After Action Report

Brunswick Nuclear Plant
Radiological Emergency Preparedness Exercise
Exercise Date: December 1, 2020

February 5, 2021

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Executive Summary

On December 1, 2020, the offsite response organizations of the Brunswick Nuclear Plant 10-mile emergency planning zone participated in a plume exposure pathway exercise. FEMA Region IV Radiological Emergency Preparedness Program staff evaluated the biennial exercise, which also included a medical services drill conducted on December 15, 2020. 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 Brunswick 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.

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.

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 in the event of an incident involving the Brunswick Nuclear Plant.

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

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Section 1: Exercise Overview

1.1 Exercise Details

Exercise Name
2020 Brunswick Nuclear Plant Radiological Emergency Preparedness Exercise

Type of Exercise
Full Scale Exercise

Exercise Date
December 1, 2020

Exercise Out of Sequence Date
December 15, 2020

Locations
See the extent of play agreement in Appendix C for exercise locations.

Program
Radiological Emergency Preparedness Program

Mission
Response

Scenario Type
Partial Participation Plume Phase Radiological Emergency Preparedness Exercise

1.2 Exercise Planning Team Leadership

Ms. Elisabeth (Libby) Adkins
State Lead/Brunswick Site Specialist
FEMA Region IV
3005 Chamblee Tucker Road
Atlanta, Georgia 30341

Mr. Derrick Morris
State Exercise Officer
NCEM
4236 Mail Service Center
Raleigh, NC 27699

Mrs. Dianne Curtis
Eastern Branch Manager
NCEM
3802-B Highway 58 North
Kinston, NC 28461

Mr. James Young
REP Program Manager
NCEM
4236 Mail Service Center
Raleigh, NC 27699

Mr. Ryan Bobek
Duke Energy Fleet Emergency Preparedness
526 South Church St.
Charlotte, NC 28202

Mr. Scott Garner
Emergency Services Deputy Director
Brunswick County
3325 Old Ocean Highway, Bldg. C
Bolivia, NC 28422

Mr. Zack Whicker
Emergency Management Deputy Director
New Hanover County
230 Government Center Dr., Ste. 115
Raleigh, NC 28403

1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the 2020 Brunswick Nuclear Plant exercise:

State of North Carolina:

Department of Public Safety
- Division of Emergency Management
- State Highway Patrol
- Eastern Branch Office

Department of Environment Quality, Division of Marine Fisheries, Marine Patrol, Enforcement Section

Wildlife Resources Commission, Division of Enforcement

Department of Agriculture and Consumer Services

Department of Transportation, Division of Highways

Department of Health and Human Services
- Division of Health Service Regulation, Radiation Protection Section
- Division of Public Health
- Office of Emergency Medical Services

Risk Counties:

Brunswick County, North Carolina

- Emergency Services
  - Emergency Management
  - Emergency Medical Services
- Health Department
- Sheriff's Office
- School District

New Hanover County, North Carolina

- Department of Emergency Management
  - Response Emergency Management Organization
  - Public Safety Communications Center (911)
  - Emergency Public Information Center
- Human Resources
- Health Department
- Information Technology
- Public Information Office
- Department of Social Services
- Sheriff's Office
- School District

Federal Jurisdictions:

Department of Homeland Security, U.S. Coast Guard, Sector North Carolina
National Oceanic and Atmospheric Administration, National Weather Service

Non-Governmental Organizations:

Dosher Memorial Hospital
Duke Energy

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Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

FEMA administers the Radiological Emergency Preparedness (REP) 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, tribal, and local governments impacted by the emergency planning zones established for each nuclear power plant site in the United States. U.S. NRC 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, tribal, and local government radiological emergency response plans and procedures by FEMA. One of the REP Program cornerstones established by these regulations is the biennial exercise of offsite response capabilities. During these exercises, affected state, tribal, and local 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 emergency at the 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 U.S. NRC. This statement verifies that the affected state, tribal, and local 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 emergency; and (2) capable of being implemented.

The federal approval of the formal submission of the radiological emergency response procedures for the Brunswick Nuclear Plant by the state of North Carolina was granted on March 17, 1982, and the qualifying emergency preparedness exercise occurred August 17-19, 1981.

2.2 Exercise Core Capabilities and Objectives

Core capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. Using the Homeland Security Exercise and Evaluation Program (HSEEP) methodology, the exercise objectives meet the REP Program requirements and encompass the emergency preparedness evaluation areas. The critical tasks to be demonstrated were negotiated with the state of North Carolina and the participating counties. The core capabilities scheduled for demonstration during this exercise were:

- **Operational Coordination:** Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
- **Situational Assessment:** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.
- **Public Information and Warning:** Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.
- **Critical Transportation:** Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.
- **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:** Demonstrate the ability to alert, notify, and mobilize response personnel and facilities; provide direction and control, make precautionary and protective action decisions and implement those decisions.
- **Objective 2:** Demonstrate the ability to activate the prompt alert and notification system and provide accurate emergency information and instructions to the public and news media in a timely manner.
- **Objective 3:** Demonstrate the ability to make and implement decisions related to relocation, re-entry, and return through discussion or exercise play in accordance with plans and procedures.
- **Objective 4:** Demonstrate the ability to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals.

2.3 Exercise Scenario

The following is a summary of the scenario developed by Duke Energy and Brunswick Nuclear Plant staff to drive exercise play:

- **The initial classification will be a Site Area Emergency,** and OROs will be notified by 0858. A radiological release will begin at that time and steadily increase. A General Emergency will be declared a few hours later when utility dose projections show PAGs being exceeded offsite, with OROs being notified by 1240.
- **Depending on assumptions made by state dose assessors, state projections may show PAGs being exceeded offsite prior to the utility declaring a General Emergency.**
- There will be a significant radiological release, which is expected to begin at approximately 0828, the time of the initiating event for a Site Area Emergency. Both the PAG based on total dose and the PAG based on thyroid dose will be exceeded offsite but not beyond one mile according to utility dose projections. State dose projections may show PAGs being exceeded farther out based on assumptions made.
- Winds will be from about 135° throughout the exercise.
- The utility PAR at General Emergency will be based on it being a rapidly progressing severe accident (RPSA) with a short-expected release duration. **The expected PAR from the utility at General Emergency will be to <u>shelter zones 1 and 2</u> and <u>evacuate zones 5, 6, 7, 8, and 9.</u>**
- Following the General Emergency, **a seismic event (earthquake) will occur at 1245**. This will cause some spent fuel pool (SFP) damage and require the utility to use some of their FLEX equipment to keep the SFP water level up. The SFP problems should not affect any offsite actions.

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Section 3: Analysis of Capabilities

3.1 Exercise Evaluation and Results

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the December 1, 2020, plume exposure pathway exercise and the medical services drill demonstration on December 15, 2020.

Each jurisdiction and functional entity was evaluated based on the demonstration of core capabilities, capability targets, critical tasks, and the underlying REP criteria as delineated in the FEMA REP Program Manual dated January 2016. Exercise criteria are listed by number and demonstration status.

3.2 Summary Results of Exercise Evaluation

The Homeland Security Exercise and Evaluation Program (HSEEP) 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 critical tasks under specified conditions and to specific performance standards. Core Capabilities form the foundation of the FEMA Region IV REP Program evaluations. The Core Capability summaries below provide an overall combined assessment of state and local jurisdictions based upon their collective demonstrated performance as it relates to the specific Core Capability. Each jurisdiction's standalone capability summaries are listed in Section 3.3 of this report.

- **Operational Coordination:** County emergency management leadership, along with the North Carolina State Emergency Response Team and state and federal support agencies, demonstrated the capability to establish and maintain a unified and coordinated operational structure and process while integrating all critical stakeholders for the 10-mile emergency planning zone surrounding the Brunswick Nuclear Plant. Due to the ongoing SARS-CoV-2/COVID-19 pandemic, the health and safety of staff was prioritized, and minimal staffing was used to protect the workforce. Through the innovative integration of technology to support emergency operations, collaborative precautionary and protective action decisions were successfully made and implemented appropriate for the current situation.

- **Situational Assessment:** State dose assessment personnel, composed of staff from the state radiation protection section, provided decision makers relevant information based on current plant conditions, radiological release information provided by utility staff, and field team measurement data. Through continuous monitoring of the plant’s data system and regular discussions with utility staff, radiation protection staff further enhanced their situational awareness to provide accurate and sound recommendations with statistical reasoning to decision

makers. Potassium iodide recommendations for both emergency workers and the general public were concurred by the state public health directors based on updated dose projections. Virtual platforms were with ease used to enhance collaboration among physically distanced radiation protection section personnel.

- **Public Information and Warning:** Public information staff from the state of North Carolina and Brunswick and New Hanover Counties prepared and delivered coordinated, prompt, reliable, and actionable information in media releases and a joint press briefing for the whole community while operating within a virtual joint information system. Due to the ongoing SARS-CoV-2/COVID-19 pandemic, the health and safety of staff was prioritized over established procedures to mobilize staff to the Duke Energy Joint Information Center. Public information staff from the state of North Carolina; the counties of Brunswick and New Hanover; and Duke Energy remained at their respective mobilization locations to establish and activate the joint information system. Various virtual platforms were used within the county and state emergency operations centers to connect public information staff to deliver accurate information to the public and media consistent with protective actions necessary.

- **Critical Transportation:** School district representatives from Brunswick and New Hanover Counties were able to articulate actions to be taken to relocate students and staff in accordance with plans and procedures. Available transportation and communications assets would be capable of supporting relocation of schools within the risk counties. Successful coordination of school district, county, and law enforcement actions was observed throughout the demonstration.

- **Public Health, Healthcare, and Emergency Medical Services:** Brunswick County Emergency Medical Services, along with Dosher Memorial Hospital, demonstrated the ability to provide medical treatment to an injured contaminated individual. Paramedics demonstrated their ability to respond to and transport a potentially contaminated individual and notify nursing staff at Dosher Memorial Hospital for preparation of the patient. Dosher Memorial Hospital staff demonstrated their ability to quickly alert and mobilize appropriate personnel to receive a contaminated injured patient and perform decontamination, while placing an emphasis on lifesaving medical treatment.

3.3 Jurisdictional Summary Results of Exercise Evaluation

3.3.1 State of North Carolina

3.3.1.1 State Emergency Operations Center

Operational Coordination Capability Summary:

North Carolina State Emergency Response Team members supporting the state emergency operations center successfully demonstrated the capability to establish and maintain a unified and coordinated operational structure and process while integrating all critical stakeholders for the 10-mile Emergency Planning Zone, surrounding the Brunswick Nuclear Plant. State emergency response team members were promptly notified by the state warning point communications officer of changing conditions at the Brunswick Nuclear Plant throughout the exercise. The state emergency operations center was already partially activated for the current SARS-CoV-2/COVID-19 emergency, and fully activated upon Site Area Emergency notification of the radiological emergency. The state emergency operations center had sufficient equipment and communication capabilities for conducting operations and coordinating response actions as necessary.

The state emergency response team leader provided effective and decisive leadership. He maintained continued contact with the Brunswick and New Hanover Counties, and gathered information from his staff to make informed and appropriate recommendations and decisions. The staff, composed of representatives from various state agencies and Duke Energy, was well-trained and functioned smoothly. The radiological emergency program technical advisor used emergency classification specific checklists to track and confirm all response actions were performed. Periodic staff briefings ensured everyone was informed of incident and response status. Frequent conference calls with the risk counties provided effective resource coordination and support.

Following the declaration of a General Emergency, the protective action recommendation from Duke Energy was extensively discussed to ensure all stakeholder concerns and inputs were considered. After concurrence, the protective action decision was then implemented rapidly for risk county support. Throughout the exercise the state emergency response team leader and staff were proactive, implementing their procedures without delay.

North Carolina State Highway Patrol Troopers successfully established appropriate traffic and access control points and provided accurate instructions to responding personnel during the exercise. They delegated and coordinated additional manpower and resources to manage traffic control points in the affected counties.

For this capability the following radiological emergency preparedness criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 3.d.1, 3.d.2, 5.b.1

a. **Level 1 Finding:** None

b. **Level 2 Finding:** None

c. **Not Demonstrated:** None

d. **Prior Level 2 Findings – Resolved:** None

e. **Prior Level 2 Findings – Unresolved:** None

Public Information and Warning Capability Summary:

The North Carolina Emergency Management State Emergency Response Team personnel demonstrated their ability to notify the public with reliable, accurate, consistent, and accessible information during the 2020 Brunswick Nuclear Plant exercise. The state emergency response team leader and the technical advisor fostered in-depth discussions on the decision line and with each other during making decisions during key events. Discussions about seasonal changes, population density, and non-residential areas were all taken in account while planning for potassium iodide ingestion. The lead public information officer effectively coordinated information using the joint information system and reviewed information to insure accurate, timely, and clear press releases were published. The response organizations, including Brunswick and New Hanover County emergency management, participated eagerly in joint information system discussions.

The state emergency response team leader agreed with protective actions of waterway warning of the Cape Fear River and surrounding areas. The state would provide agency assets in order to initiate clearing of state parks. The Brunswick County Emergency Services Deputy Director acknowledged that notification of waterway warning and County agencies for traffic control points would be their responsibility. Agencies involved in these actions were the North Carolina Wildlife Resources Commission, Division of Enforcement; North Carolina Marine Patrol, Enforcement Section; Brunswick County Sheriff's Office and Emergency Services; New Hanover County Sheriff's Office; and supported by the United States Coast Guard.

Brunswick County held a public press briefing to discuss the plant status and informational resources available to the public. In both the state emergency operations center and the joint information system, primary alert and notification of the public using sirens, Emergency Alert System messages, Wireless Emergency Alert, and National Weather Service messages were completed in a timely manner by a collaborative effort among every team member. Templates were used and could easily be found for both Emergency Alert System messaging and the press releases. The templates could be modified, reviewed, and published as needed by staff. The messages contained required information on the Brunswick Nuclear Plant, to include references to additional resources

available through booklets or social media, and properly identified who was responsible for sending the messages. Three Emergency Alert System messages were prepared and sent by the state emergency operations center. The first, at Site Area Emergency, asked the public to stay tuned. At General Emergency, two more messages were prepared, with information on evacuation, shelter in place, stay inside, and potassium iodide information. All messages were accurate and supported the protective action decisions.

For this capability the following radiological emergency preparedness criteria were met: 5.a.1, 5.b.1

a. **Level 1 Finding:** None
b. **Level 2 Finding:** None
c. **Not Demonstrated:** None
d. **Prior Level 2 Findings – Resolved:** None
e. **Prior Level 2 Findings – Unresolved:** None

3.3.1.2 Dose Assessment

Situational Assessment Capability Summary:

North Carolina Department of Health and Human Services, Division of Health Service Regulation, Radiation Protection Section personnel successfully demonstrated the ability to assess radiological and plant conditions and to provide appropriate recommendations to decision makers in response to a radiological incident at the Brunswick Nuclear Plant.

Radiation protection section staff calculated projected doses at various distances downwind from the plant based on plant conditions and radiological release data supplied by the utility. Personnel also monitored plant data and parameters from the utility's plant data system and discussed plant conditions with utility personnel. Staff prepared appropriate protective action recommendations which the Radiation Protection Section director reviewed considering all current information, including field team measurements. He then briefed state and county decision makers on the recommendations and the reasoning behind them.

Following the notification from the plant that a radiological release was occurring, the director ensured air samples were obtained. When those samples showed the presence of radioactive iodine, the director contacted the state public health director to recommend potassium iodide be ingested by emergency workers. Later, when projected doses showed protective action guides for thyroid dose being exceeded offsite, the director contacted the state public health director to recommend potassium iodide be ingested by members of the public in affected zones. The state public health director concurred with those recommendations and forwarded them to state and county leadership.

While the radiation protection section director was physically located in the state emergency operations center, other radiation protection section staff worked from other locations. The team effectively used a virtual meeting platform to enabled easy communications among all staff and ensure all staff had current information.

For this capability the following radiological emergency preparedness criteria were met: 2.a.1, 2.b.1, and 2.b.2

a. **Level 1 Finding:** None

b. **Level 2 Finding:** None

c. **Not Demonstrated:** None

d. **Prior Level 2 Findings – Resolved:** None

e. **Prior Level 2 Findings – Unresolved:** None

3.3.1.3 NCEM Eastern Branch Office

Operational Coordination Capability Summary:

The North Carolina Emergency Management Eastern Branch Office demonstrated the capability to establish and maintain a unified and coordinated response center in the event of a radiological emergency at the Brunswick Nuclear Plant during a public health emergency. The eastern branch office only activated key personnel to ensure deployment, tracking, and coordination of resources to meet the needs of Brunswick County, New Hanover County, and the state of North Carolina. Upon activation, the Eastern Branch Office transitioned into the Regional Coordination Center-East under the direction of the incident commander.

The Regional Coordination Center-East had a multitude of communications systems readily available. The utility's dedicated line that connected the utility, the state, and counties, was used for decision making and conferencing. During the event, the dedicated line had some interruptions. This was quickly remedied by sample hanging up and re-calling the Regional Coordination Center-East. These random disruptions did not interfere with operational outcomes. Cell phones and satellite phones were on hand for secondary and tertiary communication, with 800 megahertz radios also being available. Computers at each workstation had wireless and wired internet connections.

The Regional Coordination Center-East requested staff from Regional Coordination Center-Central and West offices to sustain 24-hour operations for an extended period. The center had sufficient space, supplies, and equipment to support emergency response operations for protracted operational periods. The center was equipped with various maps and tracking boards, a computer-based resource request and tracking programs. Key and relevant information were displayed on the wall and other status boards to keep all information transparent to the staff.

The incident commander successfully demonstrated direction and control of the staff and resource coordination. All resource requests were tracked, coordinated, and completed using a computer spreadsheet. This kept the incident commander informed of the status of each resource request, to include close coordination with the United States Coast Guard. Further, branch staff maintained situational awareness and were proactive in ensuring pertinent information was provided to counties within the 50-mile ingestion pathway emergency planning zone; communication was maintained with the counties in the event the incident at the plant escalated. While maintaining control of the event at Brunswick Nuclear Plant, an inject of an earthquake was provided. The incident commander quickly gained situation awareness of that event and successfully demonstrated resource and operational control of both events simultaneously.

For this capability the following radiological emergency preparedness criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1

a. **Level 1 Finding:** None
b. **Level 2 Finding:** None
c. **Not Demonstrated:** None
d. **Prior Level 2 Findings – Resolved:** None
e. **Prior Level 2 Findings – Unresolved:** None

3.3.2 Joint Operations

3.3.2.1 Joint Information System

Operational Coordination Capability Summary:

The state of North Carolina and the counties of Brunswick and New Hanover successfully established and maintained a unified and coordinated operational structure integrating all stakeholders in response to a simulated emergency incident at the Brunswick Nuclear Plant. Public information staff prepared and delivered coordinated, prompt, reliable, and actionable information in media releases and a joint press briefing for the whole community while operating within a virtual joint information system.

Following the notification of a Site Area Emergency declaration by the utility, public information staff from the state of North Carolina and the counties of Brunswick and New Hanover were alerted, notified, and mobilized by their respective agencies' plans and procedures. Due to the ongoing SARS-CoV-2/COVID-19 pandemic, the health and safety of staff was prioritized over established procedures to mobilize staff to the Duke Energy Joint Information Center. In accordance with the approved extent of play, public information staff from the state of North Carolina; the counties of Brunswick and New Hanover; and Duke Energy remained at their respective mobilization locations to establish and activate the joint information system. Public information staff used laptops, computers, cellular phones, landline telephones, email, conference bridge lines, video conference platform, and web-based emergency management information systems to communicate and collaborate in support of emergency operations. A failure was observed early in the exercise by some public information staff who were unable to see documents posted to public information boards shared between North Carolina and the utility's respective web-based emergency management information systems. Once the failure was recognized, information technology staff were notified and public information staff created an ad hoc email group to coordinate, review, and edit press releases until the issue was resolved approximately two hours later. This failure had no adverse effect on the exercise. No additional communication failures were observed. Public information staff had sufficient equipment, displays, supplies, and administrative resources to support emergency operations. Monitoring instruments, dosimetry, and potassium iodide were not required.

For this capability the following radiological emergency preparedness criterion was met: 1.a.1, 1.d.1, and 1.e.1.

a. Level 1 Finding: None

b. Level 2 Finding: None

c. Not Demonstrated: None

d. Prior Level 2 Findings – Resolved: None

e. Prior Level 2 Findings – Unresolved: None

Public Information and Warning Capability Summary:

Public information staff demonstrated strong collaboration and teamwork in the preparation and delivery of coordinated, prompt, reliable, and actionable information to the public in media releases and a joint press briefing. Pre-scripted message templates were modified to include accurate precautionary action and protective action decisions made by command staff on the decision line. Draft messages were reviewed and edited by public information staff, initially through the ad hoc email group and later on a public information board within the web-based emergency management information system, prior to approval by the originating jurisdiction. The release of messages to the media and public was simulated by moving approved messages to a second press release board

within the web-based emergency management information system. All press releases included essential message elements and accurate emergency information and instructions consistent with the protective action decisions.

Spokespersons from the state of North Carolina, Brunswick County, New Hanover County, and Duke Energy held a joint press briefing at Site Area Emergency using a video conference platform. Mock media members were available and directed multiple questions to the state, locals, and utility. Information provided to the mock media during the briefing was accurate and consistent with the protective action decisions. Rumor control functions were performed at other locations and reported to pubic information staff in the joint information system. Rumors were frequently shared and validated as true or false among the public information staff before being addressed to the public and media as needed. Public information staff from the state of North Carolina; the counties of Brunswick and New Hanover; and Duke Energy successfully met this core capability.

For this capability the following radiological emergency preparedness criterion was met: 5.b.1

a. **Level 1 Finding:** None
b. **Level 2 Finding:** None
c. **Not Demonstrated:** None
d. **Prior Level 2 Findings – Resolved:** None
e. **Prior Level 2 Findings – Unresolved:** None

3.3.2.2 Emergency Operations Facility

Situational Assessment Capability Summary:

The North Carolina State Emergency Response Team Liaison and the North Carolina Department of Health and Human Services, Radiation Protection Section Liaison were positioned in the area and responded promptly to the Duke Energy Emergency Operations Facility after receiving notification from their respective agencies. Upon arrival to the facility, the liaisons established multiple lines of communications with their respective agencies. This included cell phone, email, video web conferencing applications, and access to their agency's incident management software systems. The liaisons utilized video conferencing platforms to obtain and pass relevant information. These virtual tools provided a valuable conduit to the liaisons in completing their tasks. Both liaisons had appropriate communications equipment and supplies to effectively accomplish their mission.

The liaisons effectively assisted in the transfer of real time information between the onsite incident management officials and the offsite response agencies. Working closely with licensee's personnel, they sought critical information that helped them understand the severity of the accident and provided that information in a timely manner to the offsite incident decision makers and radiological dose assessors. Providing real-time incident status allowed offsite personnel to proactively plan for potential worsening conditions. Likewise, the liaisons jointly made sure that the utility was aware of the state's and local government's precautionary and protective action decisions, as well as field monitoring team status and radiological dose projections.

The North Carolina State Emergency Response Team Liaison worked closely with onsite officials to troubleshoot and resolve a software issue that prevented the transfer/exchange of some electronic information between emergency management software platforms. Her consistent coordination contributed to the timely identification and resolution of the issue. The North Carolina Radiation Protection Section Liaison used a video conferencing program to closely coordinate with her team members, who were in numerous locations. She consistently monitored the actions of onsite dose assessors and shared relevant information about onsite meteorological data and plant conditions with her team. This allowed state dose assessors to more accurately compare independent assessments and projections. Both liaisons performed tasks in accordance with their procedures during the exercise, which allowed for the successful execution of this core capability.

For this capability the following radiological emergency preparedness criteria were met: 1.a.1, 1.d.1, 1.e.1, 2.b.1

a. **Level 1 Finding:** None
b. **Level 2 Finding:** None
c. **Not Demonstrated:** None
d. **Prior Level 2 Findings – Resolved:** None
e. **Prior Level 2 Findings – Unresolved:** None

3.3.3 Risk Jurisdictions

3.3.3.1 Brunswick County

3.3.3.1.1 Emergency Operations Center

Operational Coordination Capability Summary:

The Brunswick County Warning Point/911 Center successfully initiated notification of the deputy director upon notification of an emergency classification level from the Brunswick Nuclear Plant. Due to the essential functionality of the Brunswick County Warning Point/911 Center operating in a SARS-CoV-2/COVID-19 environment,

evaluators were not allowed entry to the Warning Point/911 Center facility. The initial notification process was received and processed in the county emergency operations center successfully. All actions contributing to an operational status occurred in a timely manner.

The Brunswick County Emergency Operations Center would be capable of supporting emergency response to an accident at the Brunswick Nuclear Plant. The communications equipment used in the emergency operations center was adequate and operable. The primary methods of communication worked well without any interruptions. Communications failures were not observed. The facility contained sufficient equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide, and other supplies.

The Brunswick County Emergency Services Deputy Director successfully activated and managed the Brunswick Emergency Operations Center in a timely manner. The deputy director considered staff input for decision making and made timely decisions throughout the exercise. Protective action decisions for emergency workers and the general populace within Brunswick County were coordinated with the Brunswick Emergency Operations Center staff and over the utility decision line by the deputy director. The deputy director coordinated and directed implementation of three protective action decisions without delay due to early discussions and planning with key leads of the emergency operations center staff. The protective action decisions were a stay-tuned message; a press release with specific actions for the public; and a combined evacuation, shelter-in-place, and go inside/stay inside order for specific zones. The Brunswick County Public Health Director reviewed each of the North Carolina Public Health potassium iodide ingestion recommendations for emergency workers and public and provided concurrence to the deputy director for the county based on situational awareness. At the request of the deputy director at the onset of the Site Area Emergency classification level, the access and functional needs coordinator and representatives from emergency services and law enforcement began operations in accordance with county plans and procedures which included preparing for relocation of access and functional needs persons, traffic control, and reception and congregate care centers.

The deputy director was interviewed in relation to his actions concerning the issue of equipment to emergency workers. The discussed actions were in accordance with plans and procedures for traffic control points and reception and congregate care centers. Upon declaration of, and implementation of measures necessary in response to a General Emergency the access and functional needs coordinator discussed relocation actions for residents in accordance with plans and procedures.

The implementation of protective actions for the Brunswick County Schools occurred through interviews. An early dismissal decision negated the need for sheltering or relocation and associated logistics. The Brunswick County Schools Chief Operations Officer and the deputy director discussed the alternate processes accurately, including the transportation process.

For this capability the following radiological emergency preparedness criteria were met: 1.a.1, 1.d.1, 1.e.1, 1.c.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2

a. Level 1 Finding: None

b. Level 2 Finding: None

c. Not Demonstrated: None

d. Prior Level 2 Findings – Resolved: None

e. Prior Level 2 Findings – Unresolved: None

Public Information and Warning Capability Summary:

The Brunswick County Emergency Operations Center staff demonstrated the capability to conduct primary alerting and notification of the public and provide accurate emergency information and instructions to the public and the news media in a timely manner. Leadership and staff effectively used plans and procedures to coordinate and distribute county protective action decisions and response action information. Decision line participants coordinated Emergency Alert System messages, notification systems activation, and follow-on news release message times. The siren system activation successfully occurred as scheduled in silent test mode, though the siren polling report was prolonged. As a result of the system polling delay, a backup route alerting and public notification process discussion was observed between the deputy director and the emergency services officer, which aligned with procedures. Per the utility representative, the system polling reported sirens #22 and #32 had equipment issues, with backup systems successfully engaged. Both sirens sounded as required.

The public information officer coordinated and produced news releases promptly. Effective coordination between the state public information group and the joint information system bridge line participants, and the deputy director resulted in the timely development, authorization, and distribution of information.

For this capability the following radiological emergency preparedness criteria were met: 5.a.1, 5.a.3, 5.b.1.

a. Level 1 Finding: None

b. Level 2 Finding: None

c. Not Demonstrated: None

d. Prior Level 2 Findings – Resolved: None

e. Prior Level 2 Findings – Unresolved: None

Critical Transportation Capability Summary:

The Brunswick County Emergency Services Deputy Director was responsible for decision making for protective actions involving schools within the Brunswick Nuclear Plant emergency planning zone. The Brunswick County School District adhered to the All-County Standard Operating Guideline for Access and Functional Needs: School Guidance to support the Brunswick Nuclear Plant. However, the plan covered shelter-in-place and relocation actions, but not early dismissal activities, which were found in the Brunswick County Emergency Response Plan. The district chief operations officer participated in the exercise for a limited time due to SARS-CoV-2/COVID-19 considerations requiring a smaller staff footprint for the emergency operations center. The operations officer was interviewed and demonstrated a thorough working knowledge of the plans and procedures. Four risk schools, all located in Southport, North Carolina, were identified as required to relocate schools listed in the school plan. The deputy director would notify the school district representative, who in turn would notify the county school principals directly or using an automatic notification system. Cellular and commercial telephone were the primary means of communication between the school district and the county; backup communications would include the internet. School facility inter-communications used cellular telephone, public address systems, and facility handheld radio systems. The auto-notifier system was tested monthly, while the other systems were in daily use. Using the school plan, the operations officer showed the total number of students, staff, and the transportation assets identified for a relocation with no shortfalls noted. Communication with transportation assets would occur by cellular telephone. Student tracking would be accomplished using name tags provided by teachers as part of prepackaged go-kits pre-staged in each homeroom. Students using their own transportation would be informed of the relocation school and route. Relocating bus convoys would require escort by two Brunswick County Sheriff's vehicles, one in front and one at the rear. The assigned teachers would keep their students segregated at the relocation schools until parental/guardian pickup per discharge protocols.

For this capability the following radiological emergency preparedness criterion was met: 3.c.2

a. Level 1 Finding: None

b. Level 2 Finding: None

c. Not Demonstrated: None

d. Prior Level 2 Findings – Resolved: None

e. Prior Level 2 Findings – Unresolved: None

3.3.3.1.2 Medical Services Drill

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

Brunswick County Emergency Medical Services

Brunswick County Emergency Medical Services personnel participated in a demonstration of the medical treatment and transport of a contaminated patient as part of a medical services drill for Brunswick Nuclear Plant. Brunswick County Emergency Medical Services personnel were notified and mobilized according to county standard operating guidelines by dispatch to respond to a potentially contaminated injured individual. Responders were pre-positioned at the Brunswick County Emergency Medical Services Base #4.

Brunswick County Emergency Medical Services had sufficient medical supplies, and dosimetry and monitoring equipment were available for use to support the incident; potassium iodide was simulated. It was described through interview with the medical services supervisor that equipment necessary to respond to a radiological incident would be retrieved by the paramedics from the county emergency operations center, or delivered to the scene if the county emergency operations center was activated. Though this was not according to established procedures, it would be feasible if necessary. The ideal method of retrieval of dosimetry, monitoring equipment, and potassium iodide would be per county procedures to allow proper issuance and recording of dosimetry, as well as just-in-time training delivery and a thorough radiological safety briefing. The two paramedics dispatched to respond to the patient were unfamiliar with their dosimetry and monitoring equipment and were not provided detailed information regarding ingestion of potassium iodide.

Brunswick County Emergency Medical Services responded to the patient and provided medical care. Monitoring of the patient using survey equipment was not performed in a manner that would be effective in detecting contamination, and both paramedics were unfamiliar with the equipment. The paramedics read their dosimetry as instructed by their supervisor and recorded appropriately, and contamination control measures were taken by the paramedics. Appropriate notification was made to the emergency department at Dosher Memorial Hospital regarding the contaminated patient; the paramedic placing the call provided the hospital with injuries sustained, contamination levels found, and estimated arrival time. Upon arrival to the hospital, the patient was efficiently transferred to the hospital staff waiting outside the emergency department entrance.

Due to COVID-19 conditions and exercise constraints, hospital staff nor Brunswick Nuclear Plant personnel were available to perform a radiological survey of the paramedics after patient transfer. The paramedics attempted to perform self-surveys, though this proved ineffective due to unfamiliarity with the instrumentation. The paramedics were able to verbalize the radiation exposure action levels and contamination limits accordingly and returned to service after removal of their personal protective equipment.

Dosher Memorial Hospital

Dosher Memorial Hospital staff demonstrated the ability to provide decontamination and medical services to a contaminated injured individual due to a simulated incident at Brunswick Nuclear Plant. Using equipment supplied and maintained by Brunswick Nuclear Plant, to include dosimetry, hospital staff were capable of supporting receipt of an individual with suspected or confirmed contamination. Radiation survey instruments were available for use but not demonstrated. Due to COVID-19 conditions and exercise constraints, hospital staff nor Brunswick Nuclear Plant personnel were available to conduct radiological surveys throughout the demonstration.

The hospital received notification from Brunswick County Emergency Medical Services regarding dispatch's request to respond to an injured individual with suspected radiological contamination. The hospital's radiological incident response team was activated and mobilized to begin setup of the radiation control area in accordance with hospital procedures. Using detailed schematics for setup of the area, hospital staff were able to clearly delineate the contaminated area from emergency department patients and staff. In the absence of Brunswick Nuclear Plant staff, the two responding nurses obtained electronic dosimetry from the utility's designated radiological response mobile containers. They recorded and affixed the dosimeters appropriately and donned personal protective equipment in accordance with checklists within the hospital procedures. The paramedics notified the hospital accordingly while in transit to the hospital to provide detailed information regarding contamination, extent of injuries, and estimated arrival time, which was recorded by the nursing staff member who answered the call.

The nurses assisted the county paramedics in transferring the patient and obtained necessary information regarding patient status. Medical care would be a priority over monitoring and decontamination of the patient. Due to non-participation by Brunswick Nuclear Plant personnel, the exercise controller provided contamination readings. Due to the heavy reliance on support from Brunswick Nuclear Plant, it is recommended to ensure hospital staff can perform monitoring and actions necessary for dosimetry in their absence.

Decontamination of the patient was performed using proper techniques, and the nurses were able to explain necessary actions to take if decontamination actions were unsuccessful, or internal contamination was suspected. The nursing staff was not observed using established checklists to guide them in caring for a radiologically

contaminated individual; it is advised to follow established checklists and ensure the roles of team coordinator and technical recorder are assigned to oversee team functions and ensure proper documentation is performed throughout care of the patient. Proper contamination control measures were taken by staff through regular glove changes and appropriate disposal of contaminated items, and plant personnel would be requested to survey the patient and stretcher prior to exiting the decontamination room. Hospital staff demonstrated doffing of protective clothing prior to exiting the radiation control area; it is suggested to include use of air purifying respirators in procedures to ensure proper removal.

For this capability, the following radiological emergency preparedness criteria were met: 1.e.1, 6.d1

a. **Level 1 Finding:** None
b. **Level 2 Finding:** None
c. **Not Demonstrated:** None
d. **Prior Level 2 Findings – Resolved:** None
e. **Prior Level 2 Findings – Unresolved:** None

3.3.3.2 New Hanover County

3.3.3.2.1 Emergency Operations Center

Operational Coordination Capability Summary:

New Hanover County Emergency Operations Center staff successfully notified and mobilized resources; provided direction and control for a county-wide response effort; and made and implemented protective action decisions in coordination with officials from the state of North Carolina, Brunswick County, and Duke Energy. Their unified and coordinated operational structure effectively integrated all partners, including those in-person and virtual, to ensure decisions were well-informed, and ultimately, protected the public's health and safety. The evaluation of their response to a simulated radiological incident at the Brunswick Nuclear Plant was completed via demonstration and interview and in accordance with county plans.

Due to the SARS-CoV-2/COVID-19 pandemic and the county's ongoing response, the emergency operations center was already minimally staffed. Through interview, notification and mobilization of emergency operations center staff was discussed. Typically, the emergency management director would contact county agency/department directors and/or county human resources personnel to identify available emergency operations center staff. Available staff would then be assigned to shift A, B, or C to ensure 24-hour coverage. A notification and mobilization message would be drafted by county human resources personnel in coordination with county public information

officers. Once approved, the message would be sent via a mass notification system by county information technology personnel. Upon deployment to the emergency operations center, staff would serve as liaisons between emergency management and their respective agency/department or functional area.

Multiple internal and external communications systems were available and operable to support emergency operations. The primary means of communication among Duke Energy, the state of North Carolina, Brunswick County, and New Hanover County was a dedicated line with the utility. This network served as both a notification method and decision line. While the sound was intermittent from time to time, there were no negative impacts observed on the notification or decision-making processes. Other communications systems included: commercial landline and cellular telephones; electronic mail; an electronic incident management system; tele- and video-conferencing platforms; social media; 800 megahertz radios; and weather radios.

Equipment, maps, displays, and other supplies were sufficient to support emergency operations. The emergency operations center was equipped with multiple monitors; televisions; projectors and projection screens; and whiteboards. These devices and boards were used to display incident management information, interactive emergency planning zone maps, etc., for staff situational awareness, engagement, and collaboration. Other equipment such as computers, printers, facsimile machines, and microphones were readily available and operable. Monitoring instruments, dosimetry, and potassium iodide were not available in the emergency operations center and were stored in a county warehouse for better accessibility and efficient distribution.

Frequent decision line calls were conducted to discuss changes in emergency classification levels, protective action recommendations, and to make protective action decisions. The Brunswick County Emergency Management Director initiated and facilitated the calls as the lead risk county. Officials with the state of North Carolina, Brunswick County, and New Hanover County participated in the calls and provided direction and control for the response effort for which they were responsible. The New Hanover County Emergency Management Director proactively considered appropriate factors such as resource availability, logistics, and restrictions related to the SARS-CoV-2/COVID-19 when making and implementing protective action decisions in partnership with the state and Brunswick County.

The deputy emergency operations center manager was interviewed on the implementation of the protective action decision to order ingestion of potassium iodide by emergency workers in the 10-mile emergency planning zone. Through discussion, it was noted that once ingestion was ordered, a cache of potassium iodide tablets would be transported from a county warehouse, the facility in which they are located day to day, to New Hanover County Fire Station #18. This fire station would serve as their emergency worker decontamination site; as such, emergency workers would be asked to report to

this station to receive dosimetry and ingest potassium iodide. From the station, emergency workers would then be deployed to their assigned locations. Once their shift was complete, they would report back to the station for monitoring and decontamination, as appropriate, and return their issued dosimetry to ensure appropriate record-keeping.

The establishment of traffic control points and identification and resolution of evacuation impediments was discussed through interview. The operations section chief was a lieutenant with the New Hanover County Sheriff's Office and familiar with the management and implementation of traffic control points. He noted there were 12 traffic control points in New Hanover County; 3 of 12 would require two deputies to staff them while the remaining nine would require only one deputy plus traffic cones and signage. All 12 traffic control points would be located on River Road and Carolina Beach Road. These roads run parallel to each other and would funnel evacuees north to the New Hanover County Reception Center at Eugene Ashley High School. Since there are only 12 traffic points, the New Hanover County Sheriff's Office would not require support from any other law enforcement departments or offices.

Removal of impediments would be coordinated with North Carolina Department of Transportation personnel due to designated state roads within the county. Until impediments could be removed, New Hanover County Sheriff's Office deputies would identify alternate routes. For example, Carolina Beach Road was a four-lane divided highway; if necessary, the two southbound lanes could be reversed, and all four lanes would flow north to the reception center. As a last resort, residential surface streets could be used to re-route traffic north to the reception center.

Protective action decisions and implementation for groups of persons with disabilities and access/functional needs was also discussed through interview. There were no confined or institutionalized (e.g., nursing homes, jails/prisons, etc.,) persons with disabilities and access/functional needs in zones 10 or 11. Within these two zones, there were approximately 55 individuals on the county registry; all persons on the registry have self-identified and registered with the county. If zones 10 and/or 11 were to be evacuated, emergency management staff would coordinate with Senior Resource Center personnel to contact each registered person. In addition, contact would be made with transportation, oxygen, etc., providers to ensure all registered disabilities and/or needs were accommodated. Lists of providers were available and have successfully been used during real-world emergencies such as hurricanes. The registry was maintained in a cloud-based software and updated at least twice each year.

For this capability the following REP Critical Tasks were MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.d.1, 3.d.2

a. **Level 1 Finding:** None

b. **Level 2 Finding:** None

c. **Not Demonstrated:** None

d. **Prior Level 2 Findings – Resolved:** None

e. **Prior Level 2 Findings – Unresolved:** None

Public Information and Warning Capability Summary:

New Hanover County Public Information Officers demonstrated the capability to develop and disseminate reliable and timely information to the public and media during a simulated radiological incident at the Brunswick Nuclear Plant. Methods to alert and notify the public included six sirens in New Hanover County, followed by Emergency Alert System message broadcasts. The activation of sirens and broadcast of messages were coordinated with the state of North Carolina and Brunswick County through the utility communication line as part of the joint information system. The broadcast messages to the general public included all necessary information and were approved as quickly as possible after the decisions were made by the New Hanover County Emergency Management Director.

The activation of sirens was coordinated with Brunswick County personnel and demonstrated in the form of a silent test. Siren failures would be shown on the siren activation program screen and a report generated indicating the affected sirens. There were no siren failures indicated in New Hanover County. In the event of a siren failure, the emergency management director explained the process to notify the public using back-up route alerting. Five routes were included in the procedure for New Hanover County; routes would be driven by local fire departments and law enforcement agencies. Each route was designed to be accomplished in a timely manner while traveling at a reasonable speed slow enough for the public to hear the public announcement.

The public information officers were an integral part of the New Hanover County emergency response. The officers continuously monitored social media networks and posted critical information to explain protective actions to the public. A public inquiry team was available to answer telephone calls from the public and identify rumor trends. The public information officers reviewed or revised three press releases that were generated by the state public information officer and provided one county-specific press release. The public information officers developed talking points for one media briefing for the emergency management director and assisted with answering media questions. The public information officers also developed media statements in response to anticipated questions from the public following each Emergency Alert System message.

For this capability the following radiological emergency preparedness criteria were met: 5.a.1, 5.a.3, 5.b.1

a. Level 1 Finding: None

b. Level 2 Finding: None

c. Not Demonstrated: None

d. Prior Level 2 Findings – Resolved: None

e. Prior Level 2 Findings – Unresolved: None

Critical Transportation Capability Summary:

The Director of Safety for New Hanover County Schools was interviewed regarding implementation of protective actions for schools. If relocation of students was required, transportation of students from schools within the affected zones would be provided. The New Hanover County Emergency Operations Center staff representing schools would assist in the coordination and dissemination of information about relocation of students. Coordination would include: (1) the designated school facility outside the affected zone; (2) support staff and key-holder to school facility being utilized; and (3) available transportation resources, including drivers, assignments, and status. The staff member would also serve as a liaison between the Carolina Beach Elementary School Principal, or designee, and the emergency operations center operations section chief and emergency management director. Two-way radios and county-issued cellular telephones would be available on each bus to provide redundant and interoperable communications.

For this capability the following radiological emergency preparedness criterion was met: 3.c.2

a. Level 1 Finding: None

b. Level 2 Finding: None

c. Not Demonstrated: None

d. Prior Level 2 Findings – Resolved: None

e. Prior Level 2 Findings – Unresolved: None

Section 4: Conclusion

Overall, the exercise was a success. Officials and representatives from Brunswick and New Hanover Counties; the state of North Carolina; Duke Energy; and numerous other organizations participated in the exercise.

All offsite response organizations demonstrated knowledge of their emergency response plans and procedures, and successfully demonstrated the ability to protect the health and safety of the public in the event of an incident involving the Brunswick Nuclear Plant.

FEMA wishes to acknowledge the efforts of the many individuals who participated and made this exercise a success. Despite minimal staffing and social distancing necessary to accommodate the ongoing SARS-CoV-2/COVID-19 pandemic, the counties, state, and utility were able to collectively respond in unconventional ways to ensure the health and safety of the public would be protected in the event an incident were to occur at Brunswick Nuclear Plant. Through the successful integration and use of technology, the state and counties demonstrated their ability to support and respond while ensuring the safety of their workforces. Despite ongoing real-world response efforts, the professionalism and teamwork of the participants was evident and commendable throughout all phases of the exercise.

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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					
		NC SERT/ SEOC	RADIATION PROTECTION DOSE ASSESSMENT	EASTERN BRANCH	BRUNSWICK COUNTY EOC	NEW HANOVER COUNTY EOC	JOINT INFORMATION SYSTEM
Unusual Event	-	-	-	-	-	-	-
Alert	-	-	-	-	-	-	-
Site Area Emergency	0940	0949	0949	0947	0952	0952	1045/1101
General Emergency	1330	1342	1342	1337	1338	1340	1450
Simulated Rad. Release Started	0940	0949	0949	0947	0952	0952	1045
Simulated Rad. Release Terminated	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational	1032	0955	0955	0955	1006	1013	1015
Transfer of Direction & Control to NC SERT	-	-	-	-	-	-	-
Declaration of State of Emergency	State	-	-	-	-	-	-
	Brunswick	-	-	1145	1145	-	1145/1246*
	New Hanover	-	-	1125	-	1125	-
Exercise Terminated		1435	1435	1432	-	1435	1433
1st Protective Action Decision: Stay Tuned		1020	1020	1020	1020	1020	1045/1101
1st Siren Activation		1032	1032	1032	1032	1032	-
1st EAS Message: #2 – No Protective Actions		1037	1037	1037	1037	1037	-
1st NWS Message		1047	1047	1047	1047	1047	-
2nd Protective Action Decision: Clear waterway; Animals on stored feed/water; Ban fishing/hunting; Shut off public water intakes; Cover produce/crops/vegetation		1059	1059	1059	1059	1059	1115/1239*
3rd Protective Action Decision: Evacuate Zones: 5, 6, 7, 8, 9, 12 Shelter in Place Zones: , 2 Go Inside, Stay Inside: 3, 4, 10, 11, 13		1427	1427	1427	1427	1427	1450
2nd Siren Activation		1430	1430	1430	1430	1430	-
2nd EAS		1435	1435	1435	1435	1435	-
2nd NWS Message		1445	1445	1445	1445	1445	-
KI Ingestion Decision: Emergency Workers		1115	1115	1116	1115	1115	-
General Public		1415	1415	1415	1415	1415	1450

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Appendix B: Evaluator Assignments

Branch Chief: Kevin Wells **Site Specialist:** Elisabeth Adkins

Exercise Management: John "J.T." Ackermann **Exercise Support:** Erin McCarty

Biennial Exercise
Exercise Week, November 30-December 3, 2020

Location / Venue	Evaluation Team	Core Capability(ies)
State of North Carolina		
SEOC	Michael Dolder* Russell Bergmann Gene Taylor	Operational Coordination Public Information and Warning
Dose Assessment	John Fill	Situational Assessment
NCEM Eastern Branch Office	Virtual – DeShun Lowery	Operational Coordination
JIS	Virtual – Glenda Bryson	Operational Coordination Public Information and Warning
Emergency Operations Facility	Matthew Bradley	Operational Coordination Situational Assessment
Brunswick County		
EOC	Gerald McLemore* Nathan Nienhius PJ Nied	Operational Coordination Public Information and Warning Critical Transportation
New Hanover County		
EOC	Erica Houghton* Jill Leatherman	Operational Coordination Public Information and Warning Critical Transportation

**Denotes Team Lead*

Medical Services Drill
Out of Sequence, December 15, 2020

Location / Venue	Evaluation Team	Core Capability
Brunswick County		
Brunswick County Emergency Medical Services	Erica Houghton	Public Health, Healthcare, and Emergency Medical Services
Dosher Memorial Hospital	Elisabeth (Libby) Adkins* John (JT) Ackermann	

**Denotes Team Lead*

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Appendix C: Extent of Play Agreement

Brunswick Nuclear Plant Full Participation Plume Phase Exercise
December 1, 2020
EXTENT OF PLAY AGREEMENT
For the Brunswick Nuclear Plant Graded Exercise 2020
December 1, 2020

Purpose

This Extent of Play Agreement (XPA) identifies the conditions that will be used to develop, conduct, control, and evaluate the Brunswick Nuclear Plant graded exercise, as agreed to by the members of the Brunswick Task Force and the Exercise Director for the North Carolina Division of Emergency Management.

Executive Summary

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

On December 1, 2020, the State of North Carolina and the NC counties of Brunswick and New Hanover will demonstrate a partial participation plume exposure pathway exercise for the 10-mile emergency planning zone of the Brunswick Power Station.

The Brunswick Power Station is located in Brunswick County, North Carolina near the city of Southport, North Carolina.

The purpose of the exercise is to assess the level of state and local preparedness in responding to an incident at the Brunswick Power Station. It will be conducted in accordance with Federal Emergency Management Agency policies and guidance concerning the exercise of state and local radiological emergency response plans and procedures. Officials and representatives from participating agencies and organizations will demonstrate knowledge of their emergency response plans and procedures and successfully implementing them during the exercise. The evaluation of out of sequence activities will include staff assistance visits; traffic control points; protective actions for schools; reception and congregate care centers; emergency worker and vehicle monitoring and decontamination; and waterway warning.

Identified Exercise Objectives and Core Capabilities

Exercise Objective	Aligned Core Capability
Demonstrate the ability to alert, notify, and mobilize response personnel and facilities; provide direction and control, make precautionary and protective action decisions and implement those decisions.	Operational Coordination
Demonstrate the ability to activate the prompt alert and notification system and provide accurate emergency information and instructions to the public and news media in a timely manner.	Public Information & Warning
Demonstrate the ability to make and implement decisions related to relocation, re- entry, and return through discussion or exercise play in accordance with plans and procedures.	Operational Coordination, Situational Assessment, Critical Transportation

Standards & References Exercise Evaluation Criteria
North Carolina Emergency Management State Emergency Operations Center/State Emergency Response Team (State EOC/SERT):

Core Capability: **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.

Target: Emergency Operations Management

Critical Task: Offsite Response Organizations (OROs) use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner (NUREG-0654 A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; F.1, 2 H.3, 4; Criterion 1a1).

Critical Task: At least 2 communications systems are available, at least 1 operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations (NUREG-0654 F.1, 2; Criterion 1d1).

Critical Task: Equipment, maps, displays, monitoring instruments, dosimetry, KI, and other supplies are sufficient to support emergency operations (NUREG-0654 H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b; Criterion 1e1).

Target: Protective Action Decision Making

Critical Task: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible (NUREG-0654 A.1.d; A.2.a, b; A.3; C.4, 6; Criterion 1c1).

Critical Task: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers (EWs) including provisions to authorize radiation exposure in excess of administrative limits or PAGs (NUREG-0654 C.6; J.10.e, f; K.4 Criterion 2a1).

Critical Task : A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PADs) for the general public (including the recommendation for the use of KI, if ORO policy) (NUREG- 0654 A.3; C.4, 6; D.4; J.9; J.10.f, m Criterion 2b2).

Target: Emergency Notification and Public Information

Critical Task: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current FEMA REP Guidance (Timely: The responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay) (NUREG-0654 E.5, 6, 7; Criterion 5a1).*

Critical Task: Ensure OROs provide accurate emergency information and instructions to the public and the news media in a timely manner (The responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay) (NUREG- 0654 E.5, 7; G.3.a; G.4.a, c; Criterion 5b1).

FEMA Requirements

- *Identify the state or local government organization and the official with the authority for providing the emergency alert system (EAS) alert andmessage.*
- *Identify the commercial nuclear power plant and a statement that an emergency exists.*
- *Must make reference to Radiological Emergency Preparedness (REP) specific emergency information (e.g., brochures and information in telephone books) for use by the general public during an emergency.*

- *Include a closing statement asking the affected and potentially affected population to stay tuned to this EAS station(s) for additional information.*
- *This additional information (when necessary) could be in the form of a "Special News Broadcast" that would follow the EAS message as soon as possible.*

NCEM: Agreed.

- State Emergency Response Team (SERT) members may be pre-positioned at the start of the exercise. This includes liaisons at the utility's Common Emergency Operations Facility (EOF). SERT members who will respond in same building as their regular workspace can be in that building. SERT members who are responding from a different location than their workspace may preposition themselves in the parking lot.

- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.

- The State will assume direction and control if requested by the counties.

- Critical Tasks will be demonstrated from the management perspective- for example, how to manage traffic control points consistent with current conditions and protective action decisions. Traffic control may be demonstrated by interview with the State Highway Patrol during OOS activities.

- At least one traffic impediment will be injected in North Carolina. The appropriate authority will identify alternate routes and inform the public.

- EAS broadcasts will be simulated in our 24 hrs operations center and at the back up National Weather Service office. Each preloaded message will be walked into the NCEM operations center and the operators will simulate actions to be taken on the EAS console to send message, up to two buttons from sending. Message will be posted in NC Sparta significant events.

NCEM Eastern Branch Office/Regional Coordination Center- East

Core Capability: **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.

Target: Emergency Operations Management

Critical Task: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner (NUREG-0654 A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; F.1, 2 H.3, 4; Criterion 1a1).

Critical Task: At least 2 communications systems are available, at least 1 operates properly, and Communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations (NUREG-0654 F.1, 2; Criterion 1d1).

Critical Task: Equipment, maps, displays, monitoring instruments, dosimetry, KI, and other supplies are sufficient to support emergency operations (NUREG-0654 H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b; Criterion 1e1).

NCEM: Agreed.

- SERT members who will respond in same building as their regular workspace can be in that building. SERT members who are responding from a different location than their workspace may preposition themselves in the parking lot.
- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.
- Interview will be conducted via conference call or other electronic or virtual means.

Radiation Protection Section (RPS) Dose Assessment and the Division of Public Health (DPH)

Core Capability: **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.

Target: Protective Action Recommendation Making

Critical Task: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of potassium iodide (KI), is in place for EWs including provisions to authorize radiation exposure in excess of administrative limits or PAGs (NUREG-0654 C.6; J.10.e, f; K.4 Criterion 2a1).

Critical Task: Appropriate PARs are based on available information on plant condition, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions (NUREG-0654 I. 10; Supp. 3; Criterion 2b1).

Critical Task: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make PADs for the general public (including the recommendation for the use of KI, if ORO policy) (NUREG-0654 A.3; C.4, 6; D.4; J.9; J.10.f, m; Criterion 2b2).

RPS and DPH: Agreed.

- RPS and DPH members who will respond in same building as their regular workspace can be in that building. RPS and DPH members who are responding from a different location than their workspace may preposition themselves in the parking lot.

- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.

Joint Operations- NCEM Emergency Operations Facility (EOF) Liaison

Core Capability: **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.

Target: Emergency Operations Management

Critical Task: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner (NUREG-0654 A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; F.1, 2 H.3, 4; Criterion 1a1).

Critical Task: At least 2 communications systems are available, at least 1 operates properly, and Communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations (NUREG-0654 F.1, 2; Criterion 1d1).

Critical Task: Equipment, maps, displays, monitoring instruments, dosimetry, KI, and other supplies are sufficient to support emergency operations (NUREG-0654 H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b; Criterion 1e1).

Critical Task: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make PADs for the general public (including the recommendation for the use of KI, if ORO policy) (NUREG-0654 A.3; C.4, 6; D.4; J.9; J.10.f, m; Criterion 2b2).

NCEM: Agreed.

- SERT members who will respond in same building as their regular workspace can be in that building. SERT members who are responding from a different location than their workspace may preposition themselves in the parking lot.

- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.

- EOF will be located in Charlotte.

Joint Operations- Joint Information System (JIS)

Core Capability: **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 and, as appropriate, the actions being taken and the assistance being made available.

Target: Emergency Operations Management

Critical Task: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner (NUREG-0654 A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; F.1, 2 H.3, 4; Criterion 1a1).

Critical Task: At least 2 communications systems are available, at least 1 operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations (NUREG-0654 F.1, 2; Criterion 1d1).

Critical Task: Equipment, maps, displays, monitoring instruments, dosimetry, KI, and other supplies are sufficient to support emergency operations (NUREG-0654 H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b; Criterion 1e1).

Target: Emergency Notification and Public Information

Critical Task: Ensure OROs provide accurate emergency information and instructions to the public and the news media in a timely manner (The responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay) (NUREG- 0654 E.5, 7; G.3.a; G.4.a, c; Criterion 5b1).

NCEM and Counties: Agreed.

- PIO members who will respond in same building as their regular workspace can be in that building. PIO members who are responding from a different location than their workspace may preposition themselves in the parking lot.

- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.

- North Carolina Public Information will be demonstrating the use of a JIS in this exercise; they will not be demonstrating the use of a JIC. North Carolina PIOs will be at their home base and use virtual platforms to collaborate and send messaging as related to the exercise events.

- At least one press briefing will be conducted via conference call or other electronic or virtual means.

Joint Operations- Waterway Warning (For Training Only)

Core Capability: **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 all traditional and atypical response personnel engaged in lifesaving and life- sustaining operations.

Target: Emergency Notification and Public Information

Critical Task: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner (NUREG-0654 A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; F.1, 2 H.3, 4; Criterion 1a1).

Critical Task: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible (NUREG-0654 A.1.d; A.2.a, b; A.3; C.4, 6; Criterion 1c1).

Critical Task: At least 2 communications systems are available, at least 1 operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations (NUREG-0654 F.1, 2; Criterion 1d1).

Critical Task: Equipment, maps, displays, monitoring instruments, dosimetry, KI, and other supplies are sufficient to support emergency operations (NUREG-0654 H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b; Criterion 1e1).

Critical Task: OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to EWs in accordance with the plans/procedures. EWs periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate record-keeping of the administration of KI to EWs (NUREG-0654 J.10.e, K.3.a, b, K.4; Criterion 3a1).

Critical Task: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel (NUREG-0654 A.3; C.1, 4; J.10.g, j; Criterion 3d1).

NCEM and Counties: Agreed.

- Duke Energy may conduct a radiological emergency response training prior to the demonstration.

- The demonstration will be a command and control tabletop/discussion. No boat or aircraft operations will occur.

- **Waterway Warning Participants (NC Only):**

  North Carolina Wildlife Resources
  Commission Brunswick County Sheriff Department
  New Hanover County Sheriff
  Department North Carolina Marine Patrol

  Date/Time: 4 Nov 2020
  10:00 Locations: via WebEX

County Jurisdictions - Risk Counties: Brunswick and New Hanover Counties Risk County Emergency Operations Centers

Core Capability: **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.

Target: Emergency Operations Management

Critical Task: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner (NUREG-0654 A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; F.1, 2 H.3, 4; Criterion 1a1).

Critical Task: At least 2 communications systems are available, at least 1 operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations (NUREG-0654 F.1, 2; Criterion 1d1).

Critical Task: Equipment, maps, displays, monitoring instruments, dosimetry, KI, and other supplies are sufficient to support emergency operations (NUREG-0654 H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b; Criterion 1e1).

Target: Protective Action Decision Making

Critical Task: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible (NUREG-0654 A.1.d; A.2.a, b; A.3; C.4, 6; Criterion 1c1).

Critical Task: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for EWs including provisions to authorize radiation exposure in excess of administrative limits or PAGs (NUREG-0654 C.6; J.10.e, f; K.4 Criterion 2a1).

Critical Task: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make PADs for the general public (including the recommendation for the use of KI, if ORO policy) (NUREG-0654 A.3; C.4, 6; D.4; J.9; J.10.f, m Criterion 2b2).

Critical Task: Protective action decisions are made, as appropriate, for groups of persons with disabilities and access/functional needs (NUREG-0654 D.4; J.9; J.10.d, e; Criterion 2c1).

Target: Protective Action Implementation

Critical Task: OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to EWs in accordance with the plans/procedures. EWs periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate record-keeping of the administration of KI to EWs (NUREG-0654 J.10.e, K.3.a, b, K.4; Criterion 3a1).

Critical Task: KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals and the general public is maintained (NUREG-0654 J.10.e, f; Criterion 3b1).

Critical Task: Protective action decisions are implemented for persons with disabilities and access/functional needs other than schools within areas subject to protective actions (NUREG-0654 J.10.c, d, e, g; Criterion 3c1).

Critical Task: OROs/School officials implement protective actions for schools (NUREG-0654 CJ.10.c, d, e, g; Criterion 3c2).

Critical Task: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel (NUREG-0654 A.3; C.1, 4; J.10.g, j; Criterion 3d1).

Critical Task: Impediments to evacuation are identified and resolved (NUREG-0654 J.10.k; Criterion 3d2).

Core Capability: **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 and, as appropriate, the actions being taken and the assistance being made available.

Target: Emergency Notification and Public Information

Critical Task: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the

public must include as a minimum the elements required by current FEMA REP Guidance (Timely: The responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay) (NUREG-0654 E.5, 6, 7; Criterion 5a1).*

Critical Task: Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system (NUREG-0654 E.6; Appendix 3.B.2.c; Criterion 5a3).

Critical Task: Ensure OROs provide accurate emergency information and instructions to the public and the news media in a timely manner (The responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay) (NUREG- 0654 E.5, 7; G.3.a; G.4.a, c; Criterion 5b1).

FEMA Requirements

1. *Identify the state or local government organization and the official with the authority for providing the EAS alert and message.*
2. *Identify the commercial nuclear power plant and a statement that an emergency exists.*
3. *Must make reference to REP specific emergency information (e.g., brochures and information in telephone books) for use by the general public during an emergency.*
4. *Include a closing statement asking the affected and potentially affected population to stay tuned to this EAS station(s) for additional information. This additional information (when necessary) could be in the form of a "Special News Broadcast" that would follow the EAS message as soon as possible.*

- SERT members who will respond in same building as their regular workspace can be in that building. SERT members who are responding from a different location than their workspace may preposition themselves in the parking lot.

- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.

- Sirens will be demonstrated via a silent test. EAS broadcast is a state responsibility.

- Back up alert and notification of the public will be demonstrated via interview at the county EOC or virtually.

Risk County Protective Actions for Schools

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

Target: Protective Action Implementation

Critical Task: OROs/School officials implement protective actions for schools (NUREG-0654 CJ.10.c, d, e, g; Criterion 3c2).

Risk Counties: Agreed.

- At least one traffic impediment will be injected in North Carolina. The appropriate authority will identify alternate routes and inform the public.
- Siren operations will be simulated. A single county may sound all the sirens, in this case, counties may demonstrate siren operations through discussion.
- School operations will be demonstrated by discussion during OOS or on exercise day at the EOC
- SERT members who will respond in same building as their regular workspace can be in that building. SERT members who are responding from a different location than their workspace may preposition themselves in the parking lot.
- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.

Joint Operations- Traffic Control Points (TCPs) Setup and Operation (For Training Only)

Core Capability: **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 all traditional and atypical response personnel engaged in lifesaving and life- sustaining operations.

Target: Protective Action Implementation

Critical Task: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner (NUREG-0654 A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; F.1, 2 H.3, 4; Criterion 1a1).

Critical Task: At least 2 communications systems are available, at least 1 operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations (NUREG-0654 F.1, 2; Criterion 1d1).

Critical Task: Equipment, maps, displays, monitoring instruments, dosimetry, KI, and other supplies are sufficient to support emergency operations (NUREG-0654 H.7, 10; I.7, 8, 9; J.10.a,b, e; J.11, 12; K.3.a; K.5.b; Criterion 1e1).

Critical Task: OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to EWs in accordance with the plans/procedures. EWs periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate record-keeping of the administration of KI to EWs (NUREG-0654 J.10.e, K.3.a, b, K.4; Criterion 3a1).

Critical Task: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel (NUREG-0654 A.3; C.1, 4; J.10.g, j; Criterion 3d1).

Critical Task: Impediments to evacuation are identified and resolved (NUREG-0654 J.10.k; Criterion 3d2).**raining Participants:**

Brunswick County Sheriff Department
New Hanover County Sheriff
Department North Carolina State
Highway Patrol Date/Time: 4 Nov 2020
13:00
Locations: Via WebEx

Training Participants: Agreed.

- SERT members who will respond in same building as their regular workspace can be in that building. SERT members who are responding from a different location than their workspace may preposition themselves in the parking lot.

- Exercise participants who are working remotely will be available for interviews by FEMA representatives via phone.