

McGuire Nuclear Station Final After Action Report

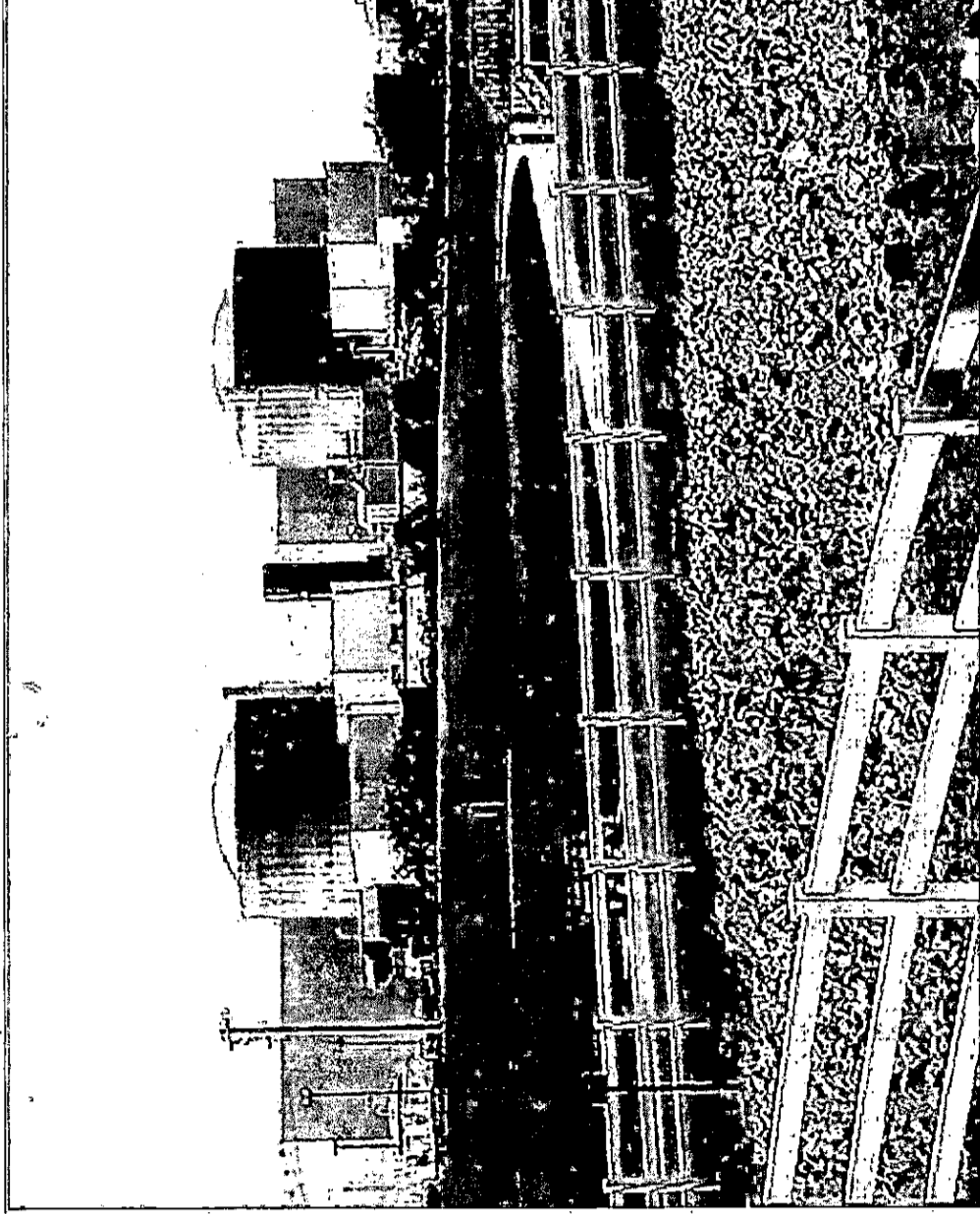
Exercise Date August 4, 2015

Radiological Emergency Preparedness (REP) Program



FEMA

Published September 23, 2015



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Executive Summary

On August 4, 2015, the Department of Homeland Security, Federal Emergency Management Agency (FEMA), Region IV Radiological Emergency Preparedness (REP) Program staff evaluated a hostile action based (HAB) scenario exercise for the McGuire Nuclear Station (MNS). MNS is operated by Duke Energy and is located in northwest Charlotte-Mecklenburg County, North Carolina near the city of Huntersville. The MNS ten-mile emergency planning zone (EPZ) is divided into 19 subzones designated A through S, and affects the risk counties of Charlotte-Mecklenburg, Catawba, Gaston, Iredell, and Lincoln, and the host county of Cabarrus.

FEMA's overall objective of the exercise was to assess the level of State and local preparedness in coordinating and responding to an emergency at MNS. The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for improvement, and support development of corrective actions.

The exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures. The evaluation team conducted this exercise using Homeland Security Exercise and Evaluation Program methodology. The previous Federal evaluated exercise was conducted on August 6, 2013. The original qualifying emergency preparedness exercise was conducted in December 1980.

The evaluation of out of sequence activities during the week of July 13-17, 2015 is included in this report. The activities included: traffic control points; protective actions for schools; reception and congregate care centers; emergency worker and vehicle monitoring and decontamination; waterway warning, and a Medical Services Drill.

Officials and representatives from the State of North Carolina; the risk and host counties, the Nuclear Regulatory Commission (NRC), Region II; and Duke Energy as well as numerous volunteers participated in this exercise. These organizations demonstrated knowledge of their emergency response plans and procedures and successfully implemented them. FEMA did not identify any Level 1 or Level 2 Findings (formerly known as Deficiencies or Areas Requiring Corrective Action) during this exercise. A listing of the exercise objectives, followed by a summary of the exercise issues follows.

The State of North Carolina and the risk and host counties' local government responders successfully demonstrated the assigned exercise objectives and corresponding Core Capabilities identified in Section 2.2 of this report. It was apparent during the exercise that a great deal of training and practice was conducted to seamlessly incorporate the Incident Command Post in the exercise. The offsite response organization successfully demonstrated the ability to provide support and resources as requested to the licensee.

FEMA wishes to acknowledge the efforts of the many individuals who participated and made the exercise 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

2015 McGuire Nuclear Station (MNS) Hostile Action Based (HAB) Radiological Emergency Preparedness (REP) Program Evaluated Exercise

Type of Exercise

Full-Scale Exercise

Exercise Off Scenario/Out of Sequence Dates

July 13-17, 2015

Exercise Date

August 4, 2015

Locations

See the Extent of Play Agreement in Appendix D for a complete listing of locations.

Sponsors

North Carolina Emergency Management

1636 Gold Star Drive

Raleigh, North Carolina 27607

McGuire Nuclear Station

12700 Hagers Ferry Road

Huntersville, North Carolina 28078

Program

Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA) REP Program

Mission

Response

Scenario Type

REP, HAB, Full Plume Phase Emergency Planning Zone (EPZ)

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the 2015 McGuire Nuclear Station exercise.

State Jurisdictions:

North Carolina Department of Public Safety (DPS) Division of Emergency Management (NCEM)

DPS- Public Affairs Office

DPS- North Carolina State Highway Patrol (NCSHP)

Department of Health and Human Services (DHHS) Division of Public Health,

Office of Public Health

DHHS- Division of Facility Services

DHHS- Division of Health Service Regulation, Radiation Protection Section (RPS)

Department of Environment and Natural Resources (DENR) Wildlife Resources

Commission, Division of Enforcement

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Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

The Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) administers the Radiological Emergency Preparedness (REP) Program pursuant to the regulations found in Title 44 Code of Federal Regulation (CFR) parts 350, 351 and 352. Sixteen planning standards, codified in 44 CFR 350, form the basis for radiological emergency response planning for State, tribal and local governments and the licensee, impacted by the emergency planning zones (EPZs) established for each nuclear power plant site in the United States. 44 CFR 350 sets forth the mechanisms for the formal review and approval of State, Tribal and local government radiological emergency response plans (RERPs) and procedures by DHS/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 an emergency at the nuclear power plant.

The results of this exercise together with review of the RERPs and procedures and verification of the periodic requirements set forth in NUREG-0654/FEMA-REP-1 with supplements through the annual letter of certification and staff assistance visits enabled FEMA to provide a statement with the transmission of this final after action report (AAR) to the Nuclear Regulatory Commission (NRC) 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. Formal submission of the RERPs for the McGuire Nuclear Station (MNS) to FEMA by the State of North Carolina (NC) and involved local jurisdictions occurred on March 18, 1981. Formal approval of the RERP was granted by FEMA on June 4, 1981 in accordance with 44 CFR 350.

A REP exercise was evaluated on August 4, 2015 and included evaluations of the out of sequence (OOS) activities held from July 13 through July 17, 2015. This hostile action based (HAB) scenario exercise was held in accordance with FEMA's policies and guidance as specified by the REP Program Manual (January 2105) and the approved Extent of Play Agreement (XPA). The design incorporated exercise objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance.

Evaluations of the following OOS activities included the following agencies and locations:

- State of North Carolina, North Carolina Emergency Management (NCEM); Department of Environment and Natural Resources (DENR), North Carolina Wildlife Resources Commission (NCWRC) Division of Enforcement; Charlotte-Mecklenburg Police

Department (CMPD, the lead agency for Incident Command); Catawba County Sheriff's Office; Lincoln County Sheriff's Office; and Iredell County Sheriff's Office: waterway warning and clearance of Lake Norman on July 16, 2015.

- State of North Carolina, NCEM, Western Branch Office (WBO) and North Carolina State Highway Patrol (NCSHP): Traffic control points (TCPs) at MNS McGuire Office Complex (MOC) on July 16, 2015.
- Charlotte-Mecklenburg County: Medical Services Drill (MSD) at Charlotte-Mecklenburg County Emergency Medical Services (EMS)/MEDIC Headquarters (accident site) and Carolinas HealthCare System University (hospital site) on July 14, 2015; TCPs at MNS MOC on July 16, 2015.
- Catawba County: Reception and congregate care center (RCCC) at Mill Creek Middle School on July 14, 2015; and TCPs at MNS MOC on July 16, 2015.
- Gaston County: RCCC at Stuart W. Cramer High School on July 14, 2015; emergency worker and equipment monitoring and decontamination (EWD) at Stuart W. Cramer High School on July 14, 2015.
- Iredell County: Protective actions for schools at Iredell County emergency operations center (EOC) on July 14, 2015; and TCPs at MNS MOC on July 16, 2015.
- Lincoln County: Protective actions for schools at Lincoln County EOC on July 14, 2015; TCPs at MNS MOC on July 16, 2015.

2.2 FEMA Exercise Objectives, Capabilities, and Activities

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 Evaluation Program (HSEEP) methodology, exercise objectives meet the REP requirements and encompass the REP emergency preparedness evaluation areas. The Core Capabilities negotiated for the exercise included the following.

- **Operational Coordination**
- **Public Information and Warning**
- **Environmental Response/Health and Safety**
- **Critical Transportation**
- **On-Scene Security and Protection**
- **Mass Care**
- **Public Health and Medical Services**

The objectives for the 2015 MNS HAB REP Exercise, referenced to the above Core Capabilities, are as follows.

Objective 1: Demonstrate the ability to provide direction and control through the State EOC (SEOC), county EOCs, and Incident Command Post (ICP) providing protective action decision-making for State and county emergency workers (EWs) and the public through exercise play and discussions of plans and procedures. *Core Capability- Operational Coordination*

Objective 2: Demonstrate the ability to coordinate the use of off-site resources with on-site personnel in case of a hostile action taken against the facility. *Core Capability- Operational Coordination*

Objective 3: Demonstrate the ability to activate the Prompt Alert and Notification System/Emergency Alert System (PNS/EAS) through exercise play. *Core Capability- Operational Coordination and Public Information and Warning*

Objective 4: Demonstrate the effectiveness of plans, policies, and procedures in the Joint Information System (JIS) for emergency information communications. *Core Capability- Public Information and Warning*

Objective 5: Demonstrate the ability to implement protective actions for State and county emergency workers and the public through exercise demonstration. *Core Capabilities- Environmental Response/Safety and Health, Critical Transportation, On-Scene Security and Protection, Mass Care, and Public Health and Medical Services*

Objective 6: Validation of the State of North Carolina Radiological Emergency Response Plan for Nuclear Power Facilities for NCEM and the affected risk and host counties of Charlotte-Mecklenburg, Cabarrus, Catawba, Gaston, Iredell, and Lincoln through exercise demonstrations. *Core Capabilities- Operational Coordination, public Information and Warning, Environmental Response/Safety and Health, Critical Transportation, On-Scene Security and Protection, Mass Care, and Public Health and Medical Services*

These objectives encompass the REP Exercise Evaluation Criteria as negotiated in the XPA.

2.3. Scenario Summary- Duke Energy:

The exercise commences at 0800. At 0807, three armed adversaries have entered the Owner Controlled Area (OCA) by the Waste Water Collection Basin (Pond) and are now near the Chemistry Outsourced Water Treatment Building (Building # 7490 - southwest (SW) side of OCA). MNS Security is engaging armed adversaries near Chemistry Outsourced Water Treatment Building. Two adversaries are neutralized. OCA Security Officer has been injured in fire-fight. The criteria for the Alert Emergency Classification Level (ECL) is met.

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At 0826, an explosion occurs at the Intake Structure and six armed adversaries have entered the Protected Area near the Intake Structure. Three adversaries are heading towards Standby Shutdown Facility and three adversaries are headed towards the back of Auxiliary Building. Three adversaries have been neutralized - two at the Intake Structure and one near Protected Area fence. One adversary is near the Standby Shutdown Facility and two adversaries enter the back of the Auxiliary Building.

At 0827, Security observes an explosion at the Standby Shutdown Facility and a small fire is occurring at the building. Fire appears to be outside of Standby Shutdown Facility with no visible damage to Standby Shutdown Facility.

At 0831, Explosion heard in Auxiliary Building. Explosive device detonated at Unit 1 KF valves on 767 Elevation near stairs to Unit 1 Upper Containment. The KF valve damage causes a ~1000 gallons per minute (GPM) leak from the Unit 1 Spent Fuel Pool. Spent Fuel Pool level starts decreasing and IEMF17 dose rates minimally start increasing.

At 0834, Security confirms that all nine known adversaries have been neutralized and that one MNS Security Officer has been injured by gunfire at the Conventional Waste Water Treatment Ponds. Security also reports that there is a significant water leak on the piping in the stairwell to Unit 1 Upper Containment Hatch.

At 0842, **Site Area Emergency (SAE)** declared due to a hostile action occurring or has occurred within the Protected Area as reported by the MNS Security Shift Supervision.

At 1200, exercise is terminated.

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North Carolina, the risk counties, the Joint Information Center (JIC), and the ICP. Notification to the public was made using an EAS message, followed by supplemental news releases and formal media briefings in the JIC. The JIC operated within a JIS structure, which is defined and supported through multiple agencies at different locations using a variety of electronic media. Coordination of press releases and media briefings was conducted among the Public Information Officers (PIOs) of Duke Energy, State of North Carolina, risk counties, and in particular the ICP. The JIS ensured coordinated and consistent message development, verification, and dissemination. The combined effort of the agencies led to the successful demonstration of this core capability.

Environmental Response/Health and Safety: Catawba County personnel demonstrated evacuee monitoring and decontamination operations at Mill Creek Middle School, and Gaston County demonstrated both evacuee and emergency worker and equipment monitoring and decontamination operations at Stuart W. Cramer High School. Additionally, Radiation Protection Section (RPS) personnel successfully demonstrated the ability to independently assess possible radiological impacts and validate protective actions in response to a possible release of radioactivity.

Critical Transportation: This core capability was used to evaluate the protective action for schools. As such, all risk county school districts accomplished through interview that protective actions relative to endangered schools in the EPZ could be completed in a coordinated and orderly manner.

On-Scene Security and Protection: Appropriate traffic and access control was established to ensure a safe and secure environment and protection of the affected population and communities. This was accomplished by State and local law enforcement agencies simulating the successful establishment of TCPs in support of the protective decisions.

Mass Care: Catawba County personnel at Mill Creek Middle School, and Gaston County personnel at Stuart W. Cramer High School successfully demonstrated the ability to provide shelter services to evacuees. County Department of Social Services and the American Red Cross (ARC) personnel demonstrated congregate care center resources sufficient to provide services and accommodations consistent with planning guidelines. The facility managers had procedures in place to ensure evacuees had been monitored for contamination, and decontaminated as necessary, before entering the facility.

Public Health and Medical Services: MEDIC (the Charlotte-Mecklenburg EMS agency) and the Carolinas HealthCare System University (CHS- University) personnel successfully demonstrated the capability to care for an injured, contaminated patient. During the MDS both agencies validated that they have appropriate resources and trained personnel to provide transport, monitoring, decontamination, and medical services as required.

3.3 Criteria Evaluation Summaries

3.3.1 State Of North Carolina

3.3.1.1 State Emergency Operations Center

Operational Coordination Capability Summary:

The 24-hour Communications Center at the NC-SEOC is the primary State Warning Point (SWP). The Communications Center successfully received the initial and follow up emergency notifications from MNS. Activation and staffing of the SEOC was timely and conducted in accordance with plans and standard operating guides (SOGs). Pre-staging of personnel was not conducted per the XPA. The primary means of communication between MNS and the SEOC was the Duke Emergency Management Network (DEMNET). Backup communications included commercial phones, cell phones and an 800 megahertz (MHz) radio system. The SEOC had sufficient equipment and supplies for conducting operations.

The NC SERT Leader at the SEOC successfully demonstrated coordination, direction, control, and decision implementation for emergency operations. They consistently planned ahead and developed contingency plans for multiple scenarios which could negatively affect public safety. Briefings with the assembled SERT staff were promptly conducted as new information became available. If a county had requested the SERT to assume direction and control, the SERT Director was fully aware of the ongoing situation and prepared to assume direction and control to coordinate protective action decisions (PADs) as necessary.

A General Emergency (GE) emergency classification level (ECL) was not declared and no evacuations were required, but the SERT staff demonstrated precise reasoning, exposure control development, and modeling expertise in evacuation planning for EWs and the general population. Although not required, the SERT Director and RPS Director were capable of developing provisions to authorize potassium iodide (KI) to EWs and the general public if radiation exposure had been in excess of administrative limits or Protective Action Guides.

The SEOC NCSHP officer coordinated NCSHP resources. There were about 100 troopers assigned to five NCSHP Troops in the counties around MNS. Troopers were drawn from these five troops to meet the immediate requests for assistance from the counties. He also put all other state-wide troops on standby, and activated three 10-person hazardous materials (HAZMAT) Teams to facilitate personnel response times if additional assistance was requested.

The NCSHP officer continuously monitored any impediments on evacuation routes and was prepared to provide additional troopers to assist with rerouting traffic. When he was notified that NC Highway 73 (one of the posted evacuation routes) was blocked he dispatched five additional troopers to assist with rerouting traffic on NC Highway 16.

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

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administrative dose limits for EWs and the process to authorize radiation exposures in excess of those limits. The FMT Coordinators recorded all results reported by the FMTs on the appropriate forms and generally kept RPS leaders informed of the results.

FMT members, MRL personnel, sample couriers, and sample control personnel were issued appropriate dosimetry, KI, and appropriate SOGs, and managed radiological exposure in accordance with the SOGs. RPS Personnel periodically read their dosimeters and recorded the results.

The FMTs carried appropriate equipment and supplies necessary to support their operations. They made ambient radiation measurements at appropriate locations and collected radioiodine and particulate samples. FMTs moved to appropriate low background locations to determine whether any significant amount of radioactivity had been collected on the sampling media. They promptly reported monitoring and sampling results to the FMT Coordinators.

MRL personnel demonstrated the capability to perform the required radiological analyses to support emergency operations. Efficiency data was current for all available geometries and the gamma spectroscopy analyst successfully conducted background and quality control checks. These checks were determined to be within the recommended parameters for system operation, and the calibration source used was traceable to National Institute of Standards and Technology standards. For this exercise, three OOS samples were properly analyzed which included a filter, charcoal canister, and a soil sample.

Emergency response actions performed by RPS staff were in accordance with their plans and procedures and were appropriate for a HAB event without an atmospheric radiological release.

For this capability the following REP criteria were met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 3.a.1, 3.b.1, 4.a.1, 4.a.2, 4.a.3, 4.c.1

3.3.1.4 Waterway Warning Lake Norman

Public Information and Warning Capability Summary:

The demonstration for alert, notification and evacuation of Lake Norman was performed by representatives of the NCRWC Division of Enforcement; CMPD Lake Enforcement Section; Catawba County Sheriff's Office; Iredell County Sheriff's Office; and the Lincoln County Sheriff's Office. Each of the above counties has a portion of the Lake Norman EPZ in their jurisdictions. The CMPD Lake Section Supervisor established an ICP at the Ramsey Creek Park CMPD Lake Section building, and he served as the IC to oversee clearance operations. Two NCRWC officers provided Operations Section support. The combined agencies had a total of 14 patrol boats in action. Clearance operations began at 1300, and were completed at 1403, within the 45 minute goal with the patrol boats observing no wake zones (as per the XPA). All personnel were well versed on their mission requirements, dosimetry use, and KI. The officers of this multi-

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agency Task Force demonstrated commendable professionalism and expertise, and fully demonstrated their ability to warn the public on Lake Norman. This activity was conducted out of sequence before the actual exercise.

For this capability the following REP criteria were MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1; 3.a.1, 3.b.1, 5.a.3

3.3.1.5 National Weather Service Greenville-Spartanburg Airport

Public Information and Warning Capability Summary:

The Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) NWS office is fully capable of providing any messages received from the NCEM SEOC. While no requests for retransmitting of any message occurred during this exercise, the NWS Warning Coordination Meteorologist demonstrated the process to authenticate and prepare a message to be sent out via the NWS radio system. Additionally the Warning Coordination Meteorologist also explained the various assistance the NWS office could provide to various agencies around MNS.

For this capability the following REP criteria were MET: 1.d.1, 1.e.1; 5.a.1

3.3.2 Joint Operations

3.3.2.1 Emergency Operations Facility

Operational Coordination Capability Summary:

Both NCEM and RPS provided State Liaisons to the Duke Energy EOF in Charlotte, NC. The presence of the liaisons in the EOF enhanced the flow of information between Duke Energy and the offsite response organizations (OROs), and facilitated discussions of plant conditions, FMT operations, and Duke Energy recommendations. The NCEM and RPS State Liaisons followed applicable procedures and performed their respective duties in an efficient and professional manner, thereby ensuring that State and county decision makers were kept up to date with accurate and timely information.

The SERT Power Plant Liaison worked closely with the Duke Energy Liaisons to obtain current MNS status from the EOF Liaison. The SERT Liaison was instrumental in facilitating a concise effective discussion between the SEOC, the counties, and Duke Energy to resolve the significance of a simulated water loss from the Unit 1 spent fuel pool and the subsequent decision that no protective actions were required.

Despite the fact that Duke Energy FMT personnel at MNS were in a locked down protective posture, the EOF FMT Coordinator promptly provided the utility with monitoring results from State FMTs which demonstrated that no off-site release had taken place. This information was also instrumental in the discussion to resolve the significance of the simulated water loss from the Unit 1 spent fuel pool. Although the

and social media sources. Three media briefings were conducted in the Media Center during the exercise, appropriately timed to deliver timely and useful information to the media. Prior to each briefing, the agency spokespersons discussed and coordinated their message. All media briefings were succinct and professional, and followed by a period for questions from mock media. Questions from mock media were on-point and challenging. Mock media continued to press the presenters for specific information about law enforcement activities, but presenters were diligent about withholding sensitive information until the release of such information was fully coordinated and consensus was attained.

For this capability the following REP criteria were MET: 1.a.1, 1.d.1, 1.e.1, 5.b.1

3.3.3 Risk Jurisdictions

3.3.3.1 Charlotte-Mecklenburg County, North Carolina

3.3.3.1.1 Emergency Operations Center

Operational Coordination Capability Summary:

Charlotte-Mecklenburg successfully demonstrated this core capability by establishing and maintaining a coordinated operational structure in support of a simulated HAB event at MNS. A unified command was established between the IC and the Director of the Charlotte-Mecklenburg Emergency Management Office (C-MEMO). Charlotte-Mecklenburg served as the lead, with the State and risk counties of Catawba, Gaston, Iredell, Lincoln, and the host county of Cabarrus in support. The WRCC in Conover provided resource coordination in support of the response efforts.

Activation and staffing of the EOC was done in accordance with published plans and exercise agreements. The EOC is in the Charlotte Mecklenburg Police and Fire Academy building. The site is secure with multiple levels of security and was well equipped with redundant communications systems. The primary communications between the utility and responding jurisdictions was a dedicated DEMNET internet telephone system. DEMNET was supported with a satellite back-up capability and an associated facsimile machine used solely for receipt of emergency notification forms (ENFs) from the plant. It should be noted that DEMNET is a newly installed system which replaced the older Selective Signaling System (SSS). During this exercise, DEMNET did experience some minor call clarity issues. All communications systems were functional at the commencement of the exercise and there were no communications systems failures during the exercise.

The severity of the incident did not require Duke Energy to submit any Protective Action Recommendations (PARs) for consideration. Thus, Charlotte-Mecklenburg County did not issue any specific PADs to the public. This foregoing decision was coordinated with the SEOC, ICP, risk and host county EOCs for concurrence and implementation.

Throughout the exercise the EOC staff worked as a cohesive unit with the sharing of information and the discussion of what specific agency actions were being taken. These engagements allowed for staff members to stay abreast of the overall situation throughout the exercise. The Director and his staff demonstrated that they are fully capable of responding to an emergency at MNS.

For this capability the following REP criteria 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.c.2, 3.d.1, 3.d.2

Public Information and Warning Capability Summary:

The primary method for alerting and notifying the public is through a series of fixed sirens located throughout the MNS 10-mile EPZ, followed by EAS messages which provide detailed emergency instructions. This action is supplemented through the dissemination of formal news releases which provide supplemental information to the public and media.

During this exercise neither the sirens nor EAS messaging were activated. Through discussion with the warning point personnel the process was explained fully. The decision to activate sirens and the EAS would have been made by the C-MEMO Director in coordination with State and other risk counties. Once the decision was made, the Director would have coordinated the siren sounding with the Warning Point (WP) at the Charlotte Fire Department (CFD) Fire Station #1, where the sirens are activated. The sirens are followed by EAS activation, which is done through the SEOC to participating radio stations, with activation of tone alert radios by the NWS.

The ability to provide emergency information and instructions for the public and media was successfully demonstrated at the EOC by the PIO staff. Prior to JIC activation, the PIO in the EOC formulates and distributes the press releases. Upon activation of the JIC, the County PIO in the JIC has that responsibility. The PIOs used pre-scripted messages that were modified and updated for this emergency. Each press release required the approval of the Director and vetting through the ICP before release and dissemination. Once approved, the press release was coordinated through the JIC for release to the public and news media. The EOC PIO processed one news release prior to the JIC activation and two additional releases afterward. All of the news releases provided the necessary information needed to keep the public informed and were released in a timely manner.

The rumor control function in the county was performed by 311 personnel in the EOC. Calls and inquiries from the public specific to the incident were routed to the 311 staff. For each call the staff provided information using the latest news release as the reference. No trends and or rumors were identified in the EOC during the exercise.

For this capability the following REP criteria were MET: 5.a.1, 5.a.3, 5.b.1

3.3.3.1.2 Incident Command Post

Core Capability: Operational Coordination

Offsite law enforcement response to an HAB event at MNS is the responsibility of CMPD. During the exercise CMPD officers, in conjunction with several county support agencies and municipal jurisdictions, successfully demonstrated the ability to alert, notify and mobilize sufficient personnel to establish and maintain an effective ICP.

Facilities were sufficient and had ample space to support the emergency response. The ICP had redundant communication capabilities which included 800 MHz radio, commercial phone, cell phone and e-mail. All communications were used at one time or another during this exercise and all operated without fail. Responder dosimetry and just-in-time training provisions were in place and provided by both county Emergency Management Liaison and MNS.

The law enforcement response was primarily from CMPD with a command rank officer being the IC. Prior to this assumption of command, Huntersville Police Department (HPD) was the first law enforcement response agency and a command rank officer from that agency established the ICP at the designated fixed facility. Upon incident command, the HPD IC quickly established contact with MNS Security. This contact process included a detailed brief of the current hostile action occurring within the OCA of MNS. This particular brief is best described as "text book" and was in itself instrumental in creating a definitive rhythm within the ICP.

The ICP was organized in accordance with the basic concepts of the National Incident Management System (NIMS) and the Incident Command System (ICS). This organizational structure maintained unity of command with clear and consistent duties and responsibilities by the supporting staff. Access to the ICP and security was controlled by MNS Security and HPD with a positive identification system being maintained throughout the incident. All response agencies, to include the MNS liaisons were folded into a unified command system variant which operated as such throughout the duration of the exercise. ICP response agencies included HPD, Cornelius Police Department (CPD), Davidson Police Department (DPD), CFD, Charlotte-Mecklenburg Emergency Management, Mecklenburg EMS Agency, Lincoln County Sheriff's Office, and the NCSHP. Notional response agencies included Gaston County Police, Gastonia Police Department, and the Federal Bureau of Investigation. These individuals as well as those from various support agencies represented their specific response disciplines as they would in an actual incident.

Liaisons from MNS Security, Operations and Radiation Health Sections kept the IC informed of plant conditions, radiological consequences, and resource needs. The response agencies were proactive in anticipating and meeting MNS resource needs. This coordination aspect is again best described as text book in that both MNS and the OROs in the ICP were operating as a unified team. Tactical law enforcement response and support of MNS Security was thorough, well-coordinated, and deliberate. Specific

response strategies and mitigation were discussed throughout the exercise.

There were several instances when offsite resources were requested to meet MNS needs. In each instance the fulfillment of the requests were clearly made, understood, coordinated amongst all response agencies, and notionally put in place. In addition to meeting MNS resource needs, prompt access to the site was coordinated by MNS Security liaisons with each ORO response agency. Along these lines, RPS FMT deployments, operations, and movements were coordinated by the NCSHP representative within the ICP. Specifically, safe passage and protection of the FMTs was coordinated by the NCSHP officer with the IC and CMPD tactical commander.

There were numerous law enforcement sensitive as well as other discipline specific response discussions and decisions being made throughout this exercise and all were completed in a well-coordinated and unified manner. The IC made decisions as required with the full consultation of all resources available to him within the ICP. The decisions and strategies demonstrated that life and safety were of the highest priority and that his overall goal was the safe, expedient mitigation and recovery from the hostile action.

For this capability the following REP criteria were MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 3.a.1, 3.d.1, 3.d.2, 5.a.3, 5.b.1

3.3.3.1.3 Traffic Control Points

On-Scene Security and Protection Capability Summary:

Police officers from CMPD, DPD, HPD and CPD participated in the interview. The officers were very familiar with the procedures and knowledgeable of their duties. Each agency had books with detailed procedures and schematic diagrams of their assigned duties; with diagrams that showed the traffic flow pattern and a list of the required equipment needed for each location. Officers described how they would respond and handle any impediments, with the priority to keep the traffic flowing. Officers were knowledgeable about individual dosimetry and how to use it, their administrative reporting values, and about KI and when to ingest it. Equipment and communications assigned to the officers was sufficient to perform this mission.

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

3.3.3.1.4 Backup Route Alerting

Public Information and Warning Capability Summary:

Siren failures would have been communicated to the Mecklenburg County Fire Marshal, who would have determined which fire department was responsible for providing backup route alerting for the area covered by the siren. He would have then provided that information to the WP at CFD Fire Station #1. A Telecommunicator would have

their notification procedures and what assets were available for transportation if needed. Department personnel were knowledgeable of their mission requirements.

The ESD conducted staff briefings and round table discussions for each emergency notification form received from the utility. This ensured all EOC staff members were aware of the incident conditions and the actions being taken by others. Position instruction books were provided for each member of the EOC staff. The books contained specific instructions and tasks for each position based on the county plans and SOGs. By using the position books, the staff members always knew what actions they should take based on the current ECL. Accurate and timely news releases providing emergency information to the public were reviewed and approved by the ESD. During the exercise the planning staff produced two Incident Action Plans (IAPs) for the current and future operational periods. The Catawba County EOC staff demonstrated a high degree of competence and the ability to protect the health and safety of the public and EWs in the event of an incident at MNS.

For this capability the following REP criteria 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.

Public Information and Warning Capability Summary:

Catawba County successfully demonstrated the ability to provide timely, accurate, and actionable information to their citizens. Catawba County only has one siren in their portion of the EPZ, which is activated by Lincoln County. The ESD actively participated in the decision process not to sound sirens or send an EAS message, but was prepared to if necessary.

One news release was made by the county before the JIC became operational and assumed news release responsibilities. The county provided one PIO to the JIC, who successfully coordinated information review for accuracy before release.

For this capability the following REP criteria were MET: 5.a.1, 5.a.3, 5.b.1

3.3.3.2.2 Traffic Control Points

On-Scene Security and Protection Capability Summary:

The ability to control the flow of evacuee traffic in the event of an incident at MNS was successfully demonstrated through interview with Catawba County Sheriff's Office officers. Officers would be dispatched to pre-designated TCP locations as directed from the EOC. Traffic would be controlled through the positioning of patrol cars and traffic cones. Traffic impediments would be cleared using wreckers or other heavy equipment. The officers were knowledgeable in the use of dosimetry, administrative dose limits, and procedures for obtaining and taking KI.

For this capability the following REP criteria were MET: 1.a.1, 1.d.1; 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2

3.3.3.2.3 Backup Route Alerting

Public Information and Warning Capability Summary:

Catawba County successfully demonstrated by interview the ability to perform backup route alerting. Backup route alerting is planned and managed by the Catawba County Fire/Rescue Manager, and performed by the Sherrills Ford-Terrell Fire and Rescue Station. Members of the station would be staged there at SAE ECL. Two members of the station were interviewed. They were very familiar with the use of personal dosimetry, KI, and the reporting and documentation requirements relating to radiation exposure and consumption of KI. Route alerting was to be performed from fire vehicles with public address systems. Alert teams would be issued dosimetry, and provided packets with maps on the specific route, a pre-scripted message to be read, and specific instructions for when to read the message. They described the route as a residential area which would take them approximately 10 minutes to reach, and the area could be covered in approximately 15 minutes with one vehicle. The interviewed team was very knowledgeable of their mission tasks and could perform backup alerting of the public in their county.

For this capability the following REP criteria were MET: 1.a.1, 3.a.1, 5.a.3

3.3.3.2.4 Reception and Congregate Care Center

Environmental Response/Health and Safety Capability Summary:

Personnel from Catawba County Emergency Services, EMS, Bandy Fire Department, and the Catawba Chapter of the ARC successfully demonstrated the ability to perform radiological monitoring and decontamination of evacuees at the Mill Creek Middle School RCCC. There was more than sufficient space for parking, and setting up monitoring and decontamination areas. It was apparent that members of the Catawba County Emergency Management researched the facility and developed a flow path and process that would optimize the facility's many assets.

Fire personnel wore appropriate protective clothing and dosimetry, were familiar with dosimeter reading and recording requirements, dose limits, and contamination limits. Workers properly set up and used their dosimetry, portal monitors and handheld instruments. The technicians demonstrated good monitoring techniques and decontamination methods.

For this capability the following REP criteria were MET: 1.a.1, 1.e.1; 3.a.1, 6.a.1

For this capability the following REP criteria were MET: 1.a.1, 1.e.1, 3.a.1, 6.a.1

Mass Care Capability Summary:

Gaston County was successful in the demonstration of its ability to conduct evacuee registration and to establish and maintain a shelter to meet the congregate care needs of evacuees during a nuclear incident at MNS. The demonstration occurred at the Stuart W. Cramer High School. While primary responsibility to establish a RCCC rests with the Gaston County OEM, the task is accomplished through the Gaston County Chapter of the ARC, which serves as the lead agency, with the support of DHHS, Gastonia Fire Department HAZMAT Team, Gaston EMS, the Gaston County Sheriff's Office, and the Gaston County Police Department.

The ARC Shelter Manager and the volunteers were very knowledgeable and professional, worked together as a team and demonstrated shared responsibilities in meeting the needs of evacuees. The ARC and county personnel in key leadership positions were open to discussions on capability improvements.

For this capability the following REP criteria were MET: 6.c.1

3.3.3.4 Iredell County, North Carolina

3.3.3.4.1 Emergency Operations Center

Operational Coordination Capability Summary:

The leadership and staff of the Iredell County EOC successfully demonstrated the capability to establish a unified and coordinated operations structure in response to an emergency at MNS. The EOC Staff responded in a prompt and timely fashion after receipt of the initial notification. The Emergency Management Coordinator (EMC) verbally directed activation of the EOC. He successfully demonstrated direction and control of emergency operations and effectively coordinated key decisions in with the State and neighboring counties in a timely fashion. He maintained situation awareness by thoroughly briefing the EOC staff after the receipt of each ENF. The EMC remained thoroughly engaged and professional, as well as facilitating key interactions among his staff.

For this capability the following REP criteria 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.c.2, 3.d.1, 3.d.2

Public Information and Warning Capability Summary:

The Iredell County public information staff successfully demonstrated the capability to receive, develop, and disseminate accurate news releases without undue delay, and conducted effective rumor control. Two PIOs were on the EOC staff. After Alert ECL

was received they prepared a press release to inform local residents of a security issue at MNS, the EOC had been activated, and no protective actions were necessary at the time. Residents were advised to listen to radio, television, or Iredell's social media outlets for further information. The PIOs received calls from citizens and tracked the calls for trends. Throughout the exercise the PIO staff was in continuous contact with the JIC and coordinated all press releases. They did not identify any rumor control trends.

At 0915 the EMC joined a conference call to determine if/when a siren activation EAS message would be made. The outcome of the call was no siren activation was determined necessary. Iredell County concurred. The EMC explained that law enforcement determined sirens and EAS may cause undue alarm to the public in relation to the hostile actions ongoing at the plant. However, it was discussed that if sirens were sounded, Charlotte/Mecklenburg would sound the sirens for the entire EPZ, with an agreed-upon EAS to follow. An agreed upon EAS message would follow the sirens sounding. Any siren failure would have been noted on the Iredell siren-system report, and also communicated to the Iredell County EOC by the Charlotte-Mecklenburg EOC.

For this capability the following REP criteria were MET: 5.a.1, 5.a.3, 5.b.1

3.3.3.4.2 Traffic Control Points

On-Scene and Protection Capability Summary:

Iredell County successfully demonstrated this core capability by interview with a deputy from the Iredell County Sheriff's Office. Deputies can be activated, mobilized, and deployed to assigned TCPs in a timely manner. Command and control of the TCPs as well as resource coordination and impediment removal is completed from the EOC and relayed to personnel through supervisors or dispatch. The officer was knowledgeable about dosimetry issue and use, exposure limits, and reporting and documentation requirements. TCPs would be established at the direction of the county EOC or at SAE ECL. Equipment and supplies to establish TCPs are kept in patrol cars. These include copies of the TCP standard operating procedure (SOP), 0-20 Roentgen (R) DRD, dosimeter chargers, permanent record dosimeters (PRD), Personal Radiation Exposure Record Cards, and maps of TCP locations. The Sheriff's Office was fully prepared to establish an effective law enforcement presence which provides for the protection of people within the affected area.

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

3.3.3.4.3 Backup Route Alerting

Public Information and Warning Capability Summary:

The Iredell County Sheriff's Office and Marshal's Office successfully described the county Backup Route Alerting Plan through interview. The Iredell County Sheriff's

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resource coordination and impediment removal is completed from the EOC and relayed to personnel through supervisors or dispatch. TCPs are established at the direction of the county EOC or at SAE ECL. The interview deputy was knowledgeable in directing evacuees out of the evacuated areas to the reception centers. The deputy was also competent in the use of issued exposure control equipment. Deputies would also provide and maintain an effective law enforcement presence in the area, which provides for the protection of people and communities located within affected areas.

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

3.3.3.5.3 Backup Route Alerting

Public Information and Warning Capability Summary:

The Lincoln County Denver Fire Department successfully demonstrated this core capability by actual completion of a route in the event of a siren failure. They completed backup route alerting and notification of the public, with a sense of urgency and without undue delay, following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation.

While the primary means of notification would be the Duke Energy fixed siren system, in the event of a siren failure, notification through backup route alerting would be available. The East Lincoln, Denver, Pumpkin Center and Alexis Fire Departments would be responsible for backup route alerting in Lincoln County.

The Denver Fire Department received notification via radio that siren T-12 had failed (simulated). The firemen used Attachment 4 Route Alerting Group Leader/Team Checklist, the T-12 route alerting map and a pre-recorded announcement, broadcast over a public address system, to successfully deliver prompt, reliable, and actionable information to the affected area. The announcement was clear and consistent and effectively relayed information regarding any threat or hazard, as appropriate.

For this capability the following REP criteria were MET: 1.a.1, 3.a.1, 5.a.3

3.3.3.5.4 Protective Actions for Schools

Critical Transportation Capability Summary:

Three schools in Lincoln County provided representation for interviews to demonstrate that school students and staff were sufficiently trained and capable of ensuring their safety in the event of an emergency at MNS. The Principal of the East Lincoln High School, the Principal of the Catawba Springs Elementary School, and the Assistant Principal of the Lincoln Charter School were interviewed, as well as the Lincoln County Schools Transportation Director. They provided documentation and plans which established there was sufficient transportation assets available to support an evacuation of

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the schools if required. Communication systems were numerous and redundant. Notification to the schools comes by commercial land line, sirens and NWS Tone Alert radios. If an evacuation were required plans and procedures were in place which ensured safe relocation or evacuation to a host school, with 100% accountability of students and staff. School officials were very familiar with both shelter in place and lock-down terminology and implementing procedures. School bus assets are centrally controlled by the Transportation Director for public schools, with similar bus assets under the control of the Assistant Principal at the charter school. The school staff members interviewed projected the confidence, knowledge and management skills required to implement protective actions for the student body and staff of their school system.

For this capability the following REP criteria were MET: 3.c.2

3.3.4 Host Jurisdictions

3.3.4.1 Cabarrus County, North Carolina

3.3.4.1.1 Emergency Operations Center

Operational Coordination Capability Summary:

Cabarrus County successfully demonstrated their ability to respond to an emergency at MNS and protect the general public evacuating from the EPZ. The EMC demonstrated a staff recall using the county automated notification system Blackboard Connect at 0853, and the EOC became operational shortly afterward. The EMC conducted status briefings to the staff at each ECL change and periodically as appropriate to maintain situational awareness. The EOC was spacious and well laid out for operations. Automation and office equipment was up to date and sufficient quantities were on hand to support the operations

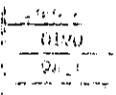
The EMC was very proactive and took charge of all response situations for the county. The EOC staff followed his lead and provided updated information which pertained to their group position. The EOC staff had access to their plans and procedures and were knowledgeable of their responsibilities. The EMC was in constant coordination with the risk counties, and he participated in numerous conference calls. He was an effective leader, who provided clear guidance and direction, and he directed his staff with a proactive approach to solving problems. The County Manager also attended the exercise, providing senior decision-making authority and support.

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

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Appendix A: Exercise Timeline and Summary of Exercise Evaluation

Table 1: Exercise Timeline

Emergency Classification Level or Event	Time Utility Declared											
		SERT/SEOC	RPS Dose Assessment	Western Branch	ICP	JIC	Charlotte-Mecklenburg County	Catawba County	Gaston County	Iredell County	Lincoln County	Cabarrus County
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0818	0828	0830	0847	0821	0830	0836	0837	0834	0826	0830	0827
Site Area Emergency	0836	0850	0916	0902	0859	0918	0859	0850	0854	0856	0900	0854
General Emergency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Simulated Rad. Release Started	0945	0958	0958	1002	1010	1007	0946	0958	0950	0957	1010	1010
Simulated Rad. Release Ended	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational	0848	0854	0930	0848	0823	0913	0843	0840	0853	0830	0822	0910
Exercise Terminated	1250	1249	1257	1252	1249	1250	1250	1255	1249	1250	1250	1249
Declaration of State of Emergency Local		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0919	1003	N/A
State		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Early Precautionary Actions: Lockdown Schools in Session/Selective Release		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0950	0951	N/A
Confine and Secure Lake Norman		0920	N/A	0920	0826	N/A	0904	0922	0922	N/A	N/A	N/A
1 st Protective Action Decision: Public Warning		0919	0919	0919	0919	0919	0919	0919	0919	0919	0919	0919
KI Ingestion Decision: Emergency Workers General Public		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Appendix B: Exercise Evaluators and Team Leaders

Regional Assistance Committee (RAC) Chair: Conrad Burnside

Section Chief: Kevin Keyes

Site Specialist: Michael Dolder

Location/Venue	Evaluation Team	Core Capability(ies) Evaluated at each Venue
State of North Carolina:	NCEM Director/SERT Leader: Mr. Mike Sprayberry	
SEOC	Gerald McLeomore- Lead Evaluator Bruce Swiren- Assist. Rosemary Samsel- Assist (monitor SPARTA/WebEOC)	Operational Coordination Public Information and Warning
Western Branch Office.	Ron Shaw	Operational Coordination
Dose Assessment	John Fill- Lead Technical Evaluator (TE)	Environmental Response/Health and Safety
FMT Management	Tom Essig- TE	Environmental Response/Health and Safety
FMT Operations (Red Team and Blue Team)	Keith Earnshaw- TE John Wills- TE	Environmental Response/Health and Safety
Mobile Laboratory	Kent Tosch- TE	Environmental Response/Health and Safety
EOF	John Pelchat	Operational Coordination
JIC	John Simpson- Lead Evaluator Henry Christiansen- Assist With input for the JIC from Bruce Swiren at the SEOC	Public Information and Warning
Waterway Warning- Lake Norman (OOS- 1:00 p.m. on July 16 start at McGuire Office Complex (MOC))	Michael Dolder- Lead Evaluator J.T. Ackermann John Fill Joe Harworth Erica Houghton Bob Spence	Public Information and Warning
NWS Greenville-Spartanburg Airport	Randall Hecht	Public Information and Warning
Charlotte-Mecklenburg County: Deputy Chief/EM Director- Mr. Richard Granger		
EOC	Bob Spence- Lead Evaluator Meg Swearingen - Assist James Greer- Assist	Operational Coordination Public Information and Warning
Incident Command Post	J.T. Ackermann- Lead Evaluator Michael Dolder- Assist Gary Bolender- Assist	Operational Coordination Public Information and Warning
Traffic Control Points (OOS- 10:30 a.m. on July 16 at MOC)	Bob Spence	On-Scene Security and Protection
Backup Route Alerting (interview)	Meg Swearingen	Public Information and Warning
Protective Actions for	James Greer	Critical Transportation

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Location/Venue	Evaluation Team	Core Capability(ies) Evaluated at each Venue
Schools (Exercise Day at EOC)		
Medical Services Drill (OOS- MEDIC and CMC- University Hospital- 9:30 a.m. on July 14 at MEDIC Headquarters (accident site) and CMC- U (ER)	John Fill- Lead Evaluator Joe Harworth Bob Spence	Public Health and Medical Services
Catawba County: Director- Mr. Bryan Blanton		
EOC	Robert Nash- Lead Evaluator Walt Cushman- Assist	Operational Coordination Public Information and Warning
Traffic Control Points (OOS- 10:30 a.m. on July 16 at MOC)	John Fill	On-Scene Security and Protection
Backup Route Alerting (interview)	Walt Cushman	Public Information and Warning
Reception Center/Congregate Care (OOS- 6:30 p.m. on July 14 at Mill Creek Middle School)	Joe Harworth- Lead Evaluator J.T. Ackermann Erica Houghton	Environmental Response/Health and Safety Mass Care
Gaston County: EM Coordinator- Mr. Tommy Almond		
EOC	Lisa Rink- Lead Evaluator Debra Schneck- Assist	Operational Coordination Public Information and Warning
TCPs	Debra Schneck	On-Scene Security and Protection
Backup Route Alerting (interview)	Debra Schneck	Public Information and Warning
Protective Actions for Schools (Exercise Day at EOC)	Debra Schneck	Critical Transportation
Reception Center/Congregate Care (OOS- 1:30 p.m. on July 14 at Stuart Cramer High School)	Joe Harworth- Lead Evaluator J.T. Ackermann Erica Houghton	Environmental Response/Health and Safety Mass Care
EWD (OOS- 2:00 p.m. on July 14 at Stuart Cramer High School)	John Fill- Lead Evaluator Bob Spence	Environmental Response/Health and Safety
Iredell County: EM Director- Mr. David Martin		
EOC	Quintin Ivy- Lead Evaluator Bart Ray- Assist	Operational Coordination Public Information and Warning
Traffic Control Points (OOS- 10:30 a.m. on July 16 at MOC)	Joe Harworth	On-Scene Security and Protection
Backup Route Alerting (interview)	Bart Ray	Public Information and Warning

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Location/Venue	Evaluation Team	Core Capability(ies) Evaluated at each Venue	
Protective Actions for Schools (OOS- 10:00 a.m. on July TBD at Iredell County EOC)	J.T. Ackermann	Critical Transportation	
Lincoln County: Director- Mr. Bill Summers			
EOC	Joe Harworth- Lead Evaluator Danny Loomis- Assist Erica Houghton- Assist	Operational Coordination Public Information and Warning	
Traffic Control Points (OOS- 10:30 a.m. on July 16 at MOC)	J.T. Ackermann	On-Scene Security and Protection	
Backup Route Alerting (demonstration)	Erica Houghton	Public Information and Warning	
Protective Actions for Schools (OOS- 9:00 a.m. on July 14 at Lincoln County EOC)	Michael Dolder	Critical Transportation	
Cabarrus County: Director- Mr. Bobby Smith			
EOC	Lorenzo Lewis- Lead Evaluator	Operational Coordination Public Information and Warning	
Traffic Control Points	Lorenzo Lewis	On-Scene Security and Protection	

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Appendix C: Acronyms and Abbreviations

Acronym	Meaning
AAR	After Action Report
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
CFD	Charlotte Fire Department
CFR	Code of Federal Regulations
CHS-U	Carolinas HealthCare System- University
C-MEMO	Charlotte-Mecklenburg Emergency Management Office
CMPD	Charlotte-Mecklenburg Police Department
CMS	Charlotte-Mecklenburg Schools
CPD	Cornelius Police Department
DHHS	Department of Health and Human Services
DHS	Department of Homeland Security
DEMNET	Duke Emergency Management Network
DENR	Department of Environment and Natural Resources
DOH	Department of Health
DPD	Davidson Police Department
DRD	Direct Reading Dosimeter
DSS	Department of Social Services
E-Mail	Electronic Mail
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMC	Emergency Management Coordinator
EMNet	Emergency Management Network
EMS	Emergency Medical Services
ENF	Emergency Notification Form
EOC	Emergency Operations Center
EOCM	Emergency Operations Center Manager
EOF	Emergency Operations Facility
EOP	Emergency Operations Plan
ESD	Emergency Services Director
EW	Emergency Worker
EWD	Emergency Worker and Vehicle Monitoring and Decontamination
EPZ	Emergency Planning Zone

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Acronym	Meaning
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
GE	General Emergency
GIS	Geospatial Information System
GPM	Gallons Per Minute
HAB	Hostile Action Based
HAZMAT	Hazardous Materials
HSEEP	Homeland Security Exercise and Evaluation Program
HPD	Huntersville Police Department
IAP	Incident Action Plan
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
JIC	Joint Information Center
JIS	Joint Information System
KI	Potassium Iodide
LP	Local Primary
MHz	Megahertz
MNS	McGuire Nuclear Station
MOC	McGuire Office Complex
MRL	Mobile Radiological Laboratory
MSD	Medical Services Drill
NC	North Carolina
NCEM	North Carolina Emergency Management
NCSHP	North Carolina State Highway Patrol
NCWRC	North Carolina Wildlife Resources Commission
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
NRC	Nuclear Regulatory Commission
NUREG-0654/ FEMA REP-1	NUREG-0654/FEMA-REP-1, Rev. 1; "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980
NWS	National Weather Service
OCA	Owner Controlled Area
OEM	Office of Emergency Management

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Acronym	Meaning
OOS	Out of Sequence
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAR	Protective Action Recommendation
PIO	Public Information Officer
PNS	Primary Notification System
PRD	Permanent Record Dosimeter
R	Roentgen
RACES	Radio Amateur Civil Emergency Service
RASCAL	Radiological Assessment Systems for Consequence Analysis
RCCC	Reception and Congregate Care Center
RCC- West	Regional Coordination Center- West
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RDO	Radiological and Decontamination Officer
RPS	Radiation Protection Section
SAE	Site Area Emergency
SRB	Security Road Block
SEOC	State Emergency Operations Center
SERT	State Emergency Response Team
STREP	Situation Report
SOG	Standard Operating Guide
SOP	Standard Operating Procedure
SPARTA	State Preparedness and Resource Tracking Application
SSS	Selective Signaling System
SW	South West
SWP	State Warning Point
TV	Television
TCP	Traffic Control Point
UNC- Charlotte	University of North Carolina at Charlotte
VIPER	Voice Interoperability Plan for Emergency Responders
WBO	Western Branch Office
WebEOC	Web-based Emergency Operations Center
WP	Warning Point
XPA	Extent of Play Agreement

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Appendix D: 2015 McGuire Nuclear Station Extent of Play Agreement

PLUME PHASE FULL PARTICIPATION RADIOLOGICAL EMERGENCY PREPAREDNESS (REP) EXERCISE

All activities will be demonstrated fully in accordance with respective plans and procedures as they would be in an actual emergency. The Federal Emergency Management Agency (FEMA) Regional Office must receive these plans, guides and procedures at least 60 days before the exercise. This Extent of Play Agreement (EOPA) is written by exception. If it is not listed as an exception it will be demonstrated as described in the plans, standard operating guides (SOGs) and/or procedures (SOPs). Any issue or discrepancy arising during exercise play may be re-demonstrated if allowed by the Regional Assistance Committee (RAC) Chair or as listed herein. This allowance may be granted if it is not disruptive to exercise play and is mutually agreed to by the Offsite Response Organization (ORO) Exercise Controller and FEMA Evaluator.

Core Capability: Operational Coordination – *State and County emergency operations centers (EOCs), emergency operations facility (EOF) and incident command post (ICP).*

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

Capability Target: Emergency Operations Management

Performance Measure: *Procedures to alert and notify personnel will be demonstrated and personnel will respond only upon notification. Identified communications will be operational. Equipment, monitoring instruments and dosimetry must be available and will be operational which includes an affixed current calibration and range of readings sticker if applicable; quantities of potassium iodide (KI) and expirations will be verified.*

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).

- All participating State and local government personnel may be pre-positioned for this exercise.
- State and county officials will discuss alert and notification procedures with Federal Evaluators and verify staffing rosters.
- County officials will verify dosimetry and KI inventories during the scheduled Staff Assistance Visit (SAV).

Critical Task 1.2: Facilities are sufficient to support the emergency response (NUREG-0654 H.3; G.3.a; J.10.h, J.12; K.5.b; Criterion 1.b.1).

- Per current plans and procedures.

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).

- Per current plans and procedures.

Capability Target: Protective Action Implementation

Performance Measure: *Demonstrate the capability to implement EW exposure control; KI decision for institutionalized individuals and the general public; protective actions for persons with disabilities and access/functional needs; schools; traffic and access control and impediments to evacuation.*

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).

- Per current plans and procedures.

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).

- No distribution of actual or simulated KI will be performed during the exercise.

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).

- In accordance with current Health Insurance Portability and Accountability Act (HIPAA), each county will provide a current list (either printed or on electronic database) of Special Needs Populations for review by the Federal Evaluator during the exercise. Lists are for review only, and the Evaluator will not keep a copy.

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

- Officials will not initiate actual evacuations, but will describe the procedures and actions by discussion in each county EOC during the exercise.
- Counties will demonstrate the protective action decision making process for schools On Scenario/Exercise Day at the EOC. At least one communication coordinating call must be made to each school (no action required by the school). Calls may be simulated, by

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providing a list of schools affected by exercise.

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)

- Officials will not initiate actual TCPs, but will describe the procedures and actions by discussion in each county EOC during the exercise.

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

- Officials will not initiate actual impediment removals, but will describe the procedures and actions by discussion in each county EOC during the exercise.

Core Capability: Public Information and Warning – State/County EOCs, ICP, JIC

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

Capability Target: Emergency Notification and Public Information

Performance Measure: *If activation of initial siren activation maybe be completed by a "silent" test of that system as exercise play dictates; subsequent activations will be simulated. Initial activation of the EAS will be demonstrated up to the point of actual broadcast to the public. Backup route alerting will be demonstrated only if a siren failure is indicated; if there is no failure, backup route alerting procedures will be completed via interview. Waterway warning will be demonstrated during Off Scenario/Out of Sequence (OOS) and will be discussed during the exercise.*

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).

- If the decision is made to activate sirens, either the lead coordinating county (Charlotte-Mecklenburg County) or the State of North Carolina (depending upon who has assumed direction and control) will coordinate a silent test of the sirens.

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- Staff working in the Joint Information Center (JIC) may pre-position at the JIC. Staff may also participate using electronic communication devices in a virtual joint information system (JIS). Players at the JIC will discuss alert and notification procedures with the Federal Evaluators.
- State rumor control functions will be demonstrated in the SEOC JIC.
- County rumor control will be per plans and procedures.

Core Capability: Environmental Response/Health and Safety – Dose, Field Teams, EWD, RCCC

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

Capability Target: Protective Action Decision Making

Performance Measure: *OROs authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plans/procedures, to authorize emergency worker exposure limits to be exceeded for specific missions. As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers. OROs must have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs. OROs must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency.*

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).

- Per current plans and procedures.

Participants:

North Carolina State Emergency Response Team (SERT)
Catawba County
Charlotte-Mecklenburg County
Gaston County
Iredell County
Lincoln County

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):

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- Per current plans and procedures;

Participants:

North Carolina SERT
Catawba County
Charlotte-Mecklenburg County
Gaston County
Iredell County
Lincoln County

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).

- Per current plans and procedures.

Participants:

North Carolina SERT
Catawba County
Charlotte-Mecklenburg County
Gaston County
Iredell County
Lincoln County

Capability Target: Protective Action Implementation

Performance Measure: *OROs must demonstrate the capability to provide emergency workers (including supplemental resources) with the appropriate direct-reading and permanent record dosimetry, dosimeter chargers, KI, and instructions on the use of these items.*

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).

- Per current plans and procedures.

Participants:

North Carolina SERT
Catawba County

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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).

- Per current plans and procedures.

Participants:

Catawba County (Reception and Congregate Care Center)
Gaston County (Reception and Congregate Care Center)

Critical Task: KI and appropriate instructions are made available in case 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).

- Per current plans and procedures.

Participants:

Catawba County (Reception and Congregate Care Center)
Gaston County (Reception and Congregate Center)

Critical Task: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees (NUREG-0654 A.3; C.4; J.10.h; J.12; Criterion 6a1).
Performance Measure:

- Per current plans and procedures.

Participants:

Catawba County (Reception and Congregate Care Center)
Gaston County (Reception and Congregate Center)

Catawba County

Agencies: Catawba County Emergency Management Office
 Catawba County HAZMAT Team
 Catawba County State Medical Assistance Team
 Bandys Volunteer Fire Department

Date/Time: 14 July, 2015 1830

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Location:	Mill Creek Middle School 1041 Shiloh Road Claremont, NC 28610

Gaston County

Agencies: Gaston County Emergency Management
Gaston Emergency Medical Services (GEMS) Specialized Tactics and Rescue Team (STAR)
Gastonia Fire Department, Special Operations Division, Hazardous Materials (HAZMAT) Branch

Date/Time: 14 July 2015, 1330

Location: Stuart W. Cramer High School
101 Lakewood Road
Belmont, NC 28012

Critical Task: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles (NUREG-0654 K.5.a, b; Criterion 6b1).

Participants:

Gaston County

Agencies: Gaston County Emergency Management
Gaston Emergency Medical Services (GEMS) Specialized Tactics and Rescue Team (STAR)
Gastonia Fire Department, Special Operations Division, Hazardous Materials (HAZMAT) Branch

Date/Time: 14 July 2015, 1400

Location: Stuart W. Cramer High School
101 Lakewood Road
Belmont, NC 28012

Core Capability: On-Scene Security and Protection - TCPs

Definition: Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for all traditional and atypical response personnel engaged in lifesaving and life-sustaining operations.

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Cabarrus County Sheriff's Office
Kannapolis Police Department

Date/Time: On Scenario/Exercise Day, Tuesday, August 4, 2015

Location: Cabarrus County EOC
Government Complex - Suite FM 601
30 Corban Avenue SE
Concord, NC 28025

b. Gaston County:

Gaston County Police Department

Date/Time: On Scenario/Exercise Day, Tuesday, August 4, 2015

Location: Gaston County EOC
615 North Highland Street
Gastonia, NC 28052

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

- Per current plans and procedures.

Participants: NC SERT, Cabarrus, Catawba, Charlotte-Mecklenburg, Gaston, Iredell, and Lincoln Counties

- The EM Director/Coordinator or appropriate EOC staff will describe what resources are available to remove impediments from thoroughfares.

Date/Time: On Scenario/Exercise Day, Tuesday, August 4, 2015

Locations: State and county EOCs

Core Capability: Critical Transportation – Protective Action for Schools

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

Capability Target: Protective Action Implementation

Performance Measure: *Demonstrate the ability to implement protective actions for schools.*

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

- Per current plans and procedures.
- **Participants:** Charlotte-Mecklenburg, Gaston, Iredell, and Lincoln Counties
- Schools and school agencies will be via discussion with administrators, school principals, and designated administrative personnel at the designated locations during Off Scenario/Out of Sequence week.
- Both the Charlotte-Mecklenburg School (CMS) Director of Safety and CMS Transportation Coordinator will be at the EOC during the exercise and available for interviews. School principals and staff will not be present, but coordination and direction will be simulated during the exercise by the EOC staff.
- Local law enforcement agencies are responsible for escorting buses during an evacuation. Coordination for that support will be in the EOC during On Scenario/Exercise Day concerning those requirements.
- The school interview schedule is as follows.

a. Charlotte-Mecklenburg County:

Date/Time: Tuesday, August 4, 201 On Scenario/Exercise Day

Location: Charlotte-Mecklenburg EOC
1770 Shopton Road
Charlotte, NC 28217

b. Gaston County:

Date/Time: August 4, 2015 On Scenario/Exercise day 1030

Location: Gaston County EOC
615 North Highland Street
Gastonia, NC 28052

Emergency Management Staff, Federal Evaluators, Gaston County Schools Administrative Staff, and the following schools key staff will meet at the above location for interviews.

c. Iredell County:

Date/Time: 14 July, 2015 1030

Location: Iredell County EOC

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Hall of Justice Annex (Lower Level)	
201 East Water Street	
Statesville, NC 28677	

Emergency Management Staff, Federal Evaluators, and the following schools key staff will meet at the above location for interviews at the designated times.

d. Lincoln County:

Date/Time: 14 July, 2015 1000

Location: Lincoln County EOC
Lincoln County Courthouse (basement)
1 Court Square
Lincolnton, NC 28092

Emergency Management Staff, Federal Evaluators, and the following schools key staff will meet at the above location for interviews at the designated time.

Core Capability: Mass Care – Reception/Congregate Care

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

Capability Target: Support Operations and Facilities

Performance Measure: *The evaluator will conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with applicable guidance. Congregate care staff must also demonstrate the capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before entering the facility. Material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility(ies). However, availability of such items must be verified by providing the evaluator a list of sources with locations and estimates of quantities.*

Critical Task: KI and appropriate instructions are made available in case 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 I.10.e, f; Criterion 3b1).

- No distribution of actual or simulated KI will be performed during the exercise.

Participants: Catawba, Gaston Counties

Critical Task: Managers of congregate care facilities demonstrate that the centers have resources

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to provide services and accommodations consistent with planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate before entering congregate care facilities (NUREG-0654; J.10.h; J.12; Criterion 6c1).

- Per current plans and procedures.

Participants: Catawba, and Gaston Counties

Catawba County

Agencies: Catawba County Emergency Management Office
 Catawba County Public Health
 American Red Cross

Date/Time: 14 July, 2015 1830

Location: Mill Creek Middle school
 1041 Shiloh Road
 Claremont, NC 28610

Gaston County

Agencies: Gaston County Emergency Management
 Gaston Emergency Medical Services (GEMS) Specialized Tactics
 and Rescue Team (STAR)
 Gastonia Fire Department, Special Operations Division, Hazardous
 Materials (HAZMAT) Branch

Date/Time: 14 July 2015, 1330

Location: Stuart W. Cramer High School
 101 Lakewood Road
 Belmont, NC 28012

Core Capability: Public Health and Medical Services – Medical Services Drill

Definition: Provide lifesaving medical treatment via emergency medical services and related operations and avoid additional disease and injury by providing targeted public health and medical support and products to all people in need within the affected area.

Capability Target: Support Operations and Facilities

Performance Measure: *OROs must demonstrate the capability to transport contaminated injured individuals to medical facilities. The medical facility must demonstrate the capability to activate and set up a radiological emergency area for treatment. Equipment and supplies must*