



After Action Report

Salem/Hope Creek Nuclear Generating Stations - NJ- DE
Radiological Emergency Preparedness Exercise
Exercise Date: 04/28/2021

06/23/2021



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Executive Summary

On April 28, 2021 an exercise was conducted in the plume exposure pathway emergency planning zone (EPZ) around the Salem Hope Creek Nuclear Generating Station (SHCNGS). The exercise was evaluated by the Department of Homeland Security, Federal Emergency Management Agency (DHS/FEMA) Region 2. The purpose of the exercise was to demonstrate and assess the level of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures.

The most recent federally – evaluated exercise at this site was conducted on May 22, 2018. This exercise was rescheduled from May 2020 to April 2021 due to COVID-19. The qualifying emergency preparedness exercise for Salem Hope Creek Nuclear Generating Station (SHCNGS) was conducted on April 8, 1981.

FEMA wishes to acknowledge the efforts of the many individuals in the State of New Jersey, Salem County, Cumberland County, Salem City, and the Townships of Elsinboro, Lower Alloways Creek, Mannington, Pennsville, Quinton, Greenwich and Stow Creek who participated in this exercise.

Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork by all the participants were evident during this exercise.

This report contains the final evaluation of the biennial exercise and the evaluation of the following out-of-sequence activities:

April 26, 2021	Mobilization
April 26, 2021	Communications Equipment
April 26, 2021	Equipment and Supplies
April 26, 2021	Activation of the Prompt Alert and Notification System
April 26, 2021	Emergency Information and Instructions for the Public and the Media
April 29, 2021	Traffic Control
April 29, 2021	Access Control
May 19, 2021	Facilities
May 19, 2021	Plume Phase Field Measurements and Analysis
May 20, 2021	Reception Center
May 20, 2021	Emergency Worker Decontamination Center

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The State and local organizations, except where noted in this report, demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. Two planning issues from previous exercise were corrected. There were no Level 1 or Level 2, or planning issues identified in this exercise.

Section 1: Exercise Overview

1.1 Exercise Details

Exercise Name

2021 SHCNGS-Plume

Type of Exercise

Plume

Exercise Date

04/28/2021

Exercise Off Scenario/Out of Sequence Dates

Traffic and Access Control Points – April 29, 2021

BNE Field Command Center facility – May 19, 2021

Field Monitoring Team A – May 19, 2021

Salem County Emergency Worker Personnel Monitoring Center – May 20, 2021

Salem County General Population Reception Center – May 20, 2021

Locations

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

Sponsors

None

Program

United States Department of Homeland Security, Federal Emergency Management Agency, Radiological Emergency Preparedness Program

Mission

Response

Scenario Type

Plume

1.2 Exercise Planning Team Leadership

Susan O'Neill, REP Program RAC Chair/FEMA Region II
William Cullen, Senior REP Program DHS/FEMA Region II
Michele Sturman, REP Program DHS/FEMA Region II
Laura Forrest, RERP New Jersey State Police

1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Salem Hope Creek Nuclear Generating Station (SHCNGS) exercise:

State of New Jersey

New Jersey Bureau of Nuclear Engineering
New Jersey Department of Environmental Protection, Bureau of Nuclear Engineering
New Jersey Office of Emergency Management
New Jersey State Police

State of Delaware

Delaware Office of Emergency Management

Salem County

Elsinboro Township Office of Emergency Management
Elsinboro Township Fire Department
Elsinboro Township Mayor
Lower Alloways Creek Township Administration
Lower Alloways Creek Township Department of Public Works
Lower Alloways Creek Township Office of Emergency Management
Lower Alloways Creek Township Police Department
Mannington Township Communications Officer
Mannington Township Deputy Mayor
Mannington Township Office of Emergency Management
Mannington Township Mayor
Pennsville Township Fire Services
Pennsville Township Office of Emergency Management
Quinton Township Office of Emergency Management
Quinton Township Fire Services
Salem City Office of Emergency Management
Salem City Fire Department
Salem County Office of Emergency Management
Salem County RACES

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Cumberland County

Cumberland County Office of Emergency Management
Stow Creek Office of Emergency Management
Greenwich Township Office of Emergency Management

Private Organizations

Public Service Enterprise Group (PSEG)

Federal Organizations

Federal Emergency Management Agency (FEMA)

Section 2: Exercise Design Summary

2.1 Exercise Purpose and Design

On December 7, 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351 and 352. These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

FEMA Rule 44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local government participation in joint exercises with licenses.

FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in offsite emergency planning and in the review and evaluation of the RERP and associated procedures developed by State and local governments; whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993, (Federal Register, V. 58, No. 176, September 14, 1993); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
 - U.S. Department of Commerce,
 - U.S. Nuclear Regulatory Commission,
 - U.S. Environmental Protection Agency,
 - U.S. Department of Energy,
 - U.S. Department of Health and Human Services,
 - U.S. Department of Transportation,
 - U.S. Department of Agriculture,
 - U.S. Department of the Interior, and
 - U.S. Food and Drug Administration.

Representatives of these agencies serve on the FEMA Region 2 Regional Assistance Committee (RAC), which is chaired by FEMA.

The State of New Jersey formally submitted RERPs for the Salem Hope Creek to FEMA Region 2 on June 16, 1983. FEMA granted formal approval of the RERPs, under 44 CFR 350, on April 30, 1990. The qualifying emergency preparedness exercise was conducted on March 16, 1982.

A Plume REP Exercise conducted on April 28, 2021 allowed FEMA Region 2 to assess the capabilities of the State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving Salem Hope Creek Nuclear Generating Station. The purpose of this exercise report is to present the exercise results and findings on the performance of the offsite response organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with the final determinations made by the FEMA Region 2 RAC Chairperson and approved by the Regional Administrator.

The criteria utilized in the FEMA evaluation process are contained in:

- NUREG-0654/FEMA-REP-1, Rev.2, “Criteria for Preparation and Evaluation of Radiological Emergency Response plans and Preparedness in Support of Nuclear Power Plants,” November 1980 (hereafter referred to NUREG-0654)
- FEMA REP Program Manual, Jan. 2016.

Section 1 of this report, entitled “Exercise Overview,” presents basic information and data relevant to the exercise. This section of the report contains the exercise details, a listing of the exercise planning team members and all the participating organizations.

Section 3 of this report, entitled “Analysis and Capabilities,” presents detailed information on the demonstration of applicable exercise objectives at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. Table 3.1 titled, “Summary of Exercise Evaluation” is a tabular representation of exercise criteria. Section 3 also contains: (1) descriptions of all Deficiencies and ARCAs assessed during this exercise, recommended correction actions, and the State and local governments’ schedule of corrective actions for each identified exercise issue and (2) Descriptions of unresolved ARCAs assessed during previous exercises and the status of the ORO’s efforts to resolve them.

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 the Radiological Emergency Preparedness Program requirements and encompass the emergency preparedness evaluation areas.

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.

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

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.

Operational Communications: Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.

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.

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.

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.

Intelligence and Information Sharing: Provide timely, accurate, and actionable information resulting from the planning, direction, collection, exploitation, processing, analysis, production, dissemination, evaluation, and feedback of available information concerning physical and cyber threats to the United States, its people, property, or interests; the development, proliferation, or use of WMDs; or any other matter bearing on U.S. national or homeland security by local, state, tribal, territorial, Federal, and other stakeholders. Information sharing is the ability to exchange intelligence, information, data, or knowledge among government or private sector entities, as appropriate.

Infrastructure Systems: Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community.

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The objectives for this exercise were as follows:

Emergency Operations Center Management: • Is the capability to provide multi-agency coordination (MAC) for incident management by activating and operating an EOC for a preplanned or no-notice event. EOC management includes EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, state, and federal EOCs; coordination public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities.

Emergency Public Information and Warning: • Is the capability that includes public information, alert/warning, and notification. It involves developing, coordinating, and disseminating information to the public, coordinating officials, and incident management and responders across all jurisdictions and disciplines effectively under all hazard conditions.

Emergency Public Safety and Security Response: • Is the capability to reduce the impact and consequences of an incident or major event by securing the affected area, including crime/incident scene preservation issues as appropriate, safely diverting the public from hazards, providing security support to other response operations and properties, and sustaining operations from response through recovery. Public Safety and Security Response requires coordination among officials from law enforcement (LE), fire, and EMS.

Citizen Evacuation and Shelter in Place: • Is the capability to prepare for, ensure communication of, and immediately execute the safe and effective sheltering-in-place of an at-risk population (and companion animals), and/or the organized and managed evacuation of the at-risk populations to areas of safe refuge in response to a potentially or actually dangerous environment. In addition, this capability involves the safe reentry of the population where feasible.

Hazardous Materials Response and Decontamination: • Is the capability to assess and manage the consequences of a hazardous materials release, either accidental or as part of a terrorist attack. It includes testing and identifying all likely hazardous substances onsite; ensuring that responders have protective clothing and equipment; conducting rescue operations to remove affected victims from the hazardous environment; conducting geographical survey searches of suspected sources of contamination spreads and establishing isolation perimeters; mitigating the effects of hazardous materials, decontaminating on-site victims, responders, and equipment; coordinating off-site decontamination with relevant agencies, and notifying environmental, health, and law enforcement agencies having jurisdiction for the incident to begin implementation of their standard evidence collection and investigation procedures.

Mass Care: • Is the capability to provide immediate shelter, feeding centers, basic first aid, bulk distribution of needed items, and related services to persons affected by a large-scale incident, including special needs populations. Special needs populations include individuals with physical or mental disabilities who require medical attention or personal

care beyond basic first aid. Other special-needs populations include non-English speaking populations that may need to have information presented in other languages. The mass care capability also provides for pet care/handling through local government and appropriate animal-related organizations. Mass care is usually performed by nongovernmental organizations (NGO), such as the American Red Cross (ARC), or by local government-sponsored volunteer efforts, such as Citizen Corps. Special needs populations are generally the responsibility of local government, with medical needs addressed by the medical community and/or its alternate care facilities. State and Federal entities also play a role in public and environmental health by ensuring safe conditions, safe food, potable water, sanitation, clean air, etc.

Triage and Pre-Hospital Treatment: • Is the capability to appropriately dispatch EMS resources; to provide feasible, suitable, and medically acceptable pre-hospital triage and treatment of patients; to provide transport as well as medical care in route to an appropriate receiving facility; and to track patients to a treatment facility.

These objectives encompass the Radiological Emergency Preparedness Program requirements and are based on the negotiated extent-of-play.

2.3 Exercise Scenario

2021 SALEM HOPE CREEK PLUME EXERCISE (April 28, 2021) DRILL & EXERCISE SUMMARY:

TIME: 1600

Description: Grid Instability; SHCNGS reduces power on Unit 2

TIME: 1615

Description: Alert declared. Main generator protection relay failure, reactor fails to trip

TIME: 1815

Description: Site Area Emergency (SAE) declared. 500gpm steam generator tube rupture, main steam valve fails to open, and unmonitored release begins.

TIME: 2015

Description: General Emergency (GE) declared. Chemistry reactor coolant Ci/gm dose Equivalent I-131

TIME: 2200 End Ex

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 04/27/2021 Plume, 2021 SHCNGS-Plume.

Each jurisdiction and functional entity were evaluated based on the demonstration of corecapabilities, capability targets, critical tasks, and the underlying Radiological EmergencyPreparedness criteria as delineated in the Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual dated January 2016. Exercise criteria are listed by number, and the demonstration status of those criteria are indicated in the following terms:

- Met (M): No Findings assessed and no unresolved Findings from prior exercises.
- Level 1 (L1) Finding: An observed or identified inadequacy of organizational performance in an exercise 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 (NPP).
- Level 2 (L2) Finding: An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety.
- Plan (P) Issue: An observed or identified inadequacy in the offsite response organizations' (ORO's) emergency plan/implementing procedures, rather than that of the ORO's performance.
- N: Not demonstrated

3.2 Summary Results of Exercise Evaluation

DATE: 04/27/2021 SITE: Salem/Hope Creek Nuclear Generating Stations - NJ- DE M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated	Mobilization	Facilities	Direction and Control	Communications Equipment	Equipment and Supplies to Support Operations
	1a1	1b1	1c1	1d1	1e1
Emergency Operations Management					
Salem County EOC - Traffic and Access Control Points				M	
New Jersey ROIC - State EOC	M		M	M	M
NJ Field Command Center - Field Command Center	M	M	M	M	M
Emergency Operations Facility	M		M	M	M
Field Monitoring Team A	M			M	M

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Salem County Emergency Operations Center	M		M	M	M
Elsinboro Township	M		M	M	M
Lower Alloways Creek Township	M		M	M	M
Mannington Township	M		M	M	M
Pennsville Township	M		M	M	M
Quinton Township	M		M	M	M
Salem City	M		M	M	M
Cumberland County Emergency Operations Center	M		M	M	M
Greenwich Township	M		M	M	M
Stow Creek Township	M		M	M	M

<p>DATE: 04/27/2021 SITE: Salem/Hope Creek Nuclear Generating Stations - NJ- DE</p> <p>M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Emergency Worker Exposure Control	Dose Assessment & PARs & PADs for the Emergency Event		PADs for the Protection of persons with disabilities and access/functional needs	Radiological Assessment and Decision-making for the Ingestion Exposure Pathway	Radiological Assessment & Decision-making Concerning Post-Plume Phase Relocation, Reentry, and Return
Protective Action Decision-Making	2a1	2b1	2b2	2c1	2d1	2e1
New Jersey ROIC - State EOC				M		
New Jersey State Emergency Operations Center - State Accident	M	M	M			
Emergency Operations Facility	M	M				
Salem County Emergency Operations Center	M					
Cumberland County Emergency Operations Center	M					

<p>DATE: 04/27/2021 SITE: Salem/Hope Creek Nuclear Generating Stations - NJ- DE</p> <p>M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Implementation of Emergency Worker Exposure Control	Implementation of KI Decision for Institutionalized Individuals and the Public	Implementation of Protective Actions for persons with disabilities and access/functional needs		Implementation of Traffic and Access Control		Implementation of Ingestion Exposure Pathway Decisions		Implementation of Post-Plume Phase Relocation, Reentry, and Return Decisions
Protective Action Implementation	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1
Salem County EOC - Emergency Worker Personnel	M								
Salem County EOC - Traffic and Access Control Points	M				M				
NJ Field Command Center - Field Command Center	M								
Field Monitoring Team A	M								
Salem County Emergency Operations Center	M	M			M	M			
Elsinboro Township	M	M			M	M			
Lower Alloways Creek Township	M	M			M	M			
Mannington Township	M	M			M	M			
Pennsville Township	M	M			M	M			

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Quinton Township	M	M			M	M			
Salem City	M	M			M	M			
Cumberland County Emergency Operations Center	M	M			M	M			
Greenwich Township	M	M			M	M			
Stow Creek Township	M	M			M	M			

<p style="text-align: center;">DATE: 04/27/2021 SITE: Salem/Hope Creek Nuclear Generating Stations - NJ- DE M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Plume Phase Field Measurement and Analyses			Post Plume Phase Field Measurements and Sampling		Laboratory Operations
Field Measurements and Analyses						
NJ Field Command Center - Field Command Center		4a1	4a2	4a3	4b1	4c1
Emergency Operations Facility			M			
Field Monitoring Team A				M		

<p style="text-align: center;">DATE: 04/27/2021 SITE: Salem/Hope Creek Nuclear Generating Stations - NJ- DE M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Activation of the Prompt Alert and Notification System				Emergency Information and Instructions for the Public and the Media
Emergency Notification and Public Information					
New Jersey ROIC - State EOC	5a1	5a2	5a3	5a4	5b1
Emergency News Center	M				M
Salem County Emergency Operations Center					

<p style="text-align: center;">DATE: 04/27/2021 SITE: Salem/Hope Creek Nuclear Generating Stations - NJ- DE M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Monitoring, Decontamination, and Registration of Evacuees	Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles	Temporary Care of Evacuees	Transportation and Treatment of Contaminated Injured Individuals
Emergency Notification and Public Information				
Salem County EOC - Emergency Worker Personnel Monitoring Center	6a1	6b1	6c1	6d1
Salem County EOC - General Population Reception Center	M			

3.2 Criteria Evaluation Summaries

3.2.1 State Jurisdictions

3.2.1.1 State Emergency Operation Center

3.2.1.2 Bureau of Nuclear Engineering – Field Command Center

3.2.1.3 Bureau of Nuclear Engineering – Emergency Operations Facility

3.2.1.4 Emergency News Center

3.2.1.5 State Radiological Field Team A

In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. LEVEL 1 FINDINGS: NONE
- b. LEVEL 2 FINDINGS: NONE
- c. PLAN ISSUES: NONE

3.2.2 Risk Jurisdictions

3.2.2.1 Cumberland County - Emergency Operations Center

3.2.2.2 Elsinboro Township Emergency Operations Center

3.2.2.3 Greenwich Township Emergency Operations Center

3.2.2.4 Lower Alloways Creek Emergency Operations Center

3.2.2.5 Mannington Township Emergency Operations Center

3.2.2.6 Pennsville Township Emergency Operations Center

3.2.2.7 Quinton Township Emergency Operations Center

3.2.2.8 Salem County Emergency Operations Center

3.2.2.9 Salem County Traffic Control Point

3.2.2.10 Salem County Emergency Worker Personnel Monitoring Center

3.2.2.2 Salem County General Population Reception Center

3.2.2.3 Salem City Emergency Operations Center

3.2.2.4 Stow Creek Emergency Operations Center

In summary, the status of DHS/FEMA criteria for the Risk jurisdiction is as follows:

- a. LEVEL 1 FINDINGS: NONE
- b. LEVEL 2 FINDINGS: NONE
- c. PLAN ISSUES: NONE
- d. PRIOR ISSUES – RESOLVED: NONE
- e. PRIOR ISSUES – UNRESOLVED: NONE

3.2.3 Support Jurisdictions

In summary, the status of DHS/FEMA criteria for the Support jurisdiction is as follows:

- a. LEVEL 1 FINDINGS: NONE

3.2.3 Support Jurisdictions

In summary, the status of DHS/FEMA criteria for the Support jurisdiction is as follows:

- a. LEVEL 1 FINDINGS: NONE
- b. LEVEL 2 FINDINGS: NONE
- c. PLAN ISSUES: NONE
- d. PRIOR ISSUES – RESOLVED: NONE
- e. PRIOR ISSUES – UNRESOLVED: NONE

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Section 4: Conclusion

Based on the results of the Exercise, the offsite radiological emergency response plans and preparedness for the State of New Jersey and the affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public, in the event of a radiological emergency. Therefore, 44 CFR Part 350 approval of the offsite radiological emergency response plans and preparedness for the State of New Jersey, site-specific to the Salem Hope Creek Nuclear Generating Station, will remain in effect.

IMPROVEMENT PLAN

No improvement plan added.

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Appendix A: Exercise Timeline

TABLE 1 – TIMELINE April 28, 2021 – SALEM HOPE CREEK NUCLEAR GENERATING STATION

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken						
		NJ State ROIC	Salem County EOC	Cumberland County EOC	Emergency News Center	EAS Station Did not participate	NJ BNE-EOF	NJ BNE-FCC
Unusual Event	N/A	N/A	N/A	N/A	N/A	--	N/A	NA
Alert	1636	1641	1652	1642	1700	--	1709	1710
Site Area Emergency	1811	1823	1830	1832	1827	--	1824	1825
General Emergency	2002	2013	2019	2024	2023	--	2014	2016
Simulated Rad. Release Started	1759	1823	N/A	N/A	N/A	--	1814	1825
Simulated Rad. Release Terminated	Ongoing	N/A	N/A	1814	2138	--	On going	NA
Facility Declared Operational		1636	1700	1655	1721	--	1720	1724
Governor Declared State of Emergency		1900	N/A	N/A	1900	--	1900	1909
Exercise Terminated		2136	2145	1900	N/A	--	2300	2300
"Heads Up" Siren Activation		N/A	N/A	1852	1852	--	1852	1852
"Heads Up" EAS Message		N/A	N/A	1857	1857	--	1857	1857
1 st Protective Action Decision		1844 Place animals on stored feed and water	1844	1950	1950	--	1954	1954
1 st Siren Activation		1852	1852	1958	1958	--	1958	1958
1 st EAS Message		1857	1857	2003	2003	--	2013	2013
2 nd Protective Action Decision		1950 SIP ERPAs 1 and 8	1950	2029	2030	--	2030	2030
2 nd Siren Activation		1958	1958	2032	2032	--	2032	2032
2 nd EAS Message		2003	2003	2037	2037	--	2037	2037
3 rd PAD		2024 Evacuate ERPAs 1 and 8, SIP ERPAs 2, 3, 4, and 5	N/A	N/A	N/A	--	N/A	N/A
3 rd Siren		2032	N/A	N/A	N/A	--	N/A	N/A
3 rd EAS		2037	N/A	N/A	N/A	--	N/A	N/A
KI Administration Decision:		2024	2024	2024	2034	--	2024	2016
Emergency Workers		2024	2024	2024	2034	--	2024	2016
General Public in Evacuated Areas		2024	2024	2024	2034	--	2024	2024

LEGEND: N/A – Not Applicable

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Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken							
		Town of Lower Alloways Creek	Pennsville Township	Salem City	Mannington Township	Quinton Township	Elsinboro Township	Stow Creek Township	Greenwich Township
Unusual Event		N/A	N/A	N/A	1616	N/A	N/A	N/A	N/A
Alert	1636	1658	1659	1636	1636	1702	1658	1653	1653
Site Area Emergency	1811	1831	1835	1811	1833	1837	1834	1832	1832
General Emergency	2002	2030	2029	2002	2026	2031	2027	2020	2020
Simulated Rad. Release Started	1811	N/A	1835	N/A	N/A	1837	2035 received form-2002	1832	1832
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1606	1710	1720	1620	1630	1712	1710	1704
Governor Declared State of Emergency		1907	1908	1900	1907	1909	1709	1904	1900
Exercise Terminated		N/A	2135	N/A	2150	2124	N/A	2143	2142
"Heads Up" Siren Activation		N/A	1852	N/A	N/A	1853		1852	1852
"Heads Up" EAS Message		N/A	1857	N/A	N/A	1853		1857	1857
1 st Protective Action Decision		1852	1844 ERPAs 1-8 Monitor and Prepare, Store Feed all livestock.	N/A	1859	1955	1854	1950	1950
1 st Siren Activation		1852	1958	N/A	1859	1955	1852	1958	1958
1 st EAS Message		1857	2003	N/A	1859	1955	1857	2003	2003
2 nd Protective Action Decision		1953	1953	N/A	1957	2031	1953	?	2024
2 nd Siren Activation		1958	2032	N/A	1957	2031	1958	2032	2032
2 nd EAs Message		2003	2037	N/A	1957	2031	2003	2037	2037
3 rd PAD		N/A	N/A	N/A	N/A	N/A	2027	N/A	N/A
3 rd Siren		N/A	N/A	N/A	N/A	N/A	2032	N/A	N/A

APPENDIX B: BEST PRACTICES

Bureau of Nuclear Engineering

The BNE EOF personnel demonstrated strong teamwork, a lot of it owing to the strong leadership skills of the BNE EOF Lead.

Cumberland County

The use of the Homeland Security Information Network (HSIN) allowed Cumberland County to communicate in real time with the State.

Greenwich Township

- Emergency Management Coordinator was proactive and followed his SOPs and checklist to prepare himself and players on possible “what if” outcomes.
- Players were knowledgeable and engaged throughout the exercise

Lower Alloways Creek Township

- During the exercise, the wind direction changed on the IICEP system, but no meteorological changes were mentioned in the messages received by Salem County. The Coordinator called the Salem County EOC in order to confirm the change in wind direction. This was important because the new wind direction now caused the Township to be in the plume.
- A traffic impediment was introduced into the exercise. The impediment occurred in a neighboring township, but the Coordinator and his team still discussed the issues because if an evacuation was called for some of their residents would have to travel that route. The outcome of their discussion was the same decision that was later transmitted by the Salem County EOC.

Pennsville Township

- The Emergency Management Coordinator had extensive knowledge of the positions that would be staffed at the EOC.
- Eager to share information and demonstrate the use of IICEP System.

Salem County

The use of the Homeland Security Information Network (HSIN) allowed Cumberland County to communicate in real time with the State.

Stow Creek

- EMC was proactive and followed his SOPs and checklist to prepare himself and players on possible outcomes.
- Players were knowledgeable and engaged throughout the exercise.

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Appendix C: Exercise Key Leaders and Evaluators

Regional Assistance Committee (RAC) Chair: Susan O’Neill

Site Specialist: William Cullen, Michele Sturman, Brian Hasemann

Location / Venue	Evaluation Team	Core Capabilities
Salem County EOC - Traffic and Access Control Points	John Rice	1.d.1, 3.a.1, 3.d.1
New Jersey ROIC - State EOC	Brian Hasemann	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.c.1, 5.a.1, 5.b.1
NJ Field Command Center - Field Command Center	Deborah Blunt Michele Sturman	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 4.a.2 1.b.1
Emergency Operations Facility	Reginald Rodgers	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 4.a.2
Field Monitoring Team A	Kenneth Wierman Jr.	1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.3
Salem County Emergency Operations Center	Kevin Malone	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2, 5.a.1
Elsinboro Township	Kerris Bates	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Lower Alloways Creek Township	George Hogan iii	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Mannington Township	Logan Whitehead	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Pennsville Township	Michele Sturman	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Quinton Township	DEBRA SCHNECK	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Salem City	Alonzo McSwain	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Cumberland County Emergency Operations Center	Miriam Weston	1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Greenwich Township	Barbara Thomas	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Stow Creek Township	Christopher Cammarata	1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2
Salem County EOC - Emergency Worker Personnel Monitoring Center	Brian Hasemann	3.a.1, 6.b.1
Emergency News Center	John Rice	5.b.1
New Jersey State Emergency Operations Center - State Accident Assessment	Cheryl Weaver	2.a.1, 2.b.1, 2.b.2
Salem County EOC - General Population Reception Center	Michele Sturman	6.a.1

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