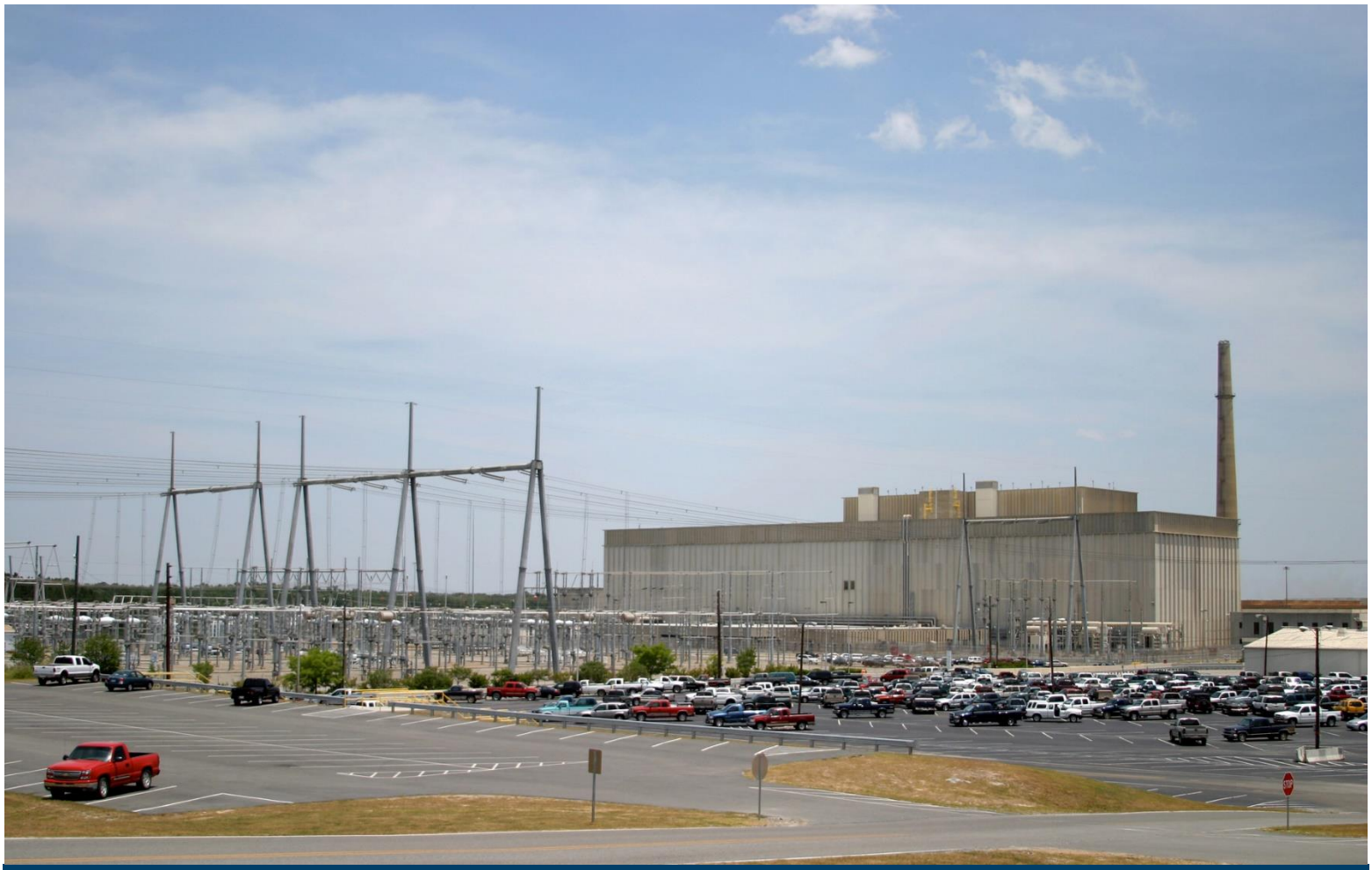

After Action Report

Hatch Nuclear Plant

Radiological Emergency Preparedness Exercise

Exercise Date: November 3, 2021

Final

FEMA

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Executive Summary

On November 3, 2021, the offsite response organizations of the Hatch Nuclear Plant 10-mile emergency planning zone participated in a plume exposure pathway exercise. FEMA Region 4 Radiological Emergency Preparedness Program staff evaluated that exercise, which also included out of sequence activities conducted on October 28, 2021, and November 4, 2021. This report outlines that exercise and out of sequence activities.

The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at the Hatch Nuclear Plant. It was conducted in accordance with FEMA policies and guidance concerning the exercise of state and local radiological emergency response plans and procedures. The federal approval of the formal submission of the radiological emergency response procedures for the Hatch Nuclear Plant by the state of Georgia was granted on May 5, 1981, and the qualifying emergency preparedness exercise was conducted on October 25, 1989.

Officials and representatives from participating agencies and organizations demonstrated knowledge of their emergency response plans and procedures and implemented them during the exercise and out of sequence activities. Exercise objectives and corresponding core capabilities identified in Section 2.2 of this report were demonstrated. FEMA staff identified one level 1 finding and one plan issue during this exercise.

The level 1 finding was related to Georgia Emergency Management and Homeland Security Agency's decision to not activate its primary alert and notification system in response to a simulated radiological incident at Hatch Nuclear Plant to inform the public of the severity of the emergency. The state of Georgia, under a formal remedial action plan approved by FEMA, coordinated with FEMA staff to address the level 1 finding. The corrective actions completed include: (1) revision of the current decision matrix and associated checklists/procedures; and (2) refresher training for all program staff and key decision makers provided by the Nuclear Regulatory Commission and FEMA on January 18, 2022. Based on the corrective actions taken in accordance with the remedial action plan submitted by Georgia Emergency Management and Homeland Security Agency, it has been determined the level 1 finding for failure to activate the alert and notification system has been corrected.

The plan issue was related to Appling County decision makers' lack of coordination with supporting and affected jurisdictions regarding their protective action decision prior to decision implementation. While county leadership holds the authority to authorize protective action decisions within their respective jurisdiction, current plans are not clear for coordination of protective actions prior to implementation. The state and counties will correct the plan issue through revision of the appropriate plans/procedures during the next annual plan review and update. The state will submit all corrections for FEMA review and report them in the Annual Letter of Certification.

The Tattnall County Reception and Congregate Care Center level 2 finding identified during an out of sequence demonstration for the previous exercise on October 8, 2019, was corrected during a re-demonstration on May 5, 2021. Emergency workers effectively demonstrated their ability to properly monitor and decontaminate evacuees, and successfully relayed their knowledge of radiological exposure limits and potassium iodide usage. The full results of this re-demonstration were captured in a standalone report.

FEMA wishes to acknowledge the efforts of the many individuals who participated in the exercise andmade it a success. The state of Georgia and Hatch Nuclear Plant offsite response organizations continued to plan for and demonstrate the biennial exercise while concurrently responding to the ongoing SARS-CoV-2/COVID-19 pandemic. The professionalism and teamwork of the participants was evident throughout all phases of the exercise.

Section 1: Exercise Overview

Exercise Name	2021 Hatch Nuclear Plant Radiological Emergency Preparedness Exercise	
Type of Exercise	Full Scale Exercise	
Exercise Date	November 3, 2021	
Out of Sequence Date	October 28, 2021, and November 4, 2021	
Program	Radiological Emergency Preparedness Program	
Mission Area	Response	
Scenario Type	Partial Participation Plume Phase Radiological Emergency Preparedness Exercise	
Participating Organizations	See Appendix C for the list of participating organizations	
Locations	See Appendix D for the extent of play agreement and exercise locations	
Points of Contact	Dr. Elisabeth (Libby) Adkins Central Section Chief FEMA Region 4 3005 Chamblee Tucker Road Atlanta, Georgia 30341	Mr. DeShun Lowery Site Specialist FEMA Region 4 3005 Chamblee Tucker Road Atlanta, Georgia 30341
	Ms. Shelby Naar REP Program Manager Georgia Emergency Management and Homeland Security Agency 935 United Avenue SE Atlanta, Georgia 30316	Mr. Irvin Gibson REP Exercise Manager Georgia Emergency Management and Homeland Security Agency 935 United Avenue SE Atlanta, Georgia 30316
	Mr. Sean Hayes Radiological Emergency Coordinator Georgia Department of Natural Resources/Environmental Protection Division 4220 International Parkway Atlanta, Georgia 30354	

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Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

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

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

2.2 Exercise Core Capabilities and Objectives

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

- **Operational Coordination:** Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.
- **Situational Assessment:** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.
- **Public Information and Warning**: Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

- **Environmental Response/Health and Safety:** Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities.
- **On-Scene Security, Protection, and Law Enforcement:** Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel engaged in lifesaving and life-sustaining operations.
- **Critical Transportation:** The capability to provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.
- **Mass Care Services:** Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies.
- **Public Health, Healthcare, and Emergency Medical Services:** Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations.

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

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

2.3 Exercise Scenario

The following is a summary of the scenario developed by the Tennessee Valley Authority to drive exercise play.

Time	Event
07:30 a.m.	Exercise begins on Unit 2.
08:14 a.m.	A tornado strike causes damage to the switchyard.
08:22 a.m.	Loss of offsite power. Conditions exist for an Alert ECL.
08:37 a.m.	An Alert is declared by this time based on EAL SA-1.
08:52 a.m.	HNP notifies OROs of the Alert ECL.
09:45 a.m.	Loss of all onsite AC power – station blackout. Conditions exist for a Site Area Emergency ECL.
10:00 a.m.	A Site Area Emergency is declared by this time based on EAL SS- 1.
10:15 a.m.	HNP notifies OROs of the Site Area Emergency ECL.
11:30 a.m.	Emergency diesel generators 1B, 2A, and 2C fail. Conditions exist for a General Emergency ECL for loss of power to critical buses.
11:45 a.m.	A General Emergency is declared by this time based on EAL SG-1. PARs are to evacuate zones A, D-5, and E-5. There is no radiological release.
12:00 p.m.	HNP notifies OROs of the General Emergency ECL and PARs.
12:15 p.m.	Exercise is terminated when all objectives are met.

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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 November 3, 2021, plume exposure pathway exercise and out of sequence activities on October 28, 2021, and November 4, 2021.

Each jurisdiction and functional entity were evaluated based on the demonstration of core capabilities, Radiological Emergency Preparedness Program objectives, and capability targets as delineated in the FEMA Radiological Emergency Preparedness Program Manual dated December 2019. Capability targets are listed by number and the demonstration status of those capability targets are indicated by the use of the following terms:

- **Met (M):** The jurisdiction or functional entity performed all activities under the objective/capability target to the level required per the work plan and/or the extent-of-play agreement, with no level 1 or level 2 findings evaluated under that objective/capability target during the current activity and no unresolved prior level 2 finding(s).
- **Level 1 Finding (L1):** An observed or identified inadequacy of organizational performance during an assessment activity that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant.
- **Level 2 Finding (L2):** An observed or identified inadequacy of organizational performance during an assessment activity that is not considered, by itself, to adversely impact public health and safety.
- **Plan Issue (P):** An observed or identified inadequacy in the ORO's emergency plan/implementing procedures, rather than in that of the ORO's performance.
- **Not Demonstrated (N):** For a justifiable reason, the jurisdiction or functional entity did not perform assessment activities under the objective/capability target as specified in the extent-of-play agreement.

3.2 Summary Results of Exercise Evaluation

The Homeland Security Exercise and Evaluation Program methodology is an analytical process used to assess the demonstration of specific capabilities during an exercise. A capability provides a means to perform one or more capability targets under specified conditions and to specific performance standards. Core capabilities form the foundation of the FEMA Region 4 Radiological Emergency Preparedness Program evaluations. The core capability summaries below provide an overall combined assessment of state and local jurisdictions based upon their collective demonstrated performance as it relates to the specific core capability. Each jurisdiction's standalone capability summaries are provided below.

- **Operational Coordination:** State and county officials established and maintained a unified and coordinated operational structure. Effective lines of communication were established among all stakeholders. Most precautionary and protective actions were coordinated effectively; however, Appling County decision makers made a protective

action decision to evacuate the Appling County side of Zone A and implemented it without coordination with critical stakeholders. That action caused challenges for the other jurisdictions to provide a unified response and public message. Overall, jurisdictional leaders provided effective direction and control of the incident and maintained situational awareness.

- **Situational Assessment:** State dose assessment personnel provided decision makers relevant information regarding radiological and plant conditions. Although there was no radiological release in this exercise scenario, the Georgia Department of Natural Resources Environmental Protection Division staff members successfully demonstrated their use of dose projection software programs, field team comparisons, and the potassium iodide ingestion decision-making process for emergency workers. The radiological emergency coordinator concurred with the utility protective action recommendations to evacuate two miles around and five miles downwind due to plant status if the affected counties agreed, based on the potential for a radiological release before power could be restored to the plant.
- **Public Information and Warning:** External affairs staff employed a detailed yet efficient press release approval process, as described in the Georgia Emergency Management and Homeland Security Agency Public Information for Nuclear Events Operating Procedures, in developing and processing for approval each press release during the event. The process made use of a checklist method that ensured all affected agencies had the opportunity to review and approve each draft press release prior to distribution of the final version. This ensured that the public information officers were prepared for each press conference with the most current information from the coordinated and approved releases. One level 1 finding was identified due to the decision to not activate the primary alert and notification system in response to the escalating emergency and implemented protective action decision of evacuation by Appling County.
- **Environmental Response/Health and Safety:** Excellent contamination control techniques were demonstrated while processing evacuees through the reception and congregate care center. Examples included the use of foot coverings to prevent spread of contamination into the initial monitoring area, and good separation of clean and contaminated areas in each of the evacuee decontamination areas. The decontamination areas had large poster-sized job aides that were color coded by position assignment. The use of color codes made it easier for each team member to focus on their individual task steps. It was evident that staff were well trained. They demonstrated a comprehensive understanding of their mission and a higher skill level than is normally seen for a volunteer organization.
- **On-Scene Security**, Protection, and Law Enforcement: All four counties demonstrated through interview their ability to ensure appropriate traffic and access control could be established and provide accurate instructions to traffic and access control staff. Appropriate staffing and resources would be available. Impediments to evacuation would be resolved through each county and resources would be requested through the state as necessary. Any impediments leading to re-routing of traffic would be relayed to the county public information officers for inclusion in public messaging as required.
- **Critical Transportation:** Toombs and Appling Counties' school district plans were sufficient to protect the health and safety of the students and faculty in the event of a radiological emergency. Through interview, school officials displayed the knowledge to implement plans and procedures to safely shelter or evacuate students and faculty if directed.

- **Mass Care:** The Toombs County Reception and Congregate Care Center personnel successfully demonstrated that facilities, equipment, and procedures were in place to provide temporary shelter, congregate care, and registration of evacuees. Proper processes were in place to ensure incoming evacuees were monitored and/or decontaminated prior to entry. The facility used would be capable of supporting the expected number of evacuees.
- **Public Health, Healthcare, and Emergency Medical Services:** Appling County Emergency Medical Services personnel, Appling Healthcare staff, and Hatch Nuclear Plant Radiological Protection Technicians successfully demonstrated their ability to transport, treat, monitor, and decontaminate a radiologically contaminated, injured patient. All staff were well trained and prepared. All drill participants were careful to minimize any cross contamination and they worked well together to accomplish their mission safely.

3.3 Jurisdictional Summary Results of Exercise Evaluation

3.3.1 State Jurisdiction

3.3.1.1 Georgia State Operations Center

Operational Coordination Capability Summary:

Personnel of the Georgia Emergency Management and Homeland Security Agency, Georgia Department of Natural Resources, and other staff at the state operations center established and maintained a unified and coordinated operational structure and process that appropriately integrated all critical stakeholders and supported the execution of this core capability during the Hatch Nuclear Plant exercise conducted on November 3, 2021.

The 24-hour state warning point was contacted through the emergency notification network and informed that staff at Hatch Nuclear Plant had declared an Alert emergency classification level. The operator immediately utilized an automated texting and email program to notify key officials and essential personnel. External affairs staff were notified by email to report to the state operations center. Upon consulting with operations center personnel, the radiation emergency coordinator, the Radiological Emergency Preparedness Program Manager, and the governor's authorized representative elected to activate the state operations center and mobilize appropriate personnel. Per the extent of play agreement, most staff were pre-positioned and arrived quickly. Neighboring states, federal agencies, and others were notified per incident checklists. The warning point manager relocated to the state operations center and assumed the position of operations support manager. Staff arrived and the operations center was declared operational.

The radiation emergency coordinator, the Radiological Emergency Preparedness Program Manager, and governor's authorized representative discussed predetermined precautionary actions with operations center personnel. Subsequently, waterways were closed through coordination with the United States Coast Guard, and rail and air traffic were restricted within 10 miles of Hatch Nuclear Plant. After completion of the precautionary actions, staff remained on standby.

Upon receipt of the General Emergency classification level, the conference line was activated to discuss protective action recommendations. Hatch Nuclear Plant recommended evacuating zones A, D-5, and E-5. Since there was no indication of a radiological release, all parties except Appling County agreed to take no additional protective actions. Appling County

stated they had taken actions to evacuate individuals in their portion of zone A. It was decided there would be no siren activation or Emergency Alert Message dissemination due to the delay of time passed from evacuation measures implemented and the information relayed to the state. A decision was also made to not recommend potassium iodide ingestion for emergency workers.

The 24-hour state warning point and the emergency operations center were observed to be well equipped. A large multiscreen display located behind the command workstation displayed situational awareness displays such as significant event logs, protective action decisions status, meteorological data, plant status, and other information. Emergency planning zones maps and the current emergency classification level were also displayed throughout the operations center. Workstations provided ample connectivity and supplies. Staff had easy access to all relevant incident documentation including procedures, incident action plans, briefing notes, and other supporting materials through a group collaboration software program. Channels were developed for each position to tailor resources and facilitate specific conversations. Use of this software helped staff to be more organized and ensured they had the resources needed to effectively support the incident response.

Primary communications with Hatch Nuclear Plant were via the utility's dedicated emergency notification network. Commercial landline telephones served as an alternate method of notification. Computers, cellular phones, and automated notification systems were also utilized. Landline telephones provided primary communications in the operations center. A conference line was used by the state operations center command staff to provide situational awareness and coordination among 13 state and local agencies. Cellular telephones and computers were also utilized. A large multi screened monitor in the front of the operations center displayed emergency status, 50-mile map, areas evacuated, areas sheltered, three news channels, and other relevant information. No equipment failures were observed; however, the conference line was difficult to understand at times.

The governor's authorized representative maintained direction and control of the incident. The governor's authorized representative, state operations center chief, and the Radiological Emergency Preparedness Program Manager solicited input and feedback from appropriate emergency support functions and support staff to make informed and timely recommendations and decisions during the exercise. The state operations center chief and the Radiological Emergency Preparedness Program Manager facilitated response coordination with other organizations through frequent conference calls. State operations center staff were kept informed of response activities through detailed briefings. Additionally, all coordination calls were broadcast throughout the state operations center, allowing staff to hear appropriate discussions.

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

Public Information and Warning Capability Summary:

The Georgia Emergency Management and Homeland Security Agency's Public Information Officer, in coordination with external affairs staff, were responsible for coordinating public information and warning activities associated with the simulated radiological incident at the Hatch Nuclear Plant. Except for not activating the primary alert and notification system for the public, the team worked together in accordance with the agency's Public Information for Nuclear Events Operating Procedures to provide accurate, timely, and useful emergency

information to the media and public within the Hatch Nuclear Plant 10-mile emergency planning zone. The public information officer was the lead public information representative for the state and represented the state as part of a virtual joint information system for this event. External affairs staff coordinated and provided continuous support to the public information officer in a hybrid, virtual environment using a variety of tools including a dedicated and continuously open public information bridge phone line, text messages, emails, and the state's electronic incident management system.

At the declaration of Alert status at the Hatch Nuclear Plant, external affairs staff, including the public information officer, were notified by the state operations center watch officer via email to report to their assigned positions at the state operations center. Upon arrival, staff logged into state's electronic incident management system and the public information bridge line; initiated contact with the state public information officer; and began development of press release number one. The public information officer reported to and worked from the media briefing room in a separate area of the state operations center.

In accordance with the states' radiological emergency preparedness plans, activation of the primary alert and notification systems for an emergency at the Hatch Nuclear Plant, including sounding of sirens and broadcast of Emergency Alert System messages, would be closely coordinated among the Georgia Emergency Management and Homeland Security Agency and the affected counties of Appling, Jeff Davis, Tattnall, and Toombs. Georgia Emergency Management and Homeland Security Agency holds primary responsibility to activate the public notification systems for the 10-mile emergency planning zone, including sirens and Emergency Alert System messages. Appling County can activate the siren system if Georgia Emergency Management and Homeland Security Agency was unable to do so.

State and county decision makers decided collectively not to activate the primary alert and notification system, which would have included siren activation and issuance of an Emergency Alert System message, at the General Emergency classification or upon notification of evacuation orders issued within Appling County, thereby not alerting the public in the affected area of the evolving emergency and protective action decisions in a timely manner. The state was not notified of the decision to evacuate the public in Zone A of Appling County until after the evacuation was ordered and completed by Appling County. The state learned of this action taken by the county during the state group conference call and determined that activation of the alert and notification system was not needed after the fact and could have caused confusion between the delay of the evacuation and activation of the alert and notification system. Further, it was decided not to activate the system because there was not currently a radiological release detected outside of plant boundaries.

A total of four state press releases were developed by external affairs staff during the exercise. Each was developed from pre-scripted templates, coordinated with appropriate leadership, and promulgated in accordance with state and local plans and procedures.

External affairs staff employed a detailed yet efficient press release approval process, as described in the Georgia Emergency Management and Homeland Security Agency Public Information for Nuclear Events Operating Procedures, in developing and processing for approval each press release during the event. The process made use of a checklist method that ensured that all affected agencies had the opportunity to review and approve each draft press release prior to distribution of the final version and that the public information officer was prepared for each press briefing with the most current information from the vetted, approved releases.

Each final, approved press release was distributed by external affairs staff to all the affected agencies including the county emergency management agencies; the Georgia State Department of Natural Resources Public Information Officer; the utility's public information director; the Georgia Emergency Management and Homeland Security Agency External Affairs Public Information Officer; and the radiological emergency planning coordinator. In addition, the press releases were distributed notionally to a list of media outlets maintained by the state operations center. Each news release contained the phone number to the Hatch Nuclear Plant public information line and a link to the Hatch Nuclear Plant 2021 Emergency Information Calendar for more information.

Rumor control and public inquiries lines were maintained by the utility, as well as social media monitoring for rumors or other misinformation. The Hatch Nuclear Plant emergency planning zone did not meet the threshold of non-English speaking populations to require translation of public messaging; however, the capability to translate information to other languages is available if needed.

For this capability, the following radiological emergency preparedness capability targets were met 1.1 and 3.3.

For this capability, the following radiological emergency preparedness capability target was NOT met: 3.2.

- Level 1 Finding: 031-21-3.2-L1-01

  Capability Target: Objective 3: Alert and Notification; 3.2: Alert and Notification of the Public.

  Condition: The state of Georgia failed to activate its alert and notification system in response to a simulated radiological incident at Hatch Nuclear Plant to inform the public of the severity of the emergency.

  Analysis: The state failed to activate its alert and notification system in response to the General Emergency classification level declared by Hatch Nuclear Plant staff and notification of evacuation within a portion of the 10-mile emergency planning zone of Hatch Nuclear Plant, which would have included siren activation and a subsequent Emergency Alert System message. The failure to activate the alert and notification system would have resulted in not alerting the public in the affected area of the severity of the incident and any potential protective actions necessary to take in a timely manner without undue delay. The Edwin I. Hatch Nuclear Plant 2021 Emergency Information Calendar informs the public that during an emergency at the plant that the sirens will alert the residents in the event of an emergency. The emergency information provided to residents within the 10-mile emergency planning zone of Hatch Nuclear Plant advises that actions necessary to take – "take shelter," "go inside, stay inside," or "evacuate" – would be provided by officials, and that for updated information, the public would be advised to stay tuned to local radio and television stations.

  The *State of Georgia Radiological Emergency Preparedness Base Plan* references respective county plans for further information regarding notification and evacuation measures. According to the state base plan, located in the Table 4 Emergency Classifications under General Emergency, the second recommended state/local action to take is to activate immediate alert and notification of emergency status and provide the

public with periodic updates. Further, under the state's concept of operations in relation to public notification in response to protective actions, the methods for informing the public in affected area(s) surrounding nuclear facilities are described in the respective county plans. Within Attachment G of the Appling County EMA Radiological Response Plan, the Plant Hatch Alert and Notification System for the 10-mile emergency planning zone meets the 15-minute design objective (according to 10 CFR Appendix E to Part 50) through the dual primary systems of sirens and Emergency Alert System (EAS), with a backup system of an emergency alert telephone communications system designated by emergency management and public safety officials.

Per GEMA/HS memorandum dated March 6, 2013, the Southern Nuclear Operating Company ANS Design report satisfies the agency's need to perform alert and notification for Hatch Nuclear Plant. The memorandum states, "Our [GEMA/HS] commitment to inform the public of protective action decisions is fully addressed by the system capabilities." Any deviation in plans or actions from the approved ANS Design Report requires an approved significant change application to both FEMA REP Program and the Nuclear Regulatory Commission (NRC). Identified in the ANS Design Report are the two approved components for the ANS which must be utilized in tandem:

1. Sirens
2. Emergency Alert System

When discussing its special alerting system, the Southern Nuclear Operating Company defines the CodeRED Notification system (or other similar vendor supplied solution) as a special alerting system,8 and states, "Special Alerting will be accomplished through the use of a calling system. Special alerting will be initiated in the event of a failure of the system to activate multiple sirens resulting in loss of coverage area…The calling system will serve as a complete back up to the ANS" (emphasis added). This system is an approved back up only to be used as a notification system when there has been a siren failure. During the biennial exercise, GEMA/HS made the decision not to activate the alert and notification system. GEMA/HS relied on a single county vendor supplied system to notify a limited population of permanent residents. This equated to five households (approx. 20 residents). The remainder of the emergency planning zone population (approx. 10,618) and transient population were not notified. This action did not notify the entirety of the general public within the emergency planning zone of the change in emergency status at the plant.

Protective action decisions are measures taken in anticipation of, or in response to, a release of radioactive material to the environment. The purpose of a protective action decision is to provide dose savings by avoiding or minimizing the radiation exposure received by individuals, thereby minimizing the health risks resulting from radiation exposure. Sheltering and evacuation are the two decisions relied upon for limiting the direct exposure of the general public within the emergency planning zone for limiting exposure from contaminated food and water in the ingestion exposure pathway

During the Site Area Emergency phase of the exercise, the offsite response organizations initiated all precautionary actions. Evacuation, however, is not a preplanned precautionary action. In the case of this exercise, the Appling County decision to evacuate their portion of Zone A came after the declaration of the General Emergency and the protective action recommendation to evacuate Zones A, D-05, and E-05. This makes the decision a protective action decision; it was neither preplanned nor conducted

prior to the recommendation. At 12:17 p.m., it was determined by the state that there would be no activation of the alert and notification system. The alert and notification system would have included siren activation and dissemination of an Emergency Alert System message; however, since Appling County had already relocated Altamaha Elementary School and individuals with access and functional needs and evacuated the population within their portion of Zone A, it was determined by the state that activation of the system for any portion of the emergency planning zone would not be performed.

According to the *Appling County EMA Radiological Emergency Plan*, Georgia Emergency Management and Homeland Security Agency holds the responsibility to activate the alert and notification system to inform the public of the current emergency status and advise on recommended protective actions. Further, the emergency classification table at a General Emergency in the state plan recommends immediate alert and notification of the emergency status and the action to provide the public with periodic updates. However, the first public messaging regarding evacuation of Zone A within Appling County did not occur until a joint press release disseminated (simulated) by the state of Georgia at 1:19 p.m. – one hour and thirty-one minutes after the protective action decision was implemented by Appling County. Regardless of the delay in notification from the county regarding evacuation implementation, in accordance with federal, state, and local guidelines and plans, the state had the responsibility to activate the alert and notification system. Further, failure to activate the alert and notification system during the biennial exercise puts the state and counties in violation of the 2021 Hatch Nuclear Plant Extent of Play Agreement; therefore, Objective 3: Alert and Notification – Alert and Notification of the Public, Capability 3.2, was not met.

Effect: Failure to activate the alert and notification system of a protective action decision for evacuation of an area potentially places the public's health and safety at risk. Cascading effects of lack of public notification could result in shadow evacuation and public confusion.

References:

1. GEMA/HS Radiological Emergency Preparedness (REP) Base Plan 2020, Section VI, Concept of Operations, Sub-Section G.6, Incident Assessment and Protective Response, Table 4 – Emergency Classification – General Emergency (pg. 33); Section IV. Concept of Operations, G. Incident Assessment and Protective Response, 11. Protective Actions, b. Public Notification (pg. 45-46).
2. Appling County EMA Radiological Emergency Plan, IV. Concept of Operations, B., d, General Emergency (pg. 12); Attachment A – Implementation, B. Notification of the Public (pg. 45-46); Attachment G – Notification and Warning, B. Alert Notification System (pg. 61); Attachment J – Emergency Information, G (pg. 83-84).
3. Radiological Emergency Preparedness Program Manual, December 2019, Part II REP Program Planning Guidance, Planning Standard E.2 and E.4 (pg. 45-49); Part III REP Program Assessment Policies and Guidance, Objective 3: Alert and Notification, Capability Target 3.2 (pg. 201-203)
4. 44 CFR § 350.5 - Criteria for review and approval of State and local radiological emergency plans and preparedness.
5. 10 CFR Appendix E to Part 50 - Emergency Planning and Preparedness for Production and Utilization Facilities

6. NUREG-0654/FEMA-REP-1, Rev. 2 (E.2, E.4, E.5, F.3, and O.1)
7. Edwin I. Hatch Nuclear Plant 2021 Emergency Information Calendar, Emergency_Info_Hatch.pdf (southerncompany.com)
8. 2021 Hatch Nuclear Plant Extent of Play Agreement

Recommendations:

1. Follow appropriate alert and notification actions in accordance with state and county plans and procedures.
2. Facilitate improved, effective coordination with counties in the affected region to ensure appropriate communication of local actions in a timely manner.
3. After the protective action decision to evacuate zone A in Appling County was known, the established plans and procedures should be followed to alert and notify the public of the evacuation.

Schedule of Corrective Actions: Remedial training, coordinated between FEMA and the Nuclear Regulatory Commission, was provided to GEMA/HS on January 18, 2021, to key decision makers via Zoom due to the current agency restrictions in response to the COVID-19 pandemic.

The training objectives are outlined below:

1. Describe nuclear power plant physical, operational, and regulatory foundations during an emergency.
2. Describe offsite regulatory and planning references and operational processes during a nuclear power plant emergency.
3. Describe how exercise objectives and capability targets relate to implementing procedures and plans.
4. Interpret and articulate decision-making process and notification of the public during a nuclear power plant emergency.

A plan update was provided to FEMA by GEMA/HS on January 19, 2022. The plan update was in line with the remedial action plan to update the tables detailing actions to be taken at each emergency classification level. After a thorough review of the update in accordance with the 2019 REP Program Manual, said changes were deemed to be appropriate to address the level 1 finding. Corrective actions identified in the approved remedial action plan were completed and approved as of January 24, 2022. Based on the corrective actions taken in accordance with the remedial action plan submitted by Georgia Emergency Management and Homeland Security Agency, it has been determined the level 1 finding for failure to activate the alert and notification system has been corrected.

Level 1 Finding - Resolved: 031-21-3.2-L1-01.

3.3.1.2 Dose Assessment

Situational Assessment Capability Summary:

The Georgia Department of Natural Resources/Environmental Protection Division staff successfully demonstrated the capability to use dose assessment and field data in the decision-making process for protective actions for the public and emergency workers. The radiological emergency coordinator, dose assessment coordinator, and field team coordinator were prepositioned near the area and quickly filled the required positions at the state operations center. The radiological emergency coordinator attended all state group calls and frequently briefed the other team members. The field team coordinator notified applicable organizations for potential mutual aid.

At the General Emergency declaration, the dose assessment team supported protective action decision-making by verifying that there was no radiological release. The dose assessment coordinator monitored meteorological conditions, utility status board events, and simulated field team results. The dose assessment coordinator demonstrated the ability to use software programs to make dose projections based on total effective dose and thyroid dose and compare results to protective action guides. The field team coordinator simulated placing the field teams in downwind locations to supplement areas surveyed by utility field teams. The dose assessment coordinator demonstrated the calculation of radioiodine concentrations from field data and the method of comparison to dose projections. The dose assessment coordinator demonstrated the method to review the default dose correction factor of five by comparing the doses received from field air samples.

Although the state of Georgia does not issue potassium iodide to the public, the radiological emergency coordinator evaluated the protection action for emergency workers. Since there was no radiological release, it was determined there was no need for emergency workers to ingest potassium iodide. The team consulted frequently with the utility liaison and the offsite radiation coordinator at the emergency operations facility for plant status and release potential throughout the exercise.

The radiological emergency coordinator concurred with the utility protective action recommendations to evacuate two miles around and five miles downwind based on plant status if the affected counties agreed. The rationale was that there was no onsite or offsite power at the plant, restoration of power was not expected within four hours, and core cooling would have to be maintained over that period, allowing a potential for a radiological release. On the state group call, Toombs County stated they were not evacuating the public in the affected zones of their county since there was no radiological release. Appling County stated that they had already evacuated the affected individuals in the downwind zone. The state was not aware that this evacuation decision had been made or implemented until after completion.

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

3.4 Joint Operations

3.4.1 Joint Information System/Center

Public Information and Warning Capability Summary:

Spokespersons from the counties of Appling, Jeff Davis, Tattnall, and Toombs; Georgia Emergency Management and Homeland Security Agency; and Georgia Power demonstrated the ability to deliver coordinated, prompt, reliable, and actionable information for the whole community affected by a simulated incident at the Hatch Nuclear Plant. A fully virtual joint information system was successfully demonstrated and relayed information regarding threats and hazards, actions taken, and assistance available.

Notification and mobilization of joint information system participants was demonstrated successfully and in accordance with state and county plans and procedures, as well as the extent of play. Staff were notified by their respective agencies through various emergency notification systems, alerting them of a simulated incident at the Hatch Nuclear Plant.

Additionally, each spokesperson received an email from Hatch Emergency News Center clerical staff to participate in the joint information system conference bridge line to support public information response efforts. The joint information system was declared activated by the utility public information director once participation and minimum staffing was confirmed on the joint information system line.

The joint information system was entirely virtual with spokespersons participating remotely from their assigned duty stations. Multiple communication systems and devices were used to support a virtual public information response, including telephone, cellular phone, text messages, email, and internet-connected computers or handheld devices. The joint information system conference bridge line was kept open throughout the exercise and used frequently to collaborate, share information, and conduct pre-caucus meetings. A virtual meeting platform was used for the conduct of press briefings, which could be viewed by outside parties using a separate live stream link. All systems used were operational and no system failures were observed.

Spokespersons for the joint information system coordinated and disseminated actionable information in a timely manner to the public and media through four joint state press releases and two press briefings. Press release development and approval occurred at the state operations center. All draft press releases were shared among state, county, and utility public information staff by email, affording all an opportunity to review and provide input prior to approval and dissemination. Approved final press releases were disseminated via a mass media email group from the state operations center by external affairs staff.

Two press briefings with participants from the state, counties, and utility were held during the exercise. The first press briefing occurred during the Site Area Emergency and the second during the General Emergency. Each press briefing was effective in providing timely and coordinated information to the media and public. Prior to each press briefing, a pre-caucus meeting was held on the joint information system bridge line to ensure accurate information was delivered in a cascading manner from most affected jurisdiction to the utility.

Each press briefing opened with remarks from the utility's public information director and then spokespersons briefed in the agreed upon order. Information delivered to the public and media included current plant status, dispelling of rumors and misinformation, and instructions and actions for the public. There were also frequent reminders for the public to reference the emergency information calendar, monitor official government and utility websites and social media sources, and to stay tuned. Information presented by the spokespersons was timely and consistent with protective actions and press releases. Inquiries from media were referred by the facilitator to the appropriate agency. No impediments to evacuation and alternate evacuation routes were relayed to the joint information system to be messaged to the public.

Media monitoring and public inquiry was not observed as those functions were performed by the utility. However, rumors and trends were frequently discussed on the joint information system bridge line and dispelled during press briefings. The official public information line for residents was disseminated via the joint information system early in the incident.

Communication and coordination among the counties, state, and utility public information spokespersons was calm, efficient, and verbal. Emergency information and instructions to the public was disseminated efficiently through all phases of the incident. The joint information system established was effective to relay information necessary to protect public health and safety and proved it can be done in a fully virtual environment given appropriate and operational equipment and technology.

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

3.4.2 Emergency Operations Facility

Operational Coordination Capability Summary:

The Georgia Emergency Management and Homeland Security Agency's field coordinator in the licensee's emergency operations facility provided continual and situational awareness to the state of Georgia's unified and coordinated operational structure in support of Hatch Nuclear Plant.

Per the extent of play, the liaison was prepositioned in the area and responded to the facility upon notification by the state. Upon arrival, the liaison tested and opened multiple communications links with the state operations center. This included cell phone, web conferencing applications, email, and access to the state's web-based incident management software system.

Working closely with licensee's offsite coordinator, the state liaison relayed all updates on the plant's emergency conditions and provided said information to the critical stakeholders in the state operations center. During the exercise, the liaison monitored the state coordinating calls with the counties and ensured the utility was aware of the state and local response activities and protective action decisions. The liaison's performance directly aided the offsite organizations and the licensee's situational awareness as the emergency unfolded at the Hatch Nuclear Plant. These actions led to the successful execution of this core capability.

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

3.5 Risk Jurisdictions

3.5.1 Appling County Emergency Operations Center

Operational Coordination Capability Summary:

Appling County Emergency Management Agency staff successfully demonstrated their ability to establish and maintain a unified and coordinated operational structure and process that appropriately integrated all critical stakeholders and supported the execution of core capabilities.

The Appling County Emergency Management Agency staff demonstrated the ability to notify and mobilize representatives of pertinent agencies in support of an emergency response to a radiological incident at the Hatch Nuclear Plant. The Appling County Emergency Operations Center staff were prepositioned within the emergency operations center in accordance with the extent of play agreement, but they were not mobilized until the Alert notification as outlined in county plans. Upon receipt of the initial emergency notification form from Hatch Nuclear Plant staff, the emergency management director instructed the communications officer to use the 24-hour roster to request representation of each agency within the emergency operations center. The deputy director utilized the backup electronic notification system to ensure all agencies received notification of the incident and were reporting to the emergency operations center. If staffing shortfalls were identified, mutual aid agreements are in place to fulfill the mission. These agreements were reviewed during the staff assistance visit conducted on October 27, 2021. Upon receipt of the exercise message, staff signed in and began setting up their workstations within their designated emergency support function and/or functional area. Upon full activation of the emergency operations center, the emergency management director deemed the facility operational and provided a quick update to staff on situation status, potential protective action recommendations, and updated meteorological data.

The Appling County Emergency Operations Center was capable of supporting an emergency response to an incident at the Hatch Nuclear Plant. The communications equipment used in the emergency operations center was adequate and operable. The primary method of communication, the emergency notification network, worked well without any interruptions. The facility contained sufficient equipment, maps, displays, and other supplies to conduct operations.

The Appling County Emergency Management Director activated and managed the Appling County Emergency Operations Center efficiently. The director exhibited direction and control through support for protective action decisions, which were coordinated with available elected officials. He conducted frequent situational awareness briefings; coordinated response activities with staff; was knowledgeable of resources requested to support emergency operations; and maintained operational status of facilities to support the emergency response. His leadership was a visible attribute within the operations center.

At Site Area Emergency, the Appling County Health Department reviewed the access and functional needs list that was compiled from known residents within the Appling County emergency planning zone and the 'Special Needs Cards' from the Hatch Nuclear Plant annual calendar, which had been completed and mailed in by those requiring assistance. Next, they simulated contacting those individuals for an initial status update. The Appling County Health Department requested five buses from the school transportation director to be staged at the mini command post for relocation of access and functional needs individuals withing Zone A. Once the decision was made to prepare for access and functional needs population relocation, the Appling County Health Department requested support from the Appling County Sheriff's Office and the Baxley Police Department for two deputies/officers to support the transportation mission. Two deputies/officers would also be made available to support the school relocation mission at Altamaha Elementary School. Appling County Health Department would be assisted by Appling County Emergency Medical Services, Appling Healthcare System, Appling County Board of Education, and Appling County Department of Family and Children Services. The Appling County Health Department briefed that the access and functional needs population from Zone A were completely moved to the reception center during the next briefing.

At the General Emergency declaration, Hatch Nuclear Plant personnel recommended evacuation of Zones A, D-5, and E-5. Appling County key decision makers made a protective action decision to evacuate the Appling County side of Zone A. The affected population was notified through the county's electronic emergency notification system. This decision was made and implemented without coordination with critical stakeholders. This lack of coordination with the state and risk counties resulted in unsuccessful notification of the entire Zone A population. Coordinated protective action decisions would have allowed for a unified response and public message.

Once decisions were approved by key decision makers, the director briefed the staff liaisons, which in turn contacted internal organizational personnel for implementation. Actions such as access and functional needs and school relocation; river clearance; and establishment of traffic control points were taken to support evacuation of Zone A. The director and responsible staff focused efforts on ensuring precautionary and protective action decisions were appropriately executed.

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

For this capability, the following radiological emergency preparedness capability target was NOT met: 1.4.

- Plan Issue: 031-21-1.4-P-01

  Capability Target: Objective 1: Emergency Operations Management; 1.4 Protective Action Decisions for the Plume Phase

  Condition: Appling County decision makers' lack of coordination of a protective action decision with supporting and affected jurisdictions prior to decision implementation.

  Analysis: The Appling County Emergency Management Agency Radiological Emergency Plan establishes a course of action for key local governmental authorities to exercise protective action decision authority to evacuate residents from its affected area to a place of safety and/or initiate protective actions; however, the method to coordinate

decisions made under this authority with Georgia Emergency Management and Homeland Security Agency and Jeff Davis, Tattnall, and Toombs Counties is not clear. The residents of the Appling County portion of Zone A were evacuated without coordination or discussion on the decision line prior to implementation and were notified of the decision by the county's reverse calling system. This lack of coordination with the state and risk counties resulted in unsuccessful notification of the entire Zone A population. According to the Appling County Radiological Emergency Plan, Georgia Emergency Management and Homeland Security Agency holds the responsibility to activate the alert and notification system to inform the public of the current emergency status and advise on recommended protective actions. The state learned of the evacuation decision by Appling County during the state group conference call 29 minutes after the implemented evacuation order. It was concurred by the state and counties that activation of the primary alert and notification system, consisting of tandem sirens and an Emergency Alert System message, was not necessary.

The decision line call did not confirm a decision in the best interest of all residents in Zone A and any transient populations. It is the Radiological Emergency Preparedness Program's stance that opposing decisions for a single and/or shared emergency planning zone should be fully discussed in an attempt to reach a viable decision in order to enhance public interest as it pertains to public notification. The state was not notified of the decision to evacuate the public in the Appling County portion of Zone A until after the evacuation was completed by Appling County. Appling County stated on the group call that evacuation had been completed. Because Zone A crossed jurisdictional boundaries, protective actions for the residents in that zone should have been coordinated and communicated among the affected jurisdictions.

Protective action decisions may have been based on early information contained on the utility's emergency notification forms one and two, as they incorrectly indicated an ongoing release of radioactive materials in conjunction with increasing emergency classification levels. The purpose of the emergency classification system is to classify the incident by level of severity to allow for greater levels of response as the significance of the incident increases. Emergency notification forms three through ten were corrected and indicated no significant threat from radioactive materials as the emergency classification levels increased to the highest emergency classification of General Emergency. Emergency notification form seven indicated the protective action recommendation from the plant to evacuate Zones A, D-5, and E-5, affecting Appling and Toombs Counties. Appling County leadership opted to evacuate residents in their portion of Zone A out of an abundance of caution, while Toombs County leadership chose to decline the recommendation due to no significant radiological threat indicated by utility personnel. Coordination among the Georgia Emergency Management and Homeland Security Agency and, Jeff Davis, Tattnall, and Toombs Counties should have been part of the process.

Effect: The lack of proper coordination regarding protective action decisions could potentially put unnotified residents and/or transients in harm's way due to lack of emergency information and instructions. The potential result could have been hundreds of unnecessary evacuations, resulting in congestion of area evacuation arteries and hundreds of residential and media queries to local and county law enforcement and information services, overloading critical assets and communication networks. The public, to include any transient populations, would expect notifications as outlined within the annual safety guidance published by the licensee and distributed among the affected

populations, which would include siren and Emergency Alert System activation. Any deviations from this safety guidance may have an ill effect on the public trust in local authorities. Further, failure to coordinate protective action decisions could be problematic and carry substantial negative results if the entire populace is not notified by the primary alert and notification methods to take protective actions.

References:

1. Appling County Emergency Management Agency Radiological Emergency Plan, Attachment A – Implementation, B. (pg. 45-46)
2. Appling County Emergency Management Agency Radiological Emergency Plan, Attachment G – Notification and Warning, A. (pg. 61)
3. GEMA/HS Radiological Emergency Preparedness (REP) Base Plan 2020, Section VI, Concept of Operations, Sub-Section G.6, Incident Assessment and Protective Response, Table 4 – Emergency Classification – General Emergency.
4. Edwin I. Hatch Nuclear Plant 2021 Emergency Information Calendar
5. Radiological Emergency Preparedness Program Manual, December 2019, Part III, pgs. 188-189.

Recommendations:

1. Revise plan(s) to clearly outline coordination of the individual authority of local government officials along with state and local jurisdictions to make protective action decisions during the next annual plan review. Submit all corrections for FEMA review and report them in the Annual Letter of Certification.
2. Ensure protective action decisions are coordinated properly among the state and counties on the decision line through effective facilitation and clear communication to ensure appropriate communication of local actions in a timely manner.

Public Information and Warning Capability Summary:

The Appling County Emergency Management Agency Director worked closely with the county public information officer and the Georgia Emergency Management and Homeland Security Agency liaison in the emergency operations center to ensure that coordinated, prompt, reliable, and actionable emergency information was disseminated through the joint information center and over the new joint information system. However, the information pertaining to the decision to evacuate Zone A in press release #4 was not promptly coordinated with the Georgia Emergency Management and Homeland Security Agency and Jeff Davis, Tattnall, and Toombs Counties until the next decision line conference call. During this demonstration, the four news releases developed by Georgia Emergency Management and Homeland Security Agency were printed and reviewed and approved by the emergency management director prior to final release to the media and public. This procedure was followed quickly for most press releases and approval of each draft release was transmitted back electronically resulting in accurate information being released to the public during the emergency response. Emergency Alert System message drafting and dissemination were the responsibility of the state, and rumor control was handled by the utility.

Although not driven by the exercise, the director demonstrated through interview the equipment and capability to initiate the sirens and perform primary alerting of the public in the event Georgia Emergency Management and Homeland Security Agency could not. Mass notification to those in the area affected by the ordered evacuation was simulated through the county's electronic emergency notification system. Also discussed was the occurrence of a siren failure and how route alerting would be performed in a timely manner along with electronic text and an automated emergency notification system that would enable selective targeting of populations for specific emergency information.

Precautionary actions were appropriately relayed to the public information officer for inclusion in public messaging. The Georgia Department of Natural Resources liaison and the Appling Emergency Management Agency Rescue Officer briefed the river clearance activities to the public information officer, who passed information on to the joint information system, and the director, who passed the information over the next decision line call. No impediments to evacuation were identified and did not require messaging to the public.

For this capability, the following radiological emergency preparedness capability targets were met: 1.1, 3.1, 3.3, and 5.4.

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

Upon arrival, the Georgia Department of Natural Resources liaison immediately began coordination with the Appling Emergency Management Agency Rescue Officer and the state operations center regarding instructions for potential clearance of the Altamaha River. Vessels were staged quickly, and the river was reported cleared shortly after receipt of the increase in emergency classification level at Hatch Nuclear Plant to Site Area Emergency. The county rescue boats would assist in backup of river clearance activities and would be on standby for additional assignments.

During the Site Area Emergency, Appling County Sheriff's Office deputies and Baxley Police Department Officers were contacted and advised to standby for their traffic control point deployment assignments. The captain established an event radio channel and directed deputies to report to the emergency operations center for distribution of their dosimetry and potassium iodine kits. Primary and secondary communications equipment were used daily for consistency. Upon receipt of the kits, deputies and officers participated in a radiological safety briefing provided by the county radiological protection officer. All law enforcement personnel were well trained and demonstrated knowledge of dosimetry, exposure limits, turn-back values, and potassium iodide procedures. The county radiological protection officer advised that sufficient quantities of dosimetry and potassium iodide were maintained by the Appling County Emergency Management Agency and assigned to all field personnel. All dosimetry calibration dates and potassium iodide expiration dates were verified during the staff assistance visit conducted on October 27, 2021.

Through the interview with the Appling County Sheriff's Office Captain, it was determined that there would be sufficient personnel and vehicles to staff the 17 designated traffic control points as outlined in their plan along with the support of the access and functional needs population and school relocation. Traffic control point determinations were made based on the wind direction provided in the emergency notification form and discussions with the emergency management director. This information would be provided to the necessary deputies/officers via radio/cell phone notification. Any evacuation route impediments and removal of such would be identified and coordinated with the Appling County Public Works

Department and the Baxley Public Works Department. Special barricades, signs, and markers would be provided by the county and city road/public works departments. For extended assignments, assistance would be requested from surrounding counties, City of Baxley Police Department, Georgia Department of Natural Recourses, Georgia State Patrol, and the state highway department. All reentry decisions would be a local/state coordinated decision.

An accident creating an impediment to a major evacuation route along U.S. Highway 1 at Altamaha River Bridge was discussed through interview during the exercise. Referring to a wall map, the Appling County Sheriff stated that barricades would be placed to route traffic to a smaller road and back to U.S. Highway 1. The rerouting would then be detailed to the public information officer, who would pass information on to the joint information system for distribution to the public and media, and the director, who would pass the information over the next decision line call. The county public works and city road department representatives stated that they would have heavy equipment available to assist in clearing accidents; current contracts with heavy equipment moving companies are in place.

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

Critical Transportation Capability Summary:

The Appling County School Superintendent and Transportation Director reported that they were simulating preparation of relocation of 349 students and 61 teachers from Altamaha Elementary School. The transportation director simulated the staging of 10 regular buses for student relocation. Students and staff would be loaded onto the buses and transported to Appling County High School. The buses would be escorted by two sheriff's deputies to the designated high school reunification center. The superintendent remained in constant communication with the principal at Appling County High School. Parents would be notified of the school relocation over the automated notification system. The reunification process would include usage of the already established release process, to include verification of parent picking up student via student information card and identification check. A notification would be made over the automated notification system that students from all schools would be released.

For this capability, the following radiological emergency preparedness capability targets were met: 1.4 and 1.5.

3.5.2 Appling County Medical Services Drill

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

Appling County Emergency Medical Services personnel, Appling Healthcare staff, and Hatch Nuclear Plant Radiological Protection Technicians successfully demonstrated the ability to conduct the Public Health, Healthcare, and Emergency Medical Services Core Capability in response to a radiological incident at Hatch Nuclear Plant during an out of sequence drill.

The Appling County Emergency Medical Services team consisted of two paramedics. At Site Area Emergency and prior to the radiological release, the paramedics were issued personal protective equipment, exposure control equipment, and a radiological safety briefing from the Appling County Emergency Management Deputy Director. Personal protective equipment

consisted of two pairs of gloves, boot covers, and a face mask. The radiological safety briefing was conducted via a pre-recorded online video developed by the Georgia Emergency Management and Homeland Security Agency. It provided thorough information and guidance on exposure limits, use of dosimeters, contamination action levels, documentation, wear of personnel protective equipment, and reporting requirements. Each paramedic was issued a self-reading dosimeter and a permanent record dosimeter. The self-reading dosimeters were zeroed using the available chargers and placed on lanyards outside their protective equipment.

Following the General Emergency declaration, the paramedics were toned out by Appling County 911 dispatch on their radios to respond to a reported injury. The 911 dispatcher stated that the location of the patient was potentially contaminated. The team immediately responded to the accident scene. Once on scene, one paramedic immediately began to assess the patient's injuries while the second paramedic opened the ambulance's rear doors to secure the gurney, backboard, sheets, and other equipment. One sheet was placed on the ground near the patient to serve as a clean area to place medical supplies and equipment.

The paramedics assessed and dressed the patient's wounds on her right ankle and left hand. Next, they began preparing to cocoon the patient. Two clean sheets were placed on the gurney and two additional sheets were placed on the ground adjacent to the patient. A backboard was placed between the two sheets on the ground. The paramedics worked together to roll the patient to get the backboard under her while minimizing movement and cross contamination. The patient was then cocooned in the layer of sheets on top of the backboard, leaving only her face exposed. She was then lifted onto the gurney, cocooned in the top layer sheet, secured with straps, and loaded into the ambulance.

After the patient was loaded, the paramedics put all expendables into an area marked by a pink sheet indicating contaminated items were located at that spot. They would also notify the sheriff's department of the contaminated materials left at the scene. Once in the vehicle, the paramedics notified dispatch that they were departing for Appling Healthcare. The paramedics then called Appling Healthcare and stated their estimated time of arrival was five minutes.

Upon arrival at Appling Healthcare, the patient was removed from the rear of the ambulance and transferred to the hospital staff. Paramedics relayed the patient's vitals and injuries status to the emergency department staff, completing the patient transfer. A Hatch Nuclear Plant Radiological Protection Technician surveyed the paramedics, ambulance, and equipment. Contamination was identified on the wheels of the gurney, and it was removed using wipes. The paramedics were also aware that they could report to the emergency worker decontamination station for additional monitoring and decontamination if needed.

During the demonstration, the emergency medical services team conducted frequent glove changes to mitigate cross contamination. They also monitored their direct reading dosimetry readings every 15 minutes and recorded the reading on the Appling County Radiation Exposure Card. Upon completion of the mission, they returned their dosimetry to the radiological officer. Communication among the paramedics, 911 dispatch, and Appling Health occurred frequently and without any issues. Paramedics were knowledgeable of the county and emergency medical services plans, and they sufficiently mitigated cross-contamination.

Appling Healthcare staff and the Hatch Nuclear Plant Radiological Protection Technicians demonstrated their capability to receive notification of an injured patient; prepare appropriate resources and safety equipment; receive and evaluate the patient; and monitor and decontaminate the patient while minimizing cross contamination. Hospital staff received notification of a General Emergency declaration from Appling County Emergency Management staff. Subsequently, they received notification from Appling Emergency Medical Services that they were responding to a potentially radiological contaminated, injured patient.

Following notifications, the Appling Healthcare radiation emergency area and the emergency medical services arrival area were set up. Staff were familiar with their personal protection equipment, exposure control equipment, and survey meters. Each radiation emergency area nurse and one member of the buffer zone team was issued an electronic direct reading dosimeter and a permanent record dosimeter by the buffer zone nurse. The buffer zone nurse properly documented the issuance of equipment and recorded periodic readings throughout the drill. Appropriate personal protective equipment consisted of head covering, face mask, protective gown, two pairs of gloves, and shoe covers. Reference documents and posters were utilized to ensure proper donning and doffing of personal protective equipment. The Hatch Nuclear Plant Radiological Protection Technicians provided documentation indicating the two Ludlum model 3 survey meters had been calibrated and operationally checked prior to use. Three additional Ludlum Model 3 survey meters were maintained at the hospital but were not used during the drill. The emergency medical services receiving area was directly adjacent to the radiation emergency area. The area was roped off and displayed signs indicating it was a radiologically contaminated area. Appropriate supplies, equipment, instrumentation, and expendables used to prepare for a radiologically contaminated patient were maintained in a cabinet and rolling cart in the radiation emergency area.

Upon arrival at Appling Healthcare, the emergency medical services team transferred the patient into the radiation emergency area and provided a briefing to medical staff on patient status. One radiological protection technician immediately began monitoring the patient while two nurses assessed the wounds on the patent's left hand and right leg. The nurses determined that the wounds were not life threatening and the patent could be decontaminated prior to treatment. The radiological protection technician identified contamination on both patient's hands and on her leg wound. He used excellent monitoring techniques by keeping the probe about one inch from the surface and moving at about two inches per second. His proficiency was further demonstrated when identifying the presence or lack of cross contamination on items throughout the room. The patient's wounds were sufficiently decontaminated by the nurses. Absorbent pads were placed under and around the areas with identified contamination to prevent runoff. Saline solution was used to irrigate wounds and areas of contamination. The area was then blotted dry with gauze pads, the absorbent materials were removed, and the area was re-surveyed. This process was repeated for all contaminated areas until the area was below the action level of 300 counts per minute.

All staff demonstrated proficiency in their individual functions and worked efficiently together as a team. The use of a buffer zone nurse to provide guidance and direction to the team aided in their success. The team used sound contamination control techniques, self-identified and remediated any potential threats for cross contamination, and nothing was removed from the radiation emergency area treatment room without being thoroughly monitored to prevent the spread of contamination.

For this capability, the following radiological emergency preparedness capability targets were met: 2.2, 5.3.

3.5.3 Jeff Davis County Emergency Operations Center

Operational Coordination Capability Summary:

Jeff Davis Emergency Management Agency staff successfully demonstrated their ability to coordinate and implement emergency response in support of an incident at Hatch Nuclear Plant. Jeff Davis Emergency Operations Center staff received the initial notification of an Alert at Hatch Nuclear Power Plant on the emergency notification network from the utility. After verifying that they received the first notification form, the emergency management agency clerk immediately notified essential personnel notated on the agency's 24-hour staffing roster. The personnel roster was also available as a large display on the wall. Additional members from Jeff Davis Emergency Management Agency, Hazlehurst-Jeff Davis Fire and Rescue, and the county administrator arrived shortly after being notified. The facility was determined to be activated at 8:41 AM but was determined to be fully operational at 10:19 AM.

Jeff Davis Emergency Management Agency staff operated out of a temporary emergency operations center while a new facility was being constructed. The temporary emergency operations center was well equipped with tables, chairs, monitors, and a printer. The emergency operations center used the monitors to display the current emergency notification form and web-based incident management system logs from the utility and county. Displays included a map of the emergency planning zone and wind direction, a map of Hatch Nuclear Plant, and a staffing roster for emergency operations. The current emergency classification level was displayed on the wall and changed as the situation dictated.

The primary means of notification from the utility to Jeff Davis County Emergency Management Agency was the utility's emergency notification network. The deputy director answered all emergency notification network calls. Primary communication with the Georgia State Operations Center and other involved response organizations was through a conference bridge telephone line. Alternate means of communication available at the emergency operations center included email and cell phone.

The emergency management director, deputy director, and operations officer successfully demonstrated direction and control of the incident. The director conducted an initial briefing informing the staff about an Alert at Hatch Nuclear Plant. The operations officer followed the director, briefing the information indicated on the current emergency notification form.

Subsequent briefings occurred in the same manner throughout the response. Additionally, the director shared relevant information from the county coordination call with the emergency operations staff. The deputy director maintained situational awareness of information obtained from the utility's online situational awareness log. The command staff, along with the utility representative, ensured the situational awareness of the entire staff.

The Jeff Davis County Emergency Management Agency Director participated in protective action decision-making with the state operations center and the adjacent risk counties during all county coordination calls. The coordination calls were scheduled at regular intervals and after the receipt of each new emergency notification form. The director did not make any protective action decisions for the county due to the wind direction not moving

toward Jeff Davis County and there were no potassium iodide decisions made for emergency workers within the county during the response.

Jeff Davis County did not have any people identified as having access and functional needs or schools within the 10-mile emergency planning zone. Jeff Davis High School was available as a reception center and could provide support whether school was in session or not. Evacuee capacity would be 500 evacuees if schools were open, and 1,100 evacuees with the school not open. The school superintendent was at the emergency operations center and indicated that the school would be notified and available to receive evacuees, if needed. Jeff Davis County Public Health and Emergency Medical Services personnel coordinated to provide support if there were any access and functional needs individuals that would require assistance for evacuation. If any calls for assistance were received, they would be able to respond and provide support.

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

Public Information and Warning Capability Summary:

Jeff Davis Emergency Management Agency Public Information Officers successfully demonstrated their capability to coordinate and deliver prompt, reliable, and actionable information during a radiological emergency at Hatch Nuclear Plant. Offsite public information officers normally assigned to the joint information center worked virtually from remote locations operating in a joint information system environment. The county utilized two public information officers. One public information officer, normally dispatched to the joint information center, participated virtually in media briefings and on the joint information system media bridge line from a room on the second floor of the Hazlehurst Fire Department Station 1. A second public information officer was assigned to the emergency operations center temporally located in the station training room on the first floor, supplying county emergency information to his counterpart by cellular telephone. Email was used for joint information system press release review. There was no bi-lingual requirement for messaging. Four state news releases were reviewed and approved by the emergency management director prior to release. Five utility press releases were also received and read. News releases were posted to an electronic incident management system and provided to the joint information system for dissemination to media representatives.

Joint emergency information messaging to the public and media included early precautionary actions to relocate access and functional needs individuals and school students, as well as river, airspace, and rail restrictions. Additional messaged information included a Georgia governor's state of emergency declaration for the four risk counties and protective actions. The state and counties concurred on precautionary and protective actions, with the state responsible for activation of the alert and notification system; however, the alert and notification system was not activated.

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

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

Traffic and access control was completed by interview with the City of Hazlehurst Police Department and Jeff Davis County Sheriff's Office. There were eleven pre-determined traffic and access control points they were responsible to establish and maintain. Management of traffic and access control was accomplished through coordination between the City of Hazlehurst Police Department and Jeff Davis County Sheriff's Office representatives in the emergency operations center. County law enforcement representatives would coordinate the necessary resources required to support protective action decisions determined during county coordination calls and by the Jeff Davis County Emergency Management Agency leadership. If required, law enforcement leadership would utilize available maps to determine the rerouting of traffic in the event of an impediment, and coordinate with public works representative for additional resources. Law enforcement representatives were also prepared to dispatch resources in support of county reception center and shelter. Coordination for lake clearing and rail and airspace restrictions were coordinated by the state; however, county law enforcement personnel were prepared to support if required. All actions managed by county and city law enforcement representatives would be accomplished in a timely manner using all available assets. There were no traffic and access control or evacuation actions affecting Jeff Davis County during the exercise.

The City of Hazlehurst Police Department and Jeff Davis County Sheriff's Office representatives were knowledgeable of dosimetry, personal protective measures, and aspects related to the ingestion of potassium iodide and not to ingest potassium iodide until directed. They knew to direct evacuees to the reception center and would contact supervisors to answer any question they could not answer. Both officers interviewed were equipped with vehicle mounted radios, handheld radios, and cell phones. The emergency response vehicles and officers were equipped with the necessary response and safety equipment.

By interview, both the law enforcement agencies discussed the process for any potential traffic impediments. Traffic impediments would be resolved by the emergency operations center representatives. They would communicate any impediment to traffic routes to the Jeff Davis County Emergency Management Director. The route change would be provided to the public information officer for dissemination to the public in the event of an evacuation. Support for barricades and equipment to establish and maintain traffic control points would be provided by the City of Hazlehurst Public Works Department.

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

3.5.4 Tattnall County Emergency Operations Center

Operational Coordination Capability Summary:

Tattnall County Emergency Management Agency officials successfully demonstrated the ability to establish and maintain a unified and coordinated operational structure and process that appropriately integrated all critical stakeholders and supported the execution of core capabilities in response to a simulated emergency at the Hatch Nuclear Plant. The Tattnall County Emergency Operations Center and adjacent warning point were outfitted with appropriate equipment, maps, and other resources to facilitate reliable communications and effective management of the overall operation. The emergency operations center and

warning point received all emergency notifications from the utility through the primary communications system, a dedicated phone network connecting the utility with the state and risk counties. Had the primary notification system failed, notifications would have been received over commercial telephone. Several additional layers of redundant communications were demonstrated or tested throughout the response operation. One of the web-based virtual platforms experienced a temporary failure but functioned properly after being re-established. There were no other communications failures noted.

Emergency operations center staff demonstrated timely mobilization of resources; effective direction and control; and sound decision making. Immediately after receiving notification of a Site Area Emergency, the Tattnall County Emergency Management Agency Director made the decision to staff the emergency operations center. The director's administrative assistant utilized a web-based communications system to alert and notify staff to report to their duty stations by one or a combination of the following: commercial or cellular telephone; text message; or email. If the system malfunctioned, a pre-designated staffing roster would be used by emergency management staff to contact everyone via commercial or cellular telephone. A 24-hour staffing roster was provided. Upon the timely arrival of department heads and other key personnel, the director declared the emergency operations center fully activated. The director and operations chief conducted subsequent briefings at regular intervals to provide and maintain situational awareness. Additionally, the director participated in frequent state and county coordination calls over a state-facilitated conference bridge line. The director and other key decision makers utilized pertinent information to discuss and make informed decisions to protect the health and safety of Tattnall County citizens and emergency workers. Although there were no schools, institutionalized individuals, or citizens with access and functional needs identified in Tattnall County's portion of the emergency planning zone, procedures were discussed to provide transportation or other resources if requested. However, no unmet needs were identified, nor resources requested.

Select emergency operations staff demonstrated, or discussed via interview, the capability to manage traffic control point operations, including emergency worker dose and exposure. The Tattnall County Sheriff's Office representative described their responsibility for establishing and managing traffic and access control point operations. At the Alert emergency classification level, the sheriff's office assigned deputies to specific locations as a proactive means to readily respond to worsening conditions. Prior to deployment, officers would be directed to the Tattnall County Emergency Operations Center for a radiological safety briefing, dosimetry, and potassium iodide. Assistance would be provided by the Georgia State Patrol for all state highways, and the Tattnall County Police Department for all county roads. Debris removal and barricading equipment would be provided by the Tattnall County Public Works Department. The Georgia Department of Transportation would aid the Tattnall County Public Works Department when assets became austere.

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

Public Information and Warning Capability Summary:

The Tattnall County Emergency Management Agency staff successfully assisted in providing coordinated, accurate, prompt, reliable, and actionable emergency information and instructions to the public via the joint information system. The joint information system was utilized instead of the joint information center model, allowing county public information

officers to remain at their own emergency operations centers, rather than travel to the joint information center. The public information officers were able to remain in constant contact and communicate with public information officers from the utility, state, and other risk counties of Appling, Jeff Davis, and Toombs, through a variety of methods including electronic situational awareness tool, the press conference webcast, conference bridge line, as well as text, email, and cellular telephone.

The primary ways to communicate to the public and the media were through press releases and press conferences. Over the course of the exercise, the state, through the Georgia Emergency Management and Homeland Security Agency, produced four press releases and the utility disseminated another five. The press releases were developed at the Georgia State Operations Center in conjunction with the utility, state, and county leadership. Press releases were generated once the utility declared Alert, Site Area Emergency, and General Emergency classifications. In addition, these press releases included information regarding safety steps residents should take, the public information line, other sources of information such as local radio and television, the Ready Georgia website, and the *Edwin I. Hatch Nuclear Plant 2021 Emergency Information Calendar*.

Once a draft press release was developed at the state operations center, it was emailed to the Georgia Emergency Management and Homeland Security Agency liaison stationed at the Tattnall County Emergency Operations Center. They, in turn, passed it along to the county director for review and approval. Once approved, the state liaison reached back to the Georgia Emergency Management and Homeland Security Agency External Affairs staff for distribution to the media according to the state's Public Information for Nuclear Events Operating Procedures. The coordination of this method was rapid, efficient, and effective.

Public inquiry calls and media monitoring were also managed at the state level. Pertinent rumors and trends were shared with the counties. Because Tattnall County did not have a foreign language-speaking population greater than 10,000, emergency public information was not translated into additional languages.

Two press conferences were conducted during the exercise over a virtual web-based platform. Prior to each press conference, there was a pre-caucus which included the utility; Georgia Emergency Management and Homeland Security Agency; as well as other state and county public information officers. This process utilized the joint information system conference bridge line. There, the spokespersons coordinated their messages and determined the order to prioritize critical emergency information. Following their presentations, the public information officers were available to answer questions asked by mock media. It was observed during the second press conference that the Tattnall County Public Information Officer mistakenly said that county residents were to shelter in place. This was not declared as a protective action taken by the county and could cause confusion among the public.

Activation of the alert and notification system fell under the responsibility of staff at the state operations center. The system was not activated during this exercise.

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

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

Tattnall County Sheriff's Office deputies discussed their ability to establish and staff traffic and access control points and remove impediments to the flow of evacuation traffic in response to a radiological emergency at Hatch Nuclear Plant. The Tattnall County Sheriff's Office, with assistance from Tattnall County Public Works, Georgia State Highway Patrol, City of Reidsville Police Department, and both the local and state departments of transportation, would have sufficient equipment, maps, and communication capabilities to conduct traffic and access control operations.

Tattnall County emergency workers successfully demonstrated, or discussed via interview, the capability to manage radiological dose and exposure, including following procedures to obtain authorization to receive emergency exposures in excess of the protective action guidelines. Upon arrival to the emergency operations center, the radiation safety officer provided a safety briefing to all authorized emergency workers that included a video distributed by the Georgia Emergency Management and Homeland Security Agency. After a detailed radiation safety briefing, the radiation safety officer completed an Incident Radiation Exposure Record for each emergency worker. Each member was given a two-day supply (4 pills) of potassium iodide and instructions to record ingestion times if directed to ingest; a

permanent record dosimeter; and a 0–20 R direct reading dosimeter, with instructions to check readings every 15 minutes. The officers were knowledgeable of dose limits, reporting values, and procedures to request assistance. All dosimetry and potassium iodide were verified during previously scheduled staff assistance visits.

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

3.5.5 Toombs County Emergency Operations Center

Operational Coordination Capability Summary:

The Toombs County Emergency Management Agency Director and emergency operations center staff successfully established and maintained a unified structure that integrated whole community partners, including elected officials. This unified structure supported the execution of core capabilities in order to protect public health and safety in the event of a radiological incident at the Hatch Nuclear Plant.

Initial notification of an Alert declaration was emailed to the Toombs County Emergency Management Agency Director from a 911 communications officer. The communications officer also called the director via cellular telephone to verify receipt of emergency notification form #1 which contained the Alert declaration. All subsequent notifications made by the utility were received by the communications officer or clerk in the emergency operations center via the utility's dedicated emergency notification network. As a result of the Alert declaration, the clerk was instructed by the director to begin notifying and mobilizing staff using the 24-hour staffing roster, beginning at the top. A check mark and highlighter were used to annotate successful notifications. Any individuals who were non-responsive were called again or an alternate point of contact was contacted. The 24-hour staffing roster was reviewed and updated at least quarterly.

Staff were pre-positioned in accordance with the extent of play agreement. Following receipt of notification by the clerk, staff began arriving at the emergency operations center, signed in, and were given an exercise identification badge. The Toombs County Emergency Operations Center operated out of a temporary location as emergency management leadership and staff had not yet moved into their new facility. Due to this time of transition and impending move to a new facility, the temporary emergency operations center contained minimal furnishings, equipment, and supplies. Additionally, there were limited communications systems; there were no landline telephones, televisions, an electronic situational awareness tool, tele- and/or video-conference platforms, etc. The primary communications method between the utility and director was the emergency notification network. The primary communications method between the director and emergency operations center staff to external counterparts and partners, including the state, was cellular telephone. Even the county coordination call was conducted via cellular telephone. All systems used were operational; there were no communications failures.

Once all agency and organization representatives were signed in and seated, the emergency operations center was declared activated by the emergency management director. Direction and control for the overall response effort was provided by the emergency management director and supported by the operations officer and emergency operations center staff. Following receipt of each emergency notification form, the operations officer would read aloud the form to emergency operations center staff. A Hatch Nuclear Plant Liaison provided additional information and context related to plant status and meteorological data. This process was used to inform staff of each of the nine emergency notification forms received from the utility.

Additionally, the emergency management director participated in five coordination calls initiated by the state via cellular telephone, with emergency management directors from Appling, Jeff Davis, Tattnall, and Toombs Counties. Roll call was conducted using the same order listed above; all directors confirmed their presence. The state facilitated the call and asked for the utility liaison to provide an update on plant status. Each director was then asked to provide an update on decisions made and actions taken within their counties. This same process was used for each decision line call and ensured consistency and continuity among all emergency management agencies.

Based on plant status and the escalation from Alert to Site Area Emergency, precautionary actions were decided upon and implemented by the director. The director coordinated with representatives from law enforcement, fire, emergency medical services, Georgia Department of Natural Resources, transportation, the school district, and the board of education to simulate closure the river and relocation of Toombs Central Elementary School students, faculty, and staff. Additionally, the director noted that those individuals with access and functional needs were being relocated, but this action was not complete as the director did not have a list of those individuals requiring assistance. Instead, the director had to wait until they called 911 requesting assistance, meaning this decision could take significant time to implement before it was considered complete.

Following the General Emergency, and during the fourth coordination call, the Toombs County Emergency Management Agency Director questioned the protective action recommendation to evacuate zones A, D-5, and E-5, as there was no release or technical basis to support the recommendation. The director made the decision to not evacuate these zones. As a result, no resources were requested from the state, but the process through which resources would be requested was explained. The state liaison in the emergency

operations center briefed that potassium iodide was not being recommended for ingestion by emergency workers as there was no release occurring.

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

Public Information and Warning Capability Summary:

Toombs County did not have a public information officer available the day of the exercise. A liaison from the Georgia Emergency Management and Homeland Security Agency was sent to assist the county emergency management director with the coordination of press releases written by state public information officers. The liaison received draft press releases via email and provided a copy to the emergency management director for review. Corrections were noted and the liaison emailed the reviewed draft back to a state public information officer in the state operations center in Atlanta, Georgia. Neither the liaison nor the emergency management director participated in press conferences; the Georgia Emergency Management and Homeland Security Agency spokesperson provided information on the county's behalf. There were no media inquiries or rumors impacting Toombs County. Additionally, exercise play did not result in an evacuation, so no impediment to evacuation was presented.

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

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

Toombs County Sheriff's Office Deputies successfully discussed the establishment and staffing of traffic control points, as well as the removal of impediments on evacuation routes. The deputies would receive notification via cellular telephone from the Toombs County Emergency Operations Center Clerk, informing them of the emergency classification level and request to establish and staff traffic control points.

The deputies would primarily communicate with one another, as well as their representative in the emergency operations center, using the radio system in their car or portable radio on their duty belt. Other communications methods included cellular telephone, short message service, and/or electronic mail. The deputies tested their radios and logged results daily. Communications system failures would be handled on the spot, including replacing or charging batteries, or replacing radios entirely. It was further explained that when communications contain instructions, the deputy on the receiving end will repeat the information to ensure accurate information was received and acted upon and that there were no communication failures.

The director, acting as the radiological protection officer, conducted an emergency worker briefing for the deputies in conjunction with showing a radiation protection video. The briefing and video both reviewed important information such as dosimeter operation and placement; dose limits; logging their dosage; when to ingest potassium iodide; potassium iodide side effects; and approval authority for ingesting potassium iodide. The emergency workers were then issued kits containing a direct reading dosimeter, permanent record dosimeter, potassium iodide (simulated), radiation dose record, and a dose limit smart card. The director stated the county had enough kits for all emergency workers within the county, including 1,400 doses of potassium iodide, if needed.

Through interview, it was evident the emergency workers knew how, when, and why dosimetry and potassium iodide were needed and used. The direct reading dosimeter was placed into use and both deputies verified their dosimeter had been zeroed. They knew the direct reading dosimeter was to be read every 30-minutes, or as directed by their supervisor, and that their administrative dose limits were 1R (call back) and 5R (turn back). Placement of the permanent record dosimeter was demonstrated, as well as completion of the radiation dose record. The emergency workers confirmed they would only ingest potassium iodide when directed by their supervisor. Additionally, a staff assistance visit was conducted on May 5, 2021, to validate quantities and types of equipment and leak test and calibration dates.

During the exercise, there were no precautionary or protective action decisions made that required the establishment and staffing of traffic control points within the county. However, the Toombs County Sheriff's Office deputies described in detail the process by which the six points would be established and staffed from memory. It was mentioned that a number of deputies, as well as the emergency management director, also knew the locations from memory. Though it was admirable the deputies had a working knowledge of the county, this could result in miscommunication of a location or continuity issues during future operations. It was recommended that each location be documented with an address, map, equipment needed, number of personnel, etc. This would help prevent any miscommunication and also assist deputies, or other supporting law enforcement officers, who may be unfamiliar with the roles and/or responsibilities associated with a traffic control point.

Each traffic control point would be staffed with two deputies, along with firefighters and emergency management personnel, as needed. If the need to staff traffic control points exceeded the available number of deputies, and no other personnel were available to assist, priority would be placed on staffing those points in higher trafficked locations. Also, any traffic impediments identified would be reported by the onsite traffic control point led to the sheriff's office deputy in the emergency operations center. If necessary, a deputy, firefighter, or emergency management personnel would arrive onsite to evaluate the impediment. If determined that the impediment could be removed quickly, the sheriff's office would contact county public works personnel to remove the impediment. If determined that the impediment could not be removed quickly, an alternate route would be identified for use by evacuees. Use of an alternate route would be discussed with the director and operations officer for approval before any action was taken. This information would then be shared with the county public information officer for dissemination to the public.

When the need to reenter an evacuated zone became relevant, the deputies would take direction from the director and establish reentry procedures, including who would be authorized to reenter and when and where they may reenter. Along with reentry procedures, the director would also be involved in the decision-making process related to monitoring and decontaminating personnel, vehicles, and equipment; a predetermined decontamination site would be used to complete monitoring and decontamination activities.

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

Critical Transportation Capability Summary:

The Toombs County Emergency Management Agency Director and Toombs County School District Transportation Director successfully discussed the capability to utilize appropriate factors and necessary coordination in the decision-making process used to make protective action decisions for schools. Through interview with the Toombs County Emergency Management Agency Director, it was explained that Toombs Central Elementary School was the only school located within the 10- mile emergency planning zone and maintained its own emergency plan. If an Alert was declared, evacuation of all students, faculty, and staff would be completed by bus and they would be transported to Toombs County Middle School in Lyons, Georgia. This host school would subsequently be set up as a monitoring and decontamination site, and students, faculty, and staff would be taken to the Toombs County Agri-Center in Lyons, Georgia, where students would be picked up by their parent or guardian. If an event was rapidly occurring and evacuation would result in exposure to radiation, sheltering-in-place would be implemented.

During the exercise, when an Alert was declared by the utility, the Toombs County Emergency Management Agency Director simulated a call to the Toombs County School Superintendent to inform the superintendent of the plant status and recommend the evacuation of Toombs Central Elementary School. The director then notified the Toombs County School District Transportation Director, who was in the emergency operations center.

An interview was conducted with the Toombs County School District Transportation Director. Toombs Central Elementary School had 500 students and 75 faculty and staff. Once a decision was made to evacuate the school, a message would be sent out via an automated mass calling system to notify parents to pick up their children at the Toombs County Agri-Center. The transportation director regularly keeps five buses at the school while in session. An additional three buses, plus one that would be outfitted for transporting students with disabilities or access and functional needs, would be deployed from other nearby schools. Drivers would be notified by the transportation director using commercial or cellular telephone and would maintain communications by radio. Faculty would bring their classroom attendance lists with them and would be responsible for the release of students to authorized parents or guardians. The school nurse would also be evacuated and remain with the students until they are picked up. School nurses from non-impacted schools may be requested to report to the Toombs County Agri-Center to assist. Students that attend school outside the emergency planning zone but live within it would also be taken to the Toombs County Agri-Center.

For this capability, the following radiological emergency preparedness capability targets were met: 1.4 and 1.5.

3.5.6 Toombs County Emergency Vehicle Decontamination

Environmental Response/Health and Safety Capability Summary:

Toombs County emergency vehicle decontamination facility personnel demonstrated that facilities, equipment, and procedures were in place to provide monitoring and decontamination of emergency response vehicles, and transport of individuals to the nearby reception and congregate care facility for monitoring.

Signage and route markings clearly directed individuals to proceed through a designated traffic flow path. Clean and contaminated areas were clearly marked and controlled throughout the facility. Facility workers wore appropriate protective equipment. Specific areas were set up for initial emergency vehicle monitoring, vehicle wash, interior survey area, holding area for workers waiting transport to the reception center, and contaminated vehicle parking. Signs and barrier tape were in place to assist drivers to the appropriate location within the facility. All handheld radiation survey meters were within current calibration. Survey meters were checked for proper operation using an appropriate source. Permanent record dosimetry, direct reading dosimetry, and potassium iodide were distributed to all responders.

Participants were provided a radiological safety briefing using a Georgia Emergency Management and Homeland Security Agency video which explained the use of dosimetry and potassium iodide, and record keeping. Each emergency worker was issued a dosimetry packet containing a direct reading dosimeter, permanent record dosimeter, potassium iodide, radiological exposure control form, and thyroid blocking agent control form. When interviewed, workers demonstrated that they understood radiation exposure limits, intervals for reading dosimeters, instructions for recording values, and had a basic knowledge on the use of potassium iodide. They explained that dosimetry and paperwork would be turned in to the radiological officer at the end of their assignment. Because the vehicle decontamination area was located outside of the emergency planning zone, use of potassium iodide and extension of the turnback exposure limit was not anticipated.

Initial vehicle monitoring was conducted using a portal monitor set up in vehicle monitoring configuration, with the two side columns set up approximately ten feet apart and use of mats to protect the electrical cord running between the two columns. The portal monitor was source-checked prior to use to ensure that each of the four detectors responded appropriately, and the corresponding alarm was illuminated on the control panel.

Two emergency vehicles were processed through the portal monitor. As each vehicle approached the portal monitor area, the vehicle was stopped by an emergency worker acting as a recorder. The driver was directed to proceed slowly through the portal monitor while an emergency worker observed the portal control panel to note if a detector alarmed. The results of initial monitoring were recorded on the vehicle monitoring form for each vehicle.

A handheld survey meter was used to monitor the front and back bumper and grill area of each vehicle. Emergency workers explained that radiation readings above the contamination trigger level would be identified as contaminated and recorded on the vehicle monitoring form. The clean vehicle was directed to drive along the non-contaminated path marked with traffic cones to exit the vehicle monitoring area through an exit gate which would automatically open. The vehicle occupants would be directed to park and proceed to the reception and congregate care center for monitoring and decontamination. The contaminated vehicle was directed to drive on the contaminated side of the roadway to the next station for decontamination. The vehicle monitoring form was transferred to workers at subsequent stations.

The vehicle in the contaminated flow path was given a more extensive exterior survey, with attention given to tires, fender wells, bumpers, door handles, and grill. When the vehicle was found to be contaminated greater than the action level the information was entered on the monitoring form. The vehicle was directed to a wash station where the exterior was washed with a water spray using low volume and low water pressure. Decontamination personnel

were careful to prevent splash and spread of contamination. Particular attention was paid to the areas where contamination was located on the exterior survey. Once the initial wash was complete, the driver was directed to proceed to the next station for a post-wash exterior vehicle survey. A second wash would be conducted if contamination was found above action levels.

After the vehicle was decontaminated and re-monitored, the driver was instructed to stop at a designated interior monitoring station. Response personnel instructed the driver to place the vehicle in park, undo their seat belt and open the door, but not exit. A survey was conducted of the soles of the shoes of the driver. After the driver exited the vehicle, a comprehensive survey was conducted of the interior. The survey included the steering wheel, shifter, floor mats and pedals, seat, door handles, and any item in the interior that might have been touched by the driver.

Contaminated vehicles would be directed to park in the practice football field. Occupants would be provided shoe covers. Workers explained that a small bus or golf cart would be used to transport the driver and passengers to the reception and congregate care center for monitoring and decontamination located at the front side of the school.

Waste containers were used to hold potentially contaminated trash. Trash bags would be stored away from work areas to prevent an increase in background radiation levels. Equipment inside vehicles would also be surveyed for contamination. Contaminated emergency worker equipment and workers' turnout gear would be held, pending decontamination as time allowed. At the end of their shift, workers would process through the monitoring facility at the front of the middle school.

For this core capability the following capability targets were MET: 2.2, 5.1, 5.2.

3.5.7 Toombs County Reception Center & Congregate Care

Environmental Response/Health and Safety Capability Summary:

Toombs County reception and congregate care center personnel successfully demonstrated that facilities, equipment, and procedures were adequate to provide monitoring and decontamination of evacuees and emergency workers in response to a radiological emergency at Hatch Nuclear Plant. The facility setup and traffic flow were clearly designated by signage, traffic cones, route markings, and personnel directing individuals to different functional stations. Signs, contamination control supplies, protective clothing, stanchions, and barrier ribbon were sufficient to minimize the spread of contamination.

Appropriate equipment and supplies were available to support monitoring, decontamination, and care of individuals who chose to remain in the congregate care facility. Direct reading dosimeters were within current leak testing dates. Handheld radiation survey meters were within current annual calibration dates. The portal monitor and handheld survey meters were checked for proper operation using an appropriate source.

A radiological safety briefing was provided to emergency workers using a Georgia Emergency Management and Homeland Security Agency video which explained the use of dosimetry, potassium iodide, and record keeping. Workers were issued a dosimetry packet containing a direct reading dosimeter, permanent record dosimeter, potassium iodide, radiological exposure control form, and thyroid blocking agent control form. When interviewed, workers

demonstrated that they understood radiation exposure limits, how often to read dosimeters and record values, and had a basic knowledge on the use of potassium iodide.

Evacuees and emergency workers entering the facility would process through a vehicle portal monitor and then be directed to appropriate areas for vehicle decontamination, holding or clean vehicle parking. There was adequate space to park the number of vehicles expected at this location. Individuals who had contaminated vehicles would be transported from the contaminated vehicle parking area to the monitoring area entrance by a bus or golf cart.

Clean and contaminated areas were clearly marked and controlled throughout the facility. Route markings and personnel directed evacuees and emergency workers to an initial monitoring area where they would be monitored for contamination using a portal monitor. Individuals entering the facility from the vehicle parking area were provided shoe coverings to prevent spread of contamination into the facility. Service animals would be monitored along with their owner; companion animals were not permitted at this location.

One portal monitor was set up to demonstrate initial monitoring for evacuees and emergency workers. Six individuals were processed through the portal monitor. Based on the average time taken to process each individual, it was determined that one portal monitor was sufficient to process twenty percent of the expected population arriving at this facility within a twelve-hour time period. A monitoring and decontamination form was initiated for every evacuee that entered the facility, and the form accompanied the evacuee through the facility.

Individuals who did not alarm the portal monitor were instructed to remove their shoe covers and were directed to the registration area. Clean individuals were provided their monitoring and decontamination form which indicated that they had processed through the portal monitor with no alarm. Individuals who alarmed the portal were escorted to a male or female locker room for decontamination. In both male and female decontamination areas, contamination control supplies, protective clothing, job aids, step-off pads, stanchions, and barrier tape were sufficient to control the spread of contamination. Contaminated individuals were instructed to remove their clothing and to shower. Following decontamination, individuals were monitored with a handheld instrument. Workers were able to explain the contamination action level requiring further decontamination. A maximum of two attempts would be made at decontamination. Modesty clothing was provided for individuals who had been decontaminated. If evacuees or emergency workers were successfully decontaminated, it would be indicated on his/her monitoring/decontamination form. If an individual could not be successfully decontaminated, the reception center manager would arrange transport to a medical services hospital for further evaluation and medically supervised decontamination.

Contaminated waste was disposed of in large bags. When waste containers were full, they would be relocated to hallway storage closet to prevent the waste from increasing background radiation levels in occupied areas. Personal belongings were surveyed for contamination; decontamination personnel explained how contaminated personal items would be packaged. If no contamination was found on personal and items; they were returned to the evacuees.

For this core capability the following capability targets were MET: 2.2, 5.1, 5.2.

Mass Care:

The Toombs County reception and congregate care center personnel successfully demonstrated that facilities, equipment, and procedures were in place to provide temporary shelter, congregate care, and registration of evacuees. Prior to being allowed access to the shelter, workers would ensure the individual had a completed monitoring form indicating they were not contaminated. A reception center registration form was then completed. If the evacuee was to be housed in the congregate care facility, they completed a shelter dormitory registration form and were escorted to the dormitory area. Individuals with special needs were provided additional consideration to meet their needs. When interviewed, the American Red Cross staff explained that the congregate care facility in the gym could house 100 people. Classrooms would be utilized to handle overflow to meet additional sheltering needs of the evacuated population as necessary. A supply trailer was available for inspection. The supply trailer contained cots, blankets, meal kits, and additional supplies. Congregate care center staff explained that food would be provided by agreements with local vendors. A nurse's kit was stored in the office in a climate-controlled area and would have been transported to the congregate care facility when activated.

For this capability the following REP capability target was MET: 5.1.

Section 4: Conclusion

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

The analysis of capabilities sections above described the state of Georgia and Hatch Nuclear Plant offsite response capabilities. Assessment activities evaluated by core capabilities, objectives, and capability targets were demonstrated. Officials and representatives from participating agencies and organizations demonstrated knowledge of their emergency response plans and procedures involving a radiological incident at the Hatch Nuclear Plan and implemented them during the exercise and out of sequence activities. FEMA staff identified one level 1 finding and one plan issue during this exercise. Based on the corrective actions taken in accordance with the remedial action plan submitted by Georgia Emergency Management and Homeland Security Agency, it has been determined the level 1 finding for failure to activate the alert and notification system has been corrected. The plan issue assigned to Appling County will require revision and updating of the appropriate plans/procedures during the next annual plan review. The state will submit all corrections for FEMA review and report them in the Annual Letter of Certification.

Based on the results of this exercise and FEMA's review of the 2021 Annual Letter of Certification submitted by Georgia, the offsite radiological emergency response plans and preparedness of the state of Georgia and the affected local jurisdictions site-specific to the Hatch Nuclear Plant can be implemented. They include actions to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of an emergency at the site. The Title 44 CFR, Part 350 approval of the offsite radiological emergency response plans and preparedness site-specific to the Hatch Nuclear Plant granted on May 5, 1981, will remain in effect.

The professionalism and teamwork of the participants were evident throughout all phases of the exercise. Despite the current pandemic and other ongoing real-world response efforts, exercise planning and demonstration continued. FEMA wishes to acknowledge the efforts of the many individuals who planned for and participated in this 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						
		SEOC	Dose Assessment	Appling County	Jeff Davis County	Tattnall County	Toombs County	JIS*
Unusual Event	-	-	-	-	-	-	-	-
Alert	8:25 a.m.	8:40 a.m.	8:40 a.m.	8:35 a.m.	8:32 a.m.	8:32 a.m.	8:36 a.m.	9:49 a.m.
Site Area Emergency	9:49 a.m.	9:56 a.m.	9:56 a.m.	9:56 a.m.	9:55 a.m.	9:56 a.m.	9:55 a.m.	10:53 a.m.
General Emergency	11:38 a.m.	11:48 a.m.	11:48 a.m.	11:48 a.m.	11:48 a.m.	11:51 a.m.	11:54 a.m.	1:19 p.m.
Simulated Rad. Release Started	N/A	-	-	-	-	-	-	-
Simulated Rad. Release Ended	N/A	-	-	-	-	-	-	-
Facility Declared Operational		9:10 a.m.	9:10 a.m.	8:50 a.m.	10:19 a.m.	10:37 a.m.	9:32 a.m.	9:17 a.m.
State of Emergency Declared	State	12:10 p.m.	12:10 p.m.	12:10 p.m.	12:10 p.m.	12:10 p.m.	12:10 p.m.	1:19 p.m.
	Local	-	-	10:00 a.m.	-	-	-	-
End Exercise		1:23 p.m.	1:23 p.m.	1:23 p.m.	1:21 p.m.	1:24 p.m.	1:22 p.m.	1:31 p.m.
Precautionary Actions:		-	-	9:55 a.m.	-	-	-	10:53 a.m.
Schools relocated		-	-	-	-	-	10:54 a.m.	1:05 p.m.
River closure Railroad Restrictions Flight Restrictions		10:10 a.m. 10:30 a.m. 10:40 a.m.	10:10 a.m. 10:30 a.m. 10:40 a.m.	10:10 a.m. 10:30 a.m. 10:40 a.m.	10:10 a.m. 10:30 a.m. 10:40 a.m.	10:10 a.m. 10:30 a.m. 10:40 a.m.	10:10 a.m. 10:30 a.m. 10:40 a.m.	10:53 a.m.
Protective Action Decision 1: Evacuation: Partial A in Appling Co; Not to evacuate Toombs (partial A, D-5, E-5)		12:17 p.m.	12:17 p.m.	11:48 a.m.	-	-	12:10 p.m.	1:19 p.m.
KI Ingestion Decision: No KI for Emergency Workers		11:55 a.m.	11:55 a.m.	10:20 a.m.	-	-	12:03 p.m.	-

*Denotes the time in which a decision was messaged.

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Appendix B: Evaluator Assignments

Location/Venue	Evaluation Team	Core Capability
Georgia State Operations Center	Robert Nash Jim Greer Charles Williams Steve Watts	Operational Coordination Public Information and Warning
Emergency Operations Facility	Robert Spence	Operational Coordination
Joint Information Systems	Glenda Bryson	Public Information and Warning
Georgia Dose Assessment	Jill Leatherman	Situational Assessment Environmental Response/Health and Safety
Appling County Emergency Operations Center	Gerald Mclemore Farrah Stewart Roy Smith	Operational Coordination Public Information and Warning On-Scene Security, Protection, and Law Enforcement Critical Transportation
Appling County Medical Services Drill (OOS)	Matthew Bradley Robert Nash	Public Health, Healthcare, and Emergency Medical Services
Jeff Davis County Emergency Operations Center	Quintin Ivy Dave Ortman PJ Nied	Operational Coordination Public Information and Warning On-Scene Security, Protection, and Law Enforcement
Tattnall County Emergency Operations Center	Nate Nienhius George Odom Peter Judge	Operational Coordination Public Information and Warning On-Scene Security, Protection, and Law Enforcement
Toombs County Emergency Operations Center	Erica Houghton Gene Taylor Matthew Welshans Teri Engelhart	Operational Coordination Public Information and Warning On-Scene Security, Protection, Law Enforcement Critical Transportation
Toombs County Emergency Worker Decontamination (OOS)	DeShun Lowery Deb Blunt; Marcy Campbell; Ronald Schmitt; Cheryl Weaver; Roger Winkelmann; ICF	Environmental Response/Health and Safety
Toombs County Reception Center & Congregate Care (OOS)	DeShun Lowery Deb Blunt; Marcy Campbell; Ronald Schmitt; Cheryl Weaver; Roger Winkelmann; ICF	Environmental Response/Health and Safety Mass Care

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Appendix C: Evaluator Assignments

Participating Organizations
State of Georgia
Georgia Emergency Management and Homeland Security Agency
Georgia Department of Agriculture
Georgia Department of Natural Resources/Environmental Protection Division
Georgia Department of Natural Resources/Law Enforcement Division
Georgia Department of Public Health
Georgia Forestry Commission
Georgia State Patrol
Appling County
Appling County 911
Appling County Coroner
Appling County Board of Commissioners
Appling County Board of Education
Appling County Emergency Management Agency
Appling County Emergency Medical Services
Appling County Division of Family and Children Services
Appling County Health Department
Appling County Public Works
Appling County Road Department
Appling County Sheriff's Office
City of Baxley Fire Department
City of Baxley Police Department
City of Baxley Public Works

Jeff Davis County
City of Hazlehurst Fire Department
City of Hazlehurst Fire and Rescue
City of Hazlehurst Police Department
City of Hazlehurst Public Works
Jeff Davis County Division of Family and Children Services
Jeff Davis County Emergency Management Agency
Jeff Davis County Emergency Medical Services
Jeff Davis County Fire Department
Jeff Davis County Public Health
Jeff Davis County Public Works
Jeff Davis County School District
Jeff Davis County Sheriff's Office
Tattnall County
City of Cobbtown
City of Glennville Police Department
City of Glennville Public Works
City of Manassas
City of Reidsville
City of Reidsville Fire Department
City of Reidsville Police Department
Tattnall County 911
Tattnall County Board of Commissioners
Tattnall County Board of Education

Tattnall County (Continued)
Tattnall County Commissioner
Tattnall County Coroner
Tattnall County Division of Family and Children Services
Tattnall County Emergency Management Agency
Tattnall County Emergency Medical Services
Tattnall County Health Department
Tattnall County Information Technology
Tattnall County Public Works
Tattnall County Road Department
Tattnall County Sheriff's Office
Toombs County
City of Lyons Police Department
City of Vidalia Fire Department
City of Vidalia Police Department
Toombs County Board of Education
Toombs County Division of Family and Children Services
Toombs County Emergency Management Agency
Toombs County Fire and Rescue
Toombs County Public Health
Toombs County Schools Transportation
Toombs County Sheriff's Office
Private Sector
American Red Cross
Appling Healthcare

Private Sector (Continued)
Southern Nuclear Company
Federal
United States Department of Homeland Security, Federal Emergency Management Agency, Region 4
United States Nuclear Regulatory Commission, Region 2

Appendix D: Extent of Play Agreement

SECTION 1: EXERCISE OVERVIEW

Purpose

The purpose of this extent-of-play agreement identifies the conditions that will be used to conduct, control, and evaluate the Edwin I. Hatch Nuclear Plant Plume Exposure Pathway Exercise, as agreed to by the offsite response organizations and Federal Emergency Management Agency (FEMA) Region 4, Regional Assistance Committee (RAC) Chair.

The extent-of-play agreement is negotiated during the exercise planning process and documents deviations from activities as described in plans and procedures for exercise demonstration purposes. The extent-of-play agreement identifies the capability targets that will be evaluated during the exercise, including any exceptions, as well as the entities responsible for demonstrating the capability targets.

Scope

All activities will be demonstrated fully in accordance with respective plans and procedures as they would **be in an actual emergency. This extent-of-play agreement is written by exception. If an exception is not** included below then the activity will be demonstrated as described in plans and/or procedures. Any issue or discrepancy arising during the Plume Exposure Pathway Exercise may be redemonstrated, if allowed by the 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 lead offsite response organization controller and lead FEMA evaluator.

References, Plans, and Procedures

The following references, plans, and procedures will be used to evaluate the offsite response organizations:

- GEMA/HS REP Base Plan - 2020
- GEMA/HS Public Information for Nuclear Events Operating Procedures - 2020
- ERP-3 Radiation Emergency Coordinator Operations - June 2021
- ERP-6 Radiation Exposure Control and Thyroid Blocking Agent Procedures for Personnel Entering the Plume Exposure Pathway Emergency Planning Zone - September 2020
- Appling County Radiological Emergency Plan - 2021
- Jeff Davis County Radiological Emergency Plan - 2021
- Tattnall County Radiological Emergency Plan - 2021
- Toombs County Radiological Emergency Plan - 2021
- NUREG 0654/FEMA REP 1 Rev. 2
- DHS/FEMA REP Program Manual - December 2019

SECTION 2: EXTENT-OF-PLAY AGREEMENT

Core Capability: Operational Coordination

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

Objective 1: Emergency Operations Management Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize offsite response organizations to staff facilities in support of emergency operations. RPM 2019 Pt III Pg. 185

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, and O.1)

State of Georgia, EOF, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	Exception: Negotiated, written exception Pre-positioning of exercise participants will be allowed. However, exercise participants will not be allowed to report to their assigned duty station prior to receiving notification that the exercise has begun, and they are instructed to respond.
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	No Exception

Capability Target 1.2: Direction and Control

Intent: The capability to provide overall direction and control of response efforts, commensurate with the responsibilities of leadership, as detailed in plans/procedures. RPM 2019 Pt III Pg. 186

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, and O.1)

State of Georgia, EOF, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

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

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

Capability Target 1.4: Protective Action Decisions for the Plume Phase

Intent: The capability to utilize appropriate factors and necessary coordination in the decision-making process used to make protective action decisions for the public. RPM 2019 Pt III Pg. 188

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.1.b, D.4, J.6, J.7, J.8, J.8.b, J.10, J.10.a, J.10.b, J.11.c-g, and O.1)

State of Georgia, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Coordinate and make PADs for members of the general public.	No Exception
Coordinate and make PADs for those with access and functional needs.	No Exception
Coordinate and make PADs for students at schools.	No Exception
Coordinate and make subsequent or alternate PADs.	No Exception
Coordinate and make decisions on the administration of KI (where applicable) for the public and institutionalized members of the population.	Exception: Negotiated, written exception The State of Georgia, to include local counties, does not issue KI to the general public.

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

Intent: The capability to implement precautionary protective action and/or protective action decisions, including evacuation and/or sheltering, for all populations within the plume and ingestion exposure pathway emergency planning zones. The populations include those with access and functional needs, students, and institutionalized individuals. RPM 2019 Pt III Pg. 189

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.4, C.2.a, G.1, J.11, J.11.a, J.11.b, J.11.c, J.11.e, J.11.g, and O.1)

Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Implement PADs, ensuring communication and coordination with all appropriate jurisdictions.	No Exception
Assist those with access and functional needs during the implementation of PADs.	Exception: Negotiated, written exception State and/or local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate County EOC will demonstrate, by interview, that they are capable of implementing PADS for those with access and functional needs.
Communicate, coordinate, and implement protective actions for schools.	No Exception
Communicate with transportation officials.	No Exception
Identify evacuation routes for the general public.	No Exception
Make KI available to both institutionalized persons and the general public, in accordance with plans and procedures.	Exception: Negotiated, written exception The State of Georgia, to include local counties, does not issue KI to the general public.

Objective 2: Exposure Control

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

Intent: The capability to assess and control the radiation exposure and dose received by emergency workers and utilize a decision-making chain to authorize emergency worker exposure limits to be exceeded for specific missions. RPM 2019 Pt III Pg. 196

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, K.2, K.2.b, K.3, K.3.a, M.1.b, M.8, and O.1)

State of Georgia, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

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

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

Capability Target 2.2: Emergency Worker Exposure Control Management

Intent: The capability of emergency workers to manage dose and exposure, use equipment (e.g., dosimetry, radio protective drugs), and identify procedures to monitor their exposure and dose, including following procedures to obtain authorization to receive emergency exposures in excess of the PAGs. RPM 2019 Pt III Pg. 198

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, and O.1)

Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.	Exception: Negotiated, written exception Quantities of DRDs for emergency workers and their calibration/testing records were verified for Jeff Davis, Tattnall, and Toombs County during staff assistance visits (SAV) on the following dates: Jeff Davis County: May 5, 2021, at 1:00 PM Tattnall County: May 4, 2021, at 1:00 PM Toombs County: May 5, 2021, at 11:00 AM Quantities of DRDs for emergency workers and their calibration/testing records for Appling County will be verified during a staff assistance visit (SAV) within 30 days (Date TBD) of the Plume Exposure Pathway Exercise.
Maintain an appropriate inventory of PRDs.	Exception: Negotiated, written exception Quantities of DRDs for emergency workers were verified for Jeff Davis, Tattnall, and

Assessment	Extent of Play
	Toombs County during staff assistance visits (SAV) on the following dates: Jeff Davis County: May 5, 2021, at 1:00 PM Tattnall County: May 4, 2021, at 1:00 PM Toombs County: May 5, 2021, at 11:00 AM Quantities of PRDs for emergency workers in Appling County will be verified during a staff assistance visit (SAV) within 30 days (Date TBD) of the Plume Exposure Pathway Exercise.
Retain an adequate supply of radioprotective drugs.	Exception: Negotiated, written exception Quantities of radioprotective drugs for emergency workers were verified for Jeff Davis, Tattnall, and Toombs County during staff assistance visits (SAV) on the following dates: Jeff Davis County: May 5, 2021, at 1:00 PM Tattnall County: May 4, 2021, at 1:00 PM Toombs County: May 5, 2021, at 11:00 AM Quantities of radioprotective drugs for emergency workers in Appling County will be verified during a staff assistance visit (SAV) within 30 days (Date TBD) of the Plume Exposure Pathway Exercise.
Adequately distribute appropriate DRDs and PRDs.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall , and Toombs County EOCs will demonstrate, by interview, that they are capable of adequately distributing appropriate DRDs and PRDs.
Adequately distribute radioprotective drugs to emergency workers.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of adequately distributing radioprotective drugs to emergency workers. KI will be simulated.
Record and report exposures in the field.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of recording and reporting exposures in the field.
Implement decisions to administer radioprotective drugs.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff

Assessment	Extent of Play
	Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of implementing decisions to administer radioprotective drugs. KI will be simulated.
Report to individual responsible for managing exposure and dose when limits are reached.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of reporting to the individual responsible for managing exposure and dose when limits are reached.
Implement exposure control decisions to members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of implementing exposure control decisions to members of the public and for those who are authorized to temporarily reenter a restricted area.

Objective 3: Alert and Notification Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel. RPM 2019 Pt III Pg. 200

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

State of Georgia, EOF, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

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

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

Objective 5: Operate

Capability Target 5.4: Traffic and Access Control

Intent: The capability to select, establish, and staff traffic and access control points and removing impediments to the flow of evacuation traffic. RPM 2019 Pt III Pg. 222

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.12, J.8, J.8.b, J.10, J.10.a, J.11.c, J.11.e, J.11.f, J.14.d, J.14.e, M.1.b, and O.1)

Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Select, establish, and staff appropriate TCP/ACPs, consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation), in a timely manner.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of selecting, establishing, and staffing appropriate TCPS/ACPS.
Provide instructions to TAC staff on actions to take, including when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of selecting, establishing, and staffing appropriate TCPS/ACPS.
Contact the state or Federal agencies that have the authority for the different transportation modes (e.g., rail, water, and air traffic).	No Exception
Identify and take appropriate actions concerning impediments that affect the evacuation and evacuation routes.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of identifying and taking appropriate actions concerning impediments that affect evacuation routes.
Make the decision to re-route traffic and coordinate with key decision-makers and the JIC to ensure the alternate route information is	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will

Assessment	Extent of Play
appropriately communicated to evacuees.	demonstrate, by interview, that they are capable of making the decision to re-route traffic and coordinate with key decision-makers and the JIS to ensure the alternate route information is appropriately communicated to evacuees.
Establish procedures to control access to and monitor people and vehicles from the evacuated and restricted areas.	No Exception
Authorize reentry of individuals into the restricted areas.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of authorizing reentry of individuals into the restricted areas.
Establish exit procedures.	No Exception

Core Capability: Situational Assessment

Definition: Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

Objective 1: Emergency Operations Management
Capability Target 1.2: Direction and Control

Intent: The capability to provide overall direction and control of response efforts, commensurate with the responsibilities of leadership, as detailed in plans/procedures. RPM 2019 Pt III Pg. 186

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, and O.1)

State of Georgia DNR-Environmental Radiation Program:

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

Assessment	Extent of Play
equipment to support the emergency response.	

Capability Target 1.3: Protective Action Recommendations:

Intent: The capability to use dose assessment and field data, compare this data to the PAGs, and choose among a range of protective actions those most appropriate in a given emergency. RPM 2019 Pt III Pg. 187

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

State of Georgia DNR-Environmental Radiation Program:

Assessment	Extent of Play
PLUME: Select and implement pre-planned precautionary protective actions.	No Exception
PLUME: Utilize the methodology in plans/procedures to select among a range of protective actions most appropriate in a given emergency. This could also include the use of preplanned precautionary protective actions contained in plans/procedures.	No Exception
PLUME: Develop PARs.	No Exception
PLUME: Transmit PARs in a timely manner.	No Exception
POST-PLUME: Assess radiological consequences and provide appropriate PARs for the ingestion exposure pathway.	No Exception

Capability Target 1.4: Protective Action Decisions for the Plume Phase:

Intent: The capability to utilize appropriate factors and necessary coordination in the decision-making process used to make PADs for the public. RPM 2019 Pt III Pg. 188

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.1.b, D.4, J.6, J.7, J.8, J.8.b, J.10, J.10.a, J.10.b, J.11.c-g, and O.1)

State of Georgia DNR-Environmental Radiation Program:

Assessment	Extent of Play
Coordinate and make PADs for members of the general public.	No Exception
Coordinate and make PADs for those with	No Exception

Assessment	Extent of Play
access and functional needs.	
Coordinate and make PADs for students at schools.	No Exception
Coordinate and make subsequent or alternate PADs.	No Exception
Coordinate and make decisions on the administration of KI (where applicable) for the public and institutionalized members of the population.	Exception: Negotiated, written exception The State of Georgia, to include local counties, does not issue KI to the general public.

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

Target 4.5: Plume Phase Analysis and Dose Assessment

Intent: The capability to collect data, project doses to member of the public and emergency workers, and analyze and communicate the results. RPM 2019 Pt III Pg. 212

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

State of Georgia DNR-Environmental Radiation Program:

Assessment	Extent of Play
Obtain adequate data to make dose projections.	No Exception
Use software and/or other methods (e.g., manual calculations) to make dose projections for members of the public (both TED and thyroid dose) based on plant data.	No Exception
Compare dose projections to members of the public to EPA PAGs.	No Exception
Compare dose projections to the public with those of the licensee and discuss differences greater than a factor of ten with the licensee and explain reasons for the difference.	No Exception
Make initial PARs based on recommendations of the licensee, release data, meteorological data, and other pertinent information.	No Exception
Promptly communicate PARs to decision-makers.	No Exception
Receive ambient exposure rates from FMTs and compare to model projections.	Exception: Negotiated, written exception FMTs will be simulated. The Field Team Coordinator (FTC) will receive ambient exposure rates from

Assessment	Extent of Play
	a plant controller and provide to the Radiological Emergency Coordinator (REC) to compare to model projections. FTC activities will be non-evaluated.
Calculate iodine and particulate concentrations from FMT air samples.	Exception: Negotiated, written exception FMTs will be simulated. The Field Team Coordinator (FTC) will receive air sampling data from a plant controller and provide to the Radiological Emergency Coordinator (REC) for calculation of iodine and particulate concentrations. FTC activities will be non- evaluated.
Calculate plume ratios of noble gas, iodines, and particulates, and compare to model projections.	No Exception
Adjust PARs, as necessary, based on analysis of field data.	No Exception
Calculate an incident-specific correction factor for emergency workers inside the plume exposure pathway EPZ.	No Exception

Core Capability: Public Information and Warning

Definition: Deliver coordination, 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.

Objective 1: Emergency Operations Management Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize OROs to staff facilities in support of emergency operations. RPM 2019 Pt III Pg. 185

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, and O.1)

Joint Information System:

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	Exception: Negotiated, written exception The Joint Information Center (JIC) will not be activated during the exercise; however, a Joint Information System has been established to include a virtual JIC. State of Georgia, Appling County, Jeff Davis County, Tattnall County, and Toombs County exercise participants will play

Assessment	Extent of Play
	remotely from their respective duty locations (EOC/SOC). GPC will provide a media bridge line to use for coordination between county, state, and utility PIOs. Pre-positioning of exercise participants will be allowed. However, exercise participants will not be allowed to report to their assigned duty station prior to receiving notification that the exercise has begun and they are instructed to respond.
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	No Exception

Objective 3: Alert and Notification Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel. RPM 2019 Pt III Pg. 200

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

Joint Information System:

Assessment	Extent of Play
Utilize communication systems that are fully functional, continuously available, and redundant.	Exception: Negotiated, written exception The Joint Information Center (JIC) will not be activated during the exercise; however, a Joint Information System has been established to include a virtual JIC. State of Georgia, Appling County, Jeff Davis County, Tattnall County, and Toombs County exercise participants will play remotely from their respective duty locations (EOC/SOC). GPC will provide a media bridge line to use for coordination between county, state, and utility PIOs. A minimum of one (1) media briefing will be conducted. Additional media briefings may be conducted based upon exercise play. Media releases are posted to the SNC WebEOC portal by PIO representatives and provided to the JIS for dissemination to media representatives.
Maintain periodic test results and corrective	No Exception

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

Capability Target 3.2: Alert and Notification of the Public

Intent: The capability to provide instructions to the public. RPM 2019 Pt III Pg. 201

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

State of Georgia, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
ALERT AND NOTIFICATION SYSTEM: Sequentially provide an alert signal followed by an initial instructional message to populated areas.	No Exception
ALERT AND NOTIFICATION SYSTEM: Alert and notify the general public.	No Exception
ALERT AND NOTIFICATION SYSTEM: Identify and address any failures of the system(s) or portion of a system(s).	No Exception
ALERT AND NOTIFICATION SYSTEM: Actual testing of the mobile public address system will be conducted at an agreed-upon location.	No Exception
EAS: Identify the process to activate the EAS.	No Exception
EAS: Ensure that updated emergency information is disseminated in a timely manner.	No Exception
EAS: Ensure that current emergency information is repeated at pre-established intervals.	No Exception

Assessment	Extent of Play
EAS/NWS STATION: Identify the process to activate the EAS, to include the process to receive and then broadcast updated information/messages and verification of the message, if applicable.	No Exception
EAS/NWS STATION: Broadcast the message on a 24-hour basis.	No Exception
ROUTE/ALTERNATE ALERTING: Complete route alerting, whether because of failure for system/portion of a system or for exception areas, as needed to demonstrate all routes are capable of being run in allotted time. Emphasis on the most challenging routes and demonstration of these routes will be varied from assessment activity to assessment activity. Challenging routes are Radiological Emergency Preparedness Program Manual 203 defined as those that may be difficult to accomplish, such as those that are lengthy or with conditions (physical or otherwise) that may affect the speed and accuracy with which the route can be completed (e.g., traffic patterns and/or capacity, road conditions, etc.).	No Exception

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

Intent: The capability to disseminate emergency information and instructions to the public during all phases of an incident. RPM 2019 Pt III Pg. 203

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

State of Georgia, Appling County, Jeff Davis County, Tattnall County, Toombs County, and Joint Information System:

Assessment	Extent of Play
PLUME PHASE: Deliver coordinated, prompt, reliable, and actionable information in a timely manner.	Exception: Negotiated, written exception County PIOs may choose to participate in media briefings or may choose to provide their county information to a State PIO for dissemination during a media briefing. A minimum of one (1) media briefing will be conducted. Additional media briefings may be conducted based upon exercise play. Media briefings will be hosted and conducted within a

Assessment	Extent of Play
	Microsoft Teams meeting provided by GPC. Media releases are posted to the SNC WebEOC portal by PIO representatives and provided to the JIS for dissemination to media representatives.
PLUME PHASE: Provide clear, concise, accessible messaging using plain language.	No Exception
PLUME PHASE: Messaging addresses appropriate cultural and linguistic considerations.	No Exception
PLUME PHASE: Ensure subsequent messaging is consistent with protective actions.	No Exception
PLUME PHASE: Update information as the incident progresses, to include validating previously identified protective areas and clearly identifying any new protective action areas, any information that is no longer valid, and any changes to previously provided information (e.g., rerouting of evacuation routes due to impediments, etc.).	No Exception
PLUME PHASE: Respond to media and public inquiries.	No Exception
POST-PLUME PHASE: Rapidly disseminate of ingestion exposure pathway information to predetermined individuals and businesses.	N/A
POST-PLUME PHASE: Provide information to the public that addresses temporary reentry to a restricted area, permanent relocation from areas not evacuated, and return to formerly restricted areas will be communicated.	N/A

Objective 5: Operate

Capability Target 5.4: Traffic and Access Control:

Intent: The capability to select, establish, and staff traffic and access control points and removing impediments to the flow of evacuation traffic. RPM 2019 Pt III Pg. 222

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.12, J.8, J.8.b, J.10, J.10.a, J.11.c, J.11.e, J.11.f, J.14.d, J.14.e, M.1.b, and O.1)

Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Make the decision to re-route traffic and coordinate with key decision-makers and the JIC to ensure the alternate route information is appropriately communicated to evacuees.	No Exception Traffic Control Workers

Core Capability: Environmental Response/Health and Safety (Waterway)

Definition: Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities

Objective 1: Emergency Operations Management Capability Target 1.1: Mobilization

Intent: The capability to alert, notify, and mobilize OROs to staff facilities in support of emergency operations. RPM 2019 Pt III Pg. 185

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, and O.1)

State of Georgia DNR-Environmental Radiation Program:

Assessment	Extent of Play
Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.	No Exception
Receive and verify notifications.	No Exception
Identify and request additional resources, as needed.	No Exception
Determine a facility is operational.	No Exception

Capability Target 1.2: Direction and Control

Intent: The capability to provide overall direction and control of response efforts, commensurate with the responsibilities of leadership, as detailed in plans/procedures. RPM 2019 Pt III Pg. 186

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, and O.1)

State of Georgia DNR-Environmental Radiation Program:

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

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

Objective 3: Alert and Notification Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel. RPM 2019 Pt III Pg. 200

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

State of Georgia DNR-Environmental Radiation Program:

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

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

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

Objective 2: Exposure Control

Capability Target 2.2: Emergency Worker Exposure Control Management:

Intent: The capability of emergency workers to manage dose and exposure, use equipment (e.g., dosimetry, radio protective drugs), and identify procedures to monitor their exposure and dose, including following procedures to obtain authorization to receive emergency exposures in excess of the PAGs. RPM 2019 Pt III Pg. 198

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, and O.1)

State of Georgia DNR-Environmental Radiation Program, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.	Exception: Negotiated, written exception Quantities of DRDs for emergency workers and their calibration/testing records were verified for Jeff Davis, Tattnall, and Toombs County during staff assistance visits (SAV) on the following dates: Jeff Davis County: May 5, 2021, at 1:00 PM Tattnall County: May 4, 2021, at 1:00 PM Toombs County: May 5, 2021, at 11:00 AM Quantities of DRDs for emergency workers and their calibration/testing records for Appling County will be verified during a staff assistance visit (SAV) within 30 days (Date TBD) of the Plume Exposure Pathway Exercise.
Maintain an appropriate inventory of PRDs.	Exception: Negotiated, written exception Quantities of DRDs for emergency workers were verified for Jeff Davis, Tattnall, and Toombs County during staff assistance visits (SAV) on the following dates: Jeff Davis County: May 5, 2021, at 1:00 PM Tattnall County: May 4, 2021, at 1:00 PM Toombs County: May 5, 2021, at 11:00 AM Quantities of PRDs for emergency workers in Appling County will be verified during a staff assistance visit (SAV) within 30 days (Date TBD) of the Plume Exposure Pathway Exercise.

Assessment	Extent of Play
Retain an adequate supply of radioprotective drugs.	Exception: Negotiated, written exception Quantities of radioprotective drugs for emergency workers were verified for Jeff Davis, Tattnall, and Toombs County during staff assistance visits (SAV) on the following dates: Jeff Davis County: May 5, 2021, at 1:00 PM Tattnall County: May 4, 2021, at 1:00 PM Toombs County: May 5, 2021, at 11:00 AM Quantities of radioprotective drugs for emergency workers in Appling County will be verified during a staff assistance visit (SAV) within 30 days (Date TBD) of the Plume Exposure Pathway Exercise.
Adequately distribute appropriate DRDs and PRDs.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall , and Toombs County EOCs will demonstrate, by interview, that they are capable of adequately distributing appropriate DRDs and PRDs.
Adequately distribute radioprotective drugs to emergency workers.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of adequately distributing radioprotective drugs to emergency workers. KI will be simulated.
Record and report exposures in the field.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of recording and reporting exposures in the field.
Implement decisions to administer radioprotective drugs.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of implementing decisions to administer radioprotective drugs. KI will be simulated.
Report to individual responsible for managing exposure and dose when limits are reached.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of reporting to the individual responsible for managing exposure and dose

Assessment	Extent of Play
	when limits are reached.
Implement exposure control decisions to members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of implementing exposure control decisions to members of the public and for those who are authorized to temporarily reenter a restricted area.

Objective 3: Alert and Notification Capability Target 3.1: Communications

Intent: The capability to provide and maintain reliable communications with emergency personnel. RPM 2019 Pt III Pg. 200

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

State of Georgia DNR-Environmental Radiation Program, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

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

Objective 5: Operate

Capability Target 5.4: Traffic and Access Control

Intent: The capability to select, establish, and staff traffic and access control points and removing impediments to the flow of evacuation traffic. RPM 2019 Pt III Pg. 222

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.12, J.8, J.8.b, J.10, J.10.a, J.11.c, J.11.e, J.11.f, J.14.d, J.14.e, M.1.b, and O.1)

State of Georgia DNR-Environmental Radiation Program, Appling County, Jeff Davis County, Tattnall County, and Toombs County:

Assessment	Extent of Play
Select, establish, and staff appropriate TCP/ACPs, consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation), in a timely manner.	Exception: Negotiated, written exception A DNR Law Enforcement Officer will participate at the Appling County EOC during the exercise to discuss waterway closure procedures. The DNR-LE Officer will have a trailered boat and all necessary equipment to conduct waterway closure.
Provide instructions to TAC staff on actions to take, including when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.	No Exception
Contact the state or Federal agencies that have the authority for the different transportation modes (e.g., rail, water, and air traffic).	No Exception
Identify and take appropriate actions concerning impediments that affect the evacuation and evacuation routes.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of identifying and taking appropriate actions concerning impediments that affect evacuation routes.
Make the decision to re-route traffic and coordinate with key decision-makers and the JIC to ensure the alternate route information is appropriately communicated to evacuees.	No Exception
Establish procedures to control access to and monitor people and vehicles from the evacuated and restricted areas.	No Exception
Authorize reentry of individuals into the restricted areas.	Exception: Negotiated, written exception State and/or Local personnel within the Appling, Jeff Davis, Tattnall, and Toombs County EOCs will demonstrate, by interview, that they are capable of authorizing reentry of individuals into the restricted area.

Assessment	Extent of Play
Establish exit procedures.	No Exception

Core Capability: Critical Transportation (School Interview)

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.

Objective 1: Emergency Operations Management

Capability Target 1.4: Protective Action Decisions for the Plume Phase

Intent: The capability to utilize appropriate factors and necessary coordination in the decision-making process used to make PADs for the public. RPM 2019 Pt III Pg. 188

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.1.b, D.4, J.6, J.7, J.8, J.8.b, J.10, J.10.a, J.10.b, J.11.c-g, and O.1)

Appling County and Toombs County:

Assessment	Extent of Play
Coordinate and make PADs for students at schools.	Exception: Negotiated, written exception Local personnel within the Appling and Toombs County EOCs will demonstrate, by interview, that they are capable of coordinating and making PADs for students at schools.

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

Intent: The capability to implement precautionary protective action and/or PADs, including evacuation and/or sheltering, for all populations within the plume and ingestion exposure pathway EPZs. The populations include those with access and functional needs, students, and institutionalized individuals. RPM 2019 Pt III Pg. 189

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.4, C.2.a, G.1, J.11, J.11.a, J.11.b, J.11.c, J.11.e, J.11.g, and O.1)

Appling County and Toombs County

Assessment	Extent of Play
Communicate, coordinate, and implement protective actions for schools.	Exception: Negotiated, written exception Local personnel within the Appling and Toombs County EOCs will demonstrate, by interview, that they are capable of communicating, coordinating, and implementing protective

Assessment	Extent of Play
	actions for schools.

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

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

Objective 2: Exposure Control

Capability Target 2.2: Emergency Worker Exposure Control Management

Intent: The capability of emergency workers to manage dose and exposure, use equipment (e.g., dosimetry, radio protective drugs), and identify procedures to monitor their exposure and dose, including following procedures to obtain authorization to receive emergency exposures in excess of the PAGs. RPM 2019 Pt III Pg. 198

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, and O.1)

Toombs County:

Assessment	Extent of Play
Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.	Exception: Negotiated, written exception Quantities of DRDs for emergency workers and their calibration/testing records were verified for Toombs County during a staff assistance visit (SAV) on the following date: Toombs County: May 5, 2021, at 11:00 AM
Maintain an appropriate inventory of PRDs.	Exception: Negotiated, written exception Quantities of DRDs for emergency workers were verified for Toombs County during a staff assistance visit (SAV) on the following date: Toombs County: May 5, 2021, at 11:00 AM
Retain an adequate supply of radioprotective drugs.	Exception: Negotiated, written exception Quantities of radioprotective drugs for emergency workers were verified for Toombs County during a staff assistance visit (SAV) on the following date: Toombs County: May 5, 2021, at 11:00 AM
Adequately distribute appropriate DRDs and PRDs.	Exception: Negotiated, written exception Local personnel from Toombs County will demonstrate, by interview, that they are capable of adequately distributing appropriate DRDs and PRDs.

Assessment	Extent of Play
Adequately distribute radioprotective drugs to emergency workers.	Exception: Negotiated, written exception Local personnel from Toombs County will demonstrate, by interview, that they are capable of adequately distributing radioprotective drugs to emergency workers. KI will be simulated.
Record and report exposures in the field.	Exception: Negotiated, written exception Local personnel from Toombs County will demonstrate, by interview, that they are capable of recording and reporting exposures in the field.
Implement decisions to administer radioprotective drugs.	Exception: Negotiated, written exception Local personnel from Toombs County will demonstrate, by interview, that they are capable of implementing decisions to administer radioprotective drugs. KI will be simulated.
Report to individual responsible for managing exposure and dose when limits are reached.	Exception: Negotiated, written exception Local personnel from Toombs County will demonstrate, by interview, that they are capable of reporting to the individual responsible for managing exposure and dose when limits are reached.
Implement exposure control decisions to members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.	Exception: Negotiated, written exception Local personnel from Toombs County will demonstrate, by interview, that they are capable of implementing exposure control decisions to members of the public and for those who are authorized to temporarily reenter a restricted area.