operational structure and processes that appropriately integrated all critical stakeholders and supported the execution of core capabilities successfully during the H.B. Robinson Nuclear Plant exercise. Darlington County Administrator and the Emergency Management Director provided direction and control, timely staff updates, considered staff input for decision making, and made timely decisions throughout the exercise. In addition, the emergency operations center staff maintained internal coordination and situational awareness while notifying emergency workers of the escalating emergency response.

The Darlington County Administrator and Emergency Management Director discussed decisions involving considering existing factors and necessary coordination to execute the precautionary actions that all stakeholders on the conference bridge line concurred. Those precautionary actions were the relocation of schools, fishing and hurting advisory, waterway clearing, farmers-activated agricultural plans, and distribution of potassium iodide to emergency workers and institutionalized personnel.

The exercise scenario had no release and did not reach a General Emergency Classification Level; therefore, protective action decisions were limited. The emergency management director worked with the Darlington County School District to implement relocation for all the district schools in the 10-mile emergency planning zones. A district liaison in the emergency operations center coordinated district buses and informed the emergency management director of relocation progress. Traffic control points were staffed by law enforcement but were never activated as no evacuation was ordered. Multi-jurisdictional protective actions were coordinated on a conference call, and messaging was reviewed by the counties and state and released in accordance with joint information system procedures.

Emergency worker dosimetry was stored at the emergency management office and distributed to responding agencies at the Alert emergency classification level. Dosimeters were then zeroed and distributed to the individual workers. If there was a release, workers would have read and recorded their dose every 30 minutes. The county emergency management director had the authority to authorize higher limits if a worker reached their one rem limit. Potassium iodide was distributed with the dosimetry, and county officials would have passed the recommendation for ingestion from state officials to the emergency workers. The exercise scenario did not include a release of radiation so there was no need for exposure control decisions beyond the distribution of dosimetry and potassium iodide.

The Darlington County Emergency Operations Center had sufficient communications equipment to support the emergency response. There were two dedicated phone lines the utility used for notifications and each workstation had a landline phone. Staff also used cell phones, web-based emergency management software, and email for communications and documentation. Law enforcement, emergency medical services, and fire department staff used handheld radios to communicate with responders outside the emergency operations center. Sufficient maps, display monitors, and information boards were located throughout the room to keep staff informed of the status of the emergency

For this capability the following radiological emergency preparedness capability targets were met: 1.1., 1.2, 1.4, 1.5, 2.1, 2.2, and 3.1.

Public Information and Warning Capability Summary:

Alert and notification of the public were accomplished after the Site Area Emergency declaration. Darlington County sounded the sirens, simulated with a silent test, for the entire 10-mile emergency planning zone. Corresponding Emergency Alert System and wireless

emergency alert messages were released by the state at the same time. No siren failures were noted in the report; therefore, no route alerting was required. A second siren sounding occurred after the decision was made to clear the waterways and parks; that sounding was followed up with a joint information system press release by the state public information officer.

The Darlington County Emergency Management Public Information Officer successfully coordinated emergency information and instructions for the public and news media through timely review and approval of press releases and emergency alert system messages developed in coordination with the joint information system at the state emergency operations center. They maintained an open conference bridge phone line with the State Public Information Officer for real-time situational awareness at all county locations. The public information officer monitored the decision discussions in the county.

For this capability the following REP Capability Targets were MET: 3.2 and 3.3.

3.5.4 Darlington County Schools

Critical Transportation Capability Summary:

Darlington County emergency management officials successfully validated via interview the capability to protect the health and safety of students and faculty in the event of a radiological emergency. On April 20, 2023, evaluators interviewed representatives from the following schools: Thornwell School for the Arts, North Hartsville Elementary School, Bay Road Elementary School, and Hartsville High School. These schools are part of the Darlington County School District which one of the school districts in the H.B. Robinson Nuclear Plant 10-mile emergency planning zone. The school officials demonstrated knowledge of, and preparedness to implement, written plans and procedures. They confirmed and described various aspects of their plans and procedures including the sheltering of students and faculty or the relocation of students to host schools, if directed by the district superintendent.

In the event of an emergency at the H.B. Robinson Nuclear Plant, the schools would be notified by the school district via commercial landline, or the schools ultrahigh frequency radio. The radio is tested by the district throughout the year. It is typically located in the main office of each school and multiple staff are trained to operate it. In addition, during all hours of operation, each school has an assigned School Resource Officer with radio communications between local law enforcement and emergency services. If the decision is made by district officials to relocate students, each school intends to move all students and faculty in one trip. School plans reflect transport of students to the host facility, the Florence Center, and the maximum number of busses required. The school district is responsible for mobilizing and prioritizing transportation assets.

All students and their parents or guardians are provided with emergency information fliers annually. In the event of an emergency, parents are notified through a mass notification system, which notifies parents by voice telephone, text, and email. If students are relocated, parents are instructed to go to the Florence Center for reunification. Student tracking is accomplished via rosters maintained in class emergency kits kept by teachers and administrative staff. Teachers accompany students until they are reunited with a family member or guardian. Student medical records are maintained and transported by teachers, nurses, or other designated faculty.

School leadership was well prepared and knowledgeable of plans and procedures and demonstrated their ability to protect students in a radiological emergency event at the H.B Robinson Nuclear Plant.

For this capability the following radiological emergency preparedness capability targets were met: 1.5.

3.5.5 Darlington County Traffic and Access Control Points

On-Scene Security and Protection Capability Summary:

Darlington County traffic and access control point plans for the activation and management were successfully validated by interview with representatives from Darlington County Emergency Management, Darlington County Sheriff's Office, the South Carolina Department of Public Safety. All participating staff were trained, knowledgeable in their role, and knew where to reference information on radiological exposure limits, protective countermeasures, and record keeping.

Representatives identified all seven traffic and access control points successfully. Representatives would be notified at an alert emergency classification level and be ready to immediately deploy at a site area emergency. Three of the points are assigned to the South Carolina Highway Patrol, two of them are assigned to the Darlington County Sheriff's Office, one of them is assigned to city of Hartsville law enforcement representatives, and one is assigned to city of Darlington law enforcement representatives. The South Carolina Department of Public Safety explained their three points would be staffed with one highway patrol trooper except for a point that has two. They would plan for shift turnover and staff for continuous operational periods. The Darlington County Sheriff's Office representative explained they have two points, one with four officers and the other with two. The agencies validate identification of emergency workers and the public initially and during re-entry.

Resources are mobilized through the South Carolina Department of Public Safety and Darlington County simultaneously. They report to the county emergency operations center to retrieve kits and take to the local highway patrol office where other officers would meet for equipment distribution and just-in-time training. The prepared kits contained items in a portable box labeled by point, agency, and total staff. The items in each kit included one booklet containing the annual 10-mile emergency planning zone public information, printed aerial maps, a radiological emergency workers job aid for exposure limits, contamination action levels, instructions for potassium iodide, an emergency worker exposure record form, and simulated permanent record dosimeters appropriate for number of staff assigned the kit. The state dosimetry re-distribution plan provides a means to get more dosimeters if needed. Additionally, the South Carolina Department of Public Safety maintains a quantity of twenty-five electronic, direct reading dosimeters for their local staff. Additional electronic dosimetry is available.

Darlington County and the South Carolina Department of Public Safety can provide redundant means of communications, from the emergency operations center, to allow real-time protective action strategy changes if radiological conditions, impediments, or re-routing of public evacuation occur. They achieve redundancy by using 800-megahertz radio, commercial telephone, and mass notification systems for email and short message services. Darlington County public information officers along with the virtual joint information system provide unified messaging of changes, previously described, to the public. This occurs with all other appropriate emergency operations centers including state partners located elsewhere.

For this capability the following REP Capability Targets were MET: 2.2, 3.1, and 5.4.

Section 4: Conclusion

Officials and representatives from the state of South Carolina, risk counties of Chesterfield, Darlington, and Lee; host county of Florence; Duke Energy; numerous volunteers, and private partners participated in this exercise. The cooperation, coordination and teamwork of the participants were evident throughout all phases of the exercise.

No release scenario exercises require extensive communication, coordination, and planning to evaluate the information provided, develop potential precautionary and protective actions without always having to implement them. In order to ensure every decision is coordinated, communication is key and starts at the initial planning meeting. State, local, and federal agency and utility stakeholders actively participated in each portion of the exercise planning process, along with task force meetings, trainings, and ingestion tabletop enhancing administrative leadership interactions. The pre planning and dedication of each organization enabled successful demonstration of the capability targets leading to the fulfillment of the core capabilities. Leaderships dedication to the mission of the program was reflected in their staff.

The Federal Emergency Management Agency wishes to acknowledge the efforts of the many individuals who participated and made this exercise successful. Protecting public health and safety is the full-time job of some exercise participants and an additional assigned responsibility for others. Still, others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. In addition, state and local emergency response organizations demonstrated knowledge of their emergency response plans and procedures and successfully implemented them.

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Appendix A: Exercise Timeline

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken				
		SEOC/ Dose	Chesterfield County EOC	Darlington County EOC	Lee County EOC	JIS/JIC
Unusual Event	8:21 a.m.	8:32 a.m.	8:36 a.m.	8:32 a.m.	8:35 a.m.	N/A
Alert	10:00 a.m.	10:05 a.m.	10:05 a.m.	10:07 a.m.	10:04 a.m.	N/A
Site Area Emergency	10:27 a.m.	10:38 a.m.	10:30 a.m.	10:31 a.m.	10:30 a.m.	10:51 a.m.
General Emergency	NA	NA	NA	NA	NA	NA
Simulated Rad. Release Started	NA	NA	NA	NA	NA	NA
Simulated Rad. Release Ended	NA	NA	NA	NA	NA	NA
Facility Declared Operational	NA	NA	NA	NA	NA	NA
State of Emergency Declared	State	11:09 a.m.	N/A	11:09 a.m.	N/A	11:32 a.m.
	Local	N/A	11:05 a.m.	10:30 a.m.	10:50 a.m.	N/A
End Exercise		11:58 a.m.	11:30 a.m.	11:58 a.m.	11:58 a.m.	11:58 a.m.
Precautionary Actions All – Stay Tune Chesterfield – Schools/Special Needs/Medicine		10:30 a.m.	10:30 a.m.	10:35 a.m.	10:43 a.m.	10:51 a.m.
Darlington – Relocation of Schools		N/A	N/A	11:08 a.m.	N/A	N/A
Lee – Relocation of Schools All – Waterway/Agriculture/Park/Hunting and Fishing Advisory/Emergency Workers and Inst. People KI Distribution		11:22 a.m.	11:21 a.m.	11:21 a.m.	11:21 a.m.	11:32 a.m.
1st Siren Activation		10:50 a.m.	10:50 a.m.	10:50 a.m.	10:50 a.m.	10:50 a.m.
1st EAS Message		10:50 a.m.	10:50 a.m.	10:50 a.m.	N/A	10:50 a.m.
2nd Siren Activation Lee – simulated JIS – In press release and conference		11:30 a.m.	11:30 a.m.	11:30 a.m.	11:30 a.m.	11:30 a.m.
2nd Press Release/Media Briefing		11:45 a.m.	11:45 a.m.	11:45 a.m.	11:45 a.m.	11:45 a.m.
KI Ingestion Decision Emergency Workers/General Public		N/A	N/A	N/A	N/A	N/A

*JIS time listed is when action was earliest messaged to the public and media via news release or press briefing

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Appendix B: Evaluator Assignments

Location/Venue	Evaluation Team	Core Capability
State Emergency Operations Center (SEOC)	Matt Bradley* Jim Greer Tom Hegele	Operational Coordination. Public Information and Warning
SEOC Joint Information Center / Joint Information System	Farrah Stewart* PJ Nied Peter Judge	Public Information and Warning
Dose Assessment & Field Team Management	Jill Leatherman* Debbie Cumming	Situational Assessment; Environmental Response/Health and Safety
Emergency Operations Facility (EOF)	Gerald McLemore*	Operational Coordination
Waterway Warning Interview (OOS) April 20,2023	Matt Webb	On-Scene Security, Protection and Law Enforcement
Chesterfield County Emergency Operations Center	Quintin Ivy* Irvin Gibson Norman Kalson	Operational Coordination. Public Information and Warning; On-Scene Security, Protection and Law Enforcement
Chesterfield County Schools (OOS) April 19, 2023	Vince Kalson*	Critical Transportation
Darlington County Emergency Operations Center	DeShun Lowery* James Young Roy Smith	Operational Coordination. Public Information and Warning
Darlington County Traffic Control Point (OOS) April 20, 2023	Matt Webb*	On-Scene Security and Protection
Darlington County Schools (OOS) April 20, 2023	Vince Kalson*	Critical Transportation
Lee County Emergency Operations Center	Matt Webb* Roy Smith	Operational Coordination. Public Information and Warning

*Team Lead

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Appendix C: Exercise Participants

Participating Organizations
State of South Carolina
South Carolina Department of Natural Resources
Department of Health and Environmental Control Public Health
Department of Health and Environmental Control Emergency Response Team
South Carolina Department of Social Service
South Carolina Emergency Management Division
South Carolina Department of Public Safety
South Carolina Law Enforcement Division
South Carolina Department of Commerce
South Carolina Office of Regulatory Staff
Clemson University Livestock Poultry
Chesterfield County
Chesterfield County Emergency Management Department
Chesterfield County Emergency Medical Services
Chesterfield County Fire Department
Chesterfield County School District
Chesterfield County Sheriff's Office
Chesterfield County Department of Social Service
South Carolina Emergency Management Area Coordinator
South Carolina Department of Health Environmental Control
South Carolina Emergency Management Liaison
Darlington County
Darlington County 911
Darlington County Emergency Medical Services

Participating Organizations
Darlington County Emergency Services Department
Darlington County External Affairs (Public Information)
Darlington County Finance/Logistics
Darlington County Fire District
Darlington County School District/Transportation
Darlington County Sheriff's Office
South Carolina Department of Natural Resources
South Carolina Department of Social Services
South Carolina Department of Health Environmental Control
South Carolina Emergency Management Division Area Coordinator
South Carolina Highway Patrol
Lee County
Lee County Department of Social Services
Lee County Emergency Management Division
Lee County Emergency Medical Services
Lee County Fire
Lee County Public Information Officer
Lee County School District
Lee County Sheriff's Office
South Carolina Department of Health Environmental Control
South Carolina Emergency Management Division Area Coordinator
Private Sector
American Red Cross
Duke Energy
Federal
United States Department of Homeland Security, Federal Emergency Management Agency, Region 4

Appendix D: Extent of Play Agreement

Robinson Nuclear Station 2023 Partial Participation Radiological

Emergency Preparedness (REP) Exercise

Unless otherwise noted, all activities will be fully demonstrated in accordance with respective plans and procedures, as they would be in an actual emergency. South Carolina Emergency Management Division (SCEMD) must provide these plans, guides, and procedures to Federal Emergency Management Agency (FEMA) NLT 60 days before the exercise. If an activity is not listed as an exception, it will be demonstrated as described in the plans, standard operating guides (SOGs) and/or standard operating procedures (SOPs). In some cases, a task may be listed as "demonstrate/discuss" to indicate that actions may be completed or discussed via interview as the scenario dictates. Any activity to be evaluated out-of-sequence (OOS), during staff assistance visits (SAVs), and/or by discussion will be clearly identified. Any issue or discrepancy arising during exercise play may be re-demonstrated, if allowed by the Regional Assistance Committee (RAC) Chair or as listed herein. This allowance may be granted if it is not disruptive to exercise play and is mutually agreed to by the Offsite Response Organization (ORO) Controller and FEMA Evaluator.

Offsite Response Organizations (ORO)	Page #
State of South Carolina	
State Emergency Operations Center (SEOC)	1
Dose Assessment	3
Joint Information System (JIS)	4
Emergency Operations Facility (EOF) Liaisons	6
Waterway Clearance	7
Risk Counties (Chesterfield, Darlington, and Lee)	
Emergency Operations Center (EOC)	8
Schools	12
Traffic Control Points (TCPs)	13
Backup Route Alerting	15
Emergency Worker Decontamination (EWD)	16
Reception Center	18
Congregate Care	19
Public Health, Healthcare, and Emergency Medical Services (EMS)	20

STATE OF SOUTH CAROLINA

State Emergency Operations Center (SEOC)

Core Capability: Operational Coordination
Definition: Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.

Capability Target: 1.1: Mobilization
Individuals with roles in support of emergency operations are identified, alerted, and mobilized in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, O.1).

South Carolina Emergency Management Division (SCEMD) will demonstrate the following Critical Tasks:

- The capability to receive notification of an incident from the licensees; verify the notification; contact, alert, and mobilize key emergency personnel in a timely manner.
- The ability to staff and maintain 24-hour operations.
- The activation of facilities for immediate use by mobilized personnel upon their arrival.
- The ability to identify and request additional resources or identify compensatory measures.

Exception: Personnel cannot be at their duty station but may be pre-positioned in the area prior to notification. Personnel may participate virtually during the exercise as circumstances require.

Capability Target: 1.2: Direction and Control
Individuals in leadership roles provide direction and control to the portion of the overall response effort for which they are responsible. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, O.1).

State Emergency Response Team (SERT) members at the SEOC will demonstrate the following Critical Tasks:

- The availability of facilities to support emergency operations.
- The ability to carry out the essential management functions of the response effort.
- The ability to prioritize resource tasking and replace/supplement resources.

Exception: All coordination telephone calls should occur in accordance with plans and procedures.

Capability Target: 1.4: Protective Action Decisions for the Plume Phase
Appropriate PADS are based on available information for the plume phase. (NUREG-0654/FEMA-REP-1, Rev. 2: D.1.b, D.4, J.6, J.7, J.8, J.8.b, J.10, J.10.a, J.10.b, J.11.c-g, O.1).

The SERT will demonstrate/discuss the following Critical Tasks:

- The ability to conduct the decision-making process taking those with disabilities and access/functional needs (e.g., nursing homes, correctional facilities, licensed day cares, mobility-impaired individuals, and transportation-dependent individuals) into account.
- The capability to make prompt decisions on protective actions for students.
- The capability to make both initial and subsequent precautionary and/or protective action decisions in a timely manner appropriate to the incident.
- The capability to change protective actions based on the combination of the following factors: subsequent dose projections, field monitoring data, or information on plant conditions, magnitude of ongoing threat, the response, and/or site conditions.

- The capability to make decisions on the distribution and administration of KI to supplement sheltering and evacuation.
- The capability to communicate the results of decisions to all the affected locations.

Exception: ESF-8 and ESF-10 will demonstrate decision-making in accordance with draft revisions to the SC Standard Technical Radiological Operating Procedures.

Capability Target: 3.1: Communications
Communication processes, systems, and equipment are sufficient to support emergency operations. (NUREG-0654/FEMA-REP-1, Rev. 2: E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, O.1).

SCEMD will demonstrate the following Critical Tasks:
- A primary system and at least one backup system are fully functional at all times.
- The capability to manage the communications systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- That the SEOC has sufficient equipment, maps, and displays to perform the assigned role.

Exception or Note: (comms system if different than site specific plans, i.e., conference bridge line)

Core Capability: Public Information and Warning
Definition: Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken, and the assistance being made available.

Capability Target: 3.2: Alert and Notification of the Public
Alert and notification of the public is completed in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: E.2, E.4, E.5, F.3, O.1).

The SERT will demonstrate the following Critical Tasks:
- A primary system and at least one backup system are fully functional at all times.
- The capability to coordinate siren activation followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume exposure pathway EPZ. The procedures to broadcast the message will be fully demonstrated as they would in an actual emergency up to the point of transmission.
- The backup alert and notification procedures utilized in the event of a siren failure.

Exception: All siren soundings will be conducted via silent test.

Dose Assessment

Core Capability: Situational Assessment
Definition: Provide all decision-makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

Capability Target: 1.1: Mobilization
Individuals with roles in support of emergency operations are identified, alerted, and mobilized in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, O.1).

South Carolina Department of Health and Environmental Control (SCDHEC) will demonstrate the following Critical Tasks:

- The capability to receive notification of an incident from the licensees; verify the notification; contact, alert, and mobilize key emergency personnel in a timely manner.
- The ability to staff and maintain 24-hour operations.
- The activation of facilities for immediate use by mobilized personnel upon their arrival.
- The ability to identify and request additional resources or identify compensatory measures.

Exception: Personnel cannot be at their duty station but may be pre-positioned in the area prior to notification. Personnel may participate virtually during the exercise as circumstances require.

Capability Target: 1.2: Direction and Control
Individuals in leadership roles provide direction and control to the portion of the overall response effort for which they are responsible. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, O.1).

SCDHEC will demonstrate the following Critical Tasks:

- The availability of facilities to support emergency operations.
- The ability to carry out the essential management functions of the response effort.
- The ability to prioritize resource tasking and replace/supplement resources.

Exception: All coordination telephone calls should occur in accordance with plans and procedures.

Capability Target: 1.3: Protective Action Recommendations
Appropriate PARs are selected based on available information and other factors. (NUREG-0654/FEMA-REP-1, Rev. 2: D.4, J.7, J.8, J.8.b, J.9, O.1).

SCDHEC will demonstrate the following Critical Tasks:

- The capability to develop PARs for decision-makers based on available information and recommendations provided by the licensee, as well as field monitoring data if available.
- The capability to independently validate dose projections.
- The capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

Exception: ESF-8 and ESF-10 will demonstrate decision-making in accordance with draft revisions to SC Standard Technical Radiological Operating Procedures.

Capability Target: 4.5: Plume Phase Analysis and Dose Assessment
Dose Assessment considers all available information including plant conditions, environmental conditions, field monitoring data, sample analysis results, and dose projection calculations. (NUREG-0654/FEMA-REP-1, Rev. 2: A.3, H.13, I.6, I.8, I.10, K.3, O.1).

SCDHEC will demonstrate the following Critical Tasks:

- The capability to develop PARs for decision-makers based on available information and recommendations provided by the licensee, as well as field monitoring data if available.
- The capability to independently validate dose projections.
- The capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

Exception: ESF-8 and ESF-10 will demonstrate decision-making in accordance with draft revisions to SC Standard Technical Radiological Operating Procedures.

Joint Information System (JIS)

Core Capability: Public Information and Warning
Definition: Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken, and the assistance being made available.

Capability Target: 1.1: Mobilization
Individuals with roles in support of emergency operations are identified, alerted, and mobilized in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, O.1).

ESF-15 (Public Information) will demonstrate the following Critical Tasks:
- The capability to receive notification of an incident from the licensees; verify the notification; contact, alert, and mobilize key emergency personnel in a timely manner.
- The ability to staff and maintain 24-hour operations.
- The activation of facilities for immediate use by mobilized personnel upon their arrival.
- The ability to identify and request additional resources or identify compensatory measures.

Exception: Personnel cannot be at their duty station but may be pre-positioned in the area prior to notification. Personnel may participate virtually during the exercise as circumstances require.

Capability Target: 1.2: Direction and Control
Individuals in leadership roles provide direction and control to the portion of the overall response effort for which they are responsible. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, O.1).

ESF-15 (Public Information) will demonstrate the following Critical Tasks:
- The availability of facilities to support emergency operations.
- The ability to carry out the essential management functions of the response effort.
- The ability to prioritize resource tasking and replace/supplement resources.

Capability Target: 3.1: Communications
Communication processes, systems, and equipment are sufficient to support emergency operations. (NUREG-0654/FEMA-REP-1, Rev. 2: E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, O.1).

ESF-15 (Public Information) will demonstrate the following Critical Tasks:
- A primary system and at least one backup system are fully functional at all times.
- The capability to manage the communications systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- That the SEOC has sufficient equipment, maps, and displays to perform the assigned role.

Exception or Note: (comms system if different than site specific plans, i.e., conference bridge line)

Capability Target: 3.2: Alert and Notification of the Public
Alert and notification of the public is completed in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: E.2, E.4, E.5, F.3, O.1).

ESF-15 (Public Information) will demonstrate the following Critical Tasks:

- A primary system and at least one backup system are fully functional at all times.
- The capability to coordinate siren activation followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume exposure pathway EPZ. The procedures to broadcast the message will be fully demonstrated as they would in an actual emergency up to the point of transmission.
- The backup alert and notification procedures utilized in the event of a siren failure.

Exception: The initial siren activation will be conducted via silent test. Subsequent siren activations will be simulated. EAS messages will be prepared and coordinated, but broadcast will be simulated. Procedures for broadcasting EAS messages will be discussed.

Capability Target: 3.3: Emergency Information and Instructions for Public and News Media
Accurate emergency information and instructions are provided to the public and the news media in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: E.2, E.4, E.5, G.1, G.2, G.3, G.3.a, G.4, G.5, O.1).

ESF-15 (Public Information) will demonstrate the following Critical Tasks:

- The ability to provide emergency information and instructions to the public and media in a timely manner following the initial alert and notification (not subject to specific time requirements).
- The capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media.
- The capability to ensure that current emergency information is repeated at pre-established intervals.
- The capability to provide timely, accurate, concise, and coordinated information to the news media for subsequent dissemination to the public.
- The capability to respond appropriately to inquiries from the news media.
- The capability to deal with calls received via the public inquiry hotline.
- The capability to provide or obtain accurate information for public inquiry callers or make appropriate referrals.
- The capability to ensure that emergency information and instructions are consistent with PADs made by appropriate officials.
- The capability to ensure that emergency information contains all necessary and applicable instructions to assist the public in carrying out the PADs provided.
- The capability to conduct timely and pertinent media briefings and distribute media releases as the incident warrants.

Emergency Operations Facility/Liaison

<u>Core Capability: Operational Coordination</u>
Definition: Provide all decision-makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

Capability Target: 1.3: Protective Action Recommendations
Appropriate PARs are selected based on available information and other factors. (NUREG-0654/FEMA-REP-1, Rev. 2: D.4, J.7, J.8, J.8.b, J.9, O.1).

EOF Liaison will demonstrate the following Critical Tasks:

- The capability to disseminate information to key decision makers.

SCDHEC will demonstrate the following Critical Tasks:

- Select and implement pre-planned precautionary protective actions.
- Utilize the methodology in plans/procedures to select among a range of protective actions most appropriate in an emergency. This could also include the use of preplanned precautionary protective actions contained in plans/procedures.
- The capability to develop and transmit PARs in a timely manner.

Exception: ESF-8 and ESF-10 will demonstrate decision-making in accordance with draft revisions to the SC Standard Technical Radiological Operating Procedures.

Waterway Clearance

Note: Waterway Clearance will be discussed April 20, 2023, starting at 2:00 pm at Darlington County Fire Department Headquarters . Address: 137 N. Center Road, Hartsville, SC 29550

Core Capability: On-Scene Security, Protection, and Law Enforcement
Definition: Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for all traditional and atypical response personnel engaged in lifesaving and life-sustaining operations.

Capability Target: 2.2: Emergency Worker Exposure Control Management
Emergency workers manage radiological exposure and dose in accordance with the plans/procedures. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, O.1).

SCDNR will discuss the following Critical Tasks:

- The capability to provide DNR emergency workers (including supplemental resources) with the appropriate direct-reading and permanent record dosimetry, KI, and instructions on the use of these items.
- The capability to determine whether to replace DNR workers, authorize DNR workers to incur additional exposures, or other actions related to exposure limits.
- The capability to accomplish distribution of KI to DNR emergency workers consistent with decisions made.
- The capability to formulate and disseminate instructions on using KI for those advised to take.

Capability Target: 3.1: Communications
Communication processes, systems, and equipment are sufficient to support emergency operations. (NUREG-0654/FEMA-REP-1, Rev. 2: E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, O.1).

SCDNR will demonstrate the following Critical Tasks:

- A primary system and at least one backup system are fully functional at all times.
- The capability to manage the communications systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- That the SEOC has sufficient equipment, maps, and displays to perform the assigned role.

Exception or Note: (comms system if different than site specific plans, i.e., conference bridge line)

Capability Target: 5.4: Traffic and Access Control

Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654/FEMA-REP-1, Rev.2: H.12, J.8, J.8.b, J.10, J.10.a, J.11.c, J.11.e, J.11.f, J.14.d, J.14.e, M.1.b, O.1).

SCDNR will discuss the following Critical Tasks:

- The capability to select, establish, and staff appropriate traffic control points and access control points consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation) in a timely manner.
- The capability to provide instructions to access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.
- Accurate knowledge of their roles and responsibilities including verifying emergency worker identification and access authorization to the affected areas.
- The capability to identify and take appropriate actions concerning impediments to evacuation, including re-routing of traffic and coordination with the JIS to communicate alternate routes to evacuees, as appropriate.

RISK COUNTIES
Chesterfield, Darlington, and Lee Counties

EOC

Core Capability: Operational Coordination
Definition: Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.

Capability Target: 1.1: Mobilization
Individuals with roles in support of emergency operations are identified, alerted, and mobilized in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, O.1).

Chesterfield, Darlington, and Lee Counties will demonstrate the following Critical Tasks:

- The capability to receive notification of an incident from the licensees; verify the notification; contact, alert, and mobilize key emergency personnel in a timely manner.
- The ability to staff and maintain 24-hour operations.
- The activation of facilities for immediate use by mobilized personnel upon their arrival.
- The ability to identify and request additional resources or identify compensatory measures.

Exception: Personnel cannot be at their duty station but may be pre-positioned in the area prior to notification. Personnel may participate virtually during the exercise as circumstances require.

Capability Target: 1.2: Direction and Control
Individuals in leadership roles provide direction and control to the portion of the overall response effort for which they are responsible. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, O.1).

Chesterfield, Darlington, and Lee Counties will demonstrate the following Critical Tasks:

- The availability of facilities to support emergency operations.
- The ability to carry out the essential management functions of the response effort.
- The ability to prioritize resource tasking and replace/supplement resources.

Exception: All coordination telephone calls should occur in accordance with plans and procedures.

Capability Target: 1.4: Protective Action Decisions for the Plume Phase
Appropriate PADs are based on available information for the plume phase. (NUREG-0654/FEMA-REP-1, Rev. 2: D.1.b, D.4, J.6, J.7, J.8, J.8.b, J.10, J.10.a, J.10.b, J.11.c-g, O.1).

Chesterfield, Darlington, and Lee Counties will discuss the following Critical Tasks:

- The ability to conduct the decision-making process taking those with disabilities and access/functional needs (e.g., nursing homes, correctional facilities, licensed day cares, mobility-impaired individuals, and transportation-dependent individuals) into account.
- The capability to make prompt decisions on protective actions for students.
- The capability to make both initial and subsequent precautionary and/or protective action decisions in a timely manner appropriate to the incident.
- The capability to change protective actions based on the combination of the following factors: subsequent dose projections, field monitoring data, or information on plant conditions, magnitude of ongoing threat, the response, and/or site conditions.
- The capability to communicate the results of decisions to all the affected locations.

Capability Target: 1.5: Protective Action Decision Implementation for the Plume Phase
Implement decisions for those populations and areas subject to plume phase protective actions. (NUREG-0654/FEMA-REP-1, Rev. 2: A.4, C.2.a, G.1, J.11, J.11.a, J.11.b, J.11.c, J.11.e, J.11.g, O.1).

Chesterfield, Darlington, and Lee Counties will discuss/demonstrate the following Critical Tasks:

- The capability to make KI available to emergency workers.
- The capability to accomplish distribution of KI consistent with decisions made.
- The capability to formulate and disseminate instructions on using KI for those advised to take it.
- The capability to alert and notify persons with disabilities and access/functional needs, including hospitals/medical facilities, licensed daycares, nursing homes, correctional facilities, and mobility-impaired and transportation-dependent individuals.
- The capability to provide for persons with disabilities and access/functional needs.
- The ability to implement precautionary and/or protective action decisions for students.
- The capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the media on the status of protective actions for schools.

Capability Target: 2.1: Emergency Worker Exposure Control Decision-Making Process
A decision-making process involving consideration of appropriate factors and necessary coordination is used to ensure that an exposure control system is in place for emergency workers and includes the use of radio protective drugs and procedures to authorize emergency exposures in excess of the PAGs. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, K.2, K.2.b, K.3, K.3.a, M.1.b, M.8, O.1).

Chesterfield, Darlington, and Lee Counties will demonstrate the following Critical Tasks:

- The capability to comply with county emergency worker exposure limits.
- The capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of county emergency workers receiving radiation doses above pre-authorized levels.
- The capability to make decisions on the distribution and administration of KI as a protective measure for county emergency workers based on the established PAGs for KI administration.

Capability Target: 2.2: Emergency Worker Exposure Control Management

Emergency workers manage radiological exposure and dose in accordance with the plans/procedures. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, O.1).

Chesterfield, Darlington, and Lee Counties will demonstrate the following Critical Tasks:

- The capability to provide county emergency workers (including supplemental resources) with the appropriate direct-reading and permanent record dosimetry, KI, and instructions on the use of these items.
- The capability to determine whether to replace workers, authorize workers to incur additional exposures, or other actions related to exposure limits.
- The capability to accomplish distribution of KI to county emergency workers consistent with decisions made.
- The capability to formulate and disseminate instructions on using KI for those advised to take.

Capability Target: 3.1: Communications
Communication processes, systems, and equipment are sufficient to support emergency operations. (NUREG-0654/FEMA-REP-1, Rev. 2: E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, O.1).

Chesterfield, Darlington, and Lee Counties will demonstrate the following Critical Tasks:

- A primary system and at least one backup system are fully functional at all times.
- The capability to manage the communications systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- That the counties EOC's have sufficient equipment, maps and displays to perform the assigned role.

Capability Target: 5.4: Traffic and Access Control
Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654/FEMA-REP-1, Rev.2: H.12, J.8, J.8.b, J.10, J.10.a, J.11.c, J.11.e, J.11.f, J.14.d, J.14.e, M.1.b, O.1).

Chesterfield, Darlington, and Lee Counties will discuss/demonstrate the following Critical Tasks:

- The capability to select, establish, and staff appropriate traffic control points and access control points consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation) in a timely manner.
- The capability to provide instructions to access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.
- Accurate knowledge of their roles and responsibilities including verifying emergency worker identification and access authorization to the affected areas.
- The capability to identify and take appropriate actions concerning impediments to evacuation, including re-routing of traffic and coordination with the JIS to communicate alternate routes to evacuees, as appropriate.

Exception or Note: (comms system if different than site specific plans, i.e., conference bridge line)

Core Capability: Public Information and Warning
Definition: Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken, and the assistance being made available.

Capability Target: 3.2: Alert and Notification of the Public
Alert and notification of the public is completed in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: E.2, E.4, E.5, F.3, O.1).

Chesterfield, Darlington, and Lee Counties will demonstrate the following Critical Tasks:

- A primary system and at least one backup system are fully functional at all times.
- The capability to coordinate siren activation followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume exposure pathway EPZ. The procedures to broadcast the message will be fully demonstrated as they would in an actual emergency up to the point of transmission.
- The backup alert and notification procedures utilized in the event of a siren failure.

Capability Target: 3.3: Emergency Information and Instructions for the Public and News Media
Accurate emergency information and instructions are provided to the public and the news media in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: E.2, E.4, E.5, G.1, G.2, G.3, G.3.a, G.4, G.5, O.1)

Chesterfield, Darlington, and Lee Counties will demonstrate the following Critical Tasks:

- The ability to provide emergency information and instructions to the public and media in a timely manner following the initial alert and notification (not subject to specific time requirements).
- The capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media.
- The capability to ensure that current emergency information is repeated at pre-established intervals.
- The capability to provide timely, accurate, concise, and coordinated information to the news media for subsequent dissemination to the public.
- The capability to respond appropriately to inquiries from the news media.
- The capability to deal with calls received via the public inquiry hotline.
- The capability to provide or obtain accurate information for public inquiry callers or make appropriate referrals.
- The capability to ensure that emergency information and instructions are consistent with PADs made by appropriate officials.
- The capability to ensure that emergency information contains all necessary and applicable instructions to assist the public in carrying out the PADs provided.
- The capability to conduct timely and pertinent media briefings and distribute media releases as the incident warrants.

Schools

School interviews will be conducted out of sequence at the following times:

Date & Time	County	Location
April 19, 2023, 1:00pm	Chesterfield	Chesterfield County EOC
April 20, 2023, 9:00am	Darlington	Darlington County Fire Department Headquarters

Core Capability: Critical Transportation

Definition: Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

Capability Target: 1.5: Protective Action Decision Implementation for the Plume Phase
Implement decisions for those populations and areas subject to plume phase protective actions. (NUREG-0654/FEMA-REP-1, Rev. 2: A.4, C.2.a, G.1, J.11, J.11.a, J.11.b, J.11.c, J.11.e, J.11.g, O.1).

Chesterfield and Darlington Counties will discuss the following Critical Tasks:

- The capability to accomplish distribution of KI consistent with decisions made.
- The capability to formulate and disseminate instructions on using KI for those advised to take it.
- The capability to alert and notify persons with disabilities and access/functional needs, including hospitals/medical facilities, licensed daycares, nursing homes, correctional facilities, and mobility-impaired and transportation-dependent individuals.
- The capability to provide for persons with disabilities and access/functional needs.
- The ability to implement precautionary and/or protective action decisions for students.
- The capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the media on the status of protective actions for schools.

Traffic Control Points (TCPs)

TCP interviews will be conducted as follows:

Date & Time	County	Facility
April 20, 2023, 11:30am	Darlington County	Darlington County Fire Department Headquarters
August 9, 2023, at the conclusion of the EWD/RC/CC evaluation	Chesterfield County	Chesterfield County High School

Core Capability: On-Scene Security, Protection, and Law Enforcement
Definition: Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for all traditional and atypical response personnel engaged in lifesaving and life-sustaining operations.

Capability Target: 2.2: Emergency Worker Exposure Control Management
Emergency workers manage radiological exposure and dose in accordance with the plans/procedures. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, O.1).

Chesterfield and Darlington Counties will discuss the following Critical Tasks:

- The capability to provide county emergency workers (including supplemental resources) with the appropriate direct-reading and permanent record dosimetry, KI, and instructions on the use of these items.
- The capability to determine whether to replace workers, authorize workers to incur additional exposures, or other actions related to exposure limits.
- The capability to accomplish distribution of KI to county emergency workers consistent with decisions made.
- The capability to formulate and disseminate instructions on using KI for those advised to take.

Capability Target: 3.1: Communications
Communication processes, systems, and equipment are sufficient to support emergency operations. (NUREG-0654/FEMA-REP-1, Rev. 2: E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, O.1).

Chesterfield and Darlington Counties will discuss the following Critical Tasks:

- A primary system and at least one backup system are fully functional at all times.
- The capability to manage the communications systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- That the counties EOC's have sufficient equipment, maps and displays to perform the assigned role.

Exception or Note: (comms system if different than site specific plans, i.e., conference bridge line)

Capability Target: 5.4: Traffic and Access Control
Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654/FEMA-REP-1, Rev. 2: H.12, J.8, J.8.b, J.10, J.10.a, J.11.c, J.11.e, J.11.f, J.14.d, J.14.e, M.1.b, O.1).

Chesterfield, Darlington, and Lee Counties will discuss the following Critical Tasks:

- The capability to select, establish, and staff appropriate traffic control points and access control points consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation) in a timely manner.
- The capability to provide instructions to access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.
- Accurate knowledge of their roles and responsibilities including verifying emergency worker identification and access authorization to the affected areas.
- The capability to identify and take appropriate actions concerning impediments to evacuation, including re-routing of traffic and coordination with the JIS to communicate alternate routes to evacuees, as appropriate.

Backup Route Alerting

Backup Route Alerting interviews will be conducted in sequence during the exercise for Chesterfield, Darlington, and Lee Counties

Core Capability: Public Information and Warning
Definition: Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken, and the assistance being made available.

Capability Target: 1.1: Mobilization
Individuals with roles in support of emergency operations are identified, alerted, and mobilized in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, O.1).

Chesterfield, Darlington, and Lee Counties will discuss the following Critical Tasks:

- The capability to receive notification of an incident from the licensees; verify the notification; contact, alert, and mobilize key emergency personnel in a timely manner.

- The ability to staff and maintain 24-hour operations.
- The activation of facilities for immediate use by mobilized personnel upon their arrival.
- The ability to identify and request additional resources or identify compensatory measures.

Exception: Personnel cannot be at their duty station but may be pre-positioned in the area prior to notification. Personnel may participate virtually during the exercise as circumstances require.

Capability Target: 3.1: Communications
Communication processes, systems, and equipment are sufficient to support emergency operations. (NUREG-0654/FEMA-REP-1, Rev. 2: E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, O.1).

Chesterfield, Darlington, and Lee Counties will discuss the following Critical Tasks:
- A primary system and at least one backup system are fully functional at all times.
- The capability to manage the communications systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- That the EOC has sufficient equipment, maps, and displays to perform the assigned role.

Exception or Note: (comms system if different than site specific plans, i.e., conference bridge line)

Capability Target: 3.2: Alert and Notification of the Public
Alert and notification of the public is completed in a timely manner. (NUREG-0654/FEMA-REP-1, Rev. 2: E.2, E.4, E.5, F.3, O.1).

Chesterfield, Darlington, and Lee Counties will discuss the following Critical Tasks:
- A primary system and at least one backup system are fully functional at all times.
- The capability to coordinate siren activation followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume exposure pathway EPZ. The procedures to broadcast the message will be fully demonstrated as they would in an actual emergency up to the point of transmission.
- The backup alert and notification procedures utilized in the event of a siren failure.

Emergency Worker Decontamination (EWD)

The EWD for Chesterfield County will be evaluated out of sequence at the following time and location:

Date & Time	County	Facility
August 9, 2023, 10:00am	Chesterfield*	Chesterfield High School

***Chesterfield County conducts joint EWD/RC/CC Operations**

Core Capability: Environmental Response/Health and Safety
Definition: Ensure the availability of guidance and resources to address all hazards including hazardous materials, acts of terrorism, and natural disasters in support of the responder operations and the affected communities.

Capability Target: 2.1: Emergency Worker Exposure Control Decision-Making Process
A decision-making process involving consideration of appropriate factors and necessary coordination is used to ensure that an exposure control system is in place for emergency workers and includes the use of radio protective drugs and procedures to authorize emergency exposures in excess of the PAGs. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, K.2, K.2.b, K.3, K.3.a, M.1.b, M.8, O.1).

Chesterfield County will demonstrate the following Critical Tasks:

- The capability to comply with county emergency worker exposure limits.
- The capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of county emergency workers receiving radiation doses above pre-authorized levels.
- The capability to make decisions on the distribution and administration of KI as a protective measure for county emergency workers based on the established PAGs for KI administration.

Capability Target: 3.1: Communications
Communication processes, systems, and equipment are sufficient to support emergency operations. (NUREG-0654/FEMA-REP-1, Rev. 2: E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, O.1).

Chesterfield County will demonstrate the following Critical Tasks:

- A primary system and at least one backup system are fully functional at all times.
- The capability to manage the communications systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- That the counties EOC's have sufficient equipment, maps and displays to perform the assigned role.

Exception or Note: (comms system if different than site specific plans, i.e., conference bridge line)

Capability Target: 5.2: Monitoring and Decontamination of Emergency Workers, Equipment, and Vehicles
Facilities, equipment, and procedures are in place and utilized to provide monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654/FEMA-REP-1, Rev.2: K.4, O.1).

Chesterfield County will demonstrate the following Critical Tasks:

- The capability to monitor emergency worker personnel and their equipment and vehicles for contamination.
- The capability to make decisions on the need for decontamination of personnel, equipment, and vehicles based on trigger/action levels and procedures.
- The process of checking the instruments for proper operation before use.
- Monitoring procedures for a minimum of two emergency workers, their equipment, and one vehicle.
- Provisions for separate showering and same-sex decontamination.
- Provisions for limiting the spread of contamination.
- Provisions to separate contaminated and uncontaminated individuals, provide changes of clothing for those with contaminated clothing, and store contaminated clothing and personal belongings to prevent further contamination of emergency workers or facilities.
- The capability to register emergency workers upon completion of the monitoring and decontamination activities.

Exception: Decontamination of emergency workers will be simulated.

Reception Center (RC)

Note: The Red Cross and other support organizations may conduct internal training and proof of concepts on reception center operations in Chesterfield, Florence, and Lee Counties. This training is not subject to FEMA evaluation.

The RC facilities for Chesterfield County will be evaluated at the following time and location:

Date & Time	County	Facility
August 9, 2023, 10:00am	Chesterfield (Evaluated)*	Chesterfield High school

***Chesterfield County conducts joint EWD/RC/CC Operations**

Core Capability: Environmental Response/Health and Safety
Definition: Ensure the availability of guidance and resources to address all hazards including hazardous materials, acts of terrorism, and natural disasters in support of the responder operations and the affected communities.

Capability Target: 2.2: Emergency Worker Exposure Control Management
Emergency workers manage radiological exposure and dose in accordance with the plans/procedures. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, O.1).

Chesterfield County will demonstrate the following Critical Tasks:

- The capability to provide county emergency workers (including supplemental resources) with the appropriate direct-reading and permanent record dosimetry, KI, and instructions on the use of these items.
- The capability to determine whether to replace workers, authorize workers to incur additional exposures, or other actions related to exposure limits.
- The capability to accomplish distribution of KI to county emergency workers consistent with decisions made.
- The capability to formulate and disseminate instructions on using KI for those advised to take.

Capability Target: 5.1: Monitoring, Decontamination, Sheltering and Registration of Evacuees
Facilities, equipment, and procedures are in place and utilized to provide monitoring, decontamination, identification, temporary shelter, congregate care, and registration of evacuees. (NUREG-0654/FEMA-REP-1, Rev. 2: J.11.d, J.13, K.4, O.1).

Chesterfield County will discuss/demonstrate the following Critical Tasks:

- The process of checking the instruments for proper operation before use.
- Radiological monitoring and decontamination, for evacuees utilizing at least one-third of the resources available at the facilities as necessary to monitor 20% of the population within a 12-hour period. A minimum of six evacuees must be monitored per station.
- The capability to register evacuees upon completion of the monitoring and decontamination activities.
- Provisions for limiting the spread of contaminations.
- Provisions to separate contaminated and uncontaminated evacuees, provide changes of clothing for those with contaminated clothing, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities.
- The capability to provide care services to simulated evacuees.
- The capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before registering and entering the facility.
- The availability of supplies (for example: cots, blankets, and food supplies) and verify by providing a list of sources for such items and estimated quantities.

Exception: Decontamination of evacuees will be simulated

Congregate Care

Note: The Red Cross and other support organizations may conduct internal training and proof of concepts on reception center operations in Chesterfield, Florence, and Lee Counties. This training is not subject to FEMA evaluation.

CC facilities for Chesterfield County will be evaluated at the following time and location:

Date & Time	County	Facility
August 9, 2023, 10:00am	Chesterfield (Evaluated)*	Chesterfield High school

***Chesterfield County conducts joint EWD/RC/CC Operations**

Core Capability: Mass Care
Definition: Provide life-sustaining services to the affected population with a focus on hydration, feeding and sheltering to those who have the most need as well as support for reunifying families.

Capability Target: 5.1: Monitoring, Decontamination, Sheltering and Registration of Evacuees Facilities, equipment, and procedures are in place and utilized to provide monitoring, decontamination, identification, temporary shelter, congregate care, and registration of evacuees. (NUREG-0654/FEMA-REP-1, Rev. 2: J.11.d, J.13, K.4, O.1).

Chesterfield County will discuss/demonstrate the following Critical Tasks:

- The capability to coordinate evacuees who have been monitored and, if necessary, decontaminated.
- The capability to establish shelter operations.
- The capability of congregate care centers and operations in host/support jurisdictions are sufficient to support the expected number of evacuees.
- The capability to register evacuees upon completion of the monitoring and decontamination activities.
- The capability to ensure the registration area is clean and controlled, with provisions for limiting the spread of contaminations.
- Provisions to separate contaminated and uncontaminated evacuees, provide changes of clothing for those with contaminated clothing, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities.
- The capability to provide care services to simulated evacuees.
- The capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before registering and entering the facility.
- The availability of supplies (for example: cots, blankets, and food supplies) and verify by providing a list of sources for such items and estimated quantities.

Exception: Decontamination of evacuees will be simulated

Emergency Medical Services (EMS)/Medical Facilities Drill (MSD)

The EMS/MSD for Darlington County will be conducted out of sequence at the following time and location:

Date & Time	County	Hospital
November 29, 2023; 9:00 am	Darlington	Carolina Pines Regional Medical Center

Core Capability: Public Health, Health Care, and Emergency Medical Services
Definition: Provide Lifesaving medical treatment via emergency medical services and related operations and avoid additional disease and injury by providing targeted public health and medical support and products to all people in need within the affected area.

Capability Target: 2.1: Emergency Worker Exposure Control Decision-Making Process
A decision-making process involving consideration of appropriate factors and necessary coordination is used to ensure that an exposure control system is in place for emergency workers and includes the use of radio protective drugs and procedures to authorize emergency exposures in excess of the PAGs. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, K.2, K.2.b, K.3, K.3.a, M.1.b, M.8, O.1).

Darlington County EMS will demonstrate the following Critical Tasks:

- The capability to comply with county emergency worker exposure limits.
- The capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of county emergency workers receiving radiation doses above pre-authorized levels.
- The capability to make decisions on the distribution and administration of KI as a protective measure for county emergency workers based on the established PAGs for KI administration.

Capability Target: 2.2: Emergency Worker Exposure Control Management
Emergency workers manage radiological exposure and dose in accordance with the plans/procedures. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, O.1).

Darlington County EMS will demonstrate the following Critical Tasks:

- The capability of emergency workers to manage dose and exposure, use equipment (e.g., dosimetry, radio protective drugs), and identify procedures to monitor their exposure and dose, including following procedures to obtain authorization to receive emergency exposures in excess of the PAG's.
- The capability to maintain an appropriate inventory of DRD's that are leak-tested or current in calibration.
- The ability to maintain inventory of PRD's and have sufficient inventory for the number of workers.
- The capability to adequately supply of radio protective drugs.
- The ability to adequately distribute appropriate DRD's and PRDs, and radio protective drugs to emergency workers.
- The capability to record and report exposures in the field.

Note: EMS personnel will be questioned about procedures after patient turnover, including the location of the Emergency Worker Decontamination Station.

Exceptions:

- Complete Personal Protective Equipment (PPE) will be worn by EMS crews and hospital staff with direct patient contact. The driver of the ambulance and hospital administrative staff outside of the decontamination room can reduce PPE to gloves and booties only.
- One EMS Crew Member will also be asked to demonstrate the removal of PPE.
- One Carolina Pines Radiation Response Team member will demonstrate the removal of PPE.

Capability Target: 5.3: Transportation and Treatment of Contaminated, Injured Individuals
Transport contaminated, injured individuals to medical facilities with the capability to monitor and decontaminate. (NUREG-0654/FEMA-REP-1, Rev. 2: C.2.d, F.2, H.11, H.12, J.2, K.3, K.4, L.1, L.3, L.4, O.1).

Darlington County EMS will demonstrate the following Critical Tasks:

- The capability to monitor and (if appropriate) transport contaminated, injured individuals to Carolina Pines Regional Medical Center.
- Normal communications between the ambulance and Carolina Pines Regional Medical Center, to include reporting radiation monitoring results, if available.
- Knowledge of where the ambulance crew would be monitored and decontaminated, if required, or whom to contact for such information.
- Appropriated contamination control measures before and during transport.
- The process of checking the monitoring instruments for proper operation before use.

Carolina Pines Regional Medical Center will demonstrate the following Critical Tasks:

- The capability to monitor and decontaminate a contaminated, injured individual.
- The process of checking the monitoring instruments for proper operation before use.
- Communications between the ambulance/dispatcher and Carolina Pines Regional Medical Center to include reporting radiation monitoring results, if available.
- Appropriate contamination control measures (at the hospital).
- The capability to activate and setup a radiological emergency area for treatment.
- The capability to make decisions on the need for decontamination, follow appropriate decontamination procedures, and maintain records of all survey measurements and samples taken.

Notes:

- One FEMA Evaluator will be allowed to ride in the ambulance to monitor communications between the ambulance crew and the hospital while the patient is en-route to the hospital.

Exceptions:

- Permanent Record Dosimeters (PRDs) and KI will be simulated.
- One EMS Crew Member and one Carolina Pines Regional Medical Center Radiation Response Team Member will demonstrate the process of checking the instruments for proper operation.
- The use of medical supplies in the drill will be limited so that hospital and EMS supplies are conserved for actual medical emergency response.
- In the event that the ambulance has to respond to real life events, another vehicle will be used to transport the contaminated injured person to the hospital.
- Decontamination of hair and a full-body shower will be discussed. Water will be utilized in place of saline for demonstrating wound decontamination, as necessary. The controller and evaluator will determine how many times wound decontamination will be done based on the quality of the application on the first decontamination attempt.