After Action Report

Catawba Nuclear Station

Radiological Emergency Preparedness Exercise

Exercise Date: August 16, 2022

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Executive Summary

On August 16, 2022, the offsite response organizations of the Catawba Nuclear Station 10-mile emergency planning zone participated in a plume exposure pathway exercise. FEMA Region 4 Radiological Emergency Preparedness Program staff evaluated the exercise, which also included out of sequence activities conducted in North Carolina on June 6 and 7, 2022. This report outlines that exercise and out of sequence activities. Out of sequence activities conducted in South Carolina the week of September 26, 2022, will be reported separately.

The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at the Catawba Nuclear Station. 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 Catawba Nuclear Station by the states of South Carolina and North Carolina was granted on October 8, 1985, and the qualifying emergency preparedness exercise was conducted on February 15-16, 1984. The previous exercise was conducted October 27, 2020.

Officials and representatives from participating agencies and organizations demonstrated knowledge of their emergency response plans and procedures, and successfully implemented them during the exercise and out of sequence activities. All jurisdictions met their exercise objectives and successfully demonstrated the corresponding core capabilities identified in Section 2.2 of this report. FEMA staff did not identify any level 1 or level 2 findings during this exercise or the out of sequence activities.

It was evident that a great deal of training and practice was conducted by the offsite response organizations to successfully demonstrate their capabilities to protect the health and safety of the public. They provided the necessary support and resources to respond to an incident at the Catawba Nuclear Station. Response organizations functioned as a coordinated team, providing unified emergency information and instructions to the whole community. A unified response across multiple jurisdictions can be challenging, but the preparedness efforts made by the Catawba Task Force, planners, and individual responders was evident during the exercise, and contributed to a smooth and organized response. FEMA wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success.

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Section 1: Exercise Overview

Exercise Name	2022 Catawba Nuclear Station Radiological Emergency Preparedness Exercise	
Type of Exercise	Full Scale Exercise	
Exercise Date	August 16, 2022	
Out of Sequence Date	June 6-7, 2022	
Program	Radiological Emergency Preparedness Program	
Mission Area	Response	
Scenario Type	Full Participation Plume Phase Radiological Emergency Preparedness Exercise	
Participating Organizations	See Appendix C for the list of participating organizations	
Locations	See Appendix D for the extent of play agreement and exercise locations	
Points of Contact	Robert Spence South Section Chief FEMA Region 4 3005 Chamblee-Tucker Road Atlanta, Georgia 30341	Matthew Bradley Catawba Site Specialist FEMA Region 4 3005 Chamblee-Tucker Road Atlanta, Georgia 30341
	Danilyn Bock REP Manager South Carolina Emergency Management Division 2779 Fish Hatchery Road West Columbia, South Carolina 29172	Hendrix Valenzuela REP Program Manager North Carolina Emergency Management 1636 Gold Star Drive Raleigh, North Carolina 27607

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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 C.F.R. 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. 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 Catawba Nuclear Station by the states of South Carolina and North Carolina was granted on October 8, 1985, and the qualifying emergency preparedness exercise was conducted on February 15-16, 1984.

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 states of North Carolina and 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**: 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 response personnel engaged in lifesaving and life-sustaining operations.
- **Mass Care Services**: Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies.

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

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

2.3 Exercise Scenario

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

Event/Emergency Classification Level:	Time Utility to Declare:	Off Site Organizations to be Informed:
Start of Exercise	0800	
Notice of Unusual Event	NA	NA
Alert	0824	0839
Site Area Emergency	0954	1009
General Emergency	1054	1109
Off-site Rad Release Reported	0939	1009
End of Exercise	1300	

The above table is an approximate scenario timeline for this exercise which is for evaluator reference only. Additional scenario information may be made available upon request. Times may or may not be exact as exercise play dictates.

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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 August 16, 2022, plume exposure pathway exercise and out of sequence activities on June 6-7, 2022.

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 4 Radiological Emergency Preparedness Program evaluations. Each jurisdiction's standalone capability summaries are provided below.

3.3 Jurisdictional Summary Results of Exercise Evaluation

3.3.1 State Jurisdiction

3.3.1.1 State of South Carolina Emergency Operations Ctr/Joint Info Center

Operational Coordination Capability Summary:

The South Carolina Emergency Management Division staff successfully demonstrated mobilization of key response personnel without delay. The initial emergency classification notification was received in the state warning point and distributed within the state emergency operations center. It was also sent to offsite response organizations by a communications specialist. A pre-populated contact group was used to provide notifications to relevant stakeholders via cell phone, email, and text message. Staff were prepositioned and upon receipt of the Alert emergency classification notification, they immediately reported to the state emergency operations center. A faxed emergency notification form followed each notification and was quickly reproduced and prepared for distribution within the operations center. The state emergency operations center was promptly activated and declared operational following the Alert emergency classification level. Subsequent emergency notifications followed the same distribution flow from the utility to the state warning point to staff.

Direction and Control was established immediately and maintained throughout the exercise. Leadership was decisive and effectively kept staff abreast of the situation with scheduled meetings, situational updates, and direction in anticipation of potential actions or activities that allowed staff input and aided in the protective action decision making process. 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.

Protective action decisions were timely and coordinated between South Carolina Emergency Management Division leadership, North Carolina Emergency Management, emergency support function representatives, the Duke Energy liaison, and all affected counties through decision line coordination calls. The Technical officer facilitated all decision line coordination calls. The first protective action decision was to activate the siren system and provide a stay tuned message notifying the public of an ongoing emergency incident at Catawba Nuclear Station. This action was accomplished during the Alert emergency classification level due to reports of rapidly degrading conditions at the plant. The second decision concerned ingestion of Potassium Iodide for emergency workers, clearing of waterways, hunting and fishing bans, and stored feed and water for livestock. The third and final protective action decision concerned evacuation of zones A-0, A-1, A-2, A-3, B-1, B-2, ingestion of potassium iodide for evacuees from the aforementioned zones and sheltering in place for patients and staff at two affected hospitals in Mecklenburg County. Zones A-2 and A-3 were not included in the utility's protective action recommendation but were evacuated based on population density and rapid escalation of the incident. All protective action decisions were discussed with emergency support function leads.

The Duke Emergency Management Network is the primary means of receiving and coordinating emergency information from the Catawba Nuclear Station and decisions between offsite organizations. A commercial telephone line and conference call bridge; satellite phone; and fax are backup methods of communication. The conference bridge line was used during the exercise. The Duke Emergency Management Network, satellite phone,

conference bridge line, and facsimile were successfully utilized; no communication failures were noted. The state warning point accomplished content checks with various organizations during the morning shift communication checks. The state warning point personnel exercised ideal management of the communications systems and ensured all message traffic was handled without delays or disruptions to emergency operations.

The state emergency operations center was adequately equipped with monitors, computers, office supplies, tables with power, chairs, screens, internal audio system, breakout rooms, and printers. Supplies were in sufficient quantity to maintain space and conduct emergency operations. Participants for this exercise were the Incident Commander, the Operations Chief, the Planning Chief, the Logistics Chief, the Public Information Officer, the Department of Health and Environmental Control, the Nuclear Power Training Unit Charleston, Duke Energy, and the South Carolina Department of Transportation.

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

Public Information and Warning Capability Summary:

The South Carolina Emergency Management Division, Emergency Support Function 15 - Public Information staff explained that for an emergency at the Catawba Nuclear Station, and in accordance with the South Carolina Operational Radiological Emergency Response Plan, the primary means of alert and notification of the public was through the sounding of sirens, followed by the release of Emergency Alert System Messages. Designated local radio and television stations would monitor the emergency alert system and would also broadcast information throughout the area. Route alerting by local response agencies was the backup to the sirens.

During the exercise, decisions were closely coordinated during decision line conference calls that included South Carolina Emergency Management Division, North Carolina Emergency Management, Duke Energy, York County as well as Gaston and Charlotte-Mecklenburg counties in North Carolina. York County is the only county in South Carolina within the 10-mile emergency planning zone and was responsible for siren system activation in that portion of the zone. Emergency alert messages, however, were prepared and distributed from the state emergency operations center by way of the integrated public alert and warning system. A state warning point staff member described this process and effectively demonstrated launching a simulated integrated public alert and warning system message from the warning point.

The alert and notification system was activated a total of three times, at the Alert, Site Area Emergency, and General Emergency classification levels. Emergency alert system messages, as well as news releases with specific information and recommendations for the public, promptly followed each siren sounding. Each emergency alert message and news release were developed from a draft template, with additional, specific detail added for the related emergency classification level, including any specific protective action recommendations or directives for the public. The emergency alert messages were provided in both English and Spanish.

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

3.3.1.2 State of South Carolina Dose Assessment

Situational Assessment Capability Summary:

The South Carolina Department of Health and Environmental Control staff successfully demonstrated the ability to assess plant conditions and field data and provide pertinent information for making protective action recommendations to decision makers in the event of a radiological incident at the Catawba Nuclear Station. The dose assessment staff was prepositioned near the South Carolina Emergency Operations Center and responded to their workstations upon receipt of the mass notification call. The emergency response coordinator had primary direction and control of the entire emergency support function 10 operations, including the dose assessment process. The dose assessment analyst conducted the dose projection calculations.

The dose assessor and other team members continuously monitored messages and maintained communications to stay updated on plant conditions for performing assessment of the radiological release. Using release information from the utility provided on the emergency notification forms and through telephone calls with the emergency operations facility, the dose assessment team used a computer model to perform projected radiation doses downwind of the plant. Dose projections were compared to the Environmental Protection Agency protective action guidelines to aid decision makers. Dose projections indicated that protective action guides were exceeded for child thyroid committed dose, indicating the necessity to recommend radioprotective drugs. The emergency response coordinator participated in briefing updates for the entire emergency operations center and joined conference calls with state and county decision makers. During these calls, the coordinator provided up-to-date technical information and made recommendations for precautionary actions and protective measures for the public, in part based on the dose projections.

The dose assessment analyst also compared results of calculated projections to those provided by the utility. In all cases, the results were comparable within a factor of five. The analyst explained that field team data would be used to verify dose projections and relayed information to the emergency response coordinator if adjustments in protective actions were deemed necessary. During the exercise play, limited field data was observed by the dose assessor due to time constraints.

During a decision line call, emergency support function 8 staff learned that North Carolina was recommending potassium iodide for emergency workers. They obtained approval for ingestion of potassium iodide from the designated public health physician and coordinated with North Carolina staff to make a joint decision for both states. The mobile operations center was notified to authorize potassium iodide ingestion for field team members. After the emergency classification level escalation to General Emergency, the public health physician approved a recommendation for potassium iodide to be taken by the general public in the recommended evacuation areas.

For this capability the following radiological emergency preparedness capability targets were met: 1.2, 1.3, 1.4, 2.1, and 4.5.

3.3.1.3 State of South Carolina Mobile Operations Center

Environmental Response/Health and Safety Capability Summary:

The South Carolina Department of Health and Environmental Control, field monitoring team director successfully demonstrated the ability to provide direction and control and communicate with field monitoring teams. The field monitoring team director also utilized team exposure control decision-making processes, controlled field team radiation exposure, and collected radiological field data for use by dose projection personnel during the plume phase exercise for the Catawba Nuclear Station. The mobile operations center was housed at the U.S. Army National Guard armory in Rock Hill, South Carolina. Participants were prepositioned in accordance with the extent of play agreement; however, notification procedures that would be used in an actual event were demonstrated.

Once teams rallied at the mobile operations center, the field monitoring team director instructed the teams to power up laptop computers and bring procedures into the mobile operations center where maps, equipment, and supplies were provided and maintained. The director, in conjunction with the site safety officer, utilized a detailed briefing sheet to brief the field monitoring teams prior of their deployment. The briefing sheet covered plant status, meteorological information, assignments, general safety, and exposure control details on use of potassium iodide, dosimetry, and radiation exposure limits. The director checked in frequently with all team members to ensure they were on task to complete mission goals and reminded the teams to check dosimetry. Personnel were kept informed of information relevant to their assigned position. Upon notification that a General Emergency had been declared, team members were notified to ingest their potassium iodide tablets. Mobile operations center members were aware of the administrative radiation exposure limits. If a situation occurred where the teams might need to receive radiation exposure above their predetermined administrative limit, the site safety officer would consult with the state emergency operations center. Emergency worker exposure management was supported by adequate supplies of permanent record dosimeters and electronic dosimeters to support deployment of the field teams throughout the course of the exercise.

Once deployed, the director communicated with field teams using several technologies: a base station radio on the state radio network; cellular telephones; landline telephones; and a radiological data management computer application. These same methods were used to communicate with outside organizations. The director fixed a weak internet signal by moving the internet's modem to the outside of the building. Communications with the field teams were clear and no failures were observed.

Throughout the exercise, the field monitoring team director obtained relevant information to help characterize the release, located and tracked the airborne radiological plume, and provided details to the teams to place them for plume sampling. For this exercise, the plume centerline was across the state line with North Carolina. The field teams gathered as much information on the South Carolina side of the state line that they could. The director worked with the mobile operation center chief in utilizing maps, as well as 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.

Initially, teams were assigned to find plume edges with traverses and assigned specific tasks to attach permanent record dosimeters at those locations. All field team survey measurements were transmitted to the director at the mobile operations center, as well as

the South Carolina Emergency Operations Center using the radiological data management computer application rather than radio or telephone. The computer application allowed for immediate sharing of information with dose assessment personnel. Throughout the demonstration, the director worked with state dose assessment personnel to ensure that field survey data being collected met their needs. After termination of the exercise, the field monitoring teams collected an air sample as requested by the field monitoring team director. Completed air sample calculation data and results were electronically provided to dose assessment for use in validating dose projections. At the completion of mission assignments, field monitoring teams were directed to the appropriate location to transfer samples to the field monitoring team relay staff.

For this capability the following radiological emergency preparedness capability targets were met: 1.2, 2.1, 2.2, 3.1 and 4.1.

3.3.1.4 State of South Carolina Field Monitoring Teams

Situational Assessment Capability Summary:

The South Carolina Department of Health and Environmental Control demonstrated the capability to alert, notify, and mobilize personnel to staff field monitoring teams in support of emergency operations. In accordance with the exercise extent of play agreement, the field monitoring teams were prepositioned at the U.S. Army National Guard armory in Rock Hill, South Carolina for the start of the exercise. By interview, they explained the process for the alert, notification, and mobilization of key personnel, the process for 24-hour staffing, and activation of facilities in a timely manner. The staff explained that they would be notified by the field team director at the Alert emergency classification level via a web-based notification system that utilized telephone, text and electronic mail. During the exercise, changes to emergency classification levels were received in person and by radio.

The field monitoring teams were considered operational when they had completed communications checks, radiation monitoring instrumentation checks, issuance of dosimetry, and a pre-deployment briefing. They also explained that multiple personnel in the department of health and environmental control were trained on field survey team operations so that when the department was fully staffed, teams could maintain 24-hour operations. In addition, they explained that if additional resources were needed, they would contact the field team director with their requests.

The field monitoring team staff demonstrated the capability to provide and maintain reliable communications with the field team director and recorder. Communications systems available for team personnel included cellular telephones, a radio, a satellite phone and a web-based data transmission system. All systems except the satellite phones were demonstrated and functional during the exercise, and personnel demonstrated familiarity of use. The radio system was independent of commercial telephones. Throughout the exercise, field team staff successfully communicated with the field team director, site safety officer and the field team recorder. There were no delays in message traffic, nor were there any communications failures. Message content transmitted and received during the exercise was related to plant status, emergency classification levels, meteorological data, protective action decisions, field team activities, and monitoring data. Messages transmitted and received were understood by personnel and were demonstrated as they would be transmitted during an actual radiological emergency.

The field monitoring team staff demonstrated the capability to assess and control their radiation exposure and dose. In accordance with the standard technical operating procedures, the site safety officer was responsible for managing team members' exposure and dose. Field monitoring team members received a dosimetry briefing from the site safety officer. The briefing included the proper use and reporting of dosimetry, the ingestion and reporting of potassium iodide and its potential adverse effects, and to report to one of the decontamination centers for monitoring and decontamination.

During the exercise, field monitoring team members read and reported their dosimetry readings on a frequent basis. They explained that if they reached the reporting limit they would advise the site safety officer, and if they reached the turnback limit, they would relocate to a low background area and notify the site safety officer. In accordance with the standard technical operating procedures, potassium iodide tablets were in the field monitoring tote. Field team members received a notification from the field team director that a protective action decision was made for emergency workers to take potassium iodide. They simulated taking the potassium iodide and notified the field team recorder that they had ingested the potassium iodide.

Field monitoring team personnel made, recorded, and reported measurements of ambient radiation to the field team director, and successfully collected radioiodine and particulate air samples. Their equipment kits contained supplies, equipment, and personal protective equipment sufficient to support field team operations. Survey instruments and the air samplers were within their calibration dates and were within the acceptable range of readings during operational and source checks. Their daily instrument check forms contained the range of reading information for the instruments, which enabled team members to complete the source checks more quickly and efficiently. One field team performed extra preparations to decrease the time required in the plume.

A list of personal protective equipment, as well as a procedure for donning and doffing was available for team members. Team personnel used appropriate contamination control techniques and explained that they would protect radiation survey instrumentation from contamination with the use of protective film and plastic bags. Team members also explained that they would contact their field team director for any needed additional resources.

During their deployments, field team members continuously monitored their survey instruments to prevent inadvertent radiation exposure to the plume. Team members took measurements to assist in the characterization of the plume. During their assigned traversals, team members located points with an exposure rate of five times the background exposure rate to identify the outer edges of the plume and a point of the highest exposure rate to identify the centerline. Both field teams demonstrated air sampling capabilities. Team members took radiation measurements while collecting the air samples to ensure the plume had not shifted during the air sampling process.

Packaging and handling of samples was adequate to prevent cross-contamination and provide sample identification. Radiologically contaminated waste was placed in designated containers in the rear of their vehicles. The teams completed chain of custody documentation and transported the samples to a low background area to obtain activity readings. Team members explained the steps for transfer of the samples and chain of custody procedures to maintain integrity of the samples. Team members appropriately packaged samples and sealed the storage containers to prevent tampering.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 2.1, 3.1, 4.2.

3.3.1.5 State of South Carolina Mobile Laboratory

Environmental Response/Health and Safety Capability Summary:

The state of South Carolina Mobile Radiological Laboratory demonstrated the ability to mobilize, control exposures to radiological hazards, and analyze environmental samples. The staff explained that following declaration of a radiological emergency, the laboratory manager would receive notification from the state emergency operations center that the lab should mobilize. Staff would be contacted either in person or by phone to respond to their headquarters to prepare for mobilization. For this Catawba Nuclear Station exercise, the mobile lab was set up at the U.S. Army National Guard armory in Rock Hill, South Carolina. The participants were prepositioned in accordance with the extent of play agreement and the facility was set up as it would have been in an actual response. The lab manager declared the facility operational and reported to the mobile operations center the lab was ready to receive samples. Since the mobile lab was co-located with the mobile operations center, communications were demonstrated through radio and in person. Briefings on plant status and potassium iodide ingestion were provided to the team from the mobile operations center.

All team members were given a thorough radiological briefing by the safety office. Radiation exposure was controlled and managed with the use of direct reading electronic dosimeters and simulated permanent record dosimeters that were supplied to each staff member. Frequent monitoring of hands, equipment, and samples ensured lab personnel were not contaminated and that samples were not cross-contaminated.

Samples were received, tracked using proper chain of custody, prepared for analysis, and analyzed properly during the exercise. The samples were prepared and placed into proper containers for analysis that ensured maintenance of sample counting geometry. Analytical equipment was prepared prior to receipt of samples by performing necessary calibrations and checks prior to analyzing samples, including background counts, counting efficiency determinations, and daily quality control analyses. An air sample (charcoal cartridge) was analyzed in the mobile lab to determine radioactive iodine concentration. The results were forwarded to the mobile operations center upon completion. Procedure adherence that covered operations from initial sample receipt to delivery of sample analysis results was well executed with no observed shortcuts taken. Staff members were well-versed in the procedures applicable to their individual workstations.

For this capability the following radiological emergency preparedness capability targets were met: 1.2, 3.1, and 4.4.

3.3.1.6 State of North Carolina Emergency Operations Center

Operational Coordination Capability Summary:

North Carolina Department of Public Safety, Division of Emergency Management and State Emergency Response Team personnel successfully demonstrated emergency operations management, communications, and emergency worker exposure control following the notification of an incident at the Catawba Nuclear Station. The State Emergency Response

Leader, in coordination with staff from the North Carolina Department of Public Safety, Division of Emergency Management, demonstrated timely and efficient protective action decisions in response to the incident.

The state warning point, located in a room adjacent to the emergency operations center, received notification of the emergency at the Catawba Nuclear Station by the Duke Emergency Management Network, which was the primary communications system for messages from the utility. At the Alert emergency classification level, warning point staff demonstrated their ability to alert, notify, and mobilize personnel in a timely manner using a mass notification system. The state warning point was responsible for publishing the emergency classification levels on the monitors in the emergency operations center, updating the log of the significant events, and sending out the Emergency Alert System messages to the radio stations and media. A staffing roster was provided to validate their ability to staff and maintain 24-hour operations.

The North Carolina Emergency Operations Center utilized several communications systems to ensure communication was continuously available and reliable. A web-based situational awareness tool allowed staff to check in/out of their respective functions and post and view documents or updates. A dedicated phone line, email, and facsimile were available to receive emergency notification forms from Catawba Nuclear Station in the state warning point. A mass notification system was also used to distribute email emergency notification alerts and forms. The command staff attended the decision line calls between the states and counties. Additionally, because some staff participated virtually, a virtual video teleconference meeting was kept running for the duration of the exercise to allow participants to view situational update briefings held on the emergency operations center floor.

The State Emergency Response Team Leader led the North Carolina state emergency operations center with assistance from the command staff. The command staff team was made up of the planning chief, operations chief, deputy operations chief, logistics chief, public health liaison, and the Radiological Emergency Preparedness Program manager and staff. The State Emergency Response Team Leader demonstrated the capability to provide overall direction and control of response efforts, commensurate with leadership responsibilities. The planning chief conducted emergency operations center briefings periodically throughout the exercise. North Carolina Emergency Management utilized a hybrid system, with key staff working inside the emergency operations center and some attending the exercise virtually. Briefings were held in the main emergency operations center room and broadcast using a web-based conferencing platform. In addition to the emergency operations center briefings, North Carolina Emergency Management encouraged virtual staff to listen in on decision line conference calls and monitor the web-based situational awareness tool events log for ongoing updates to the situation. The decision line was the primary method for North Carolina emergency operations center staff to coordinate with other counties/state partner organizations. The North Carolina emergency operations center was outfitted with adequate displays, operable workstations, and distinct office spaces for different branches of emergency operations staff to utilize.

North Carolina Department of Health and Human Services, Radiation Protection Section staff used dose assessment and field data, to choose the most appropriate protective action recommendations. The Radiation Protection Section liaison in the command staff noted that they would align with South Carolina and the utility's recommendation. That recommendation included and exceeded the areas of concern identified by the Radiation Protection Section's

dose assessment calculations. The protective action recommendation advised by the utility was to evacuate zones A-0, A-1, A-2, A-3, B-1, and B-2, as well as recommend ingestion of potassium iodide tablets by the evacuating population.

The State Emergency Response Team leader demonstrated the capability to utilize relevant factors and necessary coordination in the decision-making process used to make protective action decisions for the public. Protective action decisions for North Carolina, South Carolina, and the affected counties were coordinated on the decision line conference call. Because direction and control were not transferred to North Carolina by the North Carolina counties, the counties had the authority to make decisions for their respective areas. Three protective action decisions were made during decision line calls. The first protective action decision was to sound the sirens and release an emergency alert system message for the public to "stay tuned" for more information. The second protective action decision was to implement several precautionary protective actions. These included a hunting and fishing ban, supplying animals with stored feed and water, waterway clearing activities, ingesting potassium iodide tablets for emergency workers, and distributing potassium iodide tablets to institutionalized individuals. The third protective action decision was to evacuate the populations in zones A-0, A-1, A-2, A-3, B-1, and B-2, as well as ingestion of potassium iodide to the evacuating public.

The state highway patrol is responsible for one traffic control point in the 10-mile emergency planning zone. The state highway patrol's primary function is to support the risk counties. The state highway patrol representatives were knowledgeable about their dosimetry equipment. They utilized a checklist to provide details of exposure rates and exposure record keeping for all officers deployed in the 10-mile emergency planning zone. The supervisor would ensure just-in-time training for all officers before deploying to their area of responsibility and coordinating transportation of dosimetry equipment and potassium iodide to their locations. The exercise maintained a unified, coordinated, and collaborative operational response and support structure.

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

Public Information and Warning Capability Summary:

Three emergency alert system messages were disseminated through the public Alert notification system by South Carolina Emergency Management Department for both South Carolina and North Carolina risk counties, in conjunction with siren activation. The messages were accurate, contained the required elements, and were in English and Spanish. The risk counties were responsible for activating the siren system. The 24-hour state warning point at the North Carolina Emergency Operations Center remained on standby as a backup in the event South Carolina could not activate the system. Both states could send messages to the radio stations and the public using wireless emergency alerts. The second and third messages were also sent to the National Oceanic and Atmospheric Administration office for broadcast. The first message informed the public of an emergency at Catawba Nuclear Station with no protective actions. The second message informed farmers to shelter livestock and place on stored feed and covered water. The third message instructed the residents in specified areas to evacuate and for residents in evacuated areas to ingest potassium iodide tablets.

North Carolina State Emergency Response Team Public Information staff coordinated with public information staff members from the State of South Carolina, York County, South Carolina, Mecklenburg, Gaston, and Union Counties, North Carolina, and Duke Energy over the joint information system telephone and video lines. The South Carolina public information team had the lead role and managed coordination with the public information teams to cooperatively disseminate accurate, actionable, and timely information to the public in response to an incident at Catawba Nuclear Station. The South Carolina public information officer coordinated the joint information system. The North Carolina public information team at the North Carolina emergency operations center was comprised of the lead public information officer and two assistants. The team monitored the web-based virtual command room decision line, joint information system conference line, and virtual video media briefings. One staff member monitored the North Carolina and South Carolina web-based information sharing sites to ensure public information from both sites was available to the State Emergency Response Team members.

News releases were coordinated using an email distribution list and the joint information coordination line. The North Carolina State Emergency Response Team, South Carolina, and the counties issued individual news releases before the joint information system activation. After the joint information system was activated, public information releases were coordinated among the states and the counties and jointly released by the South Carolina public information team. News releases were clear and accurate and correctly indicated the coordinated protective action decisions.

Regular coordination line meetings were used to relay information from decision line calls and for the South Carolina lead to coordinate pre-media briefing information. Two virtual media briefings conducted by the South Carolina lead public information officer occurred using a web video conference platform. The briefings provided accurate public information and instructions. Media questions answered by spokespersons were informative and consistent with protective action decisions.

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

3.3.1.7 State of North Carolina Western Branch Office

Operational Coordination Capability Summary:

Staff at the North Carolina Emergency Management Western Branch Office successfully demonstrated the capability to alert, notify, and mobilize key personnel and to activate the facility in a timely manner. While activated in support of an incident at the Catawba Nuclear Station the western branch office served as a regional coordination center. During this activation the western branch office director served as the regional coordination center manager and provided direction and control by conducting briefings in a timely manner; maintaining situational awareness; coordinating response activities with other organizations; obtaining resources to support emergency operations; and providing and maintaining adequate facilities and equipment to support emergency response efforts.

The western branch office was well equipped to support emergency operations with multiple workstations, computers, office supplies, white boards, maps, and supplies. There was ample space for meetings and the facility was prepared to support 24-hour operations, as needed. A status board displayed the current weather and a map of the 10-mile emergency planning zone with the direction of the projected plume illustrated. Although the western

branch office was well outside of the emergency planning zone, there was an adequate inventory of dosimetry and potassium iodide available in the event a staff member served as an emergency worker.

The western branch office had multiple and redundant means of communications, to include digital and analog commercial landline telephones, satellite and cellular telephones, electronic mail, facsimile machines, and 800 megahertz radios. The western branch office used an electronic incident management system to maintain situational awareness and track resource requests. A decision line call between states and counties was used to discuss and coordinate response activities and share information.

Protective actions were discussed among state and county officials to protect public health and safety. While staff at the western branch office were informed of the recommendations and decisions, they did not participate in the decision-making process. Instead, staff at the western branch office were prepared to support the risk counties in their implementation of the protection action decisions.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 1.2, 1.3, 1.5, 3.1.

3.3.1.8 State of North Carolina Dose Assessment

Situational Assessment Capability Summary:

North Carolina Department of Health and Human Services, Division of Health Service Regulation, Radiation Protection Section personnel successfully demonstrated the ability to assess plant conditions and field data and provide protective action recommendations to decision makers in response to a radiological incident at the Catawba Nuclear Station. The director of the radiation protection section had the overall responsibility for dose assessment and protective action recommendations to the state of North Carolina and risk counties. The state emergency response team coordinator provided direction to dose assessment and field team coordination personnel. Dose assessment and field team management personnel were prepositioned in their work location at the state emergency operations center in Raleigh, North Carolina; the state emergency response team coordinator explained the mobilization process and provided a second shift roster.

The dose assessment team continuously monitored meteorological data, varied plant parameters, and field monitoring information. They accessed plant data via a computer link to obtain real time plant status. They followed trends for various radiation monitors and other relevant plant equipment. The dose assessment team used a computer model to perform calculations of projected radiation dose at varied downwind distances. Additional information needed for dose assessment was obtained from the state liaison at the utility's emergency operations facility. Dose projections were compared to the Environmental Protection Agency protective action guidelines before making protective action recommendations.

The state emergency response team coordinator used the utility's iodine release data to calculate an iodine activity level outside the site boundary. The calculated valued exceeded the state's trigger level for recommending potassium iodide to emergency workers. Based on the calculated iodine activity, the state health officer and director of the radiation protection section recommended that all emergency workers in the 10-mile emergency planning zone ingest potassium iodide. The recommendation was discussed on the group decision line and was immediately communicated to the field team coordinator for dissemination to field team

personnel. The radiation protection section coordinator explained the process for authorizing and documenting exposure increases above administrative limits.

When a General Emergency was declared, the state emergency response team coordinator and director of the radiation protection section evaluated the utility's recommended protective actions. The director presented the radiation protection section's protective action recommendation to the state and county decision makers, indicating agreement with the utility default protective action recommendation to evacuate a two-mile radius, and five miles downwind. Protective action decisions were made by the risk counties.

Shortly after the initial protective action recommendation was made, plant conditions deteriorated, and subsequent dose projections indicated that protective action guidelines would be exceeded beyond the site boundary. Dose projections closely aligned with those of the utility. Although dose projections exceeded protective action guidelines, they were not exceeded beyond areas that were already being evacuated. They also performed a dose projection using field team survey and iodine air sample results, which agreed with the computer model-based dose projection. An incident specific direct reading dosimeter correction factor was calculated based on the computer modeled dose projection. The updated administrative radiation exposure limits were communicated to emergency personnel via the group decision line, but was not immediately communicated to field team personnel.

The state emergency response team coordinator and director reviewed dose projections for thyroid radiation exposure and consulted with the state health officer on the administration of potassium iodide for the general population (including institutionalized populations). Child thyroid dose projections exceeded protective action guidelines at approximately one mile. For ease in messaging, potassium iodide ingestion was recommended for the evacuating public.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 1.2, 1.3, 2.1, 4.5.

3.3.1.9 State of North Carolina Field Management Team Management

Environmental Response/Health and Safety Capability Summary:

Staff from the North Carolina Department of Health and Human Services, Division of Health Services Regulation, Radiation Protection Section, successfully demonstrated the capability to effectively manage a field monitoring team to help characterize the radiological release, locate, and track the airborne radiological plume, and control emergency worker exposure. The field team coordinator demonstrated the capability to brief the field team before being dispatched from the staging area at the U.S. Army National Guard armory in Charlotte, North Carolina, and provided protective actions regarding radioprotective drugs and exposure to field team members in response to a radiological incident at the Catawba Nuclear Station.

The field team coordinator managed the field monitoring team from the state emergency operations center in Raleigh, North Carolina. The field team coordinator and assistant communicated with the field monitoring team, mobile laboratory, and field team courier by radio and cellular telephone. Field data was also transmitted by electronic mail to share information and reduce radio transmission. The field team coordinator provided an initial briefing by radio, which covered equipment and communications, meteorological conditions and plant status, dosimetry, exposure limits, use of potassium iodide, and general safety. No communications failures were observed.

The field team coordinator was responsible for tracking radiation exposures for emergency workers and determining the need to authorize radioprotective drugs. At the Site Area Emergency, the radiation protection section coordinator informed the field team coordinator that dose projections indicated that there was radioiodine in the plume. The North Carolina Radiation Protection Section Director recommended that emergency workers in the 10-mile emergency planning zone ingest potassium iodide. The field team coordinator directed the field team to ingest potassium iodide, record their ingestion on their exposure record, and confirm ingestion with the field team coordinator by radio. The field team coordinator confirmed with the radiation protection section coordinator that the field team ingested potassium iodide.

The field team coordinator used meteorological conditions and a map with a plume overlay tool to visualize the projected plume pathway and determine placement of the field monitoring team. The field team was staged at a predesignated sampling location approximately four miles from the Catawba Nuclear Station and directed to traverse across the projected plume pathway to another predesignated point. When the plume was detected, the team was instructed to locate the centerline. The team was instructed to collect an air sample at the plume centerline and travel to a background location to count the sample. The field team coordinator identified a location where the sample could be counted and the courier could meet the field team to turn over the air sample. Results of the air sample analysis were communicated to the field team coordinator who shared the field team survey and sample results with the dose assessment team.

Radiation exposures were reported by the field team at regular intervals and were below the administrative limit. The process for reviewing and approving exposures above the limit was discussed by interview. Authorization to approve higher limits would be discussed and approved by the director of the radiation protection section. Every attempt would be taken to replace an emergency worker instead of authorizing higher limits.

For this capability the following radiological emergency preparedness capability targets were met: 2.1, 2.2, 3.1, and 4.1.

3.4.1 Joint Operations

3.4.1.1 Joint Information System/Center

Public Information and Warning Capability Summary:

The states of North Carolina and South Carolina along with the counties of Mecklenburg, Gaston, York, and Union, and the utility staffed public information officers and successfully operated within the joint information system to develop and deliver prompt and reliable information to the public and media.

The primary means of communication was a dedicated joint information coordination bridge line. The bridge line was used to communicate protective action decisions, and information related to press releases, and emergency messaging, coordinate media briefing content, as well as provide situational awareness among all public information officers. Information was discussed and developed into a systematic presentation format to support media briefings. A separate video conferencing platform was used to conduct media briefings virtually.

Overall direction and control for the joint information system was provided by the South Carolina Emergency Management Division Lead Public Information Officer. The joint information system was activated and declared operational by the lead public information officer in accordance with plans and procedures following a roll call of participants. As a result, state, county, and the utility public information officers participated in the joint information system virtually from their respective facilities and locations.

Prior to joint information system activation, news releases were independently generated and distributed to the media by the affected agencies as needed. Upon joint system activation, news releases were coordinated, reviewed, and approved by participants, and distributed through the South Carolina Emergency Management Division public information team. Once approved, the public information press release writer emailed the approved press release to the main media distribution list. In total, four Integrated Public Alert and Warning System messages and four joint state press releases were disseminated.

Two media briefings were facilitated by the South Carolina State Public Information Officer with spokespersons representing the North Carolina State Emergency Operations Center, and public information officers from the counties of Mecklenburg, Gaston, York, Union, and Duke Energy. During the first media briefing the South Carolina Lead Public Information Officer began by announcing: the Catawba Nuclear Station was in an Alert and then had upgraded to Site Area Emergency; the Joint Information Center had been established; the South Carolina Governor had declared a State of Emergency; a hunting and fishing ban had been issued; clearing of Lake Wylie and all boat ramps in the area; farmers had been asked to place livestock on stored feed and water. The Duke Energy Representative presented plant conditions and the relating factors causing the change in emergency classification levels, then debunked rumors concerning a bad smell in the area of the plant and a breach of cybersecurity, both unfounded. Public information officers for York, Mecklenburg, Union, and Gaston Counties noted their respective emergency operations centers were activated and staffed. Several media questions were directed to the responsible public information officer and were answered promptly.

The second media briefing was conducted in the same fashion. The South Carolina Public Information Officer explained; that the plant was in a General Emergency condition; protective actions were to evacuate emergency planning zones A-0, A-1, A-2, A-3, B-1, and B-2 with residents from these zones to proceed to reception centers; and several sources for additional information were provided. The Public Information Officer from York County reported a State of Emergency had been declared and county officials were cooperating with other jurisdictions for the safety of residents. The Mecklenburg County Public Information Officer stated that a State of Emergency had been declared; two hospitals and long-term care facilities were sheltering in place; three shelters were open; residents with pets were requested to report to the Butler High School shelter; if there were any individuals with access/functional needs not on the registry, they were asked to call 311 for assistance. Gaston County reported a monitoring posture. The Union County Public Information Officer stated the emergency operations center was open; there was a State of Emergency declared, and the reception center was open. Next, the North Carolina Public Information Officer reported the Governor declared a State of Emergency; the state emergency operations center was operational and provided North Carolina public information sources. The Duke Energy Public Information Officer provided details about the plant emergency classification level of General Emergency with two detailed graphics. This media briefing concluded with several media questions, public focused, which were directed to the responsible public

information officer. All information briefed was consistent with the coordinated decisions made by represented jurisdictions.

For this capability the following radiological emergency preparedness capability targets were met: 1.1, 1.2, 3.1, 3.2, 3.3.

3.4.1.2 Emergency Operations Facility

Situational Assessment Capability Summary:

Offsite response organization liaisons from the states of South Carolina and North Carolina assigned to the Duke Energy Emergency Operations Facility located in Charlotte, North Carolina successfully coordinated their state response operations during the Catawba Nuclear Station exercise. This coordination was to support offsite response to a simulated radiological event and the presence of these liaisons facilitated information sharing between Duke Energy, the states, and county decision makers.

The liaisons representing the York County, South Carolina Office of Emergency Management, the South Carolina Emergency Management Division, and the North Carolina Department of Public Safety's Division of Emergency Management worked with Duke Energy personnel to obtain current plant conditions and in turn, provided that information in a timely manner to their respective county and state emergency operations centers. Throughout the exercise, the liaisons observed and contributed to a virtual decision maker conference call between state personnel and decision makers in each of the counties located within the Catawba 10-mile emergency planning zone. The liaisons also responded to queries from utility personnel with respect to the actions of the states and the impacted risk counties. Throughout the exercise, these liaisons kept utility personnel fully apprised of key actions implemented offsite to notify and protect the public including the simulated sounding of sirens as well as the implementation of precautionary protective action decisions.

The South Carolina Department of Health and Environmental Control and North Carolina Radiation Protection Section also deployed liaisons to the Emergency Operations Facility to facilitate the exchange of information between state and utility dose assessment personnel as well as state and utility field teams. These liaisons facilitated the exchange of technical assumptions and results of dose assessment calculations based on simulated release rates and the results of measurements made by government and utility field teams. These liaisons coordinated the deployment of field teams downwind to characterize the release and share the results of those field measurements to better inform dose assessment calculations.

Throughout the exercise, the state and county emergency management liaisons maintained a very high level of situational awareness, collaborating to form a common understanding of conditions at the plant and promptly providing state and local officials with key insights into evolving plant conditions. In a similar fashion, state dose assessment liaisons closely followed plant conditions through participation in discussions with utility personnel and by observing simulated plant information provided by the utility's Emergency Reactor Data System and shared insights with state dose assessment personnel. All the liaisons made effective use of procedures, facilities and equipment, in particular information technology, to maintain situational awareness and communicate priorities with the utility emergency director and other utility personnel in the emergency operations center including the development and implementation of precautionary protective action decisions by the counties and the state.

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

3.4.1.3 Waterway Clearance

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

The South Carolina Department of Natural Resources officers along with representatives from York County and Charlotte Mecklenburg County discussed the requirements for establishing and conducting waterway clearing in accordance with their established plans and procedures. Appropriate equipment, supplies, a new map, and emergency worker dosimetry in their go kits were readily available for law enforcement personnel. Large 16x20 color maps were on display during the coordination call so that participants could follow along during the discussion. Law enforcement officers reviewed pre-scripted messages in both English and Spanish that would be broadcast aloud from boats as they traversed up and down the waterway. Each officer would be assigned a waterproof box that contained all the required dosimetry for use during their assignments. Law enforcement received dosimetry and potassium iodide with appropriate briefings before going out into the field to support the on-scene security mission. Waterway clearance requirements were clearly delineated in their plans and procedures. The officers were familiar with reporting requirements for exposure and tum back limits. Hunting and fishing bans within the 10-mile emergency planning zone were also discussed during the interview. Call participants addressed the process for conducting waterway warnings and how the coordination for additional resources from mutual aid counties would be available to thoroughly implement this portion of the mission. The protective response in the marine area was to evacuate people from the threatened area and control further access to the area. The York County Sheriff's Office provided drones and helicopters to survey the area during and after the clearing. The Department of Natural Resources offered fixed-wing planes to fly reconnaissance and survey the area.

3.5.1 Risk Jurisdictions

3.5.1.1 York County Emergency Operations Center

Operational Coordination Capability Summary:

York County Office of Emergency Management successfully demonstrated its capability to establish and maintain a unified and coordinated operational structure and process that appropriately integrated all critical stakeholders in support of their response to a simulated accident at Catawba Nuclear Station.

York County Office of Emergency Management received the initial notification of an alert emergency classification level via facsimile followed immediately by a call from the Catawba emergency operations facility on a dedicated line provided by the utility. The emergency operations center contains two dedicated utility phone lines; one of which was in the County's 911 dispatch call center, and one located in the Multi-Agency Coordination Center. The initial notification was received in the Multi-Agency Coordination Center by a designated staff member who verified receipt of the message in accordance with county and utility plans and procedures. Emergency support functions were then notified to report to the Multi-Agency Coordination Center using an emergency notification system allowing for text, email, and voice notifications. Once the Multi-Agency Coordination Center was fully staffed, the facility was declared operational by the York County Office of Emergency Management

Director. The director and deputy director identified and requested additional personnel and equipment resources necessary to execute radiological emergency response activities.

The primary leadership of the York County Office of Emergency Management consisted of the director, the deputy director, and the logistics officer. Response activities were coordinated out of the multi-agency coordination center. The multi-agency coordination center was equipped with sufficient workstations, digital displays, and various maps and charts. The multi-agency coordination center also had adequate primary and backup communications capabilities providing the ability to coordinate activities and information internal to the county, as well as to the South Carolina Emergency Management Division, neighboring counties, and the utility if required. No communication failures were observed during the exercise.

The director and the deputy director worked together the accomplish direction and control during the exercise. While the Deputy director managed the emergency support functions in the multi-agency coordination center, the director coordinated with external partners including the South Carolina Emergency Management Division, North Carolina Emergency Management, Mecklenburg County, and Gaston County. Coordination was facilitated by the South Carolina Emergency Management Division on a dedicated decision line. The director participated in frequent coordination calls which occurred after the receipt of a new emergency notification forms and as needed. The director briefed the deputy director after each call, and then briefed the emergency support functions in the multi-agency coordination center. All briefings occurred promptly and helped to maintain the situational awareness of the entire staff. Additionally, requested resources would be discussed during the coordination calls and managed by the appropriate emergency support function as needed. Three resource requests occurred during the exercise.

Precautionary actions included the evacuation of 140 individuals with access and functional needs located in zones A0, B1, and B2, and the early release of school children in the affected zones. The first protective action decision was to activate the siren system and provide a stay tuned message notifying the public of an ongoing emergency incident at Catawba Nuclear Station. This action was accomplished during the Alert emergency classification level due to reports of rapidly degrading conditions at the plant. The second decision concerned ingestion of Potassium Iodide for emergency workers, clearing of waterways, hunting and fishing bans, and stored feed and water for livestock. The third and final protective action decision concerned evacuation of zones A-0, A-1, A-2, A-3, B-1, B-2, ingesting of Potassium Iodide for evacuees from the affected zones. Zones A-2 and A-3 were not included in the utility's protective action recommendation but were evacuated based on population density and rapid escalation of the incident. All precautionary and protective action decisions were coordinated and concurred upon before being implemented.

The York County Office of Emergency Management Radiological Officer successfully demonstrated the appropriate issuance of dosimetry, potassium iodide, and ingestion procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Due to the emergency operations center's location within the 10-mile emergency planning zone of Catawba Nuclear Station, appropriate record-keeping of the potassium iodide dispensed to every emergency worker in the York County Emergency Operations Center was maintained and demonstrated. The York County Office of Emergency Management conducts leak-testing and calibration of county-maintained dosimetry on site and maintains appropriate inventory and accountability of dosimeters, potassium iodine, and other radiological equipment and kits through a detailed inventory tracking system. This

system utilizes bar codes to verify equipment calibration dates and assignment locations. A radiological briefing including exposure limits was provided to the participants, and a simulated permanent record dosimeter, a simulated potassium iodide tablet, and the York County Radiation Exposure Record card were given to each emergency worker. The radiological officer identified how dosimetry and potassium iodide would be distributed to emergency workers at their stations through delivery by county law enforcement. During the exercise, the decision was made by the South Carolina Department of Health and Environmental Control for emergency workers to ingest potassium iodide. Each emergency worker completed a record card accordingly while being reminded by the radiological officer of the precautions of ingesting potassium iodide. Direct reading dosimeters were also placed outside on the four sides of the emergency operations center building for continued monitoring.

Through an interview, the York County Office of Emergency Management and Public Health officials successfully implemented protection action decisions for individuals with disabilities and those with access and functional needs. Lists were provided confirming those within the evacuated area that would request transportation assistance during an emergency. The database is updated yearly and was secured in the county emergency operations center. During an evacuation of any zone or residential area where persons with access and functional needs lived, the transportation-dependent list would be assigned to the emergency support function 1 transportation coordinator who would coordinate assistance.

The director and deputy director discussed the implementation of protective actions for schools via telephone with the York County School officials and their ability to provide timely information to parents, the general public, and the media on the status of protective actions for schools. Schools proactively called for early dismissal of their students. Parents and guardians would be notified to pick up their students following the Site Area Emergency declaration. Through an interview, the logistic chief discussed how the York County School Officials would coordinate transportation with the school bus drivers. There were no impediments or shortages of resources identified.

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

Public Information and Warning Capability Summary:

The York County Public Information Group successfully delivered coordinated, prompt, reliable, and actionable information to the whole community using clear, consistent, and accessible messaging and communications. The initial alert and notification of the public was successfully demonstrated and completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency. A silent test of the siren system simulated the sounding of sirens for Gaston and Mecklenburg Counties in North Carolina and York County in South Carolina. All counties simultaneously sounded the sirens in their designated Emergency Planning Zones. The South Carolina Emergency Management Division provided the Emergency Alert System notification portion of the activation utilizing the Integrated Public Alert and Warning System. The South Carolina Emergency Management Division sent each message to predesignated South Carolina and North Carolina radio stations, joint information centers, and all principal county emergency operations centers. The York County emergency operations center call center also distributed the Emergency Alerting System messages via social media.

The York County Sherriff's Office was interviewed regarding a siren failure during the 9:55 am sounding of the Alert and Notification sirens for the public. Route alerting was assigned to the York County Sheriff's Office and Rock Hill Fire Department for the identified sirens that failed to sound. Residents in the affected areas of the four sirens that were reported to have been tampered with were also provided route alerting. The sheriff's office and fire department personnel discussed how the completion of route alerting and the use of a reverse calling system would be used to alert and notify those residents following the detection of a failure of the primary sirens. In addition, siren activation propagation and coverage maps were closely surveyed and discussed with York County response personnel. The Sheriff's Office requested additional resources to assist the route alerting. Maps, dosimetry, the message to be broadcast, and contact information upon completion was provided and utilized. Pre-designed driving routes were followed, the area was easily traversed, and the notification message was broadcast to the residents and businesses within the designated affected area. The county's procedures were found to be sufficient, and a successful alternate method of notification within a timely manner to the residents in the affected areas of sirens 56, 58, 65, 70, and 81.

With the support and coordination of an experienced public information team and including public information officers from other jurisdictions within the county, the York County Public Information Officer successfully demonstrated the capability to provide accurate emergency information and instructions to the public and the news media in a timely manner. The public information officer delegated a staff member to coordinate with the York County Emergency Operations Center from the joint information center at the Duke Energy Emergency Operation Facility. The team exercised effective communication skills and coordinated emergency information with local, state, and Duke Energy emergency public information organizations. The team ensured that emergency information was current, accurate, and disseminated to the public and the media in a timely manner.

All messages and new releases were pre-scripted and easily altered to appropriately describe the emergency information or instructions. The public information officer first anticipated information for release to the public and media, which was scribed by the message writer. The York County Emergency Management Director reviewed, approved, or altered the information in the news releases. The York County Public Information group produced and distributed one news release before the activation of the state joint information system.

Information in the messages and news releases appropriately reflected the protective action decisions that had been jointly concurred by York, Mecklenburg, Gaston, and Union Counties and by the state of South Carolina and the state of North Carolina. The messages clearly described the emergency incident, recommended protective actions, and provided emergency information and instructions to the public. News releases were provided in English and Spanish and contained all the required elements.

The York County Emergency Operations Center maintained a call center to manage communications from concerned citizens. Public information officers from the York County Sheriff's Office and the Rock Hill Police Department staffed the call center answering calls from the public and the media. They also monitored social media platforms. The officers demonstrated the use of social media to inform the public and control the spread of misinformation or rumors. Discussion and coordination between the York County public information officer and the call center public information officers were ongoing to ensure the most current and accurate information was provided to the callers. Tracked rumors and trends were addressed via news releases or during a media briefing. All thirteen calls were

logged and adequately routed to appropriate agencies when required. In addition, the Emergency Management Director vetted critical communication and responses to public inquiries.

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

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

York County Law Enforcement successfully demonstrated their capability to ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas. Traffic and access control management and establishment of the five predesignated locations were demonstrated by the York County Sheriff's Office and South Carolina State Highway Patrol in accordance with Annex 15 of the York County Radiological Emergency Plan dated 2021. Through an interview with the York County Sheriff's Office, the lieutenant provided information regarding actions taken by the traffic and access control staff to modify protective actions strategies, when necessary, assignment of staffing, the conduct of radiological safety briefing including usage of dosimetry and issuance/ingestion of potassium iodine, and the establishment of the staging area. Communication equipment included 800 megahertz radios and cellular telephones. It was noted that if there were any staffing issues a resource request would be made for additional officers. South Carolina Highway Patrol and York County Sheriff officers were knowledgeable on how to handle impediments to the evacuation and emergency worker identification verification. Additionally, York County law enforcement personnel successfully coordinated the response to a simulated impediment to one of the evacuation routes on Hands Mill Highway (Highway 274) at Campbell Road. The impediment required identification and implementation of detours for evacuees from the Catawba Nuclear Station and the general public. Traffic and access control personnel coordinated with county emergency medical services, York County Public Works, Rock Hill Police Department, and the South Carolina Highway Patrol to simulate the removal of the impediment and rerouting of traffic as needed. Response personnel provided updated information to the public information group as accident clean-up occurred. There were no other impediments notated.

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

3.5.1.2 Charlotte-Mecklenburg County Emergency Operations Center

Operational Coordination Capability Summary:

The Charlotte-Mecklenburg County Emergency Management Director and emergency management staff successfully demonstrated operational coordination during a simulated response to an incident at the Catawba Nuclear Station. They demonstrated the ability to establish communications and maintain a unified and coordinated operational structure and process that appropriately integrated all critical stakeholders. Participating agencies and personnel demonstrated knowledge of radiological emergency plans and procedures and made informed decisions to protect the health and safety of the public.

Staff were prepositioned near the emergency operations center when an Alert emergency declaration was received from Catawba Nuclear Station. The initial notification was received by the Charlotte Primary Warning Point and then transferred to the designated

communications desk in the emergency operations center. Upon notification of Alert, the emergency management director mobilized staff utilizing an automated notification system. Staff signed in and received badges to enter the secured facility. The emergency operations center was declared activated and operational once full staffing was achieved. The emergency operations center was a relatively new facility that easily provided sufficient space, equipment, and supplies for anticipated 24 hour needs over an extended period.

The primary means of communications was the county's 800 MHz radio system that linked together all fire, law enforcement, and emergency medical service agencies. Landline telephones were the primary communications in the emergency operations center, along with incident management software and cellular telephones. Auxiliary communications were provided by local volunteers who contacted several counties and state operations centers. Several communication systems were tested at the beginning of the exercise and remained operational. No failures were noted.

The Charlotte-Mecklenburg County Emergency Management Director accomplished direction and control by maintaining situational awareness, tracking significant events in an online tracking system, making recommendations and decisions, and demonstrating guidance to the operations center staff. The emergency management director and emergency operations center manager conducted multiple briefings and provided updates to the emergency operations center staff immediately after decisions were coordinated on the administrative decision line.

The exercise scenario and conditions necessitated the issuance of protective action decisions in alignment with the Mecklenburg County Emergency Response Plan for the McGuire and Catawba Nuclear Stations. Protective action decisions were coordinated and made over an administrative decision line call with concurrence from decision makers in the affected states and principal counties. The first protective action decision was to activate the siren system and provide a stay tuned message notifying the public of an ongoing emergency incident at Catawba Nuclear Station. This action was accomplished during the Alert emergency classification level due to reports of rapidly degrading conditions at the plant. The second decision concerned ingestion of Potassium Iodide for emergency workers, clearing of waterways, hunting and fishing bans, and stored feed and water for livestock. The third and final protective action decision concerned evacuation of zones A-0, A-1, A-2, A-3, B-1, B-2, ingesting of Potassium Iodide for evacuees from the aforementioned zones, and sheltering in place for patients and staff at two affected hospitals in Mecklenburg County. Zones A-2 and A-3 were not included in the utility's protective action recommendation but were evacuated based on population density and rapid escalation of the incident. All protective action decisions were discussed with emergency support function leads and each emergency support function was tasked with implementing protective action decisions respective to their assigned support function.

Due to the large numbers of students and time required to relocate them in an emergency, the school representatives made a decision to cancel school upon receipt of the Alert emergency declaration. They began contacting Charlotte-Mecklenburg schools and directed the principals to release the students to return home and ordered the buses to return to their transportation yards when completed for further use in possible evacuations of the public.

The health and welfare agency representatives began reviewing special hospitals, long term care centers and lists of residents who had declared/known functional and special access needs that may require assistance if required to be evacuated. The reviews were completed,

and lists were compiled by evacuation area totaling over three thousand who needed assistance because of sight, vision, hearing, speech impairment, cognitive delays and mobility issues. Numerous emergency operations center agencies coordinated a review of the various types of transportation and special assistance required. Upon receipt of the General emergency declaration, the evacuation and relocation of residents to three designated shelters was simulated.

The radiological officer provided each of the emergency operations center staff a card with radiological exposure detailed information for easy review in the field. By interview it was determined that each agency with emergency workers in the ten-mile emergency planning zone would conduct a "just in time" briefing on the proper placement of direct-read dosimeters, permanent record dosimeters, how to read, record and report the readings, when to take potassium iodide, and its effect on the human body. The dosimeters were validated to be within calibration. The officer stated that sufficient inventory of dosimeters and potassium iodide had been pre-distributed to support response operations. Several emergency workers were interviewed afterword and demonstrated an understanding of how to read, report, and record the dosimeter readings, what actions they were to take when the readings reached specific levels, and to ingest the issued potassium iodide only when ordered to do so by their supervisor.

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

Public Information and Warning Capability Summary:

The Charlotte-Mecklenburg Office of Emergency Management successfully demonstrated the ability to provide accurate emergency information and instructions to the public and the news media in a timely manner. The public information officer demonstrated this capability while located at the emergency operations center and utilizing a joint information system.

The Charlotte-Mecklenburg County public information team participated in all conference calls and provided input for coordinated press releases. The Charlotte-Mecklenburg County Public Information Officer ensured approval was obtained from the Charlotte-Mecklenburg County Emergency Management Director for all press releases prior to distribution. The public information officer and staff prepared and distributed three news releases for Mecklenburg County. The news releases contained information on the activation of the emergency operations center, declared state of emergency for the county, and vital information for residents with access and functional needs. The joint information system was accessed after the Site Area Emergency was declared. Public information officers coordinated messaging over the joint information system bridge line. The joint information system was comprised of public information officers from the States of North and South Carolina, and York, Mecklenburg, Gaston, and Union Counties. Three official press releases were issued that addressed waterway clearance at Lake Wylie, hunting and fishing bans, Governor's State of Emergency, agricultural advisory, protective action decisions, and the effected zones. The public inquiry line (311) was activated to receive incoming calls from residents seeking information on siren activations, shelter locations, and instructions for special populations. No calls were received on the public inquiry line.

At each protective action decision, the command group on the decision line concurred with the activation of sirens and the pre-scripted Emergency Alert System message that followed. All requirements were discussed in detail and the public information officer captured

necessary information for dissemination and distribution within Charlotte-Mecklenburg and to be used during the media briefings.

Back-up Route Alerting plans outlined the road networks associated with specific sirens in Mecklenburg County. Five volunteer fire departments in Mecklenburg County are trained on completing backup route alerting and have been provided the necessary maps and required dosimetry for emergency workers.

Backup route alerting was successfully performed by volunteer firemen in Mecklenburg County to simulate alerting residents following a siren failure. Per the standard operating guideline, Charlotte-Mecklenburg County Emergency Management staff would request dispatch of the backup route alerting teams after receiving notification from the emergency support function four liaison that a siren had failed.

Backup route alerting was initiated after a simulated failure of siren 20 in Mecklenburg County. The Steele Creek Volunteer Fire Department Chief was the radiation safety officer and provided a comprehensive radiological safety briefing prior to deploying the backup route alerting teams. The briefing included issuance of direct reading and permanent record dosimeters (simulated), radiation safety principals, potassium iodide (simulated), radiation exposure control forms, and instructions for taking potassium iodide only when directed to do so. The safety briefing also included instructions for checking direct reading dosimeters every 15 minutes and reporting administrative dose limits. The Steele Creek Volunteer Fire Department Chief utilized a pre-deployed response box, position task book binder, maps, and a display board within the Steele Creek Volunteer Fire Department to maintain situational awareness throughout the entirety of the demonstration.

Three backup route alerting teams comprised of volunteer firefighters from the Steele Creek Volunteer Fire Department and West Mecklenburg Volunteer Fire Department were deployed for this demonstration; the three apparatuses used were the Steele Creek Volunteer Fire Department Car 9, Steele Creek Volunteer Fire Department Engine 11, and West Mecklenburg Volunteer Fire Department Engine 1. Each apparatus was operationally checked prior to deployment and contained all necessary resources to complete its mission including fuel, public address system, pre-scripted emergency alert system messages, and personal protective equipment for team members if needed. Using pre-printed maps, the Steele Creek Volunteer Fire Department Chief quickly identified areas that would require backup route alerting. Each apparatus traveled its assigned route at a rate of 15 miles per hour, stopping every .25 mile to announce the pre-scripted message over the voice amplification system. In addition to the English translation, a prerecorded Spanish variation would also be available to broadcast. All direct reading dosimeters were checked every 15 minutes and observed no increases. The radiation safety officer simulated reporting all direct reading dosimeter readings to the Charlotte-Mecklenburg County Emergency Operations Center for situational awareness and for consideration of protective action decision implementation as deemed necessary. The route was concluded at approximately 34 minutes, falling within the 45-minute target.

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

3.5.1.3 Gaston County Emergency Operations Center

Operational Coordination Capability Summary:

The Gaston County Emergency Operations Center staff successfully demonstrated emergency operations management, emergency worker exposure control, and communications in response to an incident at the Catawba Nuclear Station. Participating agencies and personnel demonstrated knowledge of radiological emergency plans and procedures and made informed decisions to protect the health and safety of the public.

Gaston County's extent-of-play allowed for prepositioning of exercise participants. Following the initial notification of an alert emergency classification level over the utility's dedicated communication system, the Gaston County 911 Communications Center Supervisor used the county's notification system to mobilize emergency operations center personnel via text and email. The emergency operations center was fully staffed and, in some cases, double staffed for training purposes, and declared operational. The Gaston County Emergency Management Director explained the 24-hour staffing capabilities.

The Gaston County Emergency Management Director provided overall direction and control for Gaston County operations and made timely decisions in response to the unfolding incident. The director ensured all response activities were coordinated between appropriate agencies as authorized and outlined in the county plans. Throughout the exercise, decision line calls were utilized to coordinate protective action decisions among South Carolina, North Carolina, and other impacted off-site response organizations. Those calls were broadcast on loudspeaker throughout the emergency operations center to provide situational awareness. The Gaston County Emergency Management Director participated in all decision line conference calls and discussed decisions with staff. The director drew on the knowledge and expertise of the staff, which included utility liaisons, in formulating county concurrence on all protective action decisions and public messaging. Emergency operations command staff worked effectively to gather, analyze, and present emergency information to help facilitate and support critical decisions made by the director throughout the emergency.

Briefings were held regularly throughout the emergency as conditions changed or new emergency notification forms were received from the utility. A situation unit leader was assigned to conduct these briefings. Briefings were kept short and provided the staff with current information on plant conditions and status, as well as precautionary and protective action decisions. The briefings were an opportunity for participating agencies to provide updates of their current priorities, actions, and unmet needs. Distribution of the latest emergency notification form to all staff in the emergency operations center preluded each briefing. After a brief outline of essential critical changes in the emergency notification form including a discussion of the utility coded emergency alert levels, the utility liaison staff provided a detailed technical briefing for staff. Overall, staff demonstrated they were very knowledgeable of their roles/ responsibilities and subject matter expertise.

The Gaston County Emergency Operations Center and the Gaston County 911

Communications Center processes, systems, and equipment was sufficient to support emergency operations. The emergency operations center had redundant and backup communications, and leveraged the latest technology to maintain an exceptional level of situation awareness. Within the emergency operations center there were ten monitors displaying situational information such as evacuation zones, major roadways, wind direction, local weather, an incident management platform showing press releases and significant

events, a devoted outlook account which showed electronic emergency notification forms with emergency alert status, protective action dose limits, local media and national media split screens, and the projection screens were scalable. Staff at the emergency operation center utilized laptop computers to update and manage their activities in the web-based incident management platform.

Law enforcement, fire rescue, and emergency medical services staff in the emergency operation center demonstrated and discussed the capability to coordinate resources and activities during the emergency by using common tactical emergency radio channels. The director outlined procedures for requesting additional resources for unmet needs. Overall, the facilities and equipment in the operations center were more than adequate to support the response. There were no identified technical issues throughout the exercise. Audio broadcasting of the decision line calls was clear and audible to all staff in the operation center.

The Gaston County Emergency Operations Center staff successfully accomplished implementation of pre-planned protective actions in response to the unfolding emergency incident. During the decision line call, decision makers coordinated protective actions for livestock, the closing of hunting and fishing areas, and the clearing of waterways. Gaston County Schools were also closed. The Gaston County Emergency Management Director concurred with the recommendation to implement the protective measures in Gaston County. The Gaston County Emergency Management Director made protective action decisions during the exercise. All protective action decisions followed the same process with recommendations from the utility and public health agencies at the state level. Protective actions followed the same path of decision making with much debate and coordination among the two state agencies and risk counties in the emergency planning zone. Siren sounding and notification times were coordinated among all risk counties for all protective actions throughout the exercise.

The initial release of radioactive materials to the environment was reported by the utility and led to the declaration of a Site Area Emergency. Due to an ongoing release and degrading plant conditions, decision makers implemented protective actions in a timely manner. Staff within the operations center reviewed population data and evacuation time estimates for the impacted sectors in planning for future evacuations, if necessary. Initial protective action decisions requested residents to monitor and stay tuned for further instructions. As conditions at the plant deteriorated and additional containment barriers were breached, decision line calls were made to implement protective actions to include the evacuation of sectors A-0, A-1, and B-1. The protective actions were further expanded to include evacuation in zones A-0, A-1, A-2, A-3, B-1, and B-2. Decision makers were forward leaning, but also managed to focus on taking protective actions in areas that were at risk based on available information.

The Gaston County Emergency Management Director and Radiological Planner and command staff had a clear understanding of the overall county disposition of access and functional needs population in the county. Mailers are sent out with the utility calendars so residents with functional or access needs can reply by mail to request assistance in the event an evacuation is required. Based on the response, a registry is created and checked annually for accuracy by Gaston Emergency Medical Services personnel. Transportation dependent residents can be bused by social services and those with medical needs can be transported to a medical facility. During the exercise, the number of residents needing

assistance was limited to 26 in effected sectors of the emergency planning zone. The two schools located within the affected county emergency planning zone were closed.

Decisions on the administration of potassium iodide to emergency workers and the public followed the same decision path as other protective action decisions. According to the Gaston County Radiological Plan, the Gaston County Health Director after consultation or reasonable attempts to consult with the State Health Administrator, or the senior Radiation Protection representative, is empowered to authorize the distribution of potassium iodide to emergency workers with emergency monitoring equipment at designated staging areas. The State Health Department Director has the authority to recommend the ingestion of potassium iodide for emergency workers, institutionalized persons, and the public. Initially during the incident only emergency workers and institutionalized individuals were directed to ingest potassium iodide. As the incident degraded, the evacuating public was advised to take potassium iodide. The wording in all protective actions was clear and concise.

Per interview with the Gaston County emergency management staff, emergency workers would respond to the emergency operations center or other designated location to obtain kits which had pre-packaged instruction and guidance on the use of dosimetry and procedures for recordkeeping tracking exposures. Emergency workers were directed to check dosimetry every 15 minutes and keep a record of the readings. Emergency worker kits were pre-packaged by assignment in the field and the standard operating procedures included exposure limits, turnback values, instructions on potassium iodide use, and safety information. Emergency workers interviewed knew to contact the radiation safety officer in the event exposure limits were met or to request authorization to exceed the designated limit. Per interview correction factors were discussed at the state level and relayed to the Gaston County Radiological Planner. The county radiological officer was responsible for managing equipment and dose readings for responders during the incident to ensure emergency workers did not exceed exposure limits.

Evacuation of the public including evacuation routes, establishment of traffic control points and removal of impediments to evacuation was discussed with participants from the Gaston County Sheriff's Department and Gaston County Police Department. The early dismissal of schools, sheltering or evacuation of schools was discussed with the School District representative in the emergency operations center. School was not in session for the exercise. A discussion with the Gaston County Fire Department and the Department of Health and Human Services demonstrated effective accountability and procedures for protecting those persons with access/functional needs. There was a sufficient supply of potassium iodide available, however, there were no institutionalized individuals other than schools, within the emergency planning zone.

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

Public Information and Warning Capability Summary:

The Gaston County Emergency Operations Center staff successfully demonstrated the capability to alert and notify the public and provide accurate and timely information to the general public and news media. The Gaston County Public Information Officer and a media assistant were positioned near the emergency management director in the emergency operations center. An adjacent office was used by additional public information staff from the communications office and police department to participate on the open conference line with

other public information staffs within the joint information system, and for participation in the virtual press briefings. If media were present in the emergency operations center, they would be provided with briefings in that room.

Gaston County leadership participated in multiple decision line conferences with other response organizations, including both North Carolina and South Carolina, principal and host counties, and the utility. During the decision line conferences, the sounding of three sirens and the release of Emergency Alert System messages were coordinated among the response organizations and the utility. The sirens and messages followed the issuance of an Alert emergency classification level declaration and protective action recommendations for evacuations within zones in the 10-mile emergency planning zone. Proposed Emergency Alert System messages were provided by email to the emergency operations center, received by the public information officer, and were then reviewed by the emergency management administrator and staff. Comments and recommendations were provided by the public information officer to South Carolina by email prior to media distribution. Since there were no protective actions or plume projections that affected Gaston County, the recommendations made were regarding clarification and elaboration of information provided to the public and were not specifically directed to Gaston County.

A telephone line was established at the emergency operations center public information desk to receive public inquiries and to enable staff to analyze the calls for rumors and identify trends. The public inquiry line was initiated at the onset of the emergency operations center activation and was confirmed to be operational; however, there were no public inquiry calls received. The public information officer stated that public inquiry calls would be received, logged, and responded to with current information regarding the situation and any protective actions for the county. Any identified trends would be brought to the attention of the emergency management director and shared with public information staff on the public information conference line.

The public information officer participated virtually in the two media briefings that were facilitated by South Carolina Emergency Management Division personnel. The public information officer provided information relevant to Gaston County when presenting. During the first media briefing, the public information officer confirmed that there were no protective actions for Gaston County, the emergency operations center had been activated, and they were monitoring the situation at the Catawba Nuclear Station. During the second media briefing, the public information officer repeated the information from the first briefing, stating that there were no changes for the county, and stated that the reception center at Stuart Cramer High School in Belmont, North Carolina had been opened.

The Gaston County public information staff released three news releases to provide information of importance to local residents. Each news release was overseen by the emergency management director, written by the public information staff, and reviewed prior to release by the public information officer and the emergency management director. There were no pre-scripted news releases used during the exercise. The initial news release informed local residents that the Gaston County Emergency Operations Center had been activated. The second news release provided information regarding lake clearing and livestock protection, with appropriate instructions and actions. The final news release stated that a county state of emergency had been declared. The press releases were timely and comprehensive. By interview, public information staff confirmed that additional news releases would be prepared and issued each time new information was developed that affected county residents.

Gaston County verified, by an interview with the police department and sheriff's office, that backup route alerting would be accomplished in the event of siren failure. The two law enforcement agencies would collaborate and determine the optimum way to conduct route alerting based on staffing levels and availability. Mutual aid agreements are in place with other governments for assistance if needed. There are six designated routes for siren failures. Each of the six routes has a separate folder in the emergency operations center with detailed maps, dosimetry, potassium iodide information, a flash drive with appropriate and useful documents, and a dosimeter charger. If backup route alerting is required, the officials would estimate the time to complete the route and assign an appropriate number of teams to conduct the notifications. The vehicles are equipped with public address loudspeakers, which would be used to broadcast notification messages. The public information officer stated that additional methods of public notification of events at the Catawba Nuclear Station would include numerous social media platforms and landline and cell telephone software directed to specific geographic areas.

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

3.5.1.4 Gaston County Reception and Congregate Care Center

Mass Care Capability Summary:

The Gaston County Reception and Congregate Care Center personnel successfully demonstrated that facilities, equipment, and procedures were in place and utilized to provide identification, monitoring, and decontamination of evacuees in response to a radiological emergency at Catawba Nuclear Station. Traffic control procedures were in place for law enforcement personnel to direct evacuating traffic from the highway to reception and care center locations. The setup and traffic flow were clearly designated by signage, route markings, and personnel directing evacuees to different functional stations. Contamination control supplies, protective clothing, and use of signage, mops, floor coverings, booties, cones, and barrier tape were sufficient to minimize cross contamination.

The responders were given a radiological briefing prior to beginning demonstrations. Permanent record dosimetry, direct reading dosimetry, and potassium iodide were distributed to all responders. Personnel demonstrated appropriate management of radiation exposure. When interviewed, workers demonstrated that they understood radiation exposure limits, intervals for reading dosimeters, instructions for recording values, and had a basic knowledge on the use of potassium iodide. Direct reading dosimeters were within current leak testing dates and handheld radiation survey meters were within current calibration dates. Handheld survey meters and portal monitors were checked for proper operation using an appropriate source.

The initial evacuee monitoring station was located at the entrance of the Stuart Cramer High School. Initial monitoring was accomplished using portal monitors. Six portal monitors were on site for this demonstration, and three were set up and operational. If an individual was identified as contaminated, the assistant registered them, completing a form to provide personal data, and identifying the approximate areas of contamination based on initial portal results. If an evacuee was contaminated their vehicle information was recorded. The vehicle was located, and a smear test was conducted on the vehicle, if the vehicle could not be decontaminated through decontamination process, the vehicle would be parked in a separate, marked parking lot and wrapped for additional decontamination measures. Each

vehicle was given a number to aid in identification if the occupants were determined to be contaminated. If the individual was not contaminated, they would be given a yellow wristband and directed to the shelter registration area.

The Reception Center Guidance for Stuart Cramer High School identifies that 20% of the population that would potentially be affected by a radiological emergency in Gaston County is 1,910 people. Six evacuees were monitored at the initial monitoring station, averaging approximately 15 seconds per evacuee. With three portal monitors set up, it would take approximately 8 hours to monitor 20% of the population affected by an incident at Catawba Nuclear Plant, efficiently meeting the timeframe to complete initial monitoring.

Two evacuees were identified as contaminated. Following the Reception Center Guidance for Stuart Cramer High School, 300 counts per minute or above is the level considered contaminated. After the initial monitor identified contamination on the evacuee, the assistant who had completed the evacuees' registration and contamination identification forms led them through a cordoned pathway to the decontamination station. A body survey was performed using handheld monitors in the decontamination area.

Evacuee decontamination was set-up in the boy's locker room. While two locker rooms were available, if needed, only one was set-up and used during this demonstration. The locker room was set-up in accordance with the standard operating procedure. Set-up included a table, chairs, cones, and floor markings indicating where evacuees should stand to prevent cross contamination. Aside from the items listed above, there was no signage, placards, or posted instructions or pictures to provide evacuees with general context, like what to expect during the decontamination process.

The decontamination room staff did not don or doff personal protective equipment; personal protective equipment was simulated. Two handheld survey meters were available, operationally checked, and used during the demonstration; both meters were calibrated. A sticker was also affixed to each meter. Each decontamination room staff member was issued a permanent record dosimeter to wear. One direct reading dosimeter was used for the group and positioned on the table nearest most staff members.

Both evacuees were initially spot decontaminated with either a moist towelette or lint roller, depending on where the contamination was found. Contamination remained on one evacuee upon being re-monitored following spot decontamination; the other evacuee was found to not be contaminated upon being re-monitored. The evacuee that remained contaminated was then handed a pre-decontamination kit, directed into the shower area, and instructed to shower using the contents provided in the kit. After taking a simulated shower, the decontamination room staff member re-monitored the area of concern and the evacuee was found not to be contaminated. Both evacuees were issued a green wristband and directed to exit the locker room using the "clean" path that was delineated by traffic cones. Once outside the locker room the evacuees were directed towards the shelter registration table.

Non contaminated evacuees, proceeded to the sheltering location, the American Red Cross alongside of the Gaston County Department of Social Services and Gaston County Emergency Medical Services, use another table to register evacuees who need sheltering. In this area, maps and signs are displayed in both English and Spanish. Additional language tools are used as needed. The Gaston County Sherriff's Department provides security at entry/exits points and additional common areas where needed. Registration information is recorded on a Shelter Dormitory Registration Form. This form records household information

and individual family member information. Additional instructions on this form reminds red cross staff to ask specific medical information or service pet information. American Red Cross also provides an informational pamphlet, explaining many of the resources available at the shelter. Access and functional needs requests are handled by the department of social services case by case.

During red cross registration process, family pets are taken to the separated animal holding area by their owners to be tagged and placed into a holding area operated by county police departments animal care enforcement. The tags used are large enough to be placed around the pet's neck and would utilize a serial number that would be logged. Owners would be given corresponding wristbands to their pets. It was noted that the owners would be expected to feed and exercise the pets the duration of the stay. Family pets needing to be decontaminated would be prior to entering the holding area, at a designated area. Equipment onsite and the equipment listing showed enough to sustain large quantities that could be expected with the population.

After the red cross registration, the evacuees are directed to the facility gymnasium that would be used as the dormitory. Through interview, it was discussed that there is over 12,400 square feet of space available, equating to 310 spaces at 40 Square feet for each space. It was noted that the square footage for everyone can increase or decrease, depending on the need. A system to keep families together, separate single males and females, and a children's play area was described. If medical emergencies arise, emergency services would be able to quickly enter the gym and assess the situation. Additional requests for medication could be made through the Gaston County Public Health and Human Service. Food and beverage would be provided by the school and would be distributed in the cafeteria by American Red Cross workers.

Through interview and observation, it was noted that evacuees that no longer needed shelter would then need to sign out for management staff to maintain positive accountability of each person in the facility. The evacuees would sign out at the same red cross registration table initially used to register. Using one exit point, the evacuees easily exited and were able to return to their vehicle, concluding process of evacuee sheltering and the exercise.

For this capability the following radiological emergency preparedness capability targets were met: 5.1.

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Section 4: Conclusion

FEMA assesses offsite response organization preparedness on an ongoing basis which meets the intent of the 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.

Response organizations from the states of North Carolina and South Carolina, and York, Mecklenburg, and Gaston Counties demonstrated knowledge of their emergency response plans and showed that they can implement them to protect the health and safety of the public in the event of an incident involving the Catawba Nuclear Station. This exercise scenario provided for a significant radiological release with rapidly degrading plant conditions. It challenged the participants; however, they used subject matter experts and pre-scripted products to make fast, yet appropriate decisions, and quickly alert and notify the public. It was an impressive, unified response.

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							
		SC SEOC/ Dose	SC MOC	York County	NC SEOC/ Dose	Western Branch	Charlotte-Mecklenburg County	Gaston County	JIS*
Alert	8:19 a.m.	8:32 a.m.	8:41 a.m.	8:32 a.m.	8:28 a.m.	8:29 a.m.	8:32 a.m.	8:32 a.m.	9:30 a.m.
Site Area Emergency	9:47 a.m.	9:53 a.m.	9:57 a.m.	9:53 a.m.	9:54 a.m.	9:54 a.m.	9:53 a.m.	9:54 a.m.	9:53 a.m.
General Emergency	10:36 a.m.	10:45 a.m.	10:51 a.m.	10:45 a.m.	10:39 a.m.	10:48 a.m.	10:45 a.m.	10:47 a.m.	10:59 a.m.
Simulated Rad. Release Started	9:43 a.m.	9:43 a.m.	9:57 a.m.	9:43 a.m.	9:43 a.m.	9:43 a.m.	9:43 a.m.	9:43 a.m.	9:53 a.m.
Simulated Rad. Release Ended	N/A	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational	8:53 a.m.	9:05 a.m.	9:57 a.m.	8:39 a.m.	9:35 a.m.	8:43 a.m.	8:45 a.m.	9:55 a.m.	9:33 a.m.
State of Emergency Declared	State	10:04 a.m.	-	9:50 a.m.	11:00 a.m.	10:59 a.m.	-	11:00 a.m.	10:09 a.m.
	Local	-	-	9:52 a.m.	-	-	9:20 a.m.	11:30 a.m.	-
End Exercise	12:25 p.m.	12:27 p.m.	2:30 p.m.	12:31 p.m.	12:25 p.m.	12:29 p.m.	12:29 p.m.	12:28 p.m.	12:26 p.m.
Precautionary Actions: Early dismissal of schools		-	-	9:45 a.m.	-	-	9:45 a.m.	-	-
Protective Action Decision 1: Stay Tuned		9:45 a.m.	-	9:45 a.m.	9:45 a.m.	9:45 a.m.	9:45 a.m.	9:45 a.m.	9:32 a.m. 9:57 a.m.
Siren Activation		9:55 a.m.	-	9:55 a.m.	9:55 a.m.	9:55 a.m.	9:55 a.m.	9:55 a.m.	-
EAS Message		9:55 a.m.	-	9:55 a.m.	9:55 a.m.	-	9:55 a.m.	9:55 a.m.	-
NWS Activation		9:55 a.m.	-	9:55 a.m.	9:55 a.m.	-	9:55 a.m.	9:55 a.m.	-

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken							
		SC SEOC/ Dose	SC MOC	York County	NC SEOC/ Dose	Western Branch	Charlotte-Mecklenburg County	Gaston County	JIS*
Protective Action Decision 2: Distribution and ingestion of KI to EW, distribution only of KI to institutionalized Within 10-miles: Hunting/fishing ban: Livestock on stored feed and water; and Waterway warning/clearance		10:35 a.m.	-	10:35 a.m.	10:35 a.m.	10:35 a.m.	10:35 a.m.	10:35 a.m.	10:55 a.m.
Siren Activation		10:50 a.m.	-	10:50 a.m.	10:50 a.m.	10:50 a.m.	10:50 a.m.	10:50 a.m.	-
EAS Message		10:55 a.m.	-	10:55 a.m.	10:55 a.m.	10:55 a.m.	10:55 a.m.	10:55 a.m.	-
NWS Activation		10:55 a.m.	-	10:55 a.m.	10:55 a.m.	-	10:55 a.m.	10:55 a.m.	-
Protective Action Decision 3: Evacuate: A-0, A-1, A-2, A-3, B-1, B-2 Shelter in Place – Mecklenburg County hospitals (2)		11:20 a.m.	-	11:20 a.m.	11:20 a.m.	-	11:17 a.m.	11:20 a.m.	11:36 a.m.
Siren Activation		11:35 a.m.	-	11:35 a.m.	11:35 a.m.	11:35 a.m.	11:35 a.m.	11:35 a.m.	-
EAS Message		11:35 a.m.	-	11:35 a.m.	11:35 a.m.	11:35 a.m.	11:35 a.m.	11:35 a.m.	-
NWS Activation		11:35 a.m.	-	11:35 a.m.	11:35 a.m.	-	11:35 a.m.	11:35 a.m.	.
Joint KI Ingestion Decision:	Emergency Workers – Ingest	10:35 a.m.	10:43 a.m.	10:35 a.m.	10:35 a.m.	10:35 a.m.	10:35 a.m.	10:35 a.m.	-
	General Public - Ingest	11:20 a.m.	-	11:20 a.m.	11:20 a.m.	11:20 a.m.	11:20 a.m.	11:20 a.m.	11:20 a.m.

*Denotes the time in which a decision was messaged from the joint information center.

Appendix B: Evaluator Assignments

Location/Venue	Evaluation Team	Core Capability
South Carolina State Emergency Operations Center/South Carolina JIC	Robert Nash Gerald McLemore Steve Watts Matt Web	Operational Coordination Public Information & Warning
South Carolina Dose Assessment	Bart Ray	Situational Assessment
South Carolina MOC	Ronald Schmitt	Environmental Response, Health, and Safety
South Carolina FMT 1 South Carolina FMT 2	Cheryl Weaver Carol Shepard	Environmental Response, Health, and Safety
South Carolina Mobile Lab	Tom Essig	Environmental Response, Health, and Safety
North Carolina State Emergency Operations Center	Randi Hendrix Dave Ortman Rosemary Samsel	Operational Coordination Public Information & Warning
North Carolina, Western Branch Office	Bill McDougall	Operational Coordination
North Carolina Dose Assessment Radiation Protection Section	Marcy Campbell	Situational Assessment
North Carolina FMT Management	Deb Blunt	Environmental Response, Health, and Safety
North Carolina Radiological Field Monitoring Team – Courtesy Evaluation	Roger Winkelmann	Environmental Response, Health, and Safety
North Carolina Mobile Laboratory – Courtesy Evaluation	John Wiecjorek	Environmental Response, Health, and Safety
Emergency Operations Facility	John Pelchat	Operational Coordination
Joint Information System	Kevin Reed	Public Information & Warning
Waterway Clearance	York and Mecklenburg Counties Evaluation Teams	On Scene Security, Protection, and Law Enforcement
York County Emergency Operations Center	Quintin Ivy Farrah Stewart Meg Swearingen	Operational Coordination Public Information & Warning

York County Traffic Control Points	York County Evaluation Team	On-Scene Security, Protection, and Law Enforcement
York County Backup Route Alerting	York County Evaluation Team	Public Information & Warning
Charlotte-Mecklenburg County Emergency Operations Center	Matt Bradley Roy Smith Brenda Rembert Irvin Gibson	Operational Coordination Public Information & Warning
Charlotte-Mecklenburg County Back-Up Route Alerting OOS	Mecklenburg County Evaluation Team	Public Information & Warning
Gaston County Emergency Operations Center	Nate Nienhius Terry Blackmon Gary Goldberg Vince Kalson	Operational Coordination Public Information & Warning
Gaston County RCCC OOS	Farrah Stewart Erica Houghton Randi Hendrix	Mass Care

Appendix C: Exercise Participants

Participating Organizations
State of South Carolina
South Carolina Office of the Adjutant General, Emergency Management Division
South Carolina Department of Health & Environmental Control
South Carolina Department of Natural Resources
South Carolina Highway Patrol
South Carolina Department of Public Safety – South Carolina Law Enforcement Division
South Carolina Department of Social Services
South Carolina Department of Transportation
State of North Carolina
North Carolina Department of Public Safety, Division of Emergency Management
North Carolina Department of Health & Human Services, Radiation Protection Section
North Carolina Department of Health & Human Services, Division of Public Health
North Carolina Department of Agriculture & Consumer Services
North Carolina Department of Transportation
North Carolina Governor's Office
North Carolina Environmental Quality, Public Water Supply Section
North Carolina State Emergency Response Team
North Carolina State Highway Patrol
North Carolina Department of Public Safety's Division of Emergency Management – Western Branch Office
North Carolina Wildlife Resources Commission
University of North Carolina - Charlotte
York County
York County Office of Emergency Management

Participating Organizations
York County Health Department
City of Rock Hill
York County Public Safety Commission
York County Sherriff's Office
York County Manager's Office
York County Information Technology
York County Public Works
York County Fire Department
Rock Hill Fire Department
Rock Hill Police Department
York County Animal Control
York County Department of Social Services
York County Planning
Charlotte-Mecklenburg County
Charlotte Area Transit System
Charlotte City Manager
Charlotte County Airport Authority
Charlotte Department of Transportation
Charlotte Fire Department
Charlotte Risk Management Office
Charlotte Water
Charlotte-Mecklenburg County Geographical Information Services
Charlotte-Mecklenburg Emergency Management
Charlotte-Mecklenburg Police Department

Participating Organizations
Charlotte-Mecklenburg Police Department
Charlotte-Mecklenburg Police Department – Communications Division
Charlotte-Mecklenburg Police Department – Lake Enforcement Division
Charlotte-Mecklenburg Schools
Charlotte-Mecklenburg Storm Water Services
Mecklenburg County Fire Marshal's Office
Charlotte-Mecklenburg 311
Mecklenburg County Health Department
Mecklenburg County Sheriff's Office
Mecklenburg Emergency Medical Services
Pineville Police Department
Town of Huntersville
Gaston County
Belmont Fire Department
Gaston County Animal Care and Enforcement Division
Gaston County Emergency Management and Fire Services
Gaston County Emergency Medical Services
Gaston County Health and Human Services
Gaston County Police Department
Gaston County Police Department Communications
Gaston County Sheriff's Office
New Hope Volunteer Fire Department
Town of Huntersville
Union Road Volunteer Fire Department

Participating Organizations
Other Jurisdictions
Auxiliary Communications
Catawba County Emergency Management
Union County Emergency Management
Private Sector
American Red Cross
Piedmont Medical Center
Piedmont Medical Center Emergency Medical Services
Atrium Health
Duke Energy
Metrolina Healthcare Preparedness Coalition
Novant Health Public Safety
Federal
United States Department of Homeland Security, Federal Emergency Management Agency, Region 4
United States Nuclear Regulatory Commission, Region II

Appendix D: Extent of Play Agreements

(South Carolina Extent of Play Agreement)

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:

- Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.
- Receive and verify notifications.
- Identify and request additional resources, as needed.
- Determine a facility is operational.

Exception or Note: 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:

- Support protective action decision-making
- Conduct briefings in a timely manner.
- Maintain situational awareness.
- Coordinate response activities with other organizations.
- Obtain resources to support emergency operations.
- Provide and maintain adequate facilities and equipment to support the emergency response.

Exception or Note: All coordination telephone calls should occur in accordance with plans and procedures. The SimCell may substitute for non-participating agencies (That may be engaged in real emergency events). FEMA will be given access to the SimCell as necessary.

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:
- Coordinate and make PADs for members of the general public.
- Coordinate PADs for those with access and functional needs.
- Coordinate PADs for students at schools.
- Coordinate and make subsequent or alternate PADs.
- Coordinate and make decisions on the administration of KI (where applicable) for the public and institutionalized members of the population.

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:
- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., "content check").

Exception: communications systems 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 Sequentially provide an alert signal followed by an initial instructional message to populated areas.
- Alert and notify the general public.
- Identify and address any failures of the system(s) or portion of a system(s).
- Activate the EAS and ensure the message contains accurate and required information.
- Ensure that updated emergency information is disseminated in a timely manner.
- Ensure that current emergency information is repeated at pre-established intervals.

Exception or Note: All siren soundings will be conducted via silent test.
EAS messages will be prepared and coordinated but broadcasts will be simulated. Procedures for broadcasting EAS messages will be discussed

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:

- Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.
- Receive and verify notifications.
- Identify and request additional resources, as needed.
- Determine a facility/system is operational.

Exception or Note: 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:

- Maintain situational awareness.
- Coordinate response activities with other organizations.
- Obtain resources to support emergency operations.
- Provide and maintain adequate facilities and equipment to support the emergency response.

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:

- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., “content check”).

Exception: communications systems 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 discuss the following Critical Tasks:
- Sequentially provide an alert signal followed by an initial instructional message to populated areas.
- Alert and notify the general public.
- Identify and address any failures of the system(s) or portion of a system(s).
- Activate the EAS and ensure the message contains accurate and required information.
- Ensure that updated emergency information is disseminated in a timely manner.
- Ensure that current emergency information is repeated at pre-established intervals.

Exception or Note: 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:
- Deliver coordinated, prompt, reliable, and actionable information in a timely manner.
- Provide clear, concise, accessible messaging using plain language
- Messaging addresses appropriate cultural and linguistic considerations.
- Ensure subsequent messaging is consistent with protective actions. Are all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, shelter-in-place instructions, information concerning protective actions for schools and persons with access and/or functional needs, and public inquiry hotline telephone number) to assist the public in carrying out the PADs provided?
- Update information as the incident progresses, to include validating previously identified protective areas and clearly identifying any new protective action areas, any information that is no longer valid, and any changes to previously provided information (e.g., rerouting of evacuation routes due to impediments, etc.).
- Respond to media and public inquiries.

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: 1.1: 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).

Emergency Operations Facility (EOF) Liaisons will demonstrate the following Critical Tasks:
- Receive and verify notifications.

Exception or Note: 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).

Emergency Operations Facility (EOF) Liaisons will demonstrate the following Critical Tasks:

- Support protective action decision-making
- Conduct briefings in a timely manner.
- Maintain situational awareness.
- Coordinate response activities with other organizations.
- Obtain resources to support emergency operations.
- Provide and maintain adequate equipment to support the emergency response.

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:

- Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.
- Receive and verify notifications.
- Identify and request additional resources, as needed.
- Determine a facility/system is operational.

Exception or Note: 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:

- Support protective action decision-making
- Conduct briefings in a timely manner.
- Maintain situational awareness.
- Coordinate response activities with other organizations.
- Obtain resources to support emergency operations.

- Provide and maintain adequate facilities and equipment to support the emergency response.

Exception or Note: All coordination telephone calls should occur in accordance with plans and procedures. The SimCell may substitute for non-participating agencies (That may be engaged in real emergency events). FEMA will be given access to the SimCell as necessary.

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:
- Select and implement pre-planned precautionary protective actions.
- Utilize the methodology in plans/procedures to select among a range of protective actions most appropriate in a given emergency. This could also include the use of preplanned precautionary protective actions contained in plans/procedures.
- Develop PARs.
- Transmit PARs in a timely manner.
- Assess radiological consequences and provide appropriate PARs for the ingestion exposure pathway.

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).

SCDHEC will discuss the following Critical Tasks:
- Coordinate on PADs for members of the general public.
- Coordinate on PADs for those with access and functional needs.
- Coordinate on PADs for students at schools.
- Coordinate subsequent or alternate PADs.
- Coordinate and make decisions on the administration of KI (where applicable) for the public and institutionalized members of the population.

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).

SCDHEC will demonstrate the following Critical Tasks:
- Process for considering occupational exposures and to authorize individuals to receive doses in excess of occupational dose limits.
- Determine the need to authorize radioprotective drugs using projected thyroid doses and field measurements. Projections are compared to previously established PAGs.

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:

- Obtain adequate data to make dose projections.
- Use software and/or other methods (e.g., manual calculations) to make dose projections for members of the public (both TED and thyroid dose) based on plant data.
- Compare dose projections to members of the public to EPA PAGs.
- Compare dose projections to the public with those of the licensee and discuss differences greater than a factor of ten with the licensee and explain reasons for the difference.
- Make initial PARs based on recommendations of the licensee, release data, meteorological data, and other pertinent information.
- Promptly communicate PARs to decision-makers.
- Receive ambient exposure rates from FMTs and compare to model projections.
- Calculate iodine and particulate concentrations from FMT air samples.
- Calculate plume ratios of noble gas, iodines, and particulates, and compare to model projections.
- Adjust PARs, as necessary, based on analysis of field data.
- Calculate an incident-specific correction factor for emergency workers inside the plume exposure pathway EPZ.

Field Monitoring Team Management

Environmental Response Health & Safety

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

Capability Target: 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:

- Provide and maintain adequate facilities and equipment to support the emergency response.

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).

SCDHEC will demonstrate the following Critical Tasks:

- Control emergency workers' exposure and dose, including offsite workers performing duties onsite.
- Maintain record of dose as a result of exposure.
- Process for considering occupational exposures and to authorize individuals to receive doses in excess of occupational dose limits.
- Determine the need to authorize radioprotective drugs using projected thyroid doses and field measurements. Projections are compared to previously established PAGs.

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).

SCDHEC will discuss/demonstrate the following Critical Tasks:
- Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
- Maintain an appropriate inventory of PRDs.
- Retain an adequate supply of radioprotective drugs.
- Adequately distribute appropriate DRDs and PRDs.
- Adequately distribute radioprotective drugs to emergency workers.
- Record and report exposures in the field.
- Implement decisions to administer radioprotective drugs.
- Report to individual responsible for managing exposure and dose when limits are reached.

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).

SCDHEC will discuss/demonstrate the following Critical Tasks:
- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., "content check").

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

Capability Target: 4.1: Field Monitoring Teams Management
FMT's are managed to obtain information to help characterize the release, locate and track the airborne radiological plume, and control contamination. (NUREG-0654/FEMA-REP-1, Rev. 2: H.11, H.13, I.5, I.6, I.9, I.10, M.7, M.8, and O.1).

SCDHEC will discuss/demonstrate the following Critical Tasks:
- Brief Field Monitoring Teams (FMT) on predicted plume location and direction, plume travel speed, equipment operational checks, background measurement, 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.
- Assist with development and modification of sampling plans, as appropriate.

Field Monitoring Teams

Environmental Response Health & Safety

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

Capability Target: 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:

- Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.
- Receive and verify notifications.
- Identify and request additional resources, as needed.

Exception or Note: Personnel may be pre-positioned in the area prior to notification.

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).

SCDHEC will demonstrate the following Critical Tasks:

- Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
- Maintain an appropriate inventory of PRDs.
- Retain an adequate supply of radioprotective drugs.
- Adequately distribute appropriate DRDs and PRDs.
- Adequately distribute radioprotective drugs to emergency workers.
- Record and report exposures in the field.
- Implement decisions to administer radioprotective drugs.
- Report to individual responsible for managing exposure and dose when limits are reached.

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).

SCDHEC will demonstrate the following Critical Tasks:

- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., “content check”).

Exception: Communications systems if different than site specific plans, i.e., conference bridge line

Capability Target: 4.2: Plume Phase Measurements and Sampling
FMT's make, record, and report measurements of ambient radiation to appropriate authorities; radioiodine and particulate samples are collected. (NUREG-0654/FEMA-REP-1, Rev. 2: H.9, H.11, H.11.a, H.11.b, H.12, H.13, I.2, I.5, I.6, I.7, I.8, I.9, I.10, and O.1).

SCDHEC will demonstrate the following Critical Tasks:

- Maintain emergency equipment including calibration and operational checks according to manufacturer's specifications or per national standards.
- Maintain inventory for emergency kits.
- Operate and monitor radiation survey instruments to detect changes in radiation exposure rate while moving and in stationary positions.
- Use appropriate contamination control and PPE.
- Be in location(s) at the appropriate time(s) to detect and characterize the active release (plume).
- Obtain peak plume measurements either directly or from licensee field teams.
- Correctly interpret survey instrument readings to determine submersion in the active plume.
- Collect representative air samples in the active plume on particulate media (e.g., glass or paper filter) and iodine selective media.
- Handle sample media and equipment to avoid sample cross-contamination, contamination of equipment and personnel contamination.
- Determine an appropriate low background location to count sample media.
- Count iodine and particulate media using appropriate and effective instrumentation and counting geometries or have samples analyzed by a supporting laboratory within four hours.
- Report to field monitoring team manager all survey and counting results in format and units suitable for use by the organization's dose assessor.
- Procedures, qualified collection and counting efficiencies, and calculations are capable of detecting airborne radioactive iodine concentrations as low as 10^{-7} µCi/cc.
- Preparation of packaging, sample identification, and chain-of-custody forms ensures integrity of samples throughout transportation and transfer.

Fixed Mobile Rad Lab

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

Capability Target: 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:

- Provide and maintain adequate facilities and equipment to support the emergency response.

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).

SCDHEC will demonstrate the following Critical Tasks:

- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., "content check").

Exception: Communications systems if different than site specific plans, i.e., conference bridge line

Capability Target: 4.4: Laboratory Operations
The laboratory performs radiological analyses to support protective action decision-making. (NUREG-0654/FEMA-REP-1, Rev. 2: C.4, H.11, H.11.b, H.13, I.2, I.6, M.7, and O.1).

SCDHEC will demonstrate the following Critical Tasks:

- Prepare analytical equipment for use, including performing calibrations, quality control checks, and background counts, as appropriate.
- Receive and track samples, including completing chain-of-custody records.
- Prepare and process each type of sample necessary to assess the ingestion plume exposure pathway and to support reentry, relocation, and return decisions. The types of samples necessary are based on the exercise scenario and may include drinking water, soil, vegetation, milk, crops, or other agriculture samples.
- Analyze samples to determine the concentration of each radionuclide in each sample. Minimum detection limits (MDLs) for various radionuclides must be low enough to support ORO decisions.
- Provide analysis results to the appropriate organization.
- If the laboratory is used to count air samples during the early phase of an incident and prepare, process, and analyze air filters and cartridges, provide analysis results in a timely manner to support ORO decisions.

Waterway Clearance

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: 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:

- Alert, notify, and mobilize key personnel
- Receive and verify notifications.
- Identify and request additional resources, as needed.

Exception or Note: Personnel may be pre-positioned in the area prior to notification.

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

SCDNR will discuss/demonstrate the following Critical Tasks:
- Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
- Maintain an appropriate inventory of PRDs.
- Retain an adequate supply of radioprotective drugs.
- Adequately distribute appropriate DRDs and PRDs.
- Adequately distribute radioprotective drugs to emergency workers.
- Record and report exposures in the field.
- Implement decisions to administer radioprotective drugs.
- Report to individual responsible for managing exposure and dose when limits are reached.

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 discuss/demonstrate the following Critical Tasks:
- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., “content check”).

Exception: communications systems if different than site specific plans, i.e., conference bridge line
Note: The Waterway Clearance Evaluation will be discussion based and conducted during the exercise at the York County MACC

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:
- Select, establish, and staff appropriate waterway clearance operations consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation) in a timely manner.
- Provide instructions to access control staff on actions to take when modifications in protective action strategies necessitate changes in the area(s) where access is controlled.
- Provide instructions to boaters on actions to take.
- Accurate knowledge of roles and responsibilities including verifying emergency worker identification and access authorization to the affected areas.

RISK COUNTY
York County

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).

York County will demonstrate the following Critical Tasks:
- Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.
- Receive and verify notifications.
- Identify and request additional resources, as needed.
- Determine a facility is operational.

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

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

York County will demonstrate the following Critical Tasks:
- Support protective action decision-making
- Conduct briefings in a timely manner.
- Maintain situational awareness.
- Coordinate response activities with other organizations.
- Obtain resources to support emergency operations.
- Provide and maintain adequate facilities and equipment to support the emergency response.

Exception or Note: All coordination telephone calls should occur in accordance with plans and procedures. However, the simcell may substitute for non-participating agencies.

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).

York County will discuss the following Critical Tasks:
- Coordinate and make PADs for members of the general public.
- Coordinate PADs for those with access and functional needs.
- Coordinate PADs for students at schools.
- Coordinate and make subsequent or alternate PADs.

- Coordinate and make decisions on the administration of KI (where applicable) for the public and institutionalized members of the population.

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).

York County will discuss/demonstrate the following Critical Tasks:
- Implement PADs, ensuring communication and coordination with all appropriate jurisdictions.
- Assist those with access and functional needs during the implementation of PADs.
- Communicate, coordinate, and implement protective actions for schools.
- Communicate with transportation officials.
- Identify evacuation routes for the general public.
- Make KI available to both institutionalized persons and the general public, in accordance with plans and procedures.

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 radioprotective 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).

York County will demonstrate the following Critical Tasks:
- Control emergency workers' exposure and dose, including offsite workers performing duties onsite.
- Maintain record of dose as a result of exposure.
- Process for considering occupational exposures and to authorize individuals to receive doses in excess of occupational dose limits.
- Determine the need to authorize radioprotective drugs using projected thyroid doses and field measurements. Projections are compared to previously established PAGs.

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).

York County will demonstrate the following Critical Tasks:
- Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
- Maintain an appropriate inventory of PRDs.
- Retain an adequate supply of radioprotective drugs.
- Adequately distribute appropriate DRDs and PRDs.
- Adequately distribute radioprotective drugs to emergency workers.
- Record and report exposures in the field.
- Implement decisions to administer radioprotective drugs.

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).

York County will demonstrate the following Critical Tasks:

- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., "content check").

Exception or Note: communications systems 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).

York County will demonstrate the following Critical Tasks:

- Sequentially provide an alert signal followed by an initial instructional message to populated areas.
- Alert and notify the general public.
- Identify and address any failures of the system(s) or portion of a system(s).
- Actual testing of the mobile public address system will be conducted at an agreed-upon location.
- Identify the process to activate the EAS.
- Ensure that updated emergency information is disseminated in a timely manner.
- Ensure that current emergency information is repeated at pre-established intervals.
- Complete route alerting, as appropriate. Demonstrate all routes are capable of being run in allotted time. Emphasis on the most challenging routes

Exception or Note: All siren soundings will be conducted via silent test

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)

York County Counties will demonstrate the following Critical Tasks:

- Deliver coordinated, prompt, reliable, and actionable information in a timely manner.
- Provide clear, concise, accessible messaging using plain language.
- Messaging addresses appropriate cultural and linguistic considerations.
- Ensure subsequent messaging is consistent with protective actions.
- Update information as the incident progresses, to include validating previously identified protective areas and clearly identifying any new protective action areas, any information that is no longer valid, and any changes to previously provided information (e.g., rerouting of evacuation routes due to impediments, etc.).
- Respond to media and public inquiries.

Schools

School interviews will be conducted out of sequence at the following times:
September 28, 2022, 09:15-11:30 by 4 designated teams in the order listed below:

Time	Address	School
09:15	3598 Filbert Hwy, Clover, SC 29710	Larne Elementary School
10:00	1176 Black Hwy, York, SC 29745	Cotton Belt Elementary School
10:45	400 E. Jefferson St, York, SC 29745	Harold C Johnson Elementary School
11:30	1100 Hunter St, York, SC 29745	Hunter Street Elementary School
09:15	4757 Mt. Gallant Rd, Rock Hill, SC 29732	Dutchman Creek Middle School
10:00	2068 Yukon Drive, Rock Hill, SC 29732	
10:45	1774 Masons Bend Dr, Fort Mill, SC 29708	Kings Town Elementary School
11:30	1000 Dave Gibson Blvd, Fort Mill, SC 29708	Gold Hill Elementary School
09:15	1000 Dragon Way, Fort Mill, SC 29715	Dobys Bridge Elementary School
10:00	2212 Whites Rd, Fort Mill, SC 29715	Forrest Creek Middle School
10:45	1016 Fort Mill Pkwy, Fort Mill, SC 29715	River Trail Elementary School
11:30	1300 Spratt St, Fort Mill, SC 29715	Riverview Elementary School
09:15	1835 Eden Terrace, Rock Hill, SC 29730	Cherry Park Elementary School
10:00	1825 Eden Terrace, Rock Hill, SC 29730	Sullivan Middle School
10:45	1162 Richmond Dr, Rock Hill, SC 29732	Richmond Drive Elementary School
11:30	2142 India Hook Rd, Rock Hill, SC 29732	Ebinport Elementary School

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).

York County will discuss/demonstrate the following Critical Tasks:
- Communicate, coordinate, and implement protective actions for schools.
- Adequately distribute appropriate DRDs and PRDs.
- Implement decisions to administer radioprotective drugs.
- Utilize communication systems that are fully functional, continuously available, and redundant.

Traffic Control Points (TCPs)

TCP interviews will be conducted in sequence during the exercise.

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).

York County will discuss/demonstrate the following Critical Tasks:
- Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
- Maintain an appropriate inventory of PRDs.
- Retain an adequate supply of radioprotective drugs.
- Adequately distribute appropriate DRDs and PRDs.
- Adequately distribute radioprotective drugs to emergency workers.
- Record and report exposures in the field.
- Implement decisions to administer radioprotective drugs.
- Report to individual responsible for managing exposure and dose when limits are reached.

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).

York County will discuss/demonstrate the following Critical Tasks:
- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., “content check”).

Exception or Note: communications systems 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).

York County will discuss/demonstrate the following Critical Tasks:
- Identify and take appropriate actions concerning impediments that affect the evacuation and evacuation routes.
- Make the decision to re-route traffic and coordinate with key decision-makers and the JIC to ensure the alternate route information is appropriately communicated to evacuees.

Emergency Worker Decontamination (EWD)

EWD for York County will be conducted out of sequence at the following time and location:

Date & Time	County	Facility
27 September 2022 18:00	York	Bethesda
29 September 2022 18:00	York	Sharon

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

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

York County will demonstrate the following Critical Tasks:
- Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
- Maintain an appropriate inventory of PRDs.
- Retain an adequate supply of radioprotective drugs.
- Adequately distribute appropriate DRDs and PRDs.
- Adequately distribute radioprotective drugs to emergency workers.
- Record and report exposures in the field.
- Implement decisions to administer radioprotective drugs.
- Report to individual responsible for managing exposure and dose when limits are reached.

Capability Target: 5.2: Monitoring and Decontamination of Emergency Workers, Equipment, and Vehicles.

Facilities, equipment, and procedures are in place and utilized to provide monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654/FEMA-REP-1, Rev.2: K.4, O.1).

York County will demonstrate the following Critical Tasks:
- Set-up operations.
- Operationally check instruments and equipment.
- Monitor emergency worker personnel and their equipment and vehicles for contamination.

- Decontaminate emergency workers personnel and their equipment and vehicles based on action levels.
- Control the spread of contamination.
- Create and maintain a record of monitoring and decontaminating workers upon completion of monitoring and decontamination activities.
- Prioritize emergency workers and equipment before the public in facilities where the public and emergency workers are both processed for contamination.

Exception or Note: Decontamination of emergency workers will be simulated

Backup Route Alerting

Backup Route Alerting interviews will be conducted in sequence during the exercise.

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).

York County will discuss/demonstrate the following Critical Tasks:

- Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.
- Receive and verify notifications.
- Identify and request additional resources, as needed.

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

Capability Target: 3.1: Communications

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

York County will discuss/demonstrate the following Critical Tasks:

- Utilize communication systems that are fully functional, continuously available, and redundant.
- Access at least one communication system that is independent of the commercial telephone system.
- Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
- Identify and address any failures of the systems.
- Transmit, receive, and understand messages (i.e., “content check”).

Exception or Note: (communications systems 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).

York County will discuss/demonstrate the following Critical Tasks:

- Complete route alerting, as appropriate. Demonstrate all routes are capable of being run in allotted time. Emphasis on the most challenging routes

Exception or Note: All siren soundings will be conducted via silent test

HOST COUNTIES
Cherokee, Chester, Lancaster, and Union Counties

Reception Center
RC/CC facility facilities to be evaluated will be conducted out of sequence at the following time and location:

Date & Time	County	Facility
NOT PARTICIPATING IN 2022 EXERCISE	Cherokee	N/A
September 27, 2022, 18:00	Chester	Lewisville MS
September 28, 2022, 16:00	Lancaster	Lancaster HS
DELAYED EVALUATION UNTIL 2023	Union	N/A

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

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

Cherokee, Chester, Lancaster and Union Counties will demonstrate the following Critical Tasks:

- Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
- Maintain an appropriate inventory of PRDs.
- Adequately distribute appropriate DRDs and PRDs.
- Record and report exposures in the field.
- Report to individual responsible for managing exposure and dose when limits are reached.

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

Cherokee, Chester, Lancaster and Union Counties will discuss/demonstrate the following Critical Tasks:

- Set-up operations.
- Operationally check instruments and equipment.
- Monitor evacuees, service animals, pets, vehicles and possessions.

- Utilize trigger/action levels to determine the need for decontamination.
- Monitor and decontaminate vehicles.
- Provide adequate, separate space for both contaminated and non-contaminated vehicles.
- Decontaminate evacuee vehicles based on trigger/action levels.
- Register evacuees.
- Ensure the registration area is clean and controlled.

Exception or Note: Decontamination of evacuees will be simulated

Congregate Care

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

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

Cherokee, Chester, Lancaster and Union Counties will discuss/demonstrate the following Critical Tasks:
- Monitoring, Decontamination, Sheltering, and Registration of Evacuees
- Coordinate for incoming evacuees who have been monitored and, if necessary, decontaminated.
- Establish shelter operations.
- Congregate care centers and operations in host/support jurisdictions are sufficient to support the expected number of evacuees.

Exception or Note: Decontamination of evacuees will be simulated

(North Carolina Extent of Play Agreement)

Signatures

The following agree to support this Catawba Nuclear Station Out of Sequence Activities and Exercise as described herein:

NCEM Exercise Manager	Radiological Assistance Committee Chair
X_____ Chris Call North Carolina Department of Public Safety Emergency Management	X_____ J.T. Ackermann Federal Emergency Management Agency Region 4
Catawba County Emergency Director	**Gaston County Emergency Director**
X_____ Robert Wike Graham Mecklenburg County Emergency	X_____ Kevin Gordon Gaston County Emergency

State and County Emergency Operations Centers/State Emergency Response Team

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.

Objective 1: Emergency Operations Management

Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize offsite response organizations to staff facilities in support of emergency operations.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	Prepositioning of exercise players is allowed at day-to-day workstations. Some players may be remote dependent on current operational status. Interviews with remote personnel will be coordinated through the controller.
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	No Exception

Capability Target 1.2: Direction and Control

Intent: The capability to provide overall direction and control of response efforts, commensurate with the responsibilities of leadership, as detailed in plans/procedures.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Support protective action decision-making.	No Exception
Conduct briefings in a timely manner.	No Exception
Maintain situational awareness.	No Exception

Assessment	Extent of Play
Coordinate response activities with other organizations.	No Exception
Obtain resources to support emergency operations.	No Exception
Provide and maintain adequate facilities and equipment to support the emergency response.	No Exception

Capability Target 1.3: Protective Action Recommendations

Intent: The capability to use dose assessment and field data, compare this data to the PAGs, and choose among a range of protective actions those most appropriate in a given emergency.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.4, J.7, J.8, J.8.b, J.9, and O.1).

Assessment	Extent of Play
Select and implement pre-planned precautionary protective items.	No Exception

Capability Target 1.4: Protective Action Decisions for the Plume Phase

Intent: The capability to utilize appropriate factors and necessary coordination in the decision-making process used to make protective action decisions for the public.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Coordinate and make protective action decisions for members of the general public.	No Exception
Coordinate and make protective action decisions for those with access and functional needs.	No Exception
Coordinate and make protective action decisions for students at schools.	No Exception
Coordinate and make subsequent or alternate protective action decisions.	No Exception
Coordinate and make decisions on the administration of potassium iodide (where applicable) for the public and institutionalized members of the population.	No Exception

Capability Target 1.5: Protective Action Decision Implementation for the Plume Phase

Intent: The capability to implement precautionary protective action and/or protective action decisions, including evacuation and/or sheltering, for all populations within the plume and ingestion exposure pathway emergency planning zones. The populations include those with access and functional needs, students, and institutionalized individuals.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Implement protective action decisions, ensuring communication and coordination with all appropriate jurisdictions.	This will be completed through interview
Assist those with access and functional needs during the implementation of protective action decisions.	This will be completed through interview
Communicate, coordinate, and implement protective actions for schools.	This will be completed through interview
Communicate with transportation officials.	This will be completed through interview
Identify evacuation routes for the general public.	This will be completed through interview
Make potassium iodide available to both institutionalized persons and the general public, in accordance with plans and procedures.	This will be completed through interview

Objective 2: Exposure Control

Capability Target 2.1: Emergency Worker Exposure Control Decision-Making Process

Intent: The capability to assess and control the radiation exposure and dose received by emergency workers and utilize a decision-making chain to authorize emergency worker exposure limits to be exceeded for specific missions.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Control emergency workers' exposure and dose, including offsite workers performing duties onsite.	Permanent record dosimeters will be simulated.
Maintain record of dose as a result of exposure.	Maintenance record of dose will be simulated.

Assessment	Extent of Play
Authorize exposures and dose in excess of identified limits.	No Exception
Process for considering occupational exposures and to authorize individuals to receive doses in excess of occupational dose limits.	No Exception
Determine a correction factor for direct reading dosimeter-based isotopic release mixture.	No Exception
Control exposure and dose for temporary reentry of emergency workers, or members of the public, to restricted areas.	No Exception
Determine the need to authorize radioprotective drugs using projected thyroid doses and field measurements. Projections are compared to previously established protective action guides.	No Exception
Adequately protect members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	No Exception

Capability Target 2.2: Emergency Worker Exposure Control Management

Intent: The capability of emergency workers to manage dose and exposure, use equipment (e.g., dosimetry, radio protective drugs), and identify procedures to monitor their exposure and dose, including following procedures to obtain authorization to receive emergency exposures in excess of the protective action guides.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Maintain an appropriate inventory of direct-reading dosimeters that are leak-tested or current in calibration.	No Exception
Maintain an appropriate inventory of permanent record dosimeters.	No Exception
Retain an adequate supply of radioprotective drugs.	No Exception

Assessment	Extent of Play
Adequately distribute appropriate direct-reading dosimeters and permanent record dosimeters.	Permanent record dosimeters will be simulated.
Adequately distribute radioprotective drugs to emergency workers.	All potassium iodide distribution will be simulated.
Record and report exposures in the field.	No Exception
Implement decisions to administer radioprotective drugs.	No Exception
Report to individual responsible for managing exposure and dose when limits are reached.	No Exception
Implement exposure control decisions to members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	No Exception

Objective 3: Alert and Notification

Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Utilize communication systems that are fully functional, continuously available, and redundant.	No Exception
Maintain periodic test results and corrective actions on a real time basis.	No Exception
Access at least one communication system that is independent of the commercial telephone system.	No Exception
Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.	No Exception

Assessment	Extent of Play
Identify and address any failures of the systems.	No Exception
Transmit, receive, and understand messages (i.e., "content check").	No Exception

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, as well as the actions being taken and the assistance being made available, as appropriate.

Objective 3: Alert and Notification

Capability Target 3.2: Alert and Notification of the Public

Intent: The capability to provide instructions to the public.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (E.2, E.4, E.5, F.3, and O.1).

Assessment	Extent of Play
Sequentially provide an alert signal followed by an initial instructional message to populated areas.	Alert signals will be demonstrated via a silent test of the siren system at County EOC (Decision will be made during Protective Action discussion). Emergency information will be written and posted in WebEOC but not released to the public or media.
Alert and notify the general public.	Alert signals will be demonstrated via a silent test of the siren system at County (Decision will be made during Protective Action discussion). Emergency information will be written and posted in WebEOC but not released to the public or media.
Identify and address any failures of the system(s) or portion of a system(s).	No Exception
Identify the process to activate the Emergency Alert System.	Alert signals will be demonstrated via a silent test of the siren system at County (Decision will be made during Protective Action discussion). Emergency information will be written and posted in WebEOC but not released to the public or media.
Ensure that updated emergency information is disseminated in a timely manner.	Emergency information will be written and posted in WebEOC but not released to the public or media.

Assessment	Extent of Play
Ensure that current emergency information is repeated at pre-established intervals.	Emergency information will be written and posted in WebEOC but not released to the public or media.
Identify the process to activate the Emergency Alert System, to include the process to receive and then broadcast updated information/messages and verification of the message, if applicable.	Activation of the Emergency Alert System will be simulated at SEOC.
Complete route alerting, whether because of failure for system/portion of a system or for exception areas, as needed to demonstrate all routes are capable of being run in allotted time. Emphasis on the most challenging routes and demonstration of these routes will be varied from assessment activity to assessment activity. Challenging routes are defined as those that may be difficult to accomplish, such as those that are lengthy or with conditions (physical or otherwise) that may affect the speed and accuracy with which the route can be completed (e.g., traffic patterns and/or capacity, road conditions, etc.).	This will be conducted via interview in an event of system failures at County EOC.

Capability Target 3.3: Emergency Information and Instructions for the Public and News Media
Intent: The capability to disseminate emergency information and instructions to the public during all phases of an incident.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Deliver coordinated, prompt, reliable, and actionable information in a timely manner.	Emergency information will be written and posted in WebEOC but not released to the public or media.
Provide clear, concise, accessible messaging using plain language.	No Exception
Messaging addresses appropriate cultural and linguistic considerations.	No Exception
Ensure subsequent messaging is consistent with protective actions.	No Exception

Assessment	Extent of Play
Update information as the incident progresses, to include validating previously identified protective areas and clearly identifying any new protective action areas, any information that is no longer valid, and any changes to previously provided information (e.g., rerouting of evacuation routes due to impediments, etc.).	No Exception
Respond to media and public inquiries.	No Exception

Regional Coordination Center – West

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.

Objective 1: Emergency Operations Management

Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize offsite response organizations to staff facilities in support of emergency operations.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	Prepositioning of exercise players is allowed at day-to-day workstations. Some players may be remote dependent on current operational status. Interviews with remote personnel will be coordinated through the controller.
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	No Exception

Capability Target 1.2: Direction and Control

Intent: The capability to provide overall direction and control of response efforts, commensurate with the responsibilities of leadership, as detailed in plans/procedures.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Support protective action decision-making.	No Exception
Conduct briefings in a timely manner.	No Exception
Maintain situational awareness.	No Exception
Coordinate response activities with other organizations.	No Exception
Obtain resources to support emergency operations.	No Exception
Provide and maintain adequate facilities and equipment to support the emergency response.	No Exception

Capability Target 1.3: Protective Action Recommendations

Intent: The capability to use dose assessment and field data, compare this data to the PAGs, and choose among a range of protective actions those most appropriate in a given emergency.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.4, J.7, J.8, J.8.b, J.9, and O.1).

Assessment	Extent of Play
Select and implement pre-planned precautionary protective items.	No Exception
Utilize the methodology in plans/procedures to select among a range of protective actions most appropriate in a given emergency.	No Exception
Develop protective action recommendations.	No Exception
Transmit PARs protective action recommendations in a timely manner.	No Exception

Capability Target 1.5: Protective Action Decision Implementation for the Plume Phase

Intent: The capability to implement precautionary protective action and/or protective action decisions, including evacuation and/or sheltering, for all populations within the plume and ingestion exposure pathway emergency planning zones. The populations include those with access and functional needs, students, and institutionalized individuals.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Implement protective action decisions, ensuring communication and coordination with all appropriate jurisdictions.	No Exception
Assist those with access and functional needs during the implementation of protective action decisions.	No Exception
Communicate, coordinate, and implement protective actions for schools.	No Exception
Communicate with transportation officials.	No Exception
Identify evacuation routes for the general public.	No Exception
Make potassium iodide available to both institutionalized persons and the general public, in accordance with plans and procedures.	No Exception

Objective 2: Exposure Control

Capability Target 2.1: Emergency Worker Exposure Control Decision-Making Process

Intent: The capability to assess and control the radiation exposure and dose received by emergency workers and utilize a decision-making chain to authorize emergency worker exposure limits to be exceeded for specific missions.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Control emergency workers' exposure and dose, including offsite workers performing duties onsite.	Permanent record dosimeters will be simulated.
Maintain record of dose as a result of exposure.	No Exception
Authorize exposures and dose in excess of identified limits.	No Exception
Process for considering occupational exposures and to authorize individuals to receive doses in excess of occupational dose limits.	No Exception

Assessment	Extent of Play
Determine a correction factor for direct reading dosimeter-based isotopic release mixture.	No Exception
Control exposure and dose for temporary reentry of emergency workers, or members of the public, to restricted areas.	No Exception
Determine the need to authorize radioprotective drugs using projected thyroid doses and field measurements. Projections are compared to previously established protective action guides.	No Exception
Adequately protect members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	No Exception

Objective 3: Alert and Notification

Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Utilize communication systems that are fully functional, continuously available, and redundant.	No Exception
Maintain periodic test results and corrective actions on a real time basis.	No Exception
Access at least one communication system that is independent of the commercial telephone system.	No Exception
Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.	No Exception
Identify and address any failures of the systems.	No Exception

Transmit, receive, and understand messages (i.e., "content check").	No Exception

Dose Assessment

Core Capability: Situational Assessment

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.

Objective 1: Emergency Operations Management

Capability Target 1.3: Protective Action Recommendations

Intent: The capability to use dose assessment and field data, compare this data to the PAGs, and choose among a range of protective actions those most appropriate in a given emergency.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.4, J.7, J.8, J.8.b, J.9, and O.1).

Assessment	Extent of Play
Utilize the methodology in plans/procedures to select among a range of protective actions most appropriate in a given emergency.	No Exception
Develop protective action recommendations.	No Exception
Transmit protective action recommendations in a timely manner.	No Exception

Capability Target 1.4: Protective Action Decisions for the Plume Phase

Intent: The capability to utilize appropriate factors and necessary coordination in the decision-making process used to make protective action decisions for the public.

Planning Reference: 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, and O.1)

Assessment	Extent of Play
Support protective action decision-making.	No Exception
Support protective action decision making for those with access and functional needs.	N/A
Support protective action decision making for students at schools.	N/A
Support protective action decision making for subsequent or alternate protective action decisions.	No Exception

Assessment	Extent of Play
Support protective action decision making on the administration of potassium iodide (where applicable) for the public and institutionalized members of the population.	No Exception

Objective 4: Detect, Measure, Sample, Analyze, and Assess

Capability Target 4.5: Plume Phase Analysis and Dose Assessment

Intent: The capability to collect data, project doses to members of the public and emergency workers, and analyze and communicate the results.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.3, H.13, I.6, I.8, I.10, K.3, and O.1).

Assessment	Extent of Play
Obtain adequate data to make dose projections.	No Exception
Use software and/or other methods (e.g., manual calculations) to make dose projections for members of the public (both TED and thyroid dose) based on Station data.	No Exception
Compare dose projections to members of the public to Environmental Protection Agency Protective Action Guides.	No Exception
Compare dose projections to the public with those of the licensee and discuss differences greater than a factor of ten with the licensee and explain reasons for the difference.	No Exception
Make initial protection action recommendations based on recommendations of the licensee, release data, meteorological data, and other pertinent information.	No Exception
Promptly communicate protection action recommendations to decision-makers.	No Exception
Receive ambient exposure rates from field monitoring teams and compare to model projections.	No Exception
Calculate iodine and particulate concentrations from field monitoring team air samples.	No Exception

Assessment	Extent of Play
Calculate plume ratios of noble gas, iodines, and particulates, and compare to model projections.	Will demonstrate iodine and noble gas calculations only.
Adjust protection action recommendations, as necessary, based on analysis of field data.	No Exception
Calculate an incident-specific correction factor for emergency workers inside the plume exposure pathway emergency planning zone.	No Exception

Field Monitoring Team Management and Operations (Training only)

Core Capability: Environmental Response/Health and Safety

Definition: 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.

Objective 1: Emergency Operations Management

Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize offsite response organizations to staff facilities in support of emergency operations.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	Prepositioning of exercise players is allowed at day-to-day workstations. Some players may be remote dependent on current operational status. Interviews with remote personnel will be coordinated through the controller.
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	Teams will verbally identify when they are operational.

Objective 2: Exposure Control

Capability Target 2.1: Emergency Worker Exposure Control Decision-Making Process

Intent: The capability to assess and control the radiation exposure and dose received by emergency workers and utilize a decision-making chain to authorize emergency worker exposure limits to be exceeded for specific missions.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Control emergency workers' exposure and dose, including offsite workers performing duties onsite.	No Exception. RPS only controls the staff under its area of operations, not all off-site workers.
Maintain record of dose as a result of exposure.	No Exception
Authorize exposures and dose in excess of identified limits.	No Exception. For RPS Staff only.
Process for considering occupational exposures and to authorize individuals to receive doses in excess of occupational dose limits.	No Exception
Determine a correction factor for direct reading dosimeter-based isotopic release mixture.	No Exception
Control exposure and dose for temporary reentry of emergency workers, or members of the public, to restricted areas.	No Exception. RPS will not man the control points. We will advise and train as required the staff that does man them and determine stay times.
Determine the need to authorize radioprotective drugs using projected thyroid doses and field measurements. Projections are compared to previously established protective action guides.	No Exception
Adequately protect members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	No Exception. RPS will not man the control points. We will advise and train as required the staff that does man them and determine stay times.

Capability Target 2.2: Emergency Worker Exposure Control Management

Intent: The capability of emergency workers to manage dose and exposure, use equipment (e.g., dosimetry, radio protective drugs), and identify procedures to monitor their exposure and dose, including following procedures to obtain authorization to receive emergency exposures in excess of the protective action guides.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Maintain an appropriate inventory of direct-reading dosimeters that are leak-tested or current in calibration.	No Exception
Maintain an appropriate inventory of permanent record dosimeters.	No Exception
Retain an adequate supply of radioprotective drugs.	For RPS Staff only
Adequately distribute appropriate direct-reading dosimeters and permanent record dosimeters.	Permanent record dosimeters will be simulated. For RPS Staff only
Adequately distribute radioprotective drugs to emergency workers.	All potassium iodide distribution will be simulated. For RPS Staff only
Record and report exposures in the field.	Will be recorded by the agencies responsible for field staffing.
Implement decisions to administer radioprotective drugs.	No Exception
Report to individual responsible for managing exposure and dose when limits are reached.	No Exception
Implement exposure control decisions to members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	No Exception

Objective 3: Alert and Notification

Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Utilize communication systems that are fully functional, continuously available, and redundant.	No Exception
Maintain periodic test results and corrective actions on a real time basis.	No Exception

Assessment	Extent of Play
Access at least one communication system that is independent of the commercial telephone system.	No Exception
Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.	No Exception
Identify and address any failures of the systems.	No Exception
Transmit, receive, and understand messages (i.e., "content check").	No Exception

Objective 4: Detect, Measure, Sample, Analyze, and Assess

Capability Target 4.1: Field Monitoring Teams Management

Intent: The capability to provide overall management of field monitoring teams to direct movements and measurements to characterize the plume and its impacts.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.11, H.13, I.5, I.6, I.9, I.10, M.7, M.8, and O.1).

Assessment	Extent of Play
Brief field monitoring teams on predicted plume location and direction, plume travel speed, equipment operational checks, background measurement, and exposure control procedures before deployment.	No Exception
Direct the field monitoring teams to monitoring locations, predesignated points or otherwise, at times and locations sufficient to characterize the plume.	No Exception
Obtain peak plume measurements from field monitoring teams.	No Exception
Direct field monitoring teams to collect air samples at locations and times sufficient to characterize the plume.	No Exception

Assessment	Extent of Play
Keep incident command informed of field monitoring teams activities and location(s) during a hostile action based incident or other instances when an incident command post or other may be in use.	No Exception
Coordinate and share information amongst all field monitoring teams (licensee, federal, state, and local).	No Exception
Coordinate sample analysis from field to those responsible for assessing radiological data.	No Exception
Coordinate transfer of sample media to locations and organizations responsible for assessing radiological data.	No Exception
Assist with development and modification of sampling plans, as appropriate.	No Exception

Capability Target 4.2: Plume Phase Measurements and Sampling

Intent: The capability to make and report measurements of ambient radiation.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.9, H.11, H.11.a, H.11.b, H.12, H.13, I.2, I.5, I.6, I.7, I.8, I.9, I.10, and O.1)

Assessment	Extent of Play
Maintain emergency equipment including calibration and operational checks according to manufacturer's specifications or per national standards.	No Exception
Maintain inventory for emergency kits.	No Exception
Operate and monitor radiation survey instruments to detect changes in radiation exposure rate while moving and in stationary positions.	No Exception
Use appropriate contamination control and personal protective equipment.	RPS will verbalize procedure for wearing PPE.
Be in location(s) at the appropriate time(s) to detect and characterize the active release (plume).	No Exception

Assessment	Extent of Play
Obtain peak plume measurements either directly or from licensee field teams.	No Exception
Correctly interpret survey instrument readings to determine submersion in the active plume.	No Exception
Collect representative air samples in the active plume on particulate media (e.g., glass or paper filter) and iodine selective media (e.g., silver zeolite cartridge).	No Exception
Handle sample media and equipment to avoid sample cross-contamination, contamination of equipment and personnel contamination.	No Exception
Determine an appropriate low background location to count sample media.	No Exception
Count iodine and particulate media using appropriate and effective instrumentation and counting geometries or have samples analyzed by a supporting laboratory within four hours.	No Exception
Report to field monitoring team manager all survey and counting results in format and units suitable for use by the organization's dose assessor.	No Exception
Procedures, qualified collection and counting efficiencies, and calculations are capable of detecting airborne radioactive iodine concentrations as low as 10^{-7} µCi/cc.	No Exception
Preparation of packaging, sample identification, and chain-of-custody forms ensures integrity of samples throughout transportation and transfer.	No Exception

Laboratory Operations

Core Capability: Environmental Response/Health and Safety

Definition: 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.

Objective 1: Emergency Operations Management

Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize offsite response organizations to staff facilities in support of emergency operations.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	Prepositioning of exercise players is allowed at day-to-day workstations. Some players may be remote dependent on current operational status. Interviews with remote personnel will be coordinated through the controller.
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	No Exception

Objective 3: Alert and Notification

Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Utilize communication systems that are fully functional, continuously available, and redundant.	No Exception
Maintain periodic test results and corrective actions on a real time basis.	No Exception
Access at least one communication system that is independent of the commercial telephone system.	No Exception
Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.	No Exception
Identify and address any failures of the systems.	No Exception

Assessment	Extent of Play
Transmit, receive, and understand messages (i.e., "content check").	No Exception

Emergency Operations Facility

Core Capability: Situational Assessment

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.

Objective 1: Emergency Operations Management

Capability Target 1.3: Protective Action Recommendations

Intent: The capability to use dose assessment and field data, compare this data to the PAGs, and choose among a range of protective actions those most appropriate in a given emergency.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.4, J.7, J.8, J.8.b, J.9, and O.1).

Assessment	Extent of Play
Utilize the methodology in plans/procedures to select among a range of protective actions most appropriate in a given emergency.	No Exception
Develop protective action recommendations.	No Exception
Transmit protective action recommendations in a timely manner.	No Exception

Joint Information System/Center

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, as well as the actions being taken and the assistance being made available, as appropriate.

Objective 1: Emergency Operations Management

Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize offsite response organizations to staff facilities in support of emergency operations.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	Prepositioning of exercise players is allowed at day-to-day workstations. Some players may be remote dependent on current operational status. Interviews with remote personnel will be coordinated through the controller.
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	No Exception

Objective 3: Alert and Notification

Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Utilize communication systems that are fully functional, continuously available, and redundant.	No Exception
Maintain periodic test results and corrective actions on a real time basis.	No Exception
Access at least one communication system that is independent of the commercial telephone system.	No Exception
Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.	No Exception
Identify and address any failures of the systems.	No Exception
Transmit, receive, and understand messages (i.e., “content check”).	No Exception

Capability Target 3.3: Emergency Information and Instructions for the Public and News Media

Intent: The capability to disseminate emergency information and instructions to the public during all phases of an incident.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Deliver coordinated, prompt, reliable, and actionable information in a timely manner.	Emergency information will be written and posted in WebEOC but not released to the public or media.
Provide clear, concise, accessible messaging using plain language.	No Exception
Messaging addresses appropriate cultural and linguistic considerations.	No Exception
Ensure subsequent messaging is consistent with protective actions.	No Exception
Update information as the incident progresses, to include validating previously identified protective areas and clearly identifying any new protective action areas, any information that is no longer valid, and any changes to previously provided information (e.g., rerouting of evacuation routes due to impediments, etc.).	No Exception
Respond to media and public inquiries.	No Exception

Waterway Warning

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 response personnel engaged in lifesaving and life-sustaining operations.

Capability Target 3.2: Alert and Notification of the Public

Intent: The capability to provide instructions to the public.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (E.2, E.4, E.5, F.3, and O.1).

Assessment	Extent of Play
Identify and address any failures of the system(s) or portion of a system(s).	This will be discussed via interview.

Assessment	Extent of Play
Actual testing of the mobile public address system will be conducted at an agreed-upon location.	This will be discussed via interview.
Ensure that updated emergency information is disseminated in a timely manner.	This will be discussed via interview.
Ensure that current emergency information is repeated at pre-established intervals.	This will be discussed via interview.