After Action Report

Robinson Nuclear Plant

Radiological Emergency Preparedness Exercise

Exercise Date: May 18, 2021

July 27, 2021

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Executive Summary

On May 18, 2021, the offsite response organizations of the Robinson Nuclear Plant 10-mile emergency planning zone participated in a plume exposure pathway exercise. FEMA Region IV Radiological Emergency Preparedness Program staff evaluated that exercise and out of sequence activities conducted virtually on April 12, 2021, April 19,2021, and April 20, 2021. This report outlines the evaluation results of the exercise and out of sequence activities.

The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at the Robinson Nuclear Plant. It was conducted in accordance with FEMA 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 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.

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 virtual activities. All jurisdictions met their exercise objectives and successfully demonstrated the corresponding core capabilities identified in Section 2.2 of this report. FEMA staff did not identify any level 1 or level 2 findings during this exercise or the out of sequence activities.

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. They provided the necessary support and resources to respond to an incident at the Robinson Nuclear Plant.

FEMA wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success. The professionalism and teamwork of the participants was evident throughout all phases of the exercise.

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Section 1: Exercise Overview

Exercise Name	2021 Robinson Nuclear Plant Radiological Emergency Preparedness Exercise	
Type of Exercise	Full Participation Radiological Emergency Preparedness Exercise	
Exercise Date	May 18, 2021	
Out of Sequence Date	April 12, 2021 April 19,2021 April 20, 2021	
Program	Radiological Emergency Preparedness Program	
Mission Area	Response	
Scenario Type	Plume Phase Radiological Emergency	
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	Ms. Elisabeth Akins Central Section Chief FEMA Region IV 3005 Chamblee-Tucker Road Atlanta, Georgia 30341	Mr. Robert B. Nash Robinson Site Specialist FEMA Region IV 3005 Chamblee-Tucker Road Atlanta, Georgia 30341
	Ms. Danilyn Bock Fixed Nuclear Facility Manager South Carolina Emergency Management Division 2779 Fish Hatchery Road West Columbia, South Carolina 29172	Mr. Ron Cain Fixed Nuclear Facility 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 CFR parts 350, 351, 352, 353 and 354. CFR 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 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, the annual letter of certification, and staff assistance visits, enabled FEMA to provide a statement with the transmission of this 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 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.
- **Objective 4: Detect, Measure, Sample, Analyze, and Assess** – Demonstrate the ability to perform plume-phase analysis and dose assessment, measurements and sampling, field monitoring team management, 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.

Winds will be from the southwest throughout the exercise, varying from 216° to 225°. The expected protective action recommendation from the utility at General Emergency will be to evacuate zones A-0, A-1, B-1, and E-1. Later, the utility is expected to update its protective action recommendation to add evacuate A-2 and consider the use of potassium iodide in accordance with state plans and policy. The evacuation zones are in Darlington and Chesterfield counties. Lee County will not be affected. Plant conditions will result in the Robinson Nuclear Plant declaring a General Emergency. That, in turn, will drive protective action decisions to be made by the offsite response organizations. A significant radiological release will begin later, causing the utility to upgrade their protective action recommendation and offsite response organizations to consider additional protective action decisions. The maximum total doses projected by the utility will exceed protective action guides out past two miles. The protective action guide for supplemental administration of potassium iodide (KI)

based on child thyroid dose will also be exceeded out to about ten miles. Projected thyroid doses should result in a decision for administration of potassium iodide to emergency workers and the public in affected areas. Projected doses calculated by the state may vary somewhat based on assumptions used.

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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 18, 2021, plume exposure pathway exercise and out of sequence activities on February 10, 2021 and February 10, 2021.

Each jurisdiction and functional entity was 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 IV Radiological Emergency Preparedness Program evaluations. The core capability summaries below provide an overall combined assessment of state and local jurisdictions based upon their collective demonstrated performance as it relates to the specific core capability. 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 great success coordinating decisions with the concurrence from all involving timely school relocations; lake clearing; livestock precautions; hunting and fishing bans; and establishment of reception center and emergency worker decontamination stations.

- **Situational Assessment:** South Carolina Department of Health and Environmental Control staff assessed incident conditions to make well informed protective action recommendations to decision makers. Decision makers were provided with relevant information regarding assessed radiological and plant conditions. This information allowed decision makers to understand the extent of the hazards and cascading effects and to make the appropriate protective action decisions to protect the public.
- **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.

  Environmental Response/Health and Safety: Field monitoring teams performed well during the out of sequence demonstrations. The field monitoring team director used the RadResponder software effectively during the deployment of field monitoring teams to receive and record data. The mobile laboratory team used signage, barricades, table coverings, and all other required supplies and equipment to set up the facility as it would be in an actual event. Microsoft Teams was used effectively as a mechanism for the exchange of information between the South Carolina Department of Health and Environmental Control team members at various locations and virtually.
- **On Scene Security, Protection and Law Enforcement**: State and local law enforcement agencies virtually discussed the capability to ensure a safe and secure environment through law enforcement, security, and protection operations for people traveling within the emergency planning zone. The implementation of traffic and access control points was discussed during exercise play at the risk county emergency operations center representatives. They described the process for timely establishment of traffic and access control points.
- **Critical Transportation**: Administrators from Darlington County schools, through interview, successfully relayed their ability to implement protective actions and safeguard students, staff, and faculty in the event of an incident at the Robinson Nuclear Station during discussions on April 19, 2021

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:

In response to a simulated radiological event at the Robinson Nuclear Plant on May 18, 2021, South Carolina Emergency Management Division staff and emergency support function personnel demonstrated the ability to establish and maintain a unified and coordinated operational structure and process that integrated all risk counties and stakeholders.

The emergency operations center staff was alerted and mobilized successfully using a reverse calling notification system, demonstrated by the state warning point. The state warning point personnel demonstrated proficiency in facilitating the activation of the state emergency operations center.

The primary method of communication to receive information from the utility to the state emergency operations center and the state warning point was a dedicated telephone system. The backup communication systems present were landline telephones; 800 MHz radios; cell phones; e-mail; a web-based tracking and coordination tool; and facsimile machines. All protective action decisions were discussed on a conference bridge line. The bridge line was open throughout the exercise and there were no issues or failures with any of the communications system.

There was sufficient space and equipment to support emergency response efforts in the state emergency operations center. Each emergency support function agency 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.

Each location had enough space for laptop computers and telephones. Due to the pandemic environment, each location also was divided by plexiglass to address social distancing protocols.

The technical officer, along with the chief of staff and plans chief, provided direction and control to the state emergency response team. The technical officer held update briefings with the response personnel and the plant liaison to gain situation awareness among the group before each conference call with the stakeholders. The technical officer facilitated conference calls with the risk counties' emergency management directors to review plant conditions and emergency classification levels and coordinate protective action decisions. The technical officer took recommendations from the South Carolina Department of Health and Environmental Control emergency response coordinator and the risk counties and ensured that all stakeholders understood the recommendations and agreed on the final decisions. The activation of sirens and the Emergency Alert System messages were coordinated by the technical officer and activation times were agreed among the risk counties.

The technical officer received a public health recommendation letter to ingest potassium iodide for all those in the evacuation area. The recommendation was then presented to the risk counties on the conference bridge line by the technical officer. All counties agreed with this recommendation for the ingestion of potassium iodide. The technical officer demonstrated the ability to manage resources. The risk counties requested to activate the state dosimetry distribution plan and the technical officer acknowledged and executed the request.

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

Public Information and Warning Capability Summary:

The state warning point, located in a room adjacent to the emergency operations center, maintained 24-hour communication/notification systems. The ability to deliver coordinated, prompt, and actionable information to the public was demonstrated through two alert and notification sequences completed in a timely manner. Three protective action decisions occurred by decision group agreement including message selection by all key participating agencies on the emergency management network decision line. However, the third sequence was cut short following the Emergency Alert System message and news release generation due to exercise termination. The joint information center chose to complete the third Emergency Alert System message generation cycle for training. The siren sounding and public notification times were not determined for the third sequence. The messages were prepared by the public information team using the Integrated Public Alert and Warning System message format. After approval, the lead public information officer delivered and emailed the messages to the warning point communications center. The warning point supervisor correctly entered the public notification messages into the Integrated Public Alert and Warning System test environment via the reverse calling notification system.

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

Situational Assessment Capability Summary:

South Carolina Department of Health and Environmental Control personnel demonstrated the ability to provide staff and to assess radiological, meteorological, and plant conditions in response to a radiological incident at Robinson Nuclear Plant. Staff members were prepositioned near the state emergency operations center and responded promptly when notified of the Alert, staffing emergency support functions 8 and 10. A roster was provided for 24-hour operations.

The emergency response coordinator provided direction to the emergency support function 10 team members. The team gathered the information for changing plant conditions to assess the radiological release. The emergency response coordinator responded appropriately to changing plant parameters using radiation monitors and containment pressure data. The emergency response coordinator participated in conference calls with state and county decision makers, providing appropriate technical information, precautionary actions, and recommendations during discussions of protective actions.

The dose assessment coordinator performed dose projection calculations and obtained licensee dose projections from the emergency operations facility. The licensee calculated adult thyroid committed dose equivalent whereas the State of South Carolina calculated child thyroid committed dose equivalent. The South Carolina dose projections indicated protective action guides were exceeded slightly beyond 10 miles. However, the exercise was terminated before a discussion of the differences could be discussed. In addition, since the field teams were demonstrating out of sequence, there was no field data available for comparisons with dose projections.

The emergency support function 8 obtained approval for ingestion of potassium iodide from the designated public health physician by telephone call. Following the telephone approval, the emergency support function 8 issued a written recommendation for the ingestion of potassium iodide by emergency workers, institutionalized populations, and the general public in the plume emergency planning zone.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 1.2, 1.3, 4.5.

Environmental Response/Health and Safety Capability Summary:

Mobile Laboratory

The South Carolina Mobile Radiological Laboratory demonstrated the ability to mobilize, control exposures to radiological hazards, and analyze environmental samples. The staff members explained that during a radiological emergency, the laboratory manager would receive notification to mobilize from the state emergency operations. Staff members would be contacted either in person or by telephone to respond to their headquarters to prepare for mobilization. The facility was set up as it would be in an actual response. The laboratory manager promptly declared the facility operational and reported the status to the mobile operations center when the lab was ready to receive samples.

Radiological exposure was controlled and managed with the use of direct reading electronic dosimeters and permanent record dosimeters supplied to each staff member. Frequent monitoring of hands, equipment, and samples ensured lab personnel were not contaminated and prevented cross-contamination of samples.

Samples were received, tracked using proper chain of custody, prepared, and analyzed properly during the exercise. The samples were prepared and placed into proper containers for analysis. Analytical equipment was prepared during setup by performing necessary calibrations and checks prior to analyzing samples. An air cartridge was analyzed in the mobile lab to determine radioactive iodine concentration. The results were forwarded to the mobile operations center upon completion.

Field Monitoring Team Coordination

The South Carolina Department of Health and Environmental Control Field Monitoring Team Director demonstrated the capability to direct field teams to take ambient radiation measurements and collect air samples. This demonstration was performed as an out of sequence activity. Although the staff was prepositioned in the area, the field team director demonstrated knowledge of the notification process with the receipt of an alerting message on cellular telephone, requesting him to report to the mobile operations center. The field team director provided a roster with names and contact information used for initial and 24-hour staffing of mobile operations center personnel. Additional resources from adjoining states and federal partners would be requested through the state emergency operations center.

The site safety officer was responsible for field team dosimeter issuance and exposure tracking. If a field team member needed to exceed dose limits for a critical operation, a process was in place for determining approval based on the request and other available personnel. Emergency worker exposure management was supported by adequate supplies of permanent record dosimeters and electronic direct reading dosimeters to support deployment of several field teams over a protracted period.

The field monitoring team director and members of the field teams attended a safety briefing prior to deployment. The briefing focused on personal safety issues with little emphasis on radiological hazards. This was the only briefing provided to field team members and it did not address radiological issues needed to prepare the field teams for entries into a radiological plume.

The field monitoring team director worked with the mobile operations center coordinator using electronic map displays on which the potential plume direction was noted. This enabled the director to decide which team deployment routes would most effectively characterize the plume magnitude and width. The intersection of Lakeview Boulevard and Ruby Road and associated traverses were determined to be the best areas for downwind surveys and air sample collection. In accordance with the extent of play agreement, actual deployment to these locations was simulated, and teams deployed to an area adjacent to the mobile operations center. Upon the simulated arrival at the plume centerline (determined by exposure rate measurements), field monitoring teams collected an air sample as requested by the field monitoring team director. The sample results were entered into the RadResponder software, thereby making the survey and sample results available to key individuals in the offsite response organization.

Field Monitoring Teams

The South Carolina Department of Health and Environmental demonstrated the capability to provide field teams to take ambient radiation measurements and collect air samples. This demonstration was performed as an out of sequence activity. Field team personnel explained the notification and mobilization process. Field team personnel were issued dosimetry and potassium iodide. Electronic dosimeter readings were reported to the mobile operations center on a periodic basis. Team members explained the radiation exposure limits and the approval process for a radiation exposure increase. The team members understood the purpose, dosage, and authorization for potassium iodide ingestion.

Appropriate equipment was provided including a dedicated vehicle, air sample and radiation survey equipment, personal protective equipment, contamination control supplies, sample packaging supplies, current procedures and forms, and communications equipment. Cellular telephones and 800 MHz radios were used throughout the demonstration to transfer information. A satellite telephone was available for backup. There were no communication failures observed.

Equipment was inventoried, operationally tested, and source checked. Field monitoring team deployment was simulated. Team members simulated traveling to downwind locations and performed radiation surveys to locate the plume edges and centerline. A full set of radiation surveys and an air sample were taken at plume centerline at approximately two and five miles downwind. Each team moved to a low background location to package and count sample media. Appropriate contamination controls were demonstrated to prevent cross contamination of sample media. Procedures enabled the team to detect radioiodine at a

concentration as low as 10-7 µCi/cc. Radiation survey data was input into the Rad Responder program for immediate transfer to the mobile operations center. Chain of custody forms, procedures, and sample transfer to a courier were appropriately demonstrated.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 2.2., 3.1., 4.2.

On Scene Security, Protection, and Law Enforcement Capability Summary:

Representatives from the South Carolina Department of Natural Resources participated in a virtual interview to discuss their procedures and coordination protocols for clearing Lake Robinson following an incident at the Robinson Nuclear Plant. All officers, through virtual interview, demonstrated their familiarity and knowledge of the plans and resources that would be required to clear the lake under a variety of circumstances. The officers discussed the issuance of appropriate exposure control equipment, and just in time training would be provided to responders tasked to complete lake clearing. All responding departments would have access to interoperable communications and could coordinate operations on a common radio channel. The South Carolina Department of Natural Resources would have the responsibility for directing the operation and would provide assignments to other responders depending on lake conditions and population.

For this capability the following radiological emergency preparedness capability targets were met: 1.5, 2.2., 3.1.

3.4 Joint Operations

3. 4. 1 Joint Information System/Center

Public Information and Warning Capability Summary:

The state of South Carolina and the counties of Chesterfield, Darlington, and Lee successfully established and maintained a virtual joint information system in response to a simulated emergency incident at the Robinson Nuclear Plant. Alert and notification of the public was accomplished in a timely manner and accurate emergency information and instructions were provided to the public and the news media. Public information staff prepared and delivered coordinated, prompt, reliable, and actionable information in media releases and media briefings for the whole community.

Initial instructional messages concerning protective action information for the public were accomplished via the Integrated Public Alert and Warning System. When activation of the siren system was desired, message transmission occurred concurrently with siren activation. During the exercise the state issued three Integrated Public Alert and Warning System messages following coordination and concurrence by the state and counties. All messages contained the four essential elements for initial messaging. No failures of the system were observed.

News releases were issued by the South Carolina State Emergency Response Team at the state's emergency operations center. Pre-scripted message templates were modified to include accurate precautionary action and protective action decisions made by key decisionmakers on the coordination line. Draft messages were shared through a public information staff email group, which included federal, state, local, and utility partners, for

coordination and review prior to release. The release of messages to the public and media was simulated by marking a release as final and disseminating within a mock media distribution email group. All news releases were reviewed and approved by all jurisdictional public information officers within the joint information system and by senior management within South Carolina Emergency Management prior to release to the public. News releases were accurate, clear, and released in a timely manner.

Spokespersons from the state of South Carolina, Chesterfield County, Darlington County, Lee County, the Nuclear Regulatory Commission, and Duke Energy held three joint virtual media briefings using a video conference platform. Mock media members were available and directed multiple questions to the state, local, and utility spokespersons. Information provided to the mock media during the briefing was accurate and consistent with the protective action decisions. Public information staff discussed throughout the exercise the importance of identifying rumor trends which may require supplemental messaging. Each jurisdiction messaged their respective citizen hotline phone numbers and encouraged residents with questions to contact their respective emergency management officials. No rumors or trends were identified that needed clarification through news releases or media briefings.

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

3. 4. 2 Emergency Operations Facility

Operational Coordination Capability Summary:

The South Carolina Emergency Management Division and Department of Health and Environmental Control liaisons in the licensee's emergency operations facility provided continual and situational awareness to the state of South Carolina's unified and coordinated operational structure in support of the Robinson Nuclear Plant

The liaisons established multiple communications links with their respective agencies upon arrival to the facility. This included cell phone, web conferencing applications, email, and access to the state's web-based incident management software system.

Working closely with licensee's emergency response team, they obtained the current plant conditions and provided that information in a timely manner to the critical stakeholders in the state and county emergency operations centers. Likewise, they made sure that the utility was aware of the state and local response activities and protective action decisions. Their actions supported the state and county protective action decision-making.

Throughout the exercise, the liaisons were proactive in their roles with the liaisons listening in on all state coordinating calls. Additionally, much time was spent in discussions with Duke Energy's emergency operations facility leadership. These discussions were conducted in an attempt to keep information flowing and maintaining situational awareness among onsite and offsite response personnel. The liaisons' collaborative and hands-on effort allowed for the successful execution of this core capability.

For this capability the following radiological emergency preparedness capability target was met: 1.2.

3.5 Risk Jurisdictions

3. 5. 1 Chesterfield County

Operational Coordination Capability Summary:

Chesterfield County emergency management officials successfully demonstrated the ability to respond to a radiological emergency at the Robinson Nuclear Plant and ensure the safety of the general population and county emergency workers. The normal process for alerting, notifying, and mobilizing emergency operations center personnel was demonstrated using an automated alerting system to staff the necessary positions within the emergency operations center in a timely manner.

All personnel within the emergency operations center had access to redundant communications systems that operated properly and dependably. Each provided clear, audible, and interference free voice and/or digital exchange. Communication systems included computer Internet access, electronic mail, commercial land lines, cell phones, and other hand-held electronic devices. Backup communications included facsimile machines, 800 megahertz radios, and local government frequency radios. A South Carolina Emergency Management Division electronic incident management system was used to maintain situational awareness and track assistance requests. Status calls and discussions among South Carolina Emergency Management Division and Darlington and Chesterfield Counties concerning protective action decisions were coordinated using dedicated notification and conference call lines.

The emergency management director and assistant director effectively gathered pertinent emergency information, analyzed it, and made appropriate decisions with effective direction and control. Their proactive planning resulted in effective discussion and decision-making to protect county emergency workers and the general population in the emergency planning zone. Periodic staff briefings kept the staff informed of emergency conditions and plant status, and the staff maintained effective internal coordination. The opinions of experienced firefighters, police officers, public health, and school administration professionals was solicited and considered when making decisions.

Emergency operations center personnel had sufficient maps, plans and procedures, office equipment, and supplies. Chesterfield County possessed enough quantities of radiological equipment for the anticipated number of emergency workers to complete their assigned missions.

Plans for the issuance of potassium iodide both to emergency workers and the general population at the Chesterfield High School were on file and explained in detail.

Chesterfield County maintained a file of all individuals identified as having disabilities and access/functional needs that resided within the emergency planning zone. These individuals were of concern throughout this exercise, and emergency medical services and sheriff's office representatives were prepared to perform their evacuation. The location and specific needs of everyone was readily available to those responders to perform their evacuation in an expedient manner. School students would be released at Alert emergency classification level at their primary school for their parents to pick up, or later after the students and staff were relocated to their host school upon declaration of Site Area Emergency. This was coordinated by the emergency operations center staff.

Agency representatives were knowledgeable of appropriate dosimetry, potassium iodide, and procedures to ensure safe radiological exposure of emergency workers. The radiological officer who briefed the emergency workers was knowledgeable of maintaining a safe level of exposure for the emergency workers. The correct dosimetry (direct reading dosimeters and permanent record dosimeters) was available in sufficient amounts to ensure all emergency workers that reported to the emergency operation center for dispatch would have one of each, as well as potassium iodide. All dosimetry and potassium iodide were within the proper expiration dates. Documents that explained the use of potassium iodide and its possible negative effects were on hand to provide with the pills. County health department representatives were prepared to make potassium iodide available to the general public as required.

The law enforcement representative stated there were enough resources to replace any emergency workers that needed it, as there were enough emergency workers trained in the county to operate either at the reception center or traffic control points. Law enforcement representatives provided details on traffic control points, clearing impediments, and the county's role in waterway warning on Lake Robinson.

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, 5.4, 3.2, 3.3.

Public Information and Warning Capability Summary:

Chesterfield County emergency management officials successfully demonstrated their ability to notify the public accurately and in a timely fashion. There were two siren activations (the primary notification system). Both were coordinated among the risk counties and the state prior to activation, and both tests were successfully completed. The Emergency Alert System messages released after each siren activation were coordinated on during conference calls among the risk counties and the state. These messages were released from the state emergency operations center.

One simulated siren failure in Chesterfield County was identified. After the simulated siren failure, the county radiological officer was interviewed. He described how the public would be alerted inside the area impacted by the failed siren. The Patrick County Fire Department would conduct route alerting in the impacted area with two teams. The radiological officer described how and where he would issue the proper dosimetry and potassium iodide as he conducted a safety briefing to the emergency workers on the two teams. He then explained how the teams would slowly drive the route as they used the vehicle's public address system, and would provide a printed copy of the message to the two deaf persons identified in the Access/Functional Needs database maintained by Chesterfield County Emergency Management.

The Chesterfield County Emergency Operations Center had one public information officer and two administrative assistants on duty throughout the exercise. They successfully staffed for the approval of a news release at 8:55 a. m. which informed county residents of the Alert emergency classification level and the activation of the Chesterfield County Emergency Operations Center. The joint information system issued a second news release after it was activated. The county public information staff was successful in validating previous information that had been released to the public and making any needed changes during the exercise. No trends were identified in five inject messages which simulated public inquiries

received at the county emergency operations center. The county did not conduct any media briefings, which were held virtually by the joint information system.

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

On-Scene Security, Protection and Law Enforcement Capability Summary:

Activation and management of the five county traffic control points was evaluated by interview with the county radiological officer and a Chesterfield County Sheriff's Office deputy. All five traffic and access control points were identified and simulated staffed in a timely manner. The radiological officer described the safety briefing he would provide would have been provided the emergency workers. He also described the procedures to contact county agencies that would support waterway warning on Lake Robinson. The law enforcement officer described how the sheriff's office would handle the possibility of impediments on the evacuation routes in a satisfactory manner. He not only described how law enforcement representatives would contact contracted agencies to send necessary resources to begin clearing the impediment, but also how they would determine alternate routes. This information on new routes would be relayed to the joint information center to ensure evacuating citizens knew the latest information. Reentry procedures for emergency workers and individuals were adequate, ensuring only those needing access would be allowed back inside the 10-mile emergency planning zone.

For this capability the following radiological emergency preparedness capability targets were met: 1.5., 2.2., 5.4

3. 5. 2 Darlington County

Operational Coordination Capability Summary:

Darlington County staff and leadership successfully demonstrated their capability to protect the public in the event of a radiological emergency at Robinson Nuclear Plant. The Darlington County Emergency Management Director notified key staff and county administration personnel and mobilized the county emergency operations staff in a timely manner, despite challenges to the county's primary reverse 911 system. Once all personnel arrived at the emergency operations center, the emergency management director declared the facility operational and briefed the staff on the current situation at Robinson Nuclear Plant. Staff briefings were held frequently to maintain situational awareness among the staff. The Darlington County Administrator assisted in managing emergency response activities and was vital during the county's response. Leadership coordinated emergency planning zone protective actions and potassium iodide decisions with leadership from the South Carolina Emergency Management Division and Chesterfield and Lee Counties after receiving emergency classification level notifications. Darlington County leadership also participated in making precautionary action decisions for schools, livestock, hunting, fishing, and waterway warnings in a timely manner.

The emergency operations center was well equipped to support emergency operations in support of Robinson Nuclear Station. The emergency operations center had workstations for emergency support function staff and had sufficient equipment and supplies. The team used digital and physical displays to display critical emergency information. The emergency operations center also had adequate communications systems available, including radios,

satellite phones, and email. The primary means of communication used between Darlington County and Robinson Nuclear Plant was the Duke Emergency Management Network (dedicated communications system). The primary means of communications used were landline and cellular phones, computers with Internet capabilities, and an internet-based common operation picture and situational awareness application. Darlington County Emergency Management also utilized 800 MHz radios. Additional emergency operations center capabilities included VHF and satellite telephones. The county managed all communication systems to ensure that communications were handled without delay. No communication failures were observed. Darlington County staff and leadership were professional and knowledgeable and performed their duties in accordance with the county's plans and procedures.

The Darlington County Emergency Management Director spoke with the Darlington Schools Coordinator for Safety and Emergency management staffing emergency support function 1, Transportation, approximately 15 minutes before Robinson Nuclear Plant staff declared a Site Area Emergency and suggested schools within the emergency planning zones be relocated. They agreed and began moving the students as Darlington County was notified of the Site Area Emergency declaration. The coordinator contacted Florence County and notified them of her intent. She stated that students from schools within the emergency planning zones would be moved to the Florence Civic Center, followed by Darlington County Schools outside the zone.

The Darlington County Department of Social Services representative staffing emergency support function 6, Mass Care, contacted nine foster homes, two group homes, and fifteen daycare centers to inform them of the incident at Robinson Nuclear Plant and determine what assistance might be needed. He then coordinated with emergency support function 1 to provide the required vehicles. The facilities would be contacted immediately after the escalation to Site Area Emergency and advised to relocate to the Florence Civic Center. The sheriff also initiated the plan to reduce the jail census.

Upon declaration of a General Emergency, Robinson Nuclear Plant staff recommended an evacuation for a portion of the emergency planning zone within Darlington County. Siting wind speed and direction, the Darlington County Administrator and Darlington County Emergency Management Director argued that the prudent action would be to evacuate all of the planning zones within Darlington County. The utility, the state of South Carolina, and other risk counties concurred after discussion with The South Carolina Department of Health and Environmental Control. Persons who returned access and functional needs cards included in annual safety information distributed by the utility were contacted (simulated) by emergency support function 1 to arrange bus or ambulance transportation as requested.

The Darlington County Emergency Management Director concurred with the South Carolina Health Commissioner's recommendation to distribute and later ingest potassium iodide. The recommendations included emergency workers, the general public, and institutionalized individuals.

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, 3.2, 3.3., 5.4.

Public Information and Warning Capability Summary:

The Darlington County Emergency Operations Center staff successfully demonstrated the capability to deliver coordinated, prompt, reliable, and actionable information to the whole community by using precise, consistent, accessible methods and providing instructions to the public. After discussion and concurrence with staff from Robinson Nuclear Plant staff, South Carolina Emergency Operations Center, Lee County, and Chesterfield County, the Darlington County Emergency Management Director simulated two siren activations. Emergency Alert System broadcasts followed both. The first was to inform residents to stay tuned for emergency information, and the second was to announce protective action decisions to evacuate a specified area. Pre-scripted messages identified in the public information officer's procedure ensured that the four essential elements were presented. Although capability exists for any of the three counties to activate all of the sirens, each activated its own. There were no siren failures identified; however, backup route alerting would have been performed in affected areas of siren failure. The South Carolina Emergency Operations Center completed the activation of the Emergency Alert System and National Oceanic and Atmospheric Administration radios. The Darlington County public information staff worked closely with staff within the joint information system to review message content and provide information specific to Darlington County. Multiple public inquiry calls were routed to appropriate staff in the emergency operations center for resolution.

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

On-Scene Security and Protection Capability Summary:

South Carolina State Highway Patrol representatives in Darlington County discussed their ability to establish and maintain seven traffic control points through virtual interview. The officers were well-versed in the law enforcement aspects related to traffic control point establishment and management. They demonstrated the capability to explain successful evacuation management with the aid of detailed maps.

The South Carolina State Highway Patrol troopers were well trained and exhibited sufficient knowledge of dosimetry, personal protective measures, and pertinent aspects related to the issuance and ingestion of potassium iodide. They were similarly equipped with information that could assist them in responding to queries from evacuees regarding the location of designated Florence County shelters and reception center.

The troopers discussed appropriate methods of resolving traffic impediments and the resources and support others law enforcement agencies could provide. They would notify their supervisor to report any impediments and ask that appropriate equipment to be dispatched to the impacted area. Some impediments could be cleared by the South Carolina State Highway Patrol by using their vehicle to push the impediment to the side of the road. They could also request assistance from the Darlington County Transportation Office to maintain the flow of traffic.

For this capability the following radiological emergency preparedness capability targets were met: 1.5., 2.2., 3.1., 5.4.

Critical Transportation Capability Summary:

Staff from the Darlington County Public School System demonstrated the ability to discuss protective measures for schools through interview with the principals of at-risk schools, representatives of Darlington County School System, and Darlington County Emergency Management Agency staff. The virtual interview identified there was close coordination among county agencies and schools, and that plans and procedures at each level were compatible and consistent. School system representatives discussed their processes for training school faculty on their individual and collective responsibilities. There are systems in place for notifying and coordinating with parents and maintaining appropriate accountability of students. The school system has adequate resources to relocate students and to implement any protective action decisions identified in their plans. The designated county agencies and school system are prepared to safeguard students, staff, and faculty of at-risk schools in the event of a nuclear incident at the Robinson Nuclear Plant.

For this capability the following radiological emergency preparedness capability target was met: 1.5.

3. 5. 3 Lee County

Operational Coordination Capability Summary:

Lee County staff successfully demonstrated the ability to identify, alert, and mobilize emergency operations center support staff in a timely manner. Some staff members were positioned in the area prior to the start of the exercise in accordance with the approved extent of play agreement. Additional agency representatives reported to the Lee County Emergency Operations Center after receiving a message from the mass notification system that was previously set up to alert and mobilize staff members. Through interview, the emergency management director described how the levels of staffing would increase as the emergency operations center's activation level increased in response to escalating emergency classification levels. An incident action plan was published to demonstrate the capability to maintain staffing for 24-hour operations. Lee County received initial notification of an incident at the Robinson Nuclear Plant through the utility's dedicated phone line. Subsequent communication of changes to pertinent data and emergency classification level changes were communicated in the same manner. The emergency operations center was formally declared activated at the Alert emergency classification level.

Since the Lee County 911 Communications center is at another location, the emergency operations center maintains the capability to provide reliable communications with personnel in the emergency operations center and emergency workers in the emergency planning zone. The center demonstrated multiple, redundant communication systems, to include the utility communication line, computer internet access, electronic mail, commercial land lines, cell phones, and other hand-held portable electronic devices. Backup communications included facsimile machines and several county 800 megahertz radios which were used and demonstrated successfully during the exercise.

The Lee County Emergency Management Director stayed informed of incident and plant status. He shared information with emergency operations center staff through frequent briefings and coordinated implementation of response actions using checklists. He managed the incident well to ensure all planed response actions were addressed. The emergency management director participated in all coordination calls with relevant stakeholders and

engaged in protective action decision making discussions. Most protective actions were not required in Lee County due to the wind direction; however, the emergency management director and the radiological officer discussed the appropriate actions they would take to protect emergency workers and the general public, including school children and those with access and functional needs.

The Lee County Emergency Management Director and staff demonstrated the capability to implement precautionary protective actions for residents within the emergency planning zone. Emergency operations center staff demonstrated the ability to contact residents with access and functional needs from lists maintained by Lee County Department of Social Services and American Red Cross. The fire department and sheriff's office stated they would coordinate their capability to provide transportation to a resident who was identified as having access and functional needs. School systems were notified at the Alert emergency classification level to conduct early dismissal but requested to hold students living within the Lee County 10-mile emergency planning zone. Specially equipped school vans and buses were then available for resident transport if required.

The wind direction, blowing the plume away from Lee County, factored into the county's decision for emergency workers to be issued, but not ingest, potassium iodide. Lee County has no hospitals or institutional facilities for special potassium iodide issuance. Also, due to Lee County residents not being exposed to radiation, they were not issued potassium iodide. These decisions were made in coordination with Chesterfield and Darlington Counties, whose emergency workers and residents were ordered to ingest potassium iodide.

Sufficient inventory of dosimetry, potassium iodide, and monitoring equipment is maintained in the emergency operations center for emergency workers. The designated radiological manager stated that the inventory is maintained in sealed containers. Following proper plans and procedures, emergency workers were briefed prior to deployment to traffic control posts. They were issued appropriate exposure and monitoring equipment, documentation, and potassium iodide, and were knowledgeable of its use to maintain safe radiological exposure. Sufficient equipment and supplies were available at the emergency operations center for extended operations. Also, the state dosimetry distribution plan was implemented to ensure additional radiological supplies were available if required.

Traffic and access control was successfully accomplished through interview with Lee County Sheriff's Deputies. At the Site Area Emergency declaration, the emergency management director requested the implementation of traffic control point procedures at their designated two locations along the evacuation route. If an impediment to an evacuation route was reported, additional officers would be dispatched to determine an alternate route around the impediment along with its removal by public works or a local towing company. The deputies would provide status updates to the emergency operations center public information officer. The county sheriff's deputies were very knowledgeable of the management of traffic flow while effectively ensuring the safety of the public and traffic and access control activities.

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, 3.2, 3.3, 5.4.

Public Information and Warning Capability Summary:

Lee County demonstrated the capability to alert the public of the emergency through timely activation of the five sirens in the 10-mile emergency planning zone and backup messaging through a computerized phone/text/notification system. An Emergency Alert System message that included information and instructions for the public was coordinated for release by the state joint information center at each of the two siren soundings.

On the first silent test activation, indicators in the siren control panel noted that two sirens did not activate properly. The emergency management director requested sheriff's deputies to perform backup route notifications in those areas. Through interview with a county sheriff deputy, it was adequately explained how backup notifications would be accomplished in both areas where sirens failed using current route maps and pre-scripted messages to be broadcast over the patrol vehicle loudspeaker system. While reviewing the maps, law enforcement discussed the areas and determined notifications would be easily accomplished within a reasonable time.

The public information officer was from Florence County and filled in for the Lee County Public Information Officer, who was unavailable. He was seamlessly integrated into the operation and worked closely with the emergency management director and other public information officers to provide timely and accurate information to the media and public. Lee County produced one news release prior to the activation of the joint information system. The news release advised of the activation of the emergency operations center due to the Alert declaration at the Robinson Nuclear Plant. The message was approved by the emergency management director prior to distribution to the media. The message was also coordinated with public information officers in other affected counties. All subsequent news releases were developed jointly through the public information system. The public information officer participated in two open conference lines to share information and assist in the development of public messaging. All messaging was closely coordinated with Lee County Emergency Operations Center staff.

Numerous public inquiries inject were addressed during the exercise. For each inquiry, the appropriate team member was consulted to identify the best response. The inquiries were monitored for rumors and trends which were then relayed to the public information system to be addressed if necessary.

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

Section 4: Conclusion

FEMA assesses offsite response organization preparedness on an ongoing basis which meets the intent of the 44 CFR 350 planning standards and, through the assessment of selected core capabilities, the National Preparedness Goal. This report is used to document biennial demonstration-based assessment activities and will be used to inform the Biennial Preparedness Report in December 2022.

The analysis of capabilities sections above described the state of South Carolina and Robinson Nuclear Plant offsite response capabilities. Overall, the exercise was a success. The demonstration-based assessment activities evaluated by core capabilities, objectives, and capability targets were successfully demonstrated, and no Level 1 or Level 2 Findings were identified. All offsite response organizations demonstrated knowledge of their emergency response plans and procedures, and successfully demonstrated the ability to protect the health and safety of the public in the event of an incident involving the Robinson Nuclear Plant.

In addition, the state of South Carolina and Chesterfield, Darlington, Lee Counties, and other organizations were able to complete an exercise during the SARS-CoV-2/COVID-19 pandemic and fuel shortage. They actively took part in a full participation exercise with minimal disruption through virtual integration. During out of sequence demonstrations, a virtual platform was used to allow FEMA to interview emergency workers, law enforcement, and schools without losing exercise participation. It was recommended to add virtual communication to their plans and procedures for future use.

Based on the results of this exercise and FEMA's review of the 2020 Annual Letter of Certification submitted by South Carolina, the offsite radiological emergency response plans and preparedness of the state of South Carolina and the affected local jurisdictions site-specific to the Robinson Nuclear Plant can be implemented. They are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of an emergency at the site. Formal approval of the South Carolina radiological emergency response plans was granted by the Federal Emergency Management Agency on July 31, 1970, under Title 44 Code of Federal Regulation Part 350. Despite the current pandemic and other ongoing real-world response efforts, the professionalism and teamwork of the participants was evident throughout all phases of the exercise process. FEMA wishes to acknowledge the efforts of the many individuals who participated and made this exercise a success.

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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	0730	0743	0739	0739	0739	-
Alert	0844	0853	0848	0850	0850	0915*
Site Area Emergency	0945	0957	0952	0954	0954	1005*
General Emergency	1056	1102	1101	1102	1102	1107*
Simulated Rad. Release Started	1212	1212	1213	1213	1214	1315*
Simulated Rad. Release Ended	-	Ongoing	Ongoing	Ongoing	Ongoing	-
Facility Declared Operational	-	1000	0815	0929	0945	0945/1005*
State of Emergency Declared	State	1055	1100	1100	1100	1202*
	Local	-	1100	0949	1120	-
End Exercise		1306	1303	1300	1305	1318
Precautionary Actions: School relocation		-	0945	0945	-	-
Animals on Stored Feed/Water; Hunting/Fishing Ban; Waterway Clearance		1024	1024	1024	1024	1050*
Protective Action Decision 1: Stay Tuned		1024	1024	1024	1024	1050*
Siren Activation		1040	1040	1040	1040	-
EAS Message: Stay tuned		1040	1040	1040	1040	1040
Protective Action Decision 2: Evacuate Zones: A0, A1, B1, E1, A2, B2		1127	1127	1127	1127	1140*
Siren Activation		1140	1140	1140	1140	-
EAS Message:		1140	1140	1140	1140	1140
KI Ingestion Decision: Emergency Workers/General Public (ingest)		1256	1303	1243	1251	1315*

*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)	Deshun Lowery PJ Nied	Operational Coordination; Public Information and Warning
SEOC Joint Information Center / Joint Information System	Glenda Bryson Tom Hegele	Public Information and Warning
Dose Assessment & Field Team Management	Jill Leatherman Thomas Essig	Situational Assessment; Environmental Response/Health and Safety
Mobile Radiation Laboratory	Bart Ray Marcy Campbell Carol Shepard	Environmental Response/Health and Safety
Emergency Operations Facility (EOF)	Robert Spence	Operational Coordination
Waterway Warning Interview (OOS) April 12,2021	Robert Nash	On-Scene Security, Protection and Law Enforcement
Chesterfield County Emergency Operations Center	Michael Dolder Danny Loomis	Operational Coordination. Public Information and Warning; On-Scene Security, Protection and Law Enforcement
Darlington County Emergency Operations Center	Quintin Ivy Jim Greer	Operational Coordination. Public Information and Warning
Darlington County Traffic Control Point (OOS) April 14, 2021	Robert Nash	On-Scene Security and Protection
Darlington County Schools (OOS) April 20, 2021	Robert Nash	Critical Transportation
Lee County Emergency Operations Center	Matt Bradley Roy Smith	Operational Coordination. Public Information and Warning

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Appendix C: Exercise Participants

Participating Organizations
State of South Carolina
South Carolina Department of Environmental and Hazardous Materials Operations
South Carolina Department of Health and Medical Services
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 Highway Patrol
South Carolina Law Enforcement Division
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
Duke Energy Liaison
Darlington County
Darlington County 911
Darlington County Emergency Medical Services
Darlington County Emergency Services Department
Darlington County External Affairs (Public Information)

Participating Organizations
Darlington County Finance/Logistics
Darlington County Fire District
Darlington County School District/Transportation
Darlington County Sheriff's Office
Robinson Nuclear Plant – Site Representative
South Carolina Department of Natural Resources
South Carolina Department of Social Services
South Carolina Emergency Management Division Liaison
South Carolina Highway Patrol
Duke Energy Liaison
Lee County
Bishopville Police Department
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
Lee County Warning Point
South Carolina Department of Health Environmental Control Hazmat
South Carolina Emergency Management Division Liaison
Duke Energy Liaison
Private Sector

Participating Organizations
American Red Cross
Duke Energy
Federal
United States Department of Homeland Security, Federal Emergency Management Agency, Region IV
United States Nuclear Regulatory Commission, Region II

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Appendix D: Extent of Play Agreement

Robinson Nuclear Station 2021 Full 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 dictate If the county/state agency prefers that FEMA evaluate remotely due to the current COVID-19 pandemic, video conferencing platforms and other suitable virtual methods may be used in lieu of face to face interactions for safety precautions. 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	1
State Emergency Operations Center (SEOC)	1
Dose Assessment	3
Field Team Management	4
Field Monitoring Teams	4
Mobile Radiological Lab	5
Joint Operations	5
Joint Information System (JIS)	5
Emergency Operations Facility (EOF) Liaisons	7
Waterway Clearance	7
Risk Counties (Chesterfield, Darlington, and Lee)	
Emergency Operations Center (EOC)	9
Schools	14
Traffic Control Points (TCPs)	14

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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.

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.

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.

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.

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.

Field Team Management

Core Capability: Detect, Measure, Sample, Analyze and Assess
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: 4. 1 Field Monitoring Teams Management
Field Teams (two or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure (NUREG-0654/FEMA-REP-1, Rev. 2, C. 1; H. 12; I. 7, 8, 11; J. 10. a).

SCDHEC will demonstrate the capability to brief Field Monitoring Teams (FMTs) on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment.

- Direct the FMTs to monitoring locations, predesignated points or otherwise, at times and locations sufficient to characterize the plume.
- Obtain peak plume measurements from FMTs.
- Direct FMTs to collect air samples at locations and times sufficient to characterize the plume.
- Coordinate and share information amongst all FMTs (licensee, Federal, state and local).
- Coordinate sample analysis from field to those responsible for assessing radiological data.
- Coordinate transfer of sample media to locations and organizations responsible for assessing radiological data.

Field Monitoring Teams

Core Capability: Detect, Measure, Sample, Analyze and Assess
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: 4. 2 Plume Phase Measurements and Sampling
Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low-background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media (NUREG-0654/FEMA-REP-1, Rev. 2, A. 1. d; A. 2. a, b; A. 2; C. 4, 6).

SCDHEC will demonstrate the following Critical Tasks:

- The capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority.
- The capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement.
- Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory (ies).

Exceptions:

- DHEC will be demonstrating MOC and FMT Play on the original scheduled drill day. As a back-up FEMA has agreed to conduct this play as OOS.
- Due to the current COVID scenario, instead of operating out of the Darlington Armory, the DHEC MOC, FMT and Rad Lab will be demonstrating their capabilities outside of Building 15, State Park located on 8500 Farrow Road, Columbia, SC.
- Evaluators will be requested to arrive at Building 15 at 7:30 am on the day of the drill, to observe the safety brief for MOC, FMTs and RAD lab staff.
- FMTs will be simulating driving to sampling locations for HBR and the actual sampling will

occur outside of Building 15 allowing evaluators to hear conversations and observe techniques.
- Samples will be collected out of sequence to allow RAD lab to demonstrate analysis capabilities.

Mobile Radiological Lab

Core Capability: Detect, Measure, Sample, Analyze and Assess
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: 4. 4 Laboratory Operations
The laboratory is capable of performing required radiological analyses to support protective action decisions (NUREG-0654/FEMA-REP-1, Rev. 2, C. 1, 3; J. 11).

SCDHEC will demonstrate the following Critical Tasks:
- The capability to follow appropriate procedures for receiving samples, including logging information, preventing contamination of the laboratory, preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil, and keeping track of sample identity.
- The capability to prepare samples for conducting measurements.

Exception: Mobile RAD Lab will demonstrate capabilities at State Park, 8500 Farrow Road, Columbia

Joint Operations

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.

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: All siren soundings will be conducted via silent test.

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.

Exception: Media briefings will be conducted virtually.

Emergency Operations Facility/Liaison Core Capability: Operational Coordination
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. 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).

Emergency Operations Facility (EOF) Liaison 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.

Waterway Clearance

Note: Waterway Clearance was an out of sequence demonstration/discussion held on April 12, 2021

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 demonstrate 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: 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).

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 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: 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/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.

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.

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 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.

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 institutionalized individuals and members of the general public.
- 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 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, 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.

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/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.

    - Exceptions: Traffic control points (TCPs) will be evaluated virtually.
        - TCPs will not be established or staffed.

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

* Indicates courtesy school evaluations. School interviews will be conducted out of sequence virtually at the following times:

Date & Time	County	School
April 20, 2021 0900	Darlington	Carolina Elementary
April 20, 2021 0900	Darlington	Bay Road Elementary*

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).

Darlington County will discuss/demonstrate the following Critical Tasks:

- The capability to make KI available to institutionalized individuals and members of the general public.
- 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.

Exception or Note: KI will be discussed during interviews Traffic Control Points (TCPs)
On April 19th, 2021,Traffic Control Point interviews were conducted at 1000

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, 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.

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.