After Action Report

Harris Nuclear Plant

Radiological Emergency Preparedness Exercise

Exercise Date: September 14, 2021

December 10, 2021

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Executive Summary

On September 14, 2021, the offsite response organizations of the Harris Nuclear Plant 10-mile emergency planning zone participated in a plume exposure pathway exercise. FEMA Region 4 Radiological Emergency Preparedness Program staff evaluated that exercise, which also included out of sequence activities conducted from August 30, 2021 through September 2, 2021. This report outlines that exercise and out of sequence activities.

The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at the Harris Nuclear Plant. It was conducted in accordance with FEMA policies and guidance concerning the exercise of state and local radiological emergency response plans and procedures. The federal approval of the formal submission of the radiological emergency response procedures for the Harris Nuclear Plant by the state of North Carolina was granted on March 28, 1989, and the qualifying emergency preparedness exercise was conducted on September 14, 1989.

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 apparent that a great deal of training and practice was conducted by the offsite response organizations to successfully demonstrate the ability to protect the health and safety of the public. They provided the necessary support and resources to respond to an incident at the Harris Nuclear Plant.

FEMA wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success. The participants demonstrated reasonable assurance despite operating in the SARS-CoV-2/COVID-19 pandemic environment. With other ongoing real-world response efforts, the professionalism and teamwork of the participants was evident throughout all phases of the exercise.

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Section 1: Exercise Overview

Exercise Name	2021 Harris Nuclear Plant Radiological Emergency Preparedness Exercise	
Type of Exercise	Full Scale Exercise	
Exercise Date	September 14, 2021	
Out of Sequence Date	August 30, 2021 – September 2, 2021	
Program	Radiological Emergency Preparedness Program	
Mission Area	Response	
Scenario Type	Partial Participation Plume Phase Radiological Emergency Preparedness Exercise	
Participating Organizations	See Appendix C	
Locations	See Appendix D	
Points of Contact	Mr. John "J.T." Ackermann North Section Chief FEMA Region 4 3005 Chamblee-Tucker Road Atlanta, GA 30341	Mrs. Farrah Stewart Harris Site Specialist FEMA Region 4 3005 Chamblee-Tucker Road Atlanta, GA 30341
	Mr. James Young REP Program Manager North Carolina Emergency Management 1636 Gold Star Drive Raleigh, NC 27607	Mr. Derrick Morris State Exercise Officer North Carolina Emergency Management 1636 Gold Star Drive Raleigh, NC 27607
	Mr. Dennis Hancock Central Branch Manager North Carolina Emergency Management 1636 Gold Star Drive Raleigh, NC 27607	Mr. Jamey Sharlow Emergency Preparedness Harris Nuclear Plant 5421 Shearon Harris Road New Hill, NC 27562

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Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

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

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

2.2 Exercise Core Capabilities and Objectives

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

- **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.

- **Public Health, Healthcare, and Emergency Medical Services:** Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations.

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

- **Objective 1:** Emergency Operations Management

- **Objective 2:** Exposure Control

- **Objective 3:** Alert and Notification

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

- **Objective 5:** Operate

2.3 Exercise Scenario

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

A Notice of Unusual Event at Harris Nuclear Plant is declared due to a tornado touching down on site. The damage results in a loss of offsite power to the plant and an Alert declaration. Plant conditions from a steam generator tube rupture result in a radiological release and a Site Area Emergency declaration. A diesel generator failure then causes a loss of onsite power and a General Emergency declaration, which will drive protective action recommendations by the state and protective action decisions by the counties.

Duke Energy's protective action recommendations are to evacuate sectors A, B, L affecting Wake and Chatham Counties (wind direction is from 135 degrees). Potassium iodide ingestion authorization is not expected, but is possible, as there are radioiodine's in the plume. The radiological release due to the steam generator tube rupture is less than protective action guides for total dose and thyroid dose.

Section 3: Analysis Of Capabilities

3.1 Exercise Evaluation and Results

This section contains the results and findings of the evaluation of all jurisdictions that played in the September 14, 2021, plume exposure pathway exercise and out of sequence activities from August 30, 2021 through September 2, 2021.

Each jurisdiction 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 offsite response organization's emergency plan/implementing procedures, rather than in that of the offsite response organization'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 North Carolina

Operational Coordination Capability Summary:

The state emergency response team and emergency operations center personnel successfully utilized plans, procedures, and equipment to alert, notify, and mobilize team members and facility personnel in a timely manner following notification of a radiological incident at the Harris Nuclear Plant. Team members and facility personnel were notified by warning point officers using a variety of communications methods available in the warning point. The communications systems were immediately and effectively used to notify team members and personnel to report to the facility for duty. A 24-hour staffing roster was available in case the incident were to span multiple operational periods. All systems were functional; no communications delays or failures were observed.

The emergency operations center was declared operational following the arrival of key team members and personnel. Arrival at the facility occurred quickly as many of the team members and personnel were prepositioned in accordance with the extent of play agreement. The timely activation of the emergency operations center by the state emergency response team leader facilitated communication with federal, state, and county agencies and organizations, and mobilized resources to effectively respond to the incident.

The North Carolina Emergency Management Assistant Director served as the state emergency response team leader, and represented the state in the unified command structure. The unified command structure also included the emergency management directors from the four risk counties – Wake, Chatham, Harnett, and Lee. The state emergency response team leader participated in frequent conference calls with the four risk county directors; maintained situational awareness; coordinated and facilitated facility briefings; and confirmed through detailed review of procedures that team members and personnel were completing assigned tasks at each declared emergency classification level.

Following receipt of each emergency notification form, the form content, plant status, and protective action recommendations were discussed, and protective action decisions made, as appropriate. The protective action decision to shelter in place zones A, B, L was concurred upon via the unified command decision line. As plant conditions deteriorated the decision was made to evacuate those same zones. Additionally, the state recommended emergency workers ingest potassium iodide. Ingestion for the general public was not recommended since levels, as determined by the radiation protection section, were below protective action guidelines.

In addition to the unified command decision line, state briefings were conducted in-person and virtually. The planning section chief, operating at the direction of the state emergency response team leader, facilitated the briefings. The briefings included an update on the incident and plant status by the technical advisor, and current meteorological conditions, a weather forecast, and other critical information was shared by team members and facility personnel.

Following the General Emergency declaration, an interview with North Carolina State Highway Patrol Troopers in the emergency operations center was conducted. The troopers knew traffic control points were pre-identified based on the evacuation routes used during an incident, and the responsibility for staffing each point was pre-identified by law enforcement agencies in the affected counties. North Carolina State Highway Patrol Troopers would support as needed and/or requested.

Overall, the facility, supplies, and equipment used were sufficient to support the response effort. No additional resources were required, and the risk counties did not ask the state to assume direction and control. Additionally, dosimetry leak test dates, survey meter calibration dates, and potassium iodide expiration dates were validated during the staff assistance visit conducted on September 15, 2021.

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

Public Information and Warning Capability Summary:

The North Carolina Emergency Management Public Information Officers and support staff successfully demonstrated the capability to activate the prompt notification system and provide accurate emergency information and instructions to the public and press in a timely manner.

Following both protective action decisions, the outdoor warning system and Emergency Alert System were activated. Wake County was the lead agency for siren activation, and the state the lead agency for activation of the Emergency Alert System. All Emergency Alert System messages were pre-scripted; however, warning point officers modified each for accuracy. For example, the first Emergency Alert System message was modified to identify the affected zones (e.g., A, B, L) and specify shelter-in-place rather than evacuation. Emergency Alert System messages were broadcasted by the state and also sent to the National Weather Station for broadcast. The Emergency Alert System messages included the four FEMA required elements.

The public information officers and 2-1-1 liaisons established a public information presence at the state emergency operations center. The lead public information officer coordinated public information activities between the joint information system, joint information center, and the state emergency operations center. The state, county, and utility public information officers maintained communication through the joint information system and the use of a public information conference line. Two press releases were issued by North Carolina Emergency Management prior to the joint information center activation. After activation of the joint information center, press releases were issued by the Harris Task Force Regional Emergency Response Team.

Rumor control and public inquiries were handled by 2-1-1 liaisons at the state emergency operations center. The liaisons obtained information from the lead public information officer and provided the information to the 2-1-1 call takers. Information was provided through the 2-1-1 web-based system. The information included the Harris Nuclear Plant 2021 Emergency Preparedness Information Booklet, press releases, Emergency Alert System messages, and press conference information. The liaisons were also able to monitor trends and rumors via the web-based system and provide that information to the public information officers to address in future press releases or conferences.

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

3.3.1.2 Central Branch Office / Regional Coordination Center - Central

Operational Coordination Capability Summary:

Regional Coordination Center – Central staff successfully demonstrated the capability to alert, notify, and mobilize key staff; communicate with ingestion pathway counties; and provide direction and control in response to notification of a radiological incident at the Harris Nuclear Plant. In accordance with the extent of play agreement alert and mobilization of staff was simulated; most staff were prepositioned at the facility and some were operating virtually.

The primary communication method, the Duke Emergency Management Network, was not functioning properly for all the counties. The backup system, the unified command decision line, was used by the state and counties to discuss and make protective actions decisions and coordinate other response actions. Other communications systems, such as commercial landline and cellular telephone and an 800-megahertz radio system were used to support response operations. Other than the Duke Emergency Management Network not operating as designed, there were no communications delays or failures observed. The noted inoperability did not have a negative impact on the outcome of the exercise.

Overall direction and control of the Regional Coordination Center - Central was provided by the central branch manager. The manager regularly received updated information from staff, as well as the unified command decision line. Because of the frequent communication between staff and the manager, formal briefings were not conducted. The manager maintained situational awareness by communicating with the liaison in the emergency operations facility and the decision makers on the unified command decision line. Resource requests from the counties were processed and tracked by coordination center staff, and if additional resources were required, statewide mutual aid agreements could have been used. Additionally, the state could request resources from the Emergency Management Assistance Compact or federal government. The Regional Coordination Center - Central contained adequate supplies, equipment, and backup power to support response operations.

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

3.3.1.3 Dose Assessment

Situational Assessment Capability Summary:

The North Carolina Department of Health and Human Services, Division of Health Service Regulation, Radiation Protection Section personnel successfully demonstrated the capability to assess plant conditions and field data and provide protective action recommendations to decision makers in response to notification of a radiological incident at the Harris Nuclear Plant.

The radiation protection section coordinator led the dose assessment group from the radiation protection services offices in Raleigh, North Carolina. In accordance with the extent of play agreement, dose assessment personnel were allowed to preposition at their office

location. The radiation protection section, including dose assessment personnel, used a collaborative platform to communicate and share information with team members. They shared information from radiation protection section personnel at the emergency operations facility, radiation protection section offices, state emergency operations center, and mobile laboratory.

The dose assessment group monitored various plant parameters, meteorological data, and field monitoring team data. A dedicated individual monitored the plant's emergency response data system and provided updates on changing conditions to dose assessors, including critical parameters to the dose assessor for use in doing dose projections. This individual correctly identified the release pathway via a steam generator and safety valve. The dose assessment group performed calculations for projected radiation doses at varied downwind locations. When a General Emergency was declared, calculated projected radiation doses were below protective action guidelines and were within a factor of ten when compared with licensee dose projections. The dose assessor sent dose projections to the director of the radiation protection section at the state emergency operations center. Since dose projections were below protective action guidelines, radiation protection section protective action recommendations were based on plant conditions with a default protective action recommendation to evacuate a two-mile radius and five miles downwind. The director of the radiation protection section briefed state and county decision makers, presented protective action recommendations, and concurred with the licensee evacuation recommendation.

When field monitoring team radiation survey and air sample data was available, additional dose projection calculations were performed. The state's field sample-based dose projections did not change the original protective action recommendation. Modification to initial protective actions was not needed.

Initial dose projections following a release of radioactive material indicated that a small amount of radioactive iodine was present in the plume. The director of the radiation protection section evaluated the radioactive iodine release rate and compared it to radiation protection section policy for use of potassium iodide by emergency workers. It was determined that the iodine was above the threshold; the director instructed field team members to ingest potassium iodide. The director also recommended that potassium iodide be ingested by all emergency workers in the 10-mile emergency planning zone. Since projected thyroid doses offsite were below protective action guides, the director of the radiation protection section did not recommend that members of the public ingest potassium iodide.

The radiation protection section coordinator was familiar with exposure control procedures, how to calculate a correction factor for direct reading dosimetry, and administrative reporting limits and turn back values for emergency workers. The coordinator explained the process for tracking radiation exposure, and for approving an emergency worker to exceed radiation dose limits based on the need for the additional radiation exposure.

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

3.4 Joint Operations

3.4.1 Joint Information System/Center

Public Information and Warning Capability Summary:

Public information officers from the state of North Carolina and risk counties of Wake, Lee, Chatham, and Harnett operated in a joint information system, and successfully demonstrated the capability to deliver coordinated, reliable, and actionable information to the public and media.

Duke Energy Public Information Officers were prepositioned in the joint information center workroom. The state and risk county public information officers were prepositioned in the local area in accordance with the extent of play agreement. The state and county public information officers were notified and mobilized following notification of a radiological incident at the Harris Nuclear Plant. Upon their arrival at the joint information center the facility was declared operational. A public information conference line was used throughout the exercise to communicate between public information officers in the joint information center and those in their respective state or county emergency operations centers.

Redundant and operational communications systems were available in the joint information center, including both the workroom and press conference room. There were no communications delays or failures observed. Additionally, equipment, maps, displays, supplies, and the facility itself were sufficient to support emergency operations.

Collaboratively, the Harris Task Force Regional Emergency Response Team produced a total of seven press releases. All press releases and press conferences provided emergency information that was accurate and consistent with the protective action decisions. Two press conferences were conducted with pre-conference caucuses held to determine speaking order. Spokesperson talking points were assembled and printed to help ensure priority emergency information was shared during the press conferences. Information presented to the public and media was timely and accurate. Mock media questions followed both press conferences. The questions were tough and appropriately answered by the respective spokesperson.

Rumor control, public inquiry, and media monitoring occurred at the state and county emergency operations centers. Rumors and trends were relayed to public information officers in the joint information center. Additionally, rumors were electronically displayed for situational awareness and to ensure they were addressed during the next press conference.

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

3.4.2 Emergency Operations Facility

Situational Assessment Capability Summary:

The North Carolina Emergency Management liaisons and North Carolina Department of Health and Human Services, Division of Health Service Regulation, Radiation Protection Section liaisons responding to the emergency operations facility successfully demonstrated

the capability to obtain and distribute information to their counterparts at the state emergency operations center and radiation protection section office.

Numerous communications systems and methods were available and used by the liaisons with no communications delays or failures observed. Plant status, emergency classification level updates, and field team readings were relayed to state emergency response team members from the liaisons in the emergency operations facility. Although more dose assessments were calculated, only one dose assessment was approved and distributed to the radiation protection section liaison. The importance of dose assessment transmission to the state, regardless of downward dose trends, was discussed with Duke Energy personnel. Dose assessments in this exercise were critical pieces in the decision-making process for evacuations and potassium iodide ingestion.

Essential information from the state and counties was effectively relayed to Duke Energy personnel, including siren activations, field team placement, precautionary actions, and protective action decisions. The state liaisons followed applicable procedures and transmitted information efficiently and professionally.

For this core capability the following radiological emergency preparedness capability targets were met: 3.1.

3.5 Risk Jurisdictions

3.5.1 Wake County Emergency Operations Center

Operational Coordination Capability Summary:

Wake County Division of Emergency Management leadership and emergency operations center staff successfully established and maintained a unified structure that facilitated communication and coordination among key community partners following notification of a radiological incident at the Harris Nuclear Plant.

Emergency operations center staff were notified and mobilized in a timely manner. Upon arrival staff members signed in and began setting up their workstations. State-of-the-art technology, wall monitors, and other displays were used to provide staff situational awareness and current emergency information. Sufficient equipment, maps, and supplies were available to support response operations.

Two primary communications systems were used throughout the exercise. The first was the Duke Emergency Management Network and the second was a unified command decision line used by state and county decision makers. Backup communications consisted of landline and cellular telephones, radios, email, etc. There were no communications delays or failures observed.

The Wake County Emergency Operations Center Manager provided direction and control for emergency operations center staff. As lead, Wake County initiated the unified command decision line with emergency management directors from the risk counties, as well as state leadership at the regional coordination center - central and state emergency operations center. The process consisted of reading the most recent emergency notification form to the directors, reviewing protection action recommendations, and making precautionary and

protection action decisions. The first and second protective action decisions to shelter and evacuate zones A, B, L, respectively, affected Wake County.

Following notification of a radiological release, the human services branch representative was also interviewed regarding persons with disabilities and access and/or functional needs. These individuals were pre-identified within the Wake County 10-mile emergency planning zone and any self-reported information was maintained by the Wake County Division of Emergency Management. In addition, group homes, day care centers, and private schools were also identified as needing assistance. Wake County Emergency Medical Services was prepared to provide ambulance service as required. No gaps in resources were identified.

The Wake County Schools representative, in coordination with the operations section chief, described precautionary actions for schools. The school representative maintained lists of schools, student/staff numbers, and buses. In coordination with the school system transportation director, if the decision to relocate or dismiss students early was made, parents/guardians would be notified by an automated school notification system. Virtual and home-schooled students would follow protective action decisions for the general public inside the 10-mile emergency planning zone.

The decision to order ingestion of potassium iodide for all emergency workers in the 10-mile emergency planning zone was concurred upon via the unified command decision line following notification of a radiological release. The radiological safety officer explained the process to issue appropriate dosimetry and potassium iodide, and how to manage emergency worker exposure. It was also explained that a radiological safety briefing and remedial dosimetry training would be provided to emergency workers at the staging area. Dosimetry leak test dates, survey meter calibration dates, and potassium iodide expiration dates were validated during the staff assistance visit conducted on August 29, 2021.

The management of emergency worker exposure control was successfully implemented. Monitoring radiological exposure and dose rates ensured that administrative reporting limits and turn back values were not exceeded. Each agency representative ensured that emergency workers performing route alerting, waterway clearing, traffic control, and security roadblocks were contacted with instructions on recording direct reading dosimeters readings, and following administrative reporting limits and turn back values. Emergency workers were instructed via supervisory channels to report to an emergency worker decontamination site at the conclusion of their mission.

Traffic and access control was described by a Wake County Sheriff's Office Deputy. The deputy notified the incident command posts and dispatch center of the various emergency classification levels and activation of traffic and access control, so that appropriate staffing, issuance of dosimetry, potassium iodide, and instructions could be provided. In event of an accident creating a road blockage, any re-routing of evacuating traffic due to impediments would be provided to the county public information officer and shared via the joint information system for inclusion in press releases and conferences. Additionally, the sheriff's office would deploy units to assist in closing county parks and activate the marine team consisting of two boats for clearing the lake.

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

Public Information and Warning Capability Summary:

The Wake County Public Information Officer successfully demonstrated the capability to provide accurate information to the public and media in a timely manner. Following the first protective action decision, sirens were activated by a Wake County Communications Officer for the entire 10-mile emergency planning zone. The activation of sirens was coordinated with the state and risk counties on the unified command decision line and jointly approved. This decision also included activation of the Emergency Alert System and National Weather Service tone alert radio system by the state at the emergency operations center. There were no siren failures reported, but had there been the incident commander at the incident command post would have been notified to initiate backup route alerting.

The Wake County Public Information Officer tailored pre-scripted press releases following each precautionary and protective action decision. Once tailored the press releases were reviewed and approved by the emergency management director. The approved press releases were shared with other joint information system public information officers to ensure continuity and consistency across county, state, and utility messaging. A total of five press releases were issued on behalf of the division of emergency management. Each release contained accurate information and was published in a timely manner.

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

3.5.2 Wake County Medical Services Drill – Emergency Medical Services

Public Health, Healthcare, and Emergency Medical Services Capability Summary:

The Holly Springs Fire Department firefighters and Wake County Emergency Medical Service technicians successfully demonstrated the ability to transport a contaminated, injured individual to the hospital. The dispatch of firefighters and emergency medical services technicians was simulated by a controller inject informing them of a contaminated, injured individual, and asked them to report to the accident scene. Upon arrival, the size up of the accident scene by law enforcement was simulated by firefighters and contamination/radiation control zone boundaries were set up with traffic cones to establish separate hot, warm, and cold zone boundaries.

Two individuals were involved in the truck accident, one individual was unconscious and injured, and the other appeared to be fine. The fire chief assumed command as the incident commander and radiation safety officer, and issued a direct reading and permanent record dosimeter to each of the three entry team members and three decontamination team members. The two emergency medical services technicians were issued permanent record dosimeters and not direct reading dosimeters, because once the victim was double wrapped contamination was not detected. The entry team and decontamination team members were also supplied with calibrated radiation survey meters that were source-checked prior to use. The entry and decontamination team members donned turnout gear, a self-contained breathing apparatus, and multiple pairs of gloves. The emergency medical services technicians donned disposable suits with hoods, rubber boots, dust masks, and multiple pairs of gloves. The technicians wore a lower level of personal protective equipment as they were staged in the warm zone and not the hot zone.

The incident commander/radiation safety officer briefed the team members on the medical and radiological conditions of the injured individual, reviewed team member duties, and reminded them to report dosimetry readings every 15-30 minutes. Prior to entering the hot zone, the entry team members double wrapped a backboard and set their equipment on it and the emergency medical services technicians draped a sheet over a gurney. The entry team members medically surveyed the injured individual and reported a laceration on the lower left leg, abrasions on the right arm and left arm, but no major bleeding. The entry team members then radiologically monitored the injured individual, finding contamination around the injured areas. A gross decontamination was performed by decontamination team members using scissors to carefully cut the outer layer of clothing off the injured individual. Wet wipes were used to reduce the contamination levels before the individual was re-monitored. The injured individual was then transferred to the backboard, wrapped in the inner sheet, strapped to the backboard, and carried to the warm zone boundary where the injured individual was placed on the gurney. The emergency medical services technicians then transferred the injured individual to the ambulance for transport to the hospital. The ambulance was protected since the injured individual was double wrapped, but precautions such as wrapping the radio in plastic and not using air conditioning were taken by the technicians.

The emergency medical services technicians contacted the hospital by radio on three occasions: when arriving on scene to let them know of an injured contaminated individual, when departing for the hospital with their arrival time, and during transport to verbally relay current medical and radiological conditions of the injured individual.

For this core capability the following radiological emergency preparedness capability targets were met: 5.3.

3.5.3 Wake County Medical Services Drill – Hospital

Public Health, Healthcare, and Emergency Medical Services Capability Summary:

WakeMed – Raleigh Hospital staff demonstrated the capability to monitor, decontaminate, and provide medical care to a contaminated, injured individual. The hospital had the appropriate equipment and sufficient supplies for treating the individual, as well as dosimetry for controlling emergency worker exposure. Calibrated radiation survey meters were available and source-checked prior to use.

Initial notification was received by hospital staff from Wake County Emergency Medical Services Technicians via radio alerting the hospital that a contaminated, injured individual was being transferred to the hospital. The call was simultaneously routed through the Raleigh 911 Call Center Critical Care Dispatcher as back-up. The notification informed the hospital of the status of the individual, radiological contamination levels and locations, and an estimated time of arrival. Following the notification, the hospital response team was mobilized to set up the radiological controlled area and ambulance bay in time for arrival of the individual. The radiological controlled area was set up in a dedicated decontamination room with direct access to the ambulance bay. Both areas were set up with floor coverings for contamination control, and used stanchions, ropes, and radiological signs to control access into the area. Hospital staff who were assigned to the ambulance bay area and radiological controlled area donned personal protective equipment and were provided with dosimetry appropriate for monitoring their exposure limits.

Hospital staff met the ambulance and individual in the ambulance bay area that was roped off outside the radiological controlled area, and transferred the cocooned patient to a prepared decontamination table, taking care not to spread contamination. Pre-hospital care and accident scene notes were also transferred with the individual. The ambulance and emergency medical services technicians were surveyed for contamination by hospital staff before being released.

Providing medical care was a priority over monitoring and decontaminating the individual. The individual was moved into the radiological controlled area, stabilized, and then monitored to assess the level of contamination. Hospital staff successfully demonstrated the capability to identify areas of contamination and decontaminate below the 300 counts per minute action level. With each decontamination attempt, measures were in-place to minimize the spread of contamination. Contamination levels and dosimeter readings were recorded by an administrative staff member located in the buffer zone. Transfer of the decontaminated individual was accomplished by rolling out a disposable floor covering from the buffer zone to the decontamination table in order to prevent contamination from spreading into the emergency room and the general public.

One staff member demonstrated doffing of personal protective equipment as they exited the radiological controlled area. A total body contamination survey was also demonstrated prior to exiting the radiological controlled area. All equipment and waste generated inside the radiological controlled area and ambulance bay area was bagged and kept in a locked room for disposal by the designated contractor for the Harris Nuclear Plant.

For this core capability the following radiological emergency preparedness capability targets were met: 5.3.

3.5.4 Wake County Waterway Warning

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

Waterway warning for Harris Lake was successfully demonstrated by Wake County Sheriff's Office Deputies. Deputies were pre-staged at the Harris Lake boat ramp for the demonstration in accordance with the extent of play agreement. The Wake County Sheriff's Office had the responsibility to warn the public on Harris Lake in the event of a radiological incident at the Harris Nuclear Plant. Notification to the sheriff's office would be made by the emergency management director during an actual incident. Prior to initiating waterway warning, deputies were issued personal protective equipment, which consisted of dosimetry and potassium iodide; exposure limits and instructions were also provided. Waterway warning was directed and managed by the law enforcement representative in the county emergency operations center and was part of a unified operation to warn/clear waterways and parks within the 10-mile emergency planning zone.

During this demonstration, deputies completed waterway warning of the five checkpoints on Harris Lake within 40 minutes. The deputies followed Wake County procedures, read their dosimetry at 15-minute intervals, and observed "no wake" zones. A pre-scripted warning message advising the public of a radiological incident was simulated, as well as communication with the incident commander and the firing of warning flares. The deputies were knowledgeable of their administrative reporting limits and turn back values and the emergency worker decontamination site location. Equipment and supplies were sufficient to complete waterway warning/clearance.

For this core capability the following radiological emergency preparedness capability targets were met: 1.1, 1.2, 2.2, 3.1, 3.2, 5.4.

3.5.5 Chatham County Emergency Operations Center

Operational Coordination Capability Summary:

The Chatham County Emergency Operations Center Manager demonstrated the ability to alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate the facility in a timely manner. Because emergency operations center staff were prepositioned in accordance with the extent-of-play agreement, the facility was quickly staffed upon receipt of notification to report. The emergency operations center was declared operational once all key positions were staffed.

Multiple means of communications were available in the emergency operations center, including two-way radios, landline and cellular telephones, computers with internet capabilities, and facsimile machines. No communication failures were observed. Also, the Chatham County 9-1-1 Center was located adjacent to the emergency operations center and provided multiple consoles with a variety of communication capabilities.

The emergency operations center manager provided direction and control to the portion of the overall response effort for which they were responsible. Briefings were scheduled to occur on the hour and as conditions warranted. Emergency operations center staff were kept well informed and maintained situational awareness. They were encouraged to participate in discussions and share information regarding their agency or organization activities.

Utilizing the Duke Emergency Management Network and the unified command decision line, the emergency operations center manager participated in discussions regarding precautionary and protective action decisions. Selection of appropriate Emergency Alert System messages, and times for activating the outdoor warning system, Emergency Alert System, and National Weather Service tone alert radio system were also discussed and concurred upon via the unified command decision line. These systems were utilized when the risk counties and state concurred on closing waterways and parks. After receiving the Site Area Emergency declaration, the four risk county directors and state emergency response team leader agreed to shelter zones A, B, L. Escalation to a General Emergency led the group to issue a protective action decision to evacuate zones A, B, L.

Through interview with the social services representative in the emergency operations center, it was noted that individuals with access and/or functional needs were identified on a list maintained by social services. Assistance would be provided to those individuals, as needed or requested. There were no hospitals or prisons/detention facilities within the Chatham County portion of the 10-mile emergency planning zone. The only school within the emergency planning zone dismissed their students early. Parents of those students were notified by the school district via the county website and social media platforms.

Following the protective action decision to evacuate, the Chatham County Radiological Safety Officer discussed emergency worker exposure control. The Chatham County Emergency Operation Center is not in the 10-mile emergency planning zone; therefore, distribution of dosimetry, potassium iodide, and management of exposure control was not demonstrated. In the emergency operation center, the radiological safety officer had the necessary supplies to

provide staff with dosimetry and potassium iodide should it be necessary. Additionally, dosimetry leak test dates, survey meter calibration dates, and potassium iodide expiration dates were validated during the staff assistance visit conducted on September 2, 2021.

A Chatham County Sherriff's Office Deputy discussed traffic and access control establishment and the notification and instructions that would be provided to deputies. Traffic and access control points would be staffed by North Carolina State Highway Patrol Troopers and Chatham County Sherriff's Office Deputies once activated. Upon activation, a briefing would be conducted at a staging area providing additional details on evacuation routes, traffic control point establishment, and issuance of dosimetry and potassium iodide. The Chatham County Emergency Operations Center Manager, in coordination with Chatham County Sherriff's Office Deputies was prepared to address any impediments, if they arose.

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

Public Information and Warning Capability Summary:

The Chatham County Public Information Officer and public information staff successfully demonstrated the capability to deliver coordinated, prompt, and reliable information to the public and media in a timely manner. The Chatham County Public Information Officer and public information staff coordinated internally within the emergency operations center, and externally within the joint information system to draft, review, approve, and disseminate press releases. The Chatham County Public Information Officer issued five press releases through the joint information system and the joint information center once operational. Rumor control was handled by community emergency response team members; however, during this exercise there were no rumor control calls from the public or media following the dissemination of press releases.

The public information officer also coordinated with other joint information system public information officers to activate the outdoor warning system, Emergency Alert System, and National Weather Service tone alert radio system. There were no siren failures reported following activation of the outdoor warning system.

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

3.5.6 Chatham County Traffic Control Point

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

Chatham County Sheriff's Office Deputies along with North Carolina State Highway Patrol Troopers discussed traffic and access control establishment, and the identification and resolution of evacuation route impediments.

Through an interview, a Chatham County Sheriff's Office Deputy explained that their office would be notified by the Chatham County Emergency Management Director, by landline or cellular telephone, of a radiological incident at the Harris Nuclear Plant requiring traffic control points at pre-identified locations. The responsibility for managing the two traffic control points in the county was that of the Chatham County Sheriff's Office. Additionally, coordination was maintained with the North Carolina State Highway Patrol, in order to

efficiently establish the points necessary if augmentation or supplemental support was needed.

The Chatham County Sheriff's Office Deputy and North Carolina State Highway Patrol Trooper discussed the provision of dosimetry, potassium iodide, and just-in-time training which included instructions on the proper use of the equipment and when to ingest potassium iodide. Exposure control, including radiation exposure records would be managed by their respective agencies.

Any impediments to evacuation would be communicated to, and coordinated with, their representative in the county emergency operations center. Any adjustments to the traffic control point locations and/or staffing would be made, as appropriate, to support evacuation and access control in response to a radiological incident.

For this core capability the following radiological emergency preparedness capability targets were met: 5.4

3.5.7 Chatham County Waterway Warning

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

Waterway warning for Jordan Lake was discussed through interview due to inclement weather by Chatham County Sheriff's Office Deputies, North Carolina Wildlife Resources Commission Officers, North Carolina State Parks Police Officers, North Carolina State Highway Patrol Troopers, and representatives with the United States Army Corps of Engineers.

A Chatham County Sheriff's Office Deputy described their roles and responsibilities from an incident commander perspective, including establishing an incident command post at the Lake Jordan Visitors Center and overseeing waterway warning and clearance operations. Through interview it was evident those representing the other law enforcement and federal partners present understood their roles and responsibilities in warning the Lake Jordan Visitors Center, campgrounds, boat ramps, and other public access areas surrounding the lake. Additionally, all were well versed on dosimetry, potassium iodide, and their administrative reporting limits and turn back values.

For this core capability the following radiological emergency preparedness capability targets were met: 1.1, 1.2, 2.2, 3.1, 3.2, 5.4.

3.5.8 Harnett County Emergency Operations Center

Operational Coordination Capability Summary:

The Harnett Office of Emergency Management staff demonstrated the capability to notify and mobilize 25 plus emergency operations center staff representing various agencies and organizations. Staff were prepositioned in accordance with the extent of play agreement and arrived quickly upon receipt of notification; the facility was declared operational shortly thereafter. This alert and notification process facilitated an operational structure that engaged critical stakeholders and supported response to a radiological incident at the Harris Nuclear Plant.

Once the facility was declared operational the emergency management director, deputy director, operations section chief, and emergency operations center staff initiated and maintained communication and coordination with their respective agencies, and counterparts in the other risk county and state emergency operations centers. The emergency operations center itself provided adequate space, back-up power, and had sufficient equipment and supplies necessary to support response operations.

The deputy director, in collaboration with the emergency management director, used the emergency information received and shared via the unified command decision line to make and implement precautionary and protective action decisions; this information was also provided to the Harnett County Board of Commissioners for awareness. In addition, periodic briefings and situational updates were provided to emergency operations center staff. Direction and control provided for by the director and deputy director ensured decisions were made and actions implemented that protected public health and safety.

When protective actions were made to first shelter, and then evacuate zones A, B, L, the director and deputy director coordinated with staff representing emergency medical services, schools, and transportation concerning the movement of residents with access and/or functional needs. Through interview it was noted that additional transportation resources would be available for those individuals with access and/or functional needs through private contract transportation services and/or county owned ambulances, as appropriate.

Following the protective action decision to evacuate, the emergency management director and radiological safety officer were interviewed regarding emergency worker exposure control. All emergency workers entering the 10-mile emergency planning zone in Harnett County would be given a dosimetry kit and provided just-in-time training. Their training would include instructions on how to wear dosimetry and record and report their readings; administrative reporting limits and turn back values; and when to ingest potassium iodide. Additionally, dosimetry leak test dates, survey meter calibration dates, and potassium iodide expiration dates were validated during the staff assistance visit conducted on September 2, 2021.

Because an evacuation would require traffic control points to be set-up and staffed, a Harnett County Sheriff's Office Deputy was interviewed regarding the coordination and management of traffic control points. Traffic control point locations were pre-identified and sufficient deputies would be available to staff each location. Deputies would be notified via radio or phone to report to a staging area. At the staging area the deputies would be provided just-in-time training as mentioned above. Once trained the deputies would be deployed to pre-identified traffic control point locations and replaced each operational period.

Minor impediments to evacuation routes would be handled by North Carolina State Highway Patrol Troopers. More significant impediments would be reported by deputies to their supervisors. An alternate route would be identified and additional resources to clear the evacuation routes requested through several county agencies. There were also memorandums of understanding with private companies in place to provide supplemental assistance, as needed.

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

Public Information and Warning Capability Summary:

The Harnett County Public Information Officer and public information staff successfully demonstrated the capability to deliver coordinated, prompt, and reliable information to the public and media in a timely manner. All county-specific press releases were developed in the emergency operations center, reviewed, and approved by the director, and then coordinated through the joint information system prior to being released. Once the joint information system ensured the press release content was consistent with the other counties, state, and utility press releases, the press releases were disseminated from joint information center via the press release board. In total, the Harnett County Public Information Officer developed and disseminated seven press releases.

Although there were public information staff prepared to respond to public inquiry calls, no calls were received. Additionally, there were two simulated siren activations. Sirens were activated silently in accordance with the extent of play agreement. Through interview with a communications officer it was explained that if a siren failure had occurred, the county maintains back-up route alerting plans to physically alert and notify the public of a radiological incident. The communications officer, in coordination with the emergency services director and sheriff's office deputy in the emergency operations center, would dispatch teams to conduct backup route alerting.

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

3.5.9 Lee County Emergency Operations Center

Operational Coordination Capability Summary:

The Lee County Emergency Services Director and emergency operations center staff successfully demonstrated the capability to notify and mobilize resources; provide direction and control for response efforts; and support protective action decision-making and implementation following notification of a radiological incident at the Harris Nuclear Plant.

When the emergency operations center received the Notification of Unusual Event declaration via the Duke Emergency Management Network, emergency operations center staff were notified and mobilized. While notifications were made, staff were prepositioned in accordance with the extent of play agreement. Due to safety concerns related to the ongoing public health emergency, the emergency operations center was only partially staffed. The remainder of the emergency operations center staff played and supported the exercise virtually. Once all key positions were staffed, the facility was declared operational.

The emergency operations center had sufficient communications; primary and backup communications systems were available and used throughout the exercise. The Duke Emergency Management Network was not operational; however, this did not negatively affect the exercise. There were no additional communications failures or delays observed.

The Lee County Emergency Services Director provided effective direction and control within the emergency operations center. The director participated in the unified command decision line conversations, concurred with protective action decisions, and reviewed and approved press releases. Additionally, the director provided frequent updates to Lee County officials and emergency operations center staff.

During the exercise two protective action decisions were made and implemented. The first protective action decision was to shelter zones A, B, L and the second was to evacuate those same zones. As part of the protective action decision making process, the Lee County Department of Social Services representative was interviewed and explained that a call would be made to each individual requiring transportation assistance. If transportation was required to evacuate, the social services representative would request the appropriate resource(s). Additionally, for those individuals with disabilities and access and/or functional needs, assistance would also be provided. Contact would be made with each person and the appropriate resources requested, as needed. It was noted there were no institutionalized individuals within the Lee County 10-mile emergency planning zone.

Following the protective action decision to evacuate, a Lee County Sheriff's Office Deputy was interviewed regarding traffic control points. It was explained that there were six traffic control points assigned to the sheriff's office and three to the North Carolina State Highway Patrol. Each point was pre-identified and deployment and setup of each would be coordinated through the Lee County Communications Center.

Implementation of emergency worker exposure control was also discussed with a Lee County Sheriff's Office Deputy. It was explained that emergency workers receive training regularly, they would also receive just-in-time training during a real-world radiological incident. Each emergency worker would be issued a direct reading and permanent record dosimeter, potassium iodide, and an emergency worker exposure record card. Administrative reporting limits and turnback values were printed on the card and would be reviewed during training. In addition, dosimetry leak test dates, survey meter calibration dates, and potassium iodide expiration dates were validated during the staff assistance visit conducted on August 29, 2021.

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

Public Information and Warning Capability Summary:

The Lee County Public Information Officer successfully demonstrated the capability to provide accurate information to the public and press in a timely manner. The public information officer, following precautionary and protective action decisions tailored the appropriate pre-scripted press releases accordingly. Once tailored, the Lee County Emergency Services Director reviewed and edited or approved each press release. Once approved, the press release was posted on the state online preparedness and resource tracking application for review by the other joint information system public information officers. The press releases did not necessarily require their approval, but were provided for situational awareness and continuity. Once reviewed by the joint information system public information officers, the press releases were posted to the press release board within the state online preparedness and resource tracking application. Posting the press releases to this board simulated dissemination of the press release to a media distribution list. This

process was repeated for each press release; a total of three press releases were developed and disseminated.

The Lee County Public Information Officer also coordinated and communicated with the public information officers and spokespersons at the joint information center via a public information conference line. This conference line remained open throughout the exercise to ensure public information officers in their respective state or county emergency operations centers could efficiently exchange information with their counterparts at the joint information center. It also allowed rumors and trends to be identified and addressed through joint press releases or press conferences.

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

Section 4: Conclusion

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

Based on the description of the offsite response organizations capabilities in the analysis of capabilities section (section 3), the exercise was a success. The demonstration-based assessment activities evaluated by core capabilities, objectives, and capability targets were successfully demonstrated, and no level 1 or level 2 findings were identified. All offsite response organizations were knowledgeable of their emergency response plans and procedures, and successfully demonstrated the ability to protect the health and safety of the public in the event of a radiological incident involving the Harris Nuclear Plant.

In addition, the state of North Carolina and Harris Nuclear Plant offsite response organizations completed this exercise during the SARS-CoV-2/COVID-19 pandemic. The state and counties innovatively and successfully implemented and used technology to ensure sufficient support and response, while also protecting their workforces. The integration of virtual audio and video teleconferencing allowed all players to participate and enhanced the operational communication capability within the state. The lessons learned and best practices gained through the implementation and use of new technology should be documented in emergency response plans and procedures.

Based on the results of this exercise and FEMA's review of the 2020 Annual Letter of Certification submitted by North Carolina Emergency Management, the offsite radiological emergency response plans and preparedness of the state of North Carolina, and the affected local jurisdictions site-specific to the Harris Nuclear Plant, can be implemented. They are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public. The Title 44 CFR, Part 350 approval of the offsite radiological emergency response plans and preparedness site-specific to the Harris Nuclear Plant granted on March 28, 1989, will remain in effect.

Despite the current pandemic and other ongoing real-world response efforts, the professionalism and teamwork of the players and participants was evident throughout all phases of the exercise. FEMA wishes to acknowledge the efforts of the many individuals who 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							
		SERT/ SEOC	RPS Dose Assessment	Central Branch	Wake County	Chatham County	Harnett County	Lee County	JIC/JIS*
Unusual Event	8:02 a.m.	8:02 a.m.	8:16 a.m.	8:17 a.m.	8:10 a.m.	8:11 a.m.	8:04 a.m.	8:10 a.m.	N/A
Alert	9:21 a.m.	9:32 a.m.	9:33 a.m.	9:28 a.m.	9:25 a.m.	9:21 a.m.	9:24 a.m.	9:26 a.m.	9:52 a.m.
Site Area Emergency	11:15 a.m.	11:24 a.m.	11:15 a.m.	11:22 a.m.	11:21 a.m.	11:22 a.m.	11:21 a.m.	11:21 a.m.	11:48 a.m.
General Emergency	12:12 p.m.	12:25 p.m.	12:14 p.m.	12:22 p.m.	12:20 p.m.	12:12 p.m.	12:21 p.m.	12:23 p.m.	12:37 p.m.
Simulated Rad. Release Started	11:03 a.m.	11:24 a.m.	11:06 a.m.	11:15 a.m.	11:21 a.m.	11:22 a.m.	11:21 a.m.	11:21 a.m.	12:06 p.m.
Simulated Rad. Release Ended	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational	8:54 a.m.	8:13 a.m.	8:51 a.m.	8:25 a.m.	8:46 a.m.	8:11 a.m.	9:22 a.m.	8:28 a.m.	9:43 a.m.
Transfer of Control to NC SERT		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
State of Emergency Declared	Local	9:35 a.m.	-	-	10:22 a.m.	9:34 a.m.	9:36 a.m.	9:25 a.m.	-
	State	11:21 a.m.	-	11:41 a.m.	-	-	-	-	11:21 a.m.
End Exercise	1:40 p.m.	1:30 p.m.	1:55 p.m.	1:23 p.m.	1:21 p.m.	1:28 p.m.	1:33 p.m.	1:43 p.m.	1:33 p.m.
Precautionary Actions: Close parks		9:36 a.m.	-	9:36 a.m.	9:36 a.m.	9:36 a.m.	9:36 a.m.	9:36 a.m.	-
Clear waterways		9:36 a.m.	11:33 a.m.	9:36 a.m.	9:36 a.m.	9:36 a.m.	9:36 a.m.	9:36 a.m.	-
Release schools early		-	-	-	11:11 a.m.	10:00 a.m.	-	10:44 a.m.	-
Place livestock on stored feed/water; ban hunting & fishing		11:56 a.m.	11:33 a.m.	-	-	-	-	-	12:06 p.m.
Protective Action Decision 1: Shelter in Place: A, B, L		11:35 a.m.	-	11:35 a.m.	11:35 a.m.	11:35 a.m.	11:35 a.m.	11:35 a.m.	11:48 a.m.
Siren Activation		11:50 a.m.	-	11:50 a.m.	11:50 a.m.	11:50 a.m.	11:50 a.m.	11:50 a.m.	-
EAS Message		11:55 a.m.	-	11:55 a.m.	11:55 a.m.	11:55 a.m.	11:55 a.m.	11:55 a.m.	-
NWS Message		12:05 p.m.	-	12:05 p.m.	12:05 p.m.	12:05 p.m.	12:05 p.m.	12:05 p.m.	-
Protective Action Decision 2: Evacuate: A, B, L		12:29 p.m.	-	12:29 p.m.	12:29 p.m.	12:29 p.m.	12:29 p.m.	12:29 p.m.	12:37 p.m.
Siren Activation		12:44 p.m.	-	12:44 p.m.	12:44 p.m.	12:44 p.m.	12:44 p.m.	12:44 p.m.	-
EAS Message		12:49 p.m.	-	12:49 p.m.	12:49 p.m.	12:49 p.m.	12:49 p.m.	12:49 p.m.	-
NWS Message		12:59 p.m.	-	12:59 p.m.	12:59 p.m.	12:59 p.m.	12:59 p.m.	12:59 p.m.	-
KI Ingestion Decision: Emergency Workers		12:04 p.m.	11:48 a.m.	12:04 p.m.	12:04 p.m.	12:04 p.m.	12:04 p.m.	12:04 p.m.	-

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

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Appendix B: Evaluator Assignments

Location/Venue	Evaluation Team	Core Capability
State Emergency Operations Center	Gerald Mclemore Randi Hendrix Gary Goldberg Rosemary Samsel Tom Gahan Eric Holland	Operational Coordination Public Information and Warning
Joint Information System/Center	PJ Nied Peter Judge	Public Information and Warning
Central Branch Office	John Wiecjorek	Operational Coordination
Dose Assessment	Marcy Campbell	Situational Assessment
Field Monitoring Team Management	Deb Blunt	Environmental Response/Health and Safety
Field Monitoring Team Operations	Ron Bonner Cheryl Weaver	Environmental Response/Health and Safety
Mobile Laboratory	Keith Earnshaw	Environmental Response/Health and Safety
Emergency Operations Facility	Jill Leatherman	Situational Assessment
Wake County Emergency Operations Center	Roy Smith Michael Dolder Henry Christiansen	Operational Coordination Public Information and Warning
Chatham County Emergency Operations Center	James Greer Bill Palmer	Operational Coordination Public Information and Warning
*Chatham County – Apex Command Post	Meg Swearingen	Operational Coordination
*Chatham County – Holly Springs Command Post	Lynn Steffensen	Operational Coordination
Harnett County Emergency Operations Center	Brenda Rembert Danny Loomis	Operational Coordination Public Information and Warning
Lee County Emergency Operations Center	Steve Watts Kevin Reed	Operational Coordination Public Information and Warning

**Denotes these were curtesy evaluations and therefore are not included in the report.*

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Appendix C: Participating Organizations

Participating Organizations
State of North Carolina
North Carolina Department of Agriculture & Consumer Services
North Carolina Department of Health & Human Services, Division of Public Health
North Carolina Department of Health & Human Services, Radiation Protection Section
North Carolina Department of Public Safety, Emergency Management
North Carolina Department of Transportation
North Carolina Environmental Quality, Public Water Supply Section
North Carolina Governor's Office
North Carolina State Highway Patrol
Wake County
Wake County Department of Emergency Medical Services
Wake County Department of Environmental Services
Wake County Department of Finance
Wake County Department of General Service Administration, Engineering Branch
Wake County Department of Health and Human Services
Wake County Department of Social Services
Wake County Division of Fire Services and Emergency Management
Wake County Division of Human Services, Mass Care Branch
Wake County Public Health Department
Wake County Public School System
Wake County Sheriff's Office
Chatham County
Chatham County 9 1 1

Participating Organizations
Chatham County Commissioners' Office
Chatham County Community Emergency Response Team
Chatham County Department of Social Services
Chatham County Emergency Management
Chatham County Managers' Office
Chatham County Public Health Department
Chatham County Sheriff's Office
Chatham Emergency Services
Harnett County
Harnett County Cooperative Extension Service
Harnett County Department of Social Services
Harnett County Division of Aging
Harnett County Economic Development Commission
Harnett County Emergency Medical Services
Harnett County Emergency Services
Harnett County Health Department
Harnett County Information Technology
Harnett County Public Library
Harnett County Schools
Harnett County Sheriff's Office
Harnett County Veterans Services
Harnett Office of Emergency Management
Harnett Regional Water

Participating Organizations
Lee County
City of Sanford Mayor
City of Sanford Water
Lee County Agriculture
Lee County Board of Commissioners
Lee County Department of Social Services
Lee County Emergency Services
Lee County Finance Department
Lee County Fire
Lee County Information Technology
Lee County Public Health
Lee County Public Works and Utilities
Lee County Schools
Lee County Sheriff's Office
Raleigh Executive Airport
Town of Broadway Mayor
Private Sector
American Red Cross
Duke Energy
United Way of North Carolina
Federal
United States Army Corps of Engineers
United States Department of Homeland Security, Federal Emergency Management Agency, Region 4
United States Nuclear Regulatory Commission, Region 2

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Appendix D: Extent of Play Agreement

Signatures

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

NCEM Exercise Manager	Radiological Assistance Committee Chair
X Chris Call Chris Call North Carolina Department of Public Safety Emergency Management	X J T Ackermann J.T. Ackerman Federal Emergency Management Agency Region IV

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. Some players will be remote; 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 1.4: 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

Assessment	Extent of Play
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.	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
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

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

Assessment	Extent of Play
Maintain an appropriate inventory of permanent record dosimeters.	No Exception
Retain an adequate supply of radioprotective drugs.	No Exception
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

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

Objective 5: Operate

Capability Target 5.4: Traffic and Access Control

Intent: The capability to select, establish, and staff traffic and access control points and removing impediments to the flow of evacuation traffic.

Planning Reference: 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, and O.1)

Assessment	Extent of Play
Select, establish, and staff appropriate traffic and access control points, consistent with current conditions and protective action decisions (e.g., evacuating, sheltering, and relocation), in a timely manner.	No Exception
Provide instructions to traffic and access control staff on actions to take, including when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.	No Exception
Contact the state or federal agencies that have the authority for the different transportation modes (e.g., rail, water, and air traffic).	No Exception
Identify and take appropriate actions concerning impediments that affect the evacuation and evacuation routes.	No Exception
Make the decision to re-route traffic and coordinate with key decision-makers and the joint information center to ensure the alternate route information is appropriately communicated to evacuees.	No Exception
Establish procedures to control access to and monitor people and vehicles from the evacuated and restricted areas.	No Exception
Establish exit procedures.	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.	Siren sounding will be demonstrated via a silent test of the siren system. Wake County will activate all sirens and other counties will demonstrate via discussion.
Alert and notify the general public.	All sirens will be simulated via a silent test. EAS messages will be drafted and delivered to the EAS operator. No EAS messages will be sent, capability will be demonstrated via interview.
Identify and address any failures of the system(s) or portion of a system(s).	If a failure is detected, backup route alerting will be conducted via interview within the county where failure occurred.
Identify the process to activate the Emergency Alert System.	EAS messages will be drafted and delivered to the EAS operator. No EAS messages will be sent, capability will be demonstrated via interview.
Ensure that updated emergency information is disseminated in a timely manner.	Release of public information will be simulated by posting of news releases to the PIO board in WebEOC and through demonstration of exercise news conferences.
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.	EAS messages will be drafted and delivered to the EAS operator. No messages will be sent, capability will be demonstrated via interview.

Assessment	Extent of Play
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.).	If a failure is detected, backup route alerting will be demonstrated via interview in the 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.	Emergency information will be written and posted in WebEOC but not released to the public or media.
Messaging addresses appropriate cultural and linguistic considerations.	Emergency information will be written and posted in WebEOC but not released to the public or media.
Ensure subsequent messaging is consistent with protective actions.	Emergency information will be written and posted in WebEOC but not released to the public or media.

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.).	Release of public information will be simulated by posting of news releases to the PIO board in WebEOC and through demonstration of exercise news conferences.
Respond to media and public inquiries.	No Exception

Regional Coordination Center – Central

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. Some players will be remote; 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

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

Dose Assessment

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 1.4: 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.	No Exception
Support protective action decision making for students at schools.	No Exception
Support protective action decision making for subsequent or alternate protective action decisions.	No Exception
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 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
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
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 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 plant 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
Calculate plume ratios of noble gas, iodines, and particulates, and compare to model projections.	No Exception
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

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)

All Field Team Management and Operations evaluations are courtesy only for training.

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. Some players will be remote; 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

Assessment	Extent of Play
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

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)

All Field Team Management and Operations evaluations are courtesy only for training.

Assessment	Extent of Play
Control emergency workers' exposure and dose, including offsite workers performing duties onsite.	No Exception
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
Determine a correction factor for direct reading dosimeter-based isotopic release mixture.	No Exception

Assessment	Extent of Play
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	No Exception
compared to previously established protective action guides.	

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)

All Field Team Management and Operations evaluations are courtesy only for training.

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
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

Assessment	Extent of Play
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)

All Field Team Management and Operations evaluations are courtesy only for training.

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

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)

All Field Team Management and Operations evaluations are courtesy only for training.

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
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

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

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)

All Field Team Management and Operations evaluations are courtesy only for training.

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	No Exception
exposure rate while moving and in stationary positions.	
Use appropriate contamination control and personal protective equipment.	No Exception
Be in location(s) at the appropriate time(s) to detect and characterize the active release (plume).	No Exception
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

Assessment	Extent of Play
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

Mobile Radiological Laboratory

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.

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

Capability Target 4.4: Laboratory Operations

Intent: The capability to perform laboratory analyses of radioactivity in environmental, food, and drinking water samples to support decision-making.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.4, H.11, H.11b, H.13, I.2, I.6, M.7, and O.1)

Assessment	Extent of Play
Prepare analytical equipment for use, including performing calibrations, quality control checks, and background counts, as appropriate.	All Field Team Management and Operations evaluations are courtesy only for training.
Receive and track samples, including completing chain-of-custody records.	No Exception

Assessment	Extent of Play
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.	No Exception
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.	No Exception
Provide analysis results to the appropriate organization.	No Exception
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.	No Exception

Emergency Operations Facility

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 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

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. Some players will be remote; 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

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

Assessment	Extent of Play
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.	Emergency information will be written and posted in WebEOC but not released to the public or media.
Messaging addresses appropriate cultural and linguistic considerations.	Emergency information will be written and posted in WebEOC but not released to the public or media.
Ensure subsequent messaging is consistent with protective actions.	Emergency information will be written and posted in WebEOC but not released to the public or media.
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.).	Emergency information will be written and posted in WebEOC but not released to the public or media.
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.

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. Some players will be remote; interviews with remote personnel will be coordinated through the controller. See Attachment A for scheduled events.
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

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

Objective 2: Exposure Control

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 See Attachment A for scheduled events.
Maintain an appropriate inventory of permanent record dosimeters.	No Exception
Retain an adequate supply of radioprotective drugs.	No Exception
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

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 See Attachment A for scheduled events.
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 3.2: 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)

Waterway Warning evaluation will be conducted during Out of Sequence activities. See Attachment A for scheduled events.

Assessment	Extent of Play
Identify and address any failures of the system(s) or portion of a system(s).	No Exception See Attachment A for scheduled events.
Actual testing of the mobile public address system will be conducted at an agreed-upon location.	The public address system on each boat will be tested and the pre-scripted message read aloud once while demonstrating waterway warning to ensure system operability.

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.

Objective 5: Operate

Capability Target 5.4: Traffic and Access Control

Intent: The capability to select, establish, and staff traffic and access control points and removing impediments to the flow of evacuation traffic.

Planning Reference: 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, and O.1).

Assessment	Extent of Play
Select, establish, and staff appropriate traffic and access control points, consistent with current conditions and protective action decisions (e.g., evacuating, sheltering, and relocation), in a timely manner.	This will be discussed via interview. See Attachment A for scheduled events.
Provide instructions to traffic and access control staff on actions to take, including when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.	This will be discussed via interview.
Contact the state or federal agencies that have the authority for the different transportation modes (e.g., rail, water, and air traffic).	The contacting of state or federal agencies that have authority for the different transportation modes will be simulated.
Identify and take appropriate actions concerning impediments that affect the evacuation and evacuation routes.	This will be discussed via interview.
Make the decision to re-route traffic and coordinate with key decision-makers and the joint information center to ensure the alternate route information is appropriately communicated to evacuees.	This will be discussed via interview.

Traffic Control Points

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.

Objective 5: Operate

Capability Target 5.4: Traffic and Access Control

Intent: The capability to select, establish, and staff traffic and access control points and removing impediments to the flow of evacuation traffic.

Planning Reference: 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, and O.1)

Assessment	Extent of Play
Select, establish, and staff appropriate traffic and access control points, consistent with current conditions and protective action decisions (e.g., evacuating, sheltering, and relocation), in a timely manner.	This will be discussed via interview. See Attachment A for scheduled events.
Provide instructions to traffic and access control staff on actions to take, including when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.	This will be discussed via interview. See Attachment A for scheduled events.
Contact the state or federal agencies that have the authority for the different transportation modes (e.g., rail, water, and air traffic).	The contacting of state or federal agencies that have authority for the different transportation modes will be simulated. See Attachment A for scheduled events.
Identify and take appropriate actions concerning impediments that affect the evacuation and evacuation routes.	This will be discussed via interview. See Attachment A for scheduled events.
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.	This will be discussed via interview. See Attachment A for scheduled events.

Emergency Worker Decontamination

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 5: Operate

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

Intent: The capability to implement radiological monitoring and decontamination of emergency workers, equipment, and vehicles.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (K.4 and O.1)

Assessment	Extent of Play
Set-up operations.	No Exception See Attachment A for scheduled events.
Operationally check instruments and equipment.	No Exception
Monitor emergency worker personnel and their equipment and vehicles for contamination.	No Exception See Attachment A for scheduled events.
Decontaminate emergency worker personnel and their equipment and vehicles based on trigger/action levels.	The use of water us will be simulated for vehicle decontamination. For personnel decontamination water will be used with the exception of showers. See Attachment A for scheduled events.
Control the spread of contamination.	No Exception
Create and maintain a record of monitoring and decontaminating workers upon completion of monitoring and decontamination activities.	No Exception
Process for prioritizing emergency workers and equipment before the public in facilities where the public and emergency workers are both processed for contamination.	No Exception See Attachment A for scheduled events.

Reception and Congregate Care Center

Core Capability: Mass Care Services

Definition: 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.

Objective 5: Operate

Capability Target 5.1: Monitoring, Decontamination, Sheltering, and Registration of Evacuees

Intent: The capability to implement radiological monitoring and decontamination of evacuees, and to identify, register, temporarily shelter, and provide congregate care for evacuees at reception centers.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (J.11.d, J.13, K.4, and O.1)

Assessment	Extent of Play
Set-up operations.	No Exception See Attachment A for scheduled events.
Operationally check instruments and equipment.	No Exception
Attain and sustain the overall monitoring productivity rate per hour needed to monitor 20 percent of the plume exposure pathway emergency planning zone population, including transients, within a 12-hour period at each facility. The monitoring productivity rate per hour is the number of evacuees that can be monitored, per hour, per location, by the total complement of monitors using an appropriate procedure.	No Exception See Attachment A for scheduled events.
Monitor evacuees, service animals, pets, vehicles, and possessions.	The monitoring of service animals and pets will be discussed via interview. See Attachment A for scheduled events.
Utilize trigger/action levels for determining the need for decontamination.	No Exception See Attachment A for scheduled events.
Decontaminate evacuees, and personal belongings, while limiting the spread of contamination.	Showering will be simulated See Attachment A for scheduled events.
Follow-up with any evacuee(s) who cannot be appropriately decontaminated for assessment; ensure the capability to provide evacuee- referrals.	No Exception See Attachment A for scheduled events.
Monitor and decontaminate vehicles.	The use of water will be simulated for vehicle decontamination. See Attachment A for scheduled events.
Provide adequate, separate space for both contaminated and non-contaminated vehicles.	No Exception See Attachment A for scheduled events.

Assessment	Extent of Play
Monitor emergency worker personnel and their equipment and vehicles for contamination.	No Exception See Attachment A for scheduled events.
Decontaminate evacuee vehicles based on trigger/action levels.	No Exception See Attachment A for scheduled events.
Coordinate for incoming evacuees who have been monitored and, if necessary, decontaminated.	No Exception
Establish shelter operations.	No Exception See Attachment A for scheduled events.
Congregate care centers and operations in host/support jurisdictions are sufficient to support the expected number of evacuees.	No Exception See Attachment A for scheduled events.
Register evacuees.	No Exception See Attachment A for scheduled events.
Ensure the registration area is clean and controlled.	No Exception

Medical Services Drill

Core Capability: Public Health, Healthcare, and Emergency Medical Services

Definition: Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical, and behavioral health support, and products to all affected populations.

Objective 5: Operate

Capability Target 5.3: Transportation and Treatment of Contaminated, Injured Individuals

Intent: The capability to provide medical transport and treatment services to contaminated, injured individuals.

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.d, F.2, H.11, H.12, J.2, K.3, K.4, L.1, L.3, L.4, and O.1)

Medical Service Drill evaluations will be conducted during Out of Sequence activities. See Attachment A for scheduled events.

Assessment	Extent of Play
Transport contaminated, injured individuals to medical facilities.	No Exception See Attachment A for scheduled events.
Maintain communications between the medical transportation provider and the receiving medical facility.	No Exception
Operationally check instruments and equipment.	No Exception
Set-up, activate, and operate a radiation emergency area.	No Exception
Monitor and decontaminate the individual, equipment, and other items.	The use of showers for decontamination will be simulated. See Attachment A for scheduled events.