



Susquehanna Steam Electric Station
Berwick, Pennsylvania
After Action Report/Improvement Plan
Exercise Date – August 10, 2021
Radiological Emergency Preparedness (REP) Program



FEMA

Published October 15, 2021

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Susquehanna Steam Electric Station

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EXECUTIVE SUMMARY

On August 10, 2021, a Plume Exposure Pathway exercise was conducted and evaluated for the 10-mile Emergency Planning Zone (EPZ) around the Susquehanna Steam Electric Station by the U.S. Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA), Region 3. This exercise was postponed from October 20, 2020 in accordance with the FEMA Technological Hazards, Relief from Frequency Framework due to the COVID-19 Pandemic. The previous full participation exercise at this site was evaluated on October 16, 2018.

Out-of-Sequence demonstrations were conducted on August 10, 2021, and August 11, 2021. The purpose of the Exercise and Out-of-Sequence demonstrations was to assess the capabilities of State, counties, and local jurisdictions to implement Radiological Emergency Response Plans (RERP) and Procedures to protect the property and lives of residents and transients in the event of an emergency at the Susquehanna Steam Electric Station. The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region 3 Regional Assistance Committee (RAC) Chairperson, and approved by FEMA Headquarters. These reports are provided to the Nuclear Regulatory Commission (NRC) and participating States. State and local governments utilize the findings contained in these reports for the purposes of planning, training, and improving emergency preparedness.

The evaluation of this exercise determined that there were no Level 1 Findings, no Level 2 Findings, and four Plan Issues. All four of the Plan Issues have been resolved at the time of this report. Columbia County and Luzerne County have updated their plans and were submitted on August 25, 2021. All prior Performance and Plan Issues were resolved during the 2018 exercise.

A Level 1 Finding is defined by the FEMA Radiological Emergency Preparedness Program Manual as follows: "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)."

A Level 2 Finding is defined as: "An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety."

Finally, a Plan Issue is: "An observed or identified inadequacy in the ORO's emergency plan/implementing procedures, rather than that of the ORO's performance."

FEMA wishes to acknowledge the efforts of the many individuals in the Commonwealth of Pennsylvania; the two risk jurisdictions of Columbia and Luzerne Counties; and the twenty-four Commonwealth of Pennsylvania municipalities. 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 of all the participants was evident during the exercise.

Section 1 of this report entitled "Exercise Overview" presents the "Exercise Planning Team" and the "Participating Organizations."

Section 2, of this report entitled "Exercise Design Summary" includes the "Exercise Purpose and Design", "Exercise Objectives, Capabilities and Activities", and the "Scenario Summary".

Section 3 of this report entitled "Analysis of Capabilities" presents detailed "Exercise Evaluation and Results" information on the demonstration for each jurisdiction or functional entity evaluated in a jurisdiction-based, issue-only format (Criteria Evaluation Summaries).

Section 4 of this report entitled "Demonstrated Strengths" includes exemplary performances that were demonstrated during the exercise and information on best practices that were observed.

Section 5 of this report entitled "Conclusion" presents a summary of the findings and performance of the evaluated agencies.

The appendices, present supplementary information that is relevant to the exercise:

- Appendix A – Exercise Timeline. A table that depicts the times when an event or notifications were noted at participating agencies and locations.
- Appendix B – Exercise Evaluators and Team leaders. A table listing the evaluator names, organizations, and responsibilities of the evaluators and management.
- Appendix C – Acronyms and Abbreviations. An alphabetized table defining the formal names used in this report.
- Appendix D – Extent of Play Agreement
- Appendix E – Exercise Credit Letter

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Susquehanna Steam Electric Station Plume Exercise

Type of Exercise

Plume

Exercise Date

August 10, 2021

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Release

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Susquehanna Steam Electric Station exercise:

State Jurisdictions

Commonwealth of Pennsylvania

- Pennsylvania Emergency Management Agency (PEMA) (via Sim Cell)

Risk Jurisdictions

Columbia County

- Columbia County Emergency Management Agency
- Beaver Township Emergency Management Agency
- Berwick Borough/Briar Creek Borough Emergency Management Agency
- Berwick Fire Department Station 110
- Borough of Berwick Police Department
- West Berwick Hose Company No. 1
- Briar Creek Township Emergency Management Agency
- Briar Creek Township Fire Department
- Briar Creek Township Police Department
- Briar Creek Township Supervisors
- Fishing Creek township Emergency Management Agency
- Orangeville Community Fire Company
- Mifflin Township Emergency Management Agency
- North Centre Township Emergency Management Agency
- South Centre Township Emergency Management Agency
- South Centre Township Fire Department
- South Centre Township Police Department
- South Centre Township Supervisors
- Berwick Area School District
- Berwick Area Middle School

Luzerne County

- Luzerne County Emergency Management Agency
- Luzerne County Fire Services
- Luzerne County GIS
- Luzerne County Health Department
- Luzerne County Sheriff's Department
- Black Creek Township Emergency Management Agency
- Nuremberg-Weston Volunteer Fire Company
- Butler Township/Conyngham Borough Emergency Management Agency
- City of Nanticoke Emergency Management Agency
- City of Nanticoke 911
- Mayor of the City of Nanticoke Representative
- Nanticoke City Fire Department

- Nanticoke Police Department
- Conyngham Township Emergency Management Agency
- Mocanaqua Volunteer Fire Company #1
- Pond Hill Lily Lake Ambulance Association
- Pond Hill Lily Lake Volunteer Fire Department
- Dorrance Township Emergency Management Agency
- Dorrance Township Board of Supervisors
- Dorrance Township Volunteer Fire Department
- Hollenback Township Emergency Management Agency
- Hollenback Amateur Radio Emergency Services
- Hollenback Township Board of Supervisors
- Hunlock Creek Township Emergency Management Agency
- Hunlock Creek Township Board of Supervisors
- Hunlock Creek Volunteer Ambulance Association
- Hunlock Creek Volunteer Fire Department Station 144
- Huntington Township/New Columbus Emergency Management Agency
- Nescopeck Borough Emergency Management Agency
- Nescopeck Borough Mayor
- Nescopeck Borough Fire Departments (various)
- Nescopeck Township Emergency Management Agency
- Newport Township Emergency Management Agency
- Newport Township Emergency Medical Services
- Newport Township Fire Department
- Newport Township Manager
- Newport Township Police Department
- Newport Township Public Works Department
- Nuangola Borough Emergency Management Agency
- Nuangola Volunteer Fire Department
- Rice Police Department
- Salem Township Emergency Management Agency
- Salem Township Department of Public Works
- Salem Township Fire Department
- Salem Township Police Department
- Shickshinny Borough Emergency Management Agency
- Slocum Township Emergency Management Agency
- Slocum Township Board of Supervisors
- Slocum Volunteer Emergency Medical Services/Ambulance Company
- Slocum Volunteer Fire Department Station 156 and 576
- Sugarloaf Township Emergency Management Agency
- Sugarloaf Fire Company, Inc.
- Union Township Emergency Management Agency
- Greater Nanticoke Area School District
- Greater Nanticoke Area Elementary Center

Private Organizations

- American Red Cross
- Luzerne County Amateur Radio Emergency Services
- Luzerne County Radio Amateur Civil Emergency Services
- Susquehanna Nuclear LLC
- Talen Energy LLC

Federal Organizations

- Federal Emergency Management Agency

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

On December 7, 1979, the President directed the Federal Emergency Management Agency (FEMA) to assume the lead responsibility for all off-site nuclear planning and response. FEMA's activities were 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 Generating Station accident in March 1979.

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

- A. Taking the lead in offsite emergency planning and in the review and evaluation of Radiological Emergency Response Plans (RERPs) and procedures developed by State and local governments;
- B. Determining whether such plans and procedures can be implemented based on observation and evaluation of exercises conducted by State and local governments;
- C. Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated December 7, 2015 (Federal Register, Vol. 81, No. 57, March 24, 2016); and
- D. Coordinating the activities of the following 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
 - U.S. Food and Drug Administration

Representatives of these agencies serve on the Region 3 Regional Assistance Committee (RAC), which is Chaired by FEMA. A REP Plume Exposure Pathway Exercise was conducted during the week of August 9, 2021 to assess the capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Susquehanna Steam Electric Station. The purpose of this exercise report is to present the exercise results and findings on the performance of the off-site response organizations (OROs) during a simulated radiological emergency. The findings presented in this report are based on the evaluations of the Federal evaluation team, with

final determinations made by the FEMA Region 3 RAC Chairperson and approved by FEMA Headquarters.

These reports are provided to the NRC and participating States. State and local governments utilize the findings contained in these reports for the purposes of planning, training, and improving emergency response capabilities.

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

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, "November 1980
- Radiological Emergency Preparedness Program Manual, January 2016

Emergency Planning Zone Description:

The Susquehanna Steam Electric Station is located in northeastern Pennsylvania on the Susquehanna River, in Salem Township, Luzerne County. The plant is owned and operated by Talen Energy, LLC. Two boiling water reactors generate an electrical output of 1,194 megawatts each. Unit 1 began commercial operation on June 8, 1983, and Unit 2 on February 12, 1985. The site encompasses 2,566 acres and is divided into two parts. The principal portion, containing the major operating equipment and buildings, is located 3,000 feet west of the river. The other portion houses the water intake apparatus located near U.S. Route 11. U.S. Route 11 passes through the site in a north/south direction, providing both primary and secondary access to the plant. The plant occupies approximately 100 acres of the site. The coordinates are approximately 41degrees 5 feet 30 inches north and 76 degrees 8 feet 55 inches west.

The topography of the plant site is hilly, with elevations ranging from 500 feet above mean sea level (MSL) at the river to about 1,100 feet above MSL at the northwest corner of the site. The plant grade is 670 feet above MSL. The minimum exclusion distance is 1,800 feet; all land within the exclusion area is owned by SSES. The surface soil in the area is considered to be glacial out-wash and glacial till soils, which are typical of uplands and terraces. The bedrock consists of primary of red shale of the Catskill formation. The immediate vicinity of the plant is rural, surrounded by farms and undeveloped land. A total of 76 sirens are used for notification of the public; the sirens were installed for coverage of the plume exposure pathway. According to 2010 census data, the nearest population center is Shickshinny Borough, Luzerne County, with a population of 838, located about four miles north of the plant. The nearest population center with more than 25,000 people is the City of Hazleton, with a population of 25,340, located 13 miles to the southwest.

2.2 Exercise Objectives, Capabilities and Activities

The objectives of the 2020 Rescheduled Susquehanna Steam Electric Station (SSES) Plume Exercise were to demonstrate the capabilities of State and local emergency management agencies to mobilize emergency management and emergency response personnel, to activate emergency operations centers and support facilities, and to protect the health, lives, and property of the citizens residing within the 10-mile Emergency Planning Zone (EPZ).

To demonstrate the ability to communicate between multiple levels of government and provide timely, accurate, and sufficiently detailed information to the public, the emergency management agencies use a variety of resources, including radios, telephones, the Internet, the media, the Emergency Alert System (EAS), and the utility Alert and Notification System (ANS) Sirens. All these communication resources were employed and evaluated. The EAS and ANS were simulated and media information was prepared but not actually released.

An essential capability of the Radiological Emergency Preparedness Program (REPP) is to evacuate, monitor and decontaminate, if necessary, and provide temporary care and shelter to displaced residents from the EPZ. The ability of the risk/support counties to mobilize personnel and resources to establish reception, monitoring and decontamination, and mass care centers was demonstrated.

The protection of school children is also a vital mission of the REPP. School districts and selected schools demonstrated the capability to communicate and coordinate the collection, evacuation, transportation, and shelter of students attending schools within the EPZ. Provisions for students who live within the EPZ but attend school outside were also evaluated.

2.3 Scenario Summary

Due to the condensed nature of this exercise the exercise was driven by a PEMA SIMCELL operating out of the Talen Energy Emergency Operations Facility with a Bridge Line established to communicate Protective Action Recommendations/Protective Action Decisions, and coordination of siren activation, with the two risk counties. Both risk counties notified the twenty-four risk municipalities via radio and email.

The scenario started with the Susquehanna Steam Electric Station (SSES) Unit 1 at 100% power. Unit 2 was also at 100% power. Routine work was in progress at both units. SSES reported that control rods failed to shut down the reactor; however, reactor coolant systems for the uranium fuel were still operating.

At 1800 the station declared an Alert Emergency Classification Level (ECL) based on Emergency Action Level (EAL) SA 6.1 Control Rods failed to insert. There was an airborne radiological release that did not exceed the site boundary. Wind Direction was from 110 degrees; and Wind Speed was 6 MPH. There were no protective action recommendations.

At 1815 the PEMA Bridge Line was established with Luzerne and Columbia Counties and the Counties acknowledged receipt. SSES reported that control rods failed to shut down the reactor and plant operators could not maintain adequate cooling of the fuel.

At 1845 the station declares a Site Area ECL based on ECL SS 6.1, Control Rods failed to shut down the reactor and operators cannot maintain adequate reactor cooling. There was an airborne release in progress. Wind Direction was from 110 degrees; Wind Speed was 6 MPH. There were no protective action recommendations. OROs could implement precautionary actions based on their plans and procedures.

First siren sounding was 1910. Siren failures occurred at Siren 105 in Conyngham Township Sector 5, and also at Siren 407 in Berwick/Briar Creek Borough Sectors 3, 4, 5, 6. SSES

reported that two of the fission product barriers designed to prevent the spread of radioactive materials from the reactor were no longer effective and the third was no longer effective or in danger of failing.

At 1915 a General Emergency ECL was declared based on EAL FG1.1, Loss of two fission product barriers and loss or potential loss of the third barrier. There was a release in progress. Wind Direction was from 110 degrees; Wind Speed was 6 MPH. The Licensee protective action recommendation was: Evacuate 0-2 miles, 360, and Sectors L, M, N, P, Q, R, A-2-5 miles; and take Potassium Iodide (KI). PEMA would then initiate a protective action decision to evacuate the entire 10-mile Emergency Planning Zone (EPZ) 360 degrees; and for the general public, emergency workers, and special populations to ingest KI.

At 1940 the sirens were activated, without failures. Per the Extent of Play Agreement, two impediments to evacuation would occur and must remain in place throughout the evacuation, a traffic diversion plan must be drafted and implemented, and communicated through the Joint Information Center/Public Information Officer.

Termination was at approximately 2000.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluations of all jurisdictions and locations that participated in the August 10, 2021, biennial Plume Exposure Pathway EPZ Radiological Emergency Preparedness (REP) Exercise. The exercise was conducted to demonstrate the ability of the Offsite Response Organizations of State and local government to protect the health and safety of the public in the 10-mile Emergency Planning Zone surrounding the Susquehanna Steam Electric Station.

Each jurisdiction and functional entity were evaluated based on its demonstration of the Exercise Evaluation Area Criteria contained in the REP Exercise Evaluation Methodology. Detailed information on the exercise evaluation area criteria and the Extent of Play Agreement can be found in the Exercise Plan.

3.2 Summary Results of Exercise Evaluation

The matrix presented in Table 3.1, on the following pages, presents the status of the exercise evaluation area criteria from the REP Program Manual that was scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise evaluation area criteria are listed by number and the demonstration status of the criteria is indicated using the following letters:

- (D) Demonstrated Strength: an observed action, behavior, procedure, and/or practice that is worthy of special notice and positive recognition, note: this is already a common practice that many Regions employ when identifying demonstrated strengths.
- (L1) Level 1 Finding: an observed or identified inadequacy or 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 event of a radiological emergency to protect the health and safety of the public living near a Nuclear Power Plant (NPP).
- (L2) Level 2 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.
- (P) Plan Issue: an observed or identified inadequacy in the offsite response organizations' (OROs) emergency plan/implementation procedures, rather than that of the ORO's performance.
- (N) Not Demonstrated: term applied to the status of a REP exercise Evaluation Area Criterion indicating that the ORO, for a justifiable reason, did not demonstrate the Evaluation Area Criterion, as required in the extent-of-play agreement or at the two-year or eight-year interval required in the FEMA REP Program Manual.
- (M) Met: The jurisdiction or functional entity performed all activities under the Demonstration Criterion to the level required in the Extent-of-Play Agreement, with no Level 1 or Level 2 Findings assessed under that criterion in the current exercise and no unresolved prior Level 2 Findings.
- (C) Credit: Jurisdiction determined to have successfully demonstrated criteria through COVID-19 response actions or FEMA observed voluntary additional exercises.

Tables 3.1 - Summary of Exercise Evaluation

<p style="text-align: center;">DATE: 08/10/2021 SITE: Susquehanna Steam Electric Station - PA M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, C: Credit</p>	Mobilization	Facilities	Direction and Control	Communications Equipment	Equipment and Supplies to Support Operations
Emergency Operations Management	1a1	1b1	1c1	1d1	1e1
Columbia County Emergency Operation Center	C		M	M	C
Beaver Township Emergency Operation Center	C	M	M	M	C
Briar Creek Township Emergency Operation Center	C		M	M	C
Berwick/Briar Creek Borough Emergency Operation Center	C		M	M	C
Fishing Creek Township Emergency Operation Center	C		M	M	C
Mifflin Township Emergency Operation Center	C		M	M	C
North Centre Township Emergency Operation Center	C		M	M	C
South Centre Township Emergency Operation Center	C		M	M	C
Luzerne County Emergency Operation Center	C		M	M	C
Black Creek Township Emergency Operation Center	C		M	M	C
Butler Township/Conyngham Borough Emergency Operation Center	C	M	M	M	C
City of Nanticoke Emergency Operation Center	C		M	M	C
Conyngham Township Emergency Operation Center	C		M	M	C
Dorrance Township Emergency Operation Center	C		M	M	C
Hollenback Township Emergency Operation Center	C		M	M	C
Hunlock Creek Township Emergency Operation Center	C		M	M	C
Huntington Township/New Columbus Borough Emergency Operation Center	C		M	M	C
Nescopeck Borough Emergency Operation Center	C		M	M	C
Newport Township Emergency Operation Center	C		M	M	C
Nuangola Borough Emergency Operation Center	C		M	M	C
Salem Township Emergency Operation Center	C		M	M	C
Shickshinny Borough Emergency Operation Center	C		M	M	C
Slocum Township Emergency Operation Center	C		M	M	C
Sugarloaf Township Emergency Operation Center	C		M	M	C
Union Township Emergency Operation Center	C		M	M	C

DATE: 08/10/2021 SITE: Susquehanna Steam Electric Station - PA M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, C: Credit	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
Columbia County Emergency Operations Center				M		
Luzerne County Emergency Operations Center				M		

Unclassified
Radiological Emergency Preparedness Program (REP)

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Susquehanna Steam Electric Station

<p>DATE: 08/10/2021 SITE: Susquehanna Steam Electric Station - PA M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, C: Credit</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
Columbia County Emergency Operation Center	P	M	P	C	C	M			
Beaver Township Emergency Operation Center	M		M	C	M				
Briar Creek Township Emergency Operation Center	M		M	C	M	M			
Berwick/Briar Creek Borough Emergency Operation Center	M		M	C	M				
Fishing Creek Township Emergency Operation Center	M		M	C	M				
Mifflin Township Emergency Operation Center	M		M	C	M				
North Centre Township Emergency Operation Center	M		M	C	M				
South Centre Township Emergency Operation Center	M		M	C	M				
Luzerne County Emergency Operation Center	P	M	P	C	C	M			
Black Creek Township Emergency Operation Center	M		M	C	M				
Butler Township/Conyngham Borough Emergency	M		M	C	M				
City of Nanticoke Emergency Operation Center	M		M	C	M				
Conyngham Township Emergency Operation Center	M		M	C	M				
Dorrance Township Emergency Operation Center	M		M	C	M				
Hollenback Township Emergency Operation Center	M		M	C	M				
Hunlock Creek Township Emergency Operation Center	M		M	C	M				
Huntington Township/New Columbus Borough Emergency	M		M	C	M				
Nescopeck Borough Emergency Operation Center	M		M	C	M				
Newport Township Emergency Operation Center	M		M	C	M				
Nuangola Borough Emergency Operation Center	M		M	C	M				
Salem Township Emergency Operation Center	M		M	C	M				
Shickshinny Borough Emergency Operation Center	M		M	C	M				
Slocum Township Emergency Operation Center	M		M	C	M	M			
Sugarloaf Township Emergency Operation Center	M		M	C	M				
Union Township Emergency Operation Center	M		M	C	M				
Berwick Area School District				M					
Berwick Area Middle School				M					
Greater Nanticoke Area School District				M					
Greater Nanticoke Area Elementary School				M					

After Action Report/Improvement Plan

Susquehanna Steam Electric Station

<p>DATE: 08/10/2021 SITE: Susquehanna Steam Electric Station - PA M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, C: Credit</p>	Activation of the Prompt Alert and Notification System				Emergency Information and Instructions for the Public and the Media
	5a1	5a2	5a3	5a4	5b1
Emergency Notification and Public Information					
Columbia County Emergency Operation Center	M		M		M
Beaver Township Emergency Operation Center	C				
Briar Creek Township Emergency Operation Center	C				
Berwick/Briar Creek Borough Emergency Operation Center	C		M		
Fishing Creek Emergency Operation Center	C				
Mifflin Township Emergency Operation Center	C				
North Centre Emergency Operation Center	C				
South Centre Emergency Operation Center	C				
Luzerne County Emergency Operation Center	M		M		M
Black Creek Township Emergency Operation Center	C				
Butler Township/Conyngham Borough Emergency Operation Center	C				
City of Nanticoke Emergency Operation Center	C				
Conyngham Township Emergency Operation Center	C		M		
Dorrance Township Emergency Operation Center	C				
Hollenback Township Emergency Operation Center	C				
Hunlock Township Emergency Operation Center	C				
Huntington Township/New Columbus Borough Emergency Operation Center	C				
Nescopeck Borough Emergency Operation Center	C				
Nescopeck Township Emergency Operation Center	C				
Newport Township Emergency Operation Center	C				
Nuangola Borough Emergency Operation Center	C				
Salem Township Emergency Operation Center	C				
Shickshinny Borough Emergency Operation Center	C				
Slocum Township Emergency Operation Center	C				
Sugarloaf Township Emergency Operation Center	C				
Union Township Emergency Operation Center	C				

<p>DATE: 08/10/2021 SITE: Susquehanna Steam Electric Station - PA M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, C: Credit</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
	6a1	6b1	6c1	6d1
Support Operations to Facilities				
Not applicable for this exercise. Exercise credit granted as all Columbia County and Luzerne County Emergency Worker Monitoring/Decontamination Stations were evaluated during the 8-year cycle.				

3.3 Criteria Evaluation Summaries

3.3.1 State Jurisdictions

Not evaluated during this exercise.

3.3.2 Risk Jurisdictions

In summary, the status of DHS/FEMA criteria for the Risk jurisdictions are as follows:

3.3.2.1 Columbia County Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: Two

LOCATION: Columbia County Emergency Operations Center

ISSUE NO: 63-21-3c1-P-001

CRITERION: 3.c.1 Implementation of Protective Actions for Special Populations – EOC's

CONDITION: The planning assumptions for transportation dependent persons and resources need to conduct bus routes to pick up these persons is not consistent with municipal planning assumptions.

POSSIBLE CAUSE: A planning oversight whereby municipal plans were not vetted with the county plans could have led to the discrepancy.

REFERENCE: NUREG-0654: J.10. c, d, e, g
Columbia County Radiological Emergency Response Plan

EFFECT: The omission of consistent planning assumptions could lead to a lack of adequate transportation resources to fill unmet needs at the municipal level.

RECOMMENDATION: Revise the county plan to reflect accurate and consistent numbers of transportation dependent persons and resources needed to facilitate their evacuation during an emergency at the Susquehanna Steam Electric Station.

CORRECTIVE ACTION: On August 12, 2021, the Columbia County REP Plan was updated to reflect accurate planning assumptions.

LOCATION: Columbia County Emergency Operations Center

ISSUE NO: 63-21-3a1-P-002

CRITERION: 3.a.1 Implementation of Emergency Worker Exposure Control

CONDITION: During the Radiological Briefing, it was noted that the lifesaving value was 25R and the dosimeters issued to the emergency workers were 0-20R. Columbia County has 0-200R dosimeters available but did not issue them. Both Direct Reading Dosimeters (DRDs) and Dosimeters of Legal Record (DLRs) are necessary to document and assure worker safety. In addition, dosimetry must be capable of measuring limiting and reporting values, considering potential incident specific DRD to total effective dose (TED) conversion factors. For this reason, emergency workers operating within the plume exposure pathway Emergency Planning zone (EPZ) will normally call for 0-20R and 0-200R DRDs.

POSSIBLE CAUSE: Planning omission

REFERENCE: 2016 Radiological Emergency Preparedness Program Manual Part II: REP Program Planning Guidance, Evaluation Criteria H.7, H.10, H.11, K.3.a, K.3.b, K.4, K.5.a, O.1, O.1.a, O.1.b, O.4, O.4.a, O.4.d, O.4.f, O.4.g, O.4.h, O.4.j, O.5

Columbia County Emergency Management Agency 2020, Revision 7,
Radiological Emergency Response Plan Appendix 13

EFFECT: Radiation doses to emergency Workers in the emergency planning zone, particularly during life-saving activities, may not be accurately determined.

RECOMMENDATION: Add language to the Columbia County Emergency Management Agency 2020, Revision 7 Radiological Emergency Response Plan Appendix 13 regarding issuance of high range 0-200 R dosimeters. This will cover the exposure limits set by Columbia County, regardless of exposure conditions.

In addition, training must be provided to emergency workers regarding usage of the high range dosimeters and that the DRD-to-TED conversion factor would be used to account for internal exposures resulting from plume immersion.

CORRECTIVE ACTION: On August 12, 2021, Columbia County added language to their Columbia County Emergency Management Agency 2020, Revision 7 Radiological Emergency Response Plan Appendix 13.

- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.2 Beaver Township Emergency Operation Center

- a. Met: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.3 Briar Creek Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.4 Berwick/Briar Creek Borough Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1, 5.a.3
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.5 Fishing Creek Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.6 Mifflin Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.7 North Centre Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.8 South Centre Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.9 Luzerne County Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: Two

LOCATION: Luzerne County Emergency Operations Center

ISSUE NO: 63-21-3c1-P-003

CRITERION: 3.c.1 Implementation of Protective Actions for Special Populations – EOC's

CONDITION: The planning assumptions for transportation dependent persons and resources need to conduct bus routes to pick up these persons is not consistent with municipal planning assumptions.

POSSIBLE CAUSE: A planning oversight whereby municipal plans were not vetted with the county plans could have led to the discrepancy.

REFERENCE: NUREG-0654: J.10. c, d, e, g
Luzerne County Radiological Emergency Response Plan

EFFECT: The omission of consistent planning assumptions could lead to a lack of adequate transportation resources to fill unmet needs at the municipal level.

RECOMMENDATION: Revise the county plan to reflect accurate and consistent numbers of transportation dependent persons and resources needed to facilitate their evacuation during an emergency at the Susquehanna Steam Electric Station.

CORRECTIVE ACTION: On August 12, 2021 the Luzerne County REP Plan was updated to reflect accurate planning assumptions.

LOCATION: Luzerne County Emergency Operations Center

ISSUE NO: 63-21-3.a.1-P-004

CRITERION: 3.a.1 Implementation of Emergency Worker Exposure Control

CONDITION: During the Radiological Briefing, it was noted that the lifesaving value was 25R and the dosimeters issued to the emergency workers were 0-20R. Columbia County has 0-200R dosimeters available but did not issue them. Both Direct Reading Dosimeters (DRDs) and Dosimeters of Legal Record (DLRs) are necessary to document and assure worker safety. In addition, dosimetry must be capable of measuring limiting and reporting values, considering potential incident specific DRD to total effective dose (TED) conversion factors. For this reason, emergency workers operating within the plume exposure pathway Emergency Planning zone (EPZ) will normally call for 0-20R and 0-200R DRDs.

POSSIBLE CAUSE: Planning omission

REFERENCE: 2016 Radiological Emergency Preparedness Program Manual Part II: REP Program Planning Guidance, Evaluation Criteria H.7, H.10, H.11, K.3.a, K.3.b, K.4, K.5.a, O.1, O.1.a, O.1.b, O.4, O.4.a, O.4.d, O.4.f, O.4.g, O.4.h, O.4.j, O.5

Luzerne County Emergency Management Agency Radiological Emergency Response Plan

EFFECT: Radiation doses to emergency Workers in the emergency planning zone, particularly during life-saving activities, may not be accurately determined.

RECOMMENDATION: Add language to the Luzerne County Emergency Management Agency Radiological Emergency Response Plan regarding issuance of high range 0-200 R dosimeters. This will cover the exposure limits set by Luzerne County, regardless of exposure conditions.

In addition, training must be provided to emergency workers regarding usage of the high range dosimeters and that the DRD-to-TED conversion factor would be used to account for internal exposures resulting from plume immersion.

CORRECTIVE ACTION: On August 12, 2021, Luzerne County added language to their Luzerne County Emergency Management Agency Radiological Emergency Response Plan Appendix 13.

- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.10 Black Creek Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.11 Butler Township/Conyngham Borough Emergency Operation Center

- a. Met: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.12 City of Nanticoke Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.13 Conyngham Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1, 5.a.3
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.14 Dorrance Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.15 Hollenback Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.16 Hunlock Creek Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.17 Huntington Township/New Columbus Borough Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.18 Nescopeck Borough Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.19 Nescopeck Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.20 Newport Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.21 Nuangola Borough Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.22 Salem Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.23 Shickshinny Borough Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.24 Slocum Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.25 Sugarloaf Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.26 Union Township Emergency Operation Center

- a. Met: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.c.1, 3.c.2, 3.d.1
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.27 Berwick Area School District

- a. Met: 3.c.2
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.28 Berwick Area Middle School

- a. Met: 3.c.2
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.2.29 Greater Nanticoke Area School District

- a. Met: 3.c.2
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: ONE
- f. Prior Issues - Unresolved: NONE

3.3.2.30 Greater Nanticoke Area Elementary Center

- a. Met: 3.c.2
- b. Level 1 Findings: NONE
- c. Level 2 Findings: NONE
- d. Plan Issues: NONE
- e. Prior Issues – Resolved: NONE
- f. Prior Issues - Unresolved: NONE

3.3.3 Private Organizations

Not evaluated during this exercise.

SECTION 4: DEMONSTRATED STRENGTHS

4.1 State Jurisdictions

Not evaluated during this exercise.

4.2 Risk Jurisdictions

4.2.1 Briar Creek Township Emergency Operation Center

The staff at Briar Creek Township displayed an exceptional institutional knowledge of the program.

4.2.2 Fishing Creek Township Emergency Operation Center

The Fishing Creek Township Emergency Management Coordinator conducted thorough and timely briefings and constantly reminded the staff to use their checklists, complete their logs, and to look ahead in case the situation at the plant got worse and the Emergency Classification Levels escalated.

4.2.3 Mifflin Township Emergency Operation Center

The Mifflin Township Emergency Management Coordinator demonstrated excellent leadership throughout the event and where appropriate and sought clarification with Columbia County on emergency actions.

4.2.4 North Centre Township Emergency Operation Center

The North Centre Township Emergency Management Coordinator demonstrated excellent direction and control techniques via timely and thorough briefings, use of checklists, and a forward-leaning posture in anticipation of potential escalation at the site.

4.2.5 Black Creek Township Emergency Operation Center

The Black Creek Township Emergency Management Coordinator demonstrated a strong sense of command and control from the start of the exercise and throughout its duration.

4.2.6 Butler Township Emergency Operation Center

Butler Township operated out of a new Emergency Operation Center that was well-equipped to support emergency operations.

4.2.7 Dorrance Township Emergency Operation Center

The Dorrance Township EOC staff performed their assigned tasks remarkably well given the situation. They were led by a very energetic and knowledgeable Emergency Management Coordinator that assured the participation of each and every representative in all actions regardless of their assignment for the evening. The entire group should be commended for their ability to overcome the limitations presented and still get the job done in such an efficient manner.

4.2.8 Hollenback Township Emergency Operation Center

The tenure of Hollenback Township staff devoted to SSES off-site emergency response has resulted in an EOC staff that has an extremely detailed built-in knowledge base of Township residents and resources.

4.2.9 Newport Township Emergency Operation Center

The Newport Township Manager and Emergency Management Coordinator participated in the EOC throughout the exercise. All updated emergency information was relayed immediately upon receipt and discussed with key EOC staff. Required responses were discussed thoroughly among the group and decisions were based on which actions resulted in the highest level of safety for their emergency workers and public. The Coordinator's years of experience showed in his calm leadership ensuring cooperation from all township departments.

4.1 Support Jurisdictions

Not evaluated during this exercise.

SECTION 5: CONCLUSION

The Commonwealth of Pennsylvania and local jurisdictions, except where noted in this report demonstrated knowledge of their Radiological Emergency Response Plans (RERP) and procedures and were adequately implemented during the Susquehanna Steam Electric Station Plume Pathway exercise evaluated on August 10, 2021.

Federal Emergency Management Agency (FEMA) evaluators assessed 155 evaluation criteria in six Assessment Areas:

- Evaluation Area 1: Emergency Operations Management
- Evaluation Area 2: Protective Action Decision Making
- Evaluation Area 3: Protective Action Implementation
- Evaluation Area 4: Field Measurement and Analysis
- Evaluation Area 5: Emergency Notification and Public Information
- Evaluation Area 6: Support Operation/Facilities

These analyses resulted in a determination of no Level 1 Findings, no Level 2 Findings, and four new Plan Issues.

Based on the results of the exercise and a review of the offsite radiological emergency response plans and procedures submitted, FEMA Region 3 has determined they are adequate (meet the planning and preparedness standards of NUREG-0654/FEMA-REP-1, Revision 1, November 1980, as referenced in 44 CFR 350.5) and there is reasonable assurance they can be implemented, as demonstrated during this exercise.

An After-Action Improvement Plan (IP) will not be developed as part of this report.

APPENDIX A – EXERCISE TIMELINE

This section contains the Exercise Timeline. A table that depicts the times when an event or notifications were noted at participating agencies and locations. (See next 3 pages.)

Unclassified
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Susquehanna Steam Electric Station

Emergency Classification Level or Event	Time Utility Declared	<i>Time That Notification Was Received at the Listed Location</i>								
		PEMA (Sim Cell)	Columbia County	Beaver Township	Berwick Borough/Briar Creek Borough	Briar Creek Township	Fishing Creek Township	Mifflin Township	North Centre Township	South Centre Township
Unusual Event										
Alert	1755		1806	1807	1805	1807	1805	1809	1805	1806
Site Area Emergency	1842		1849	1849	1850	1852	1849	1853	1849	1855
General Emergency	1912		1922	1922	1922	1922	1923	1927	1922	1922
Start of Simulated Radiation Release	1912		1922	1922	1922	1922	1923	1927	1922	1922
Termination of Simulated Radiation Release	Ongoing		Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational			1807	1815	1802	1807	1730	1815	1800	1806
Governor's Declaration of State of Emergency			1939	1943	1939	1943	1938	1940	1938	1941
Exercise Terminated			2041	2000	2042	2015	2041	2043	2040	2020
First Precautionary/Protective Actions: Restrict traffic on water/rail/air (3 miles/3000 feet)			1913	1913	1915	1920	1915	1913	1916	1917
Shelter livestock/place on stored feed and water			1927	1928	1927	1927	1928	1929	1930	1928
Siren Sounding			1910	1910	1910	1910	1910	1910	1910	1910
EAS Message Broadcast			1913	1913	1913	1913	1913	1913	1913	1913
Second Precautionary/Protective Actions:			1933	1943	1936	1933	1935	1939	1935	1943
Evacuate EPZ 0-10 miles, 360 degrees			1933	1943	1936	1933	1935	1939	1935	1943
Siren Sounding			1940	1940	1940	1940	1940	1940	1940	1940
EAS Message Broadcast			1943	1943	1943	1943	1943	1943	1943	1943
KI Decision: Emergency Workers			1943	1943	1943	1950	1949	1949	1948	1943
KI Decision: General Public			1943	1943	1943	1950	1949	1949	1948	1943
KI Decision: Special populations/institutionalized individuals			1943	1943	1943	1950	1949	1949	1948	1943

Unclassified
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Susquehanna Steam Electric Station

Emergency Classification Level or Event	Time Utility Declared	<i>Time That Notification Was Received at the Listed Location</i>									
		PEMA (Sim Cell)	Luzerne County	Black Creek Township	Butler Township/Conyngham Borough	City of Nanticoke	Conyngham Township	Dorrance Township	Hollenback Township	Hunlock Creek Township	Huntington Township/New Columbus Borough
Unusual Event											
Alert	1755		1802	1810	1807	1803	1805	1759	1804	1803	1804
Site Area Emergency	1842		1847	1842	1851	1850	1849	1844	1850	1854	1853
General Emergency	1912		1918	1912	1920	1921	1914	1919	1915	1918	1924
Start of Simulated Radiation Release			1918	1918	1918	1918	1918	1918	1918	1918	1918
891Terminated of Simulated Radiation Release			Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational			1754	1730	1750	1817	1814	1800	1739	1809	1810
Governor's Declaration of State of Emergency			1925	1930	1943	1940	1949	1939	1920	1938	1940
Exercise Terminated			2040	2040	2032	2020	1920	1942	1911	2035	2045
First Precautionary/Protective Actions: Restrict traffic water/rail/air 3 mile/3000 ft.			1910	1913	1900	1910	1910	1910	1903	1910	1910
Shelter Livestock/place on stored feed/water			1913	1915	1915	1913	1913	1913	1915	1913	1940
Siren Sounding			1910	1910	1910	1910	1910	1910	1910	1910	1910
EAS Message Broadcast			1913	1913	1913	1913	1913	1913	1913	1913	1913
Second Precautionary/Protective Actions: Evacuate 0-10 miles, 360 degrees			1933	1943	1936	1933	1935	1939	1935	1943	1940
Siren Sounding			1940	1940	1939	1940	1940	1943	1943	1940	1940
EAS Message Broadcast			1943	1943	1943	1943	1940	1943	1943	1943	1943
KI Decision Emergency Workers			1943	1943	1949	1940	1938	1940	1923	1943	1940
KI Decision General Public			1943	1943	1949	1940	1938	1940	1940	1943	1940
KI Decision - Special populations/ institutionalized individuals			1943	1048	1949	1940	1938	1940	1940	1943	1943

Unclassified
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Susquehanna Steam Electric Station

Emergency Classification Level or Event	Time Utility Declared	<i>Time That Notification Was Received at the Listed Location</i>									
		PEMA (Sim Cell)	Nescopeck Borough	Nescopeck Township	Newport Township	Nuangola Borough	Salem Township	Shickshinny Borough	Slocum Township	Sugarloaf Township	Union Township
Unusual Event											
Alert	1755		1803	1803	1805	1802	1802	1805	1803	1803	1759
Site Area Emergency	1842		1850	1850	1848	1850	1850	1855	1850	1850	1850
General Emergency	1912		1920	1920	1921	1920	1922	1931	1920	1914	1920
Start of Simulated Radiation Release (airborne)			1918	1918	1918	1918	1918	1918	1918	1918	1918
Terminated of Simulated Radiation Release			Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing	Ongoing
Facility Declared Operational			1815	1815	1755	1745	1735	1830	1817	1814	1817
Governor's Declaration of State of Emergency			1952	1952	1950	1940	1940	1949	1953	1954	1925
Exercise Terminated			2020	2020	2030	2035	2032	2030	2009	2009	2009
First Precautionary/Protective Actions: Restrict traffic water/rail/air 3 mile/3000 ft.			1905	1907	1857	1920	1908	1940	1905	1908	1920
Shelter Livestock/place on stored feed/water			1908	1908	1908	1908	1908	1908	1908	1908	1908
Siren Sounding			1908	1908	1908	1908	1908	1908	1908	1902	1910
EAS Message Broadcast			1913	1913	1913	1913	1913	1913	1913	1913	1913
Second Precautionary/Protective Actions: Evacuate 0-10 miles, 360 degrees			1927	1927	1927	1927	1927	1927	1927	1927	1927
Siren Sounding			1910	1910	1910	1913	1908	1910	1905	1913	1913
EAS Message Broadcast			1916	1916	1913	1912	1908	1908	1908	1908	1908
Second Precautionary/Protective Actions: Evacuate 0-10 miles, 360 degrees			1940	1940	1915	1948	1943	1942	1943	1942	1920
KI Decision Emergency Workers			1940	1940	1945	1948	1943	1955	1943	1942	1940
General Public			1940	1940	1945	1948	1948	1955	1943	1942	1940
KI Decision - Special populations/ institutionalized individuals			1940	1940	1945	1948	1943	1955	1943	1942	1940

APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators and Team Leaders for the Susquehanna Steam Electric Station 2020 Rescheduled Radiological Emergency Preparedness Plume Exposure Pathway Exercise evaluated on August 10, 2021. The following constitutes the managing staff for the Exercise Evaluation:

- Thomas Scardino, DHS/FEMA, Regional Assistance Committee (RAC) Chairman
- Kathy Duran, DHS/FEMA, Project Officer and Site Specialist

Susquehanna Steam Electric Station

LOCATION	TEAM LEADER (TL)/ ALTERNATE TEAM LEADER (ATL)	AGENCY
Columbia County Emergency Operation Center	Dan Rose (TL)	FEMA R3
Beaver Township Emergency Operation Center	Nick Buls (ATL)	FEMA R3
Briar Creek Township Emergency Operation Center	Nick Buls (ATL)	FEMA R3
Berwick/Briar Creek Borough Emergency Operation Center	Nick Buls (ATL)	FEMA R3
Fishing Creek Township Emergency Operation Center	Tina Thomas (ATL)	FEMA R3
Mifflin Township Emergency Operation Center	Tina Thomas (ATL)	FEMA R3
North Centre Township Emergency Operation Center	Tina Thomas (ATL)	FEMA R3
South Centre Township Emergency Operation Center	Tina Thomas (ATL)	FEMA R3
Luzerne County Emergency Operation Center	Joe Suders (TL)	FEMA R3
Black Creek Township Emergency Operation Center	Lee Torres (ATL)	FEMA R3
Butler Township/Conyngham Borough Emergency Operation Center	Lee Torres (ATL)	FEMA R3
City of Nanticoke Emergency Operation Center	John Rice (ATL)	FEMA R1
Conyngham Township Emergency Operation Center	Lee Torres (ATL)	FEMA R3

Dorrance Township Emergency Operation Center	Lee Torres (ATL)	FEMA R3
Hollenback Township Emergency Operation Center	Lee Torres (ATL)	FEMA R3
Hunlock Creek Township Emergency Operation Center	John Rice (ATL)	FEMA R1
Huntington Township/New Columbus Borough Emergency Operation Center	John Rice (ATL)	FEMA R1
Nescopeck Borough Emergency Operation Center	John Rice (ATL)	FEMA R1
Nescopeck Township Emergency Operation Center	John Rice (ATL)	FEMA R1
Newport Township Emergency Operation Center	John Rice (ATL)	FEMA R1
Nuangola Borough Emergency Operation Center	Brian Hasemann (ATL)	FEMA R2
Salem Township Emergency Operation Center	Brian Hasemann (ATL)	FEMA R2
Shickshinny Borough Emergency Operation Center	Brian Hasemann (ATL)	FEMA R2
Slocum Township Emergency Operation Center	Brian Hasemann (ATL)	FEMA R2
Sugarloaf Township Emergency Operation Center	Brian Hasemann (ATL)	FEMA R2
Union Township Emergency Operation Center	Brian Hasemann (ATL)	FEMA R2

LOCATION	EVALUATORS	AGENCY
Columbia County Emergency Operation Center	Dan Rose Lisa Rink	FEMA R3 FEMA HQ
Beaver Township Emergency Operation Center	Miriam Weston	FEMA R2
Briar Creek Township Emergency Operation Center	Daren Bates	FEMA HQ
Berwick/Briar Creek Borough Emergency Operation Center	Nick Buls Bart Ray	FEMA R3 ICF
Fishing Creek Township Emergency Operation Center	Andy Chancellor	FEMA R7
Mifflin Township Emergency Operation Center	Bart Ray	ICF
North Centre Township Emergency Operation Center	Tina Thomas	FEMA R3
South Centre Township Emergency Operation Center	Jim Greer	ICF

Luzerne County Emergency Operation Center	Joe Suders Taylor Griffiths	FEMA R3 FEMA R3
Black Creek Township Emergency Operation Center	Steve Watts	ICF
Butler Township/Conyngham Borough Emergency Operation Center	Doc Burriss	ICF
City of Nanticoke Emergency Operation Center	John Rice	FEMA R1
Conyngham Township Emergency Operation Center	Lee Torres	FEMA R3
Dorrance Township Emergency Operation Center	Mark Dalton	ICF
Hollenback Township Emergency Operation Center	Henry Christianson	ICF
Hunlock Creek Township Emergency Operation Center	Tom Reynolds	ICF
Huntington Township/New Columbus Borough Emergency Operation Center	Kevin Reed	ICF
Nescopeck Borough Emergency Operation Center	Norm Valentine	FEMA R7
Nescopeck Township Emergency Operation Center	Bob Lemeshka	ICF
Newport Township Emergency Operation Center	Roy Smith	ICF
Nuangola Borough Emergency Operation Center	Robert McWilliams	FEMA HQ
Salem Township Emergency Operation Center	Clay Spangenberg	ICF
Shickshinny Borough Emergency Operation Center	Alonzo McSwain	FEMA HQ
Slocum Township Emergency Operation Center	Brian Hasemann	FEMA R2
Sugarloaf Township Emergency Operation Center	Gary Bolender	ICF
Union Township Emergency Operation Center	Larry Broockerd	FEMA HQ
Berwick Area School District	Brad McKee	ICF
Berwick Area Middle School	Brad McKee	ICF
Greater Nanticoke Area School District	Kathy Duran	FEMA R3
Greater Nanticoke Area Elementary Center	Kathy Duran	FEMA R3

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ACP	Access Control Point
ALC	Annual Letter of Certification
ANS	Alert and Notification System
ARC	American Red Cross
ARD	Automatic Ring Down
ARES	Amateur Radio Emergency Services
ATWS	Anticipated Transit Without SCRAM
BRP	Bureau of Radiation Protection
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
CRCC	Commonwealth Resource Coordination Center
CST	Civil Support Team
DHS	Department of Homeland Security
DRD	Direct Reading Dosimeter
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Extent of Play
EPT	Exercise Planning Team
EPZ	Emergency Planning Zone
ESF	Emergency Support Function
EW	Emergency Workers
FBI	Federal Bureau of Investigation
FD	Fire Department
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FRMAC	Federal Radiological Monitoring Assessment Center
FPE	Full Participation Exercise
FTC	Field Team Coordinator
GE	General Emergency
GIS	Geographic Information Systems
GPS	Global Positioning System
HAB	Hostile Action Based

HazMat	Hazardous Materials
JIC	Joint Information Center
JPIC	Joint Public Information Center
KI	Potassium Iodide
LCD	Liquid Crystal Display
LOA	Letter of Agreement
MOU	Memorandum of Understanding
MSEL	Master Scenario Events List
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
OOS	Out of Sequence
ORO	Offsite Response Organization
OSD	Optically Stimulated Dosimeter
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PAZ	Protective Action Zone
PEMA	Pennsylvania Emergency Management Agency
PI	Planning Issue
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRD	Permanent Record Dosimeter
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
REA	Radiation Emergency Area
REP	Radiological Emergency Plan
REPP	Radiological Emergency Preparedness Program
RERP	Radiological Emergency Response Plan
RO	Radiological Officer
SAC	Staging Area Coordinator
SAE	Site Area Emergency
SAIC	Science Applications International Corporation
SAV	Staff Assistance Visit
SEOC	State Emergency Operations Center
SEVAN	State Emergency Voice Activation Network
SED	Station Emergency Director

APPENDIX D: EXTENT OF PLAY AGREEMENT

The 2020 Rescheduled Susquehanna Steam Electric Station Plume Pathway Exercise Extent-of-Play (EOP) Agreement is a document created by the Pennsylvania Emergency Management Agency that sets the parameters for exercise demonstration. The EOP agreement was signed by the FEMA Region 3 and the Pennsylvania Emergency Management Agency planning team members.



SUSQUEHANNA STEAM ELECTRIC STATION PLUME EXERCISE

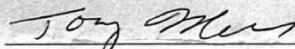
By signing this Extent of Play Agreement, the Commonwealth of Pennsylvania and the FEMA Region III exercise planning team confirm that all conditions have been met to satisfy the requirements to drive exercise play and satisfy the Demonstration Criteria as agreed upon for the August 10, 2021, Susquehanna Steam Electric Station Plume Exercise.

**KATHRYN
DURAN**


Kathy Duran
FEMA Site Specialist


Digitally signed by KATHRYN
DURAN
Date: 2021.07.13 13:50:58
-04'00'

7/9/2021
Date


Tony Mull

Lead State Planner

7/9/21
Date

**JOSEPH A
SUDERS**


FEMA Team Leader North

Digitally signed by JOSEPH A
SUDERS

Date: 2021.07.13 14:08:24 -04'00'
Date

SUSQUEHANNA STEAMELECTRIC STATION

EXTENT OF PLAY

Includes In-Person and Virtual Demonstration

Rescheduled due to COVID-19 Pandemic Response

2020 RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE

Rescheduled Date: August 10, 2021

Dress Rehearsal June 22, 2021

Route Alerting August 11, 2021

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SUSQUEHANNA STEAM ELECTRIC STATION

2020 RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE

METHOD OF OPERATION

I. Susquehanna Steam Electric Station (SSES)

Normally for offsite exercises, Talen Energy uses off-duty section personnel to participate in the exercise. The plant's simulated events, radiation readings, and emergency classifications will trigger offsite exercise actions. A pre-approved exercise scenario is normally used. During normal exercises, SSES will notify the Commonwealth Response Coordination Center (CRCC), the Bureau of Radiation Protection (BRP) and Risk Counties of emergency classifications.

Due to the COVID-19 pandemic and uncertainty of allowing evaluators to enter certain facilities, this extent of play has been modified to include parallel planning guidance on both in person and virtual evaluation in order to prepare for either situation. The Pennsylvania Emergency Management Agency (PEMA) submitted and was granted exercise credit for many of the Offsite Response Organizations (OROs). An exercise is required to demonstrate the remaining criteria and a determination will be made 60 days prior to the exercise to determine what aspects may be demonstrated virtually to allow maximum safety of participants.

The geographic area surrounding SSES is rural and as such does not have sufficient technological infrastructure to support a virtual exercise for all participants if necessary. For example, Beaver Township and Union Township are unable to get reliable internet service to their Emergency Operation Centers (EOCs). For this exercise, all participants may pre-stage at their facility.

To maintain safety guidelines issued by the Center for Disease Control, PA Department of Health, the policies of each venue, and manage the technical aspects, the plume exercise with the risk counties and municipalities will be held either in person on the evening of August 10, 2021 and will require limited participation. A school exercise will be held on the morning of August 10, 2021, either in person or virtually, following Department of Education's policy that is in effect 60 days prior to the exercise.

Should there be a material failure of any of the virtual platforms used during any exercise, a Simulation Cell (SimCell) or PEMA controllers and/or observers may be used to provide injects to allow completion of the exercise. The alternate communications to complete the drill will be cellular phone or any other operable system.

II. Bureau of Radiation Protection (BRP)

BRP has submitted and received credit for all exercise criteria under the TMI AAR of 2019. BRP personnel will **NOT** be present at the CRCC, the Talen Energy Emergency Operations Facility (EOF), or branch field locations. BRP field teams will **NOT** be evaluated during this exercise. BRP field teams will **NOT** perform air sampling.

III. PEMA Operations at the CRCC

This “Method of Operation” Document includes activities involving the limited plume exercise. Due to COVID-19 pandemic and exercise credit received, only the counties and municipalities listed in Attachment C are required to demonstrate for this exercise. An additional exercise will be held for schools which is also listed in Attachment C.

A. Plume Exercise

PEMA has received credit for all exercise criteria and will only exercise as necessary to support those OROs who do have exercise criteria to demonstrate.

PEMA controllers/observers may supply injects to support the utility’s portion of the exercise if there is a material failure of communications. **PEMA will NOT stand up the CRCC.** The PEMA SimCell will provide a Protective Action Decision (PAD) during the coordination of siren sounding at General Emergency.

B. Plume Exercise – “Out-of-Sequence” Activities

School Exercises August 10, 2021

For the Columbia school exercise, PEMA controllers/observers or the county will provide injects from a pre-scripted scenario to promote exercise play. The exercise will be completed by interview in person with participants from Berwick Area Middle School and Berwick Area School District office meeting at the district office only, the school building will not be utilized.

For the Luzerne County school exercise, the exercise will be completed virtually with participants from Greater Nanticoke Area Elementary Center and Greater Nanticoke Area School District office meeting via a teleconferencing platform provided by PEMA or FEMA (TBD). The exercise will be completed by interview with the district superintendent and the school’s principle.

C. Route Alerting – August 11, 2021

Route alerting will be performed out-of-sequence at 6:00 p.m.

PEMA or Talen personnel may serve as Observers and/or Controllers to those locations demonstrating.

IV. PEMA Area Office Operations

The PEMA Area Offices (Harrisburg-Central Area and Hamburg-Eastern Area) will not be activated nor evaluated during this exercise.

V. County and Municipal Participants – August 10, 2021

The risk counties, Columbia and Luzerne, and their respective municipalities will participate on the evening of August 10, 2021 following the school evaluation. A PEMA SimCell shall be used to provide injects for exercise play. PEMA will provide PADs through the bridge line to ensure communications systems are adequate PEMA observers or Talen Energy staff may provide injects if there is a material failure of communication systems. Each county and municipality will demonstrate only the criteria for which they have not received credit. Participants will be allowed to redemonstrate any criteria during the exercise upon approval of the RAC Chair.

VI. PEMA Liaison Officers

PEMA observers will act as liaison officers as required.

VII. Controllers

A Controller will be assigned for each exercise.

Controllers are not players. Controllers will provide pre-approved injects and information to the players, as appropriate, to provide guidance and direction for keeping the exercise on track.

For this exercise, observers may function as controllers.

VIII. PEMA Observers

PEMA staff or other qualified personnel will be assigned, as required, to exercise locations either in person or virtually based on availability, for observing, noting response actions and conditions, and recording observations for future use. Observers should not take an active part in the exercise unless there is a failure of communications but will interact with staff members to the extent necessary to fulfill their observer responsibilities. Coaching of players by Observers is permitted to provide training to participants awaiting a re-demonstration. (Refer to paragraph X3)

IX. FEMA Evaluators

No more than one Federal Evaluator may be present at each facility except at the risk counties which may have two evaluators in person. They will evaluate player response to the actual and simulated events in the exercise scenario. The exercise will follow REP Program Manual (January 2016).

X. Demonstration Windows

The “demonstration windows” for this exercise are:

A. Plume Phase Exercise

The school exercise will be conducted on August 10, 2021, from 9:00 a.m. to 11:00 a.m. The risk county and municipal exercise will be conducted on August 10, 2021, from approximately 6:00 p.m. to 8:00 p.m. (see Attachment A). To limit the impact on the participants and to promote overall COVID-19 safety, the counties may utilize minimal staffing and municipalities will each provide a municipal Emergency Management Coordinator (EMC) and a Radiological Liaison (EMC can also be the RL if necessary) to follow the exercise scenario and answer any evaluator inquiries. Some materials may be provided by the municipality in advance to support the exercise criteria. No materials or paperwork will be required to be physically utilized or exchanged if any participant has health concerns.

B. Post Plume Exercise

No post-plume phase exercise is scheduled during this evaluation.

XI. Stand-Down

At the completion of each exercise, counties and municipalities will request approval to stand-down. Upon completion of all requirements and after having been informed by the FEMA Evaluator that all evaluation areas have been demonstrated successfully, the PEMA observer will notify the controller who will release the municipality.

The risk counties’ EOCs will remain operational until all of its municipalities are released, and the exercise is officially terminated by FEMA and the Lead Controller. **The Lead Controller will issue an Exercise Termination Message.**

XII. General Concepts

An emergency plan is drafted to address the generally expected conditions of an emergency. Not everything in the emergency plan may be applicable for a given scenario. The main purpose of an emergency plan is to assemble sufficient expertise and officials so as to properly react to the events as they occur. The responders should not be so tied to a plan that they cannot take actions that are more protective of the public. Therefore, if, by not following the plan, the responders protect the public equally as well as provided in the plan, it should be noted for possible modification of the plan, but not classified as a negative incident. Furthermore, if, by following the plan there is a failure to protect the public health and safety, it should be noted so that the plan can be modified, and the appropriate negative assessment applied.

XIII. Re-demonstrations

During the exercise, any activity that is not satisfactorily demonstrated may be re-demonstrated by the participants during the exercise with the approval of the RAC Chair. Refresher training may be provided by the players, observers, and/or controllers. Evaluators are not permitted to provide refresher training. Re-demonstrations will be negotiated between the players, observers, controllers, and evaluators. The exercise window may be extended to allow for re-demonstrations. The exercise After Action Report (AAR) will denote successfully re-demonstrated criteria.

XIV. Exercise Credit Received

On January 28, 2021, PEMA received exercise credit from FEMA for various criteria. Participants will not be required to demonstrate any criteria for which they were granted credit.

SUSQUEHANNA STEAM ELECTRIC STATION

2020 RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE

EXTENT-OF-PLAY AGREEMENT

EVALUATION AREA 1 Emergency Operations Management

Sub-element 1.a – Mobilization

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to alert, notify, and mobilize emergency personnel, and activate and staff emergency facilities.

Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner.

(NUREG-0654/FEMA-REP-1, A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; H.3, 4)

Assessment/Extent-of-Play

Assessment of the Demonstration Criterion may be accomplished during a biennial exercise, an actual event, out-of-sequence evaluation or by means of drills, conducted at any time.

Responsible OROs must demonstrate the capability to receive notification of an incident from the licensee; verify the notification; and contact, alert, and mobilize key emergency personnel in a timely manner and demonstrate the ability to maintain and staff 24-hour operations. Twenty-four-hour operations can be demonstrated during the exercise via rosters or shift changes or otherwise in an actual activation. Local responders must demonstrate the ability to receive and/or initiate notification to the licensees or other respective emergency management organizations of an incident in a timely manner when they receive information from the licensee or alternate sources. Responsible OROs must demonstrate the activation of facilities for immediate use by mobilized personnel upon their arrival. Activation of facilities and staff, including those associated with the Incident Command System, must be completed in accordance with ORO plans/procedures. The location and contact information for facilities included in the incident command must be available to all appropriate responding agencies and the NPP after these facilities have been activated.

Pre-positioning of emergency personnel is appropriate, in accordance with the Extent-of-Play Agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. This includes the staggered release of resources from an assembly area. Additionally, pre-positioning of staff for out-of-sequence demonstrations may be used in accordance with the Extent-of-Play Agreement.

The REP program does not evaluate Incident Command System tactical operations (e.g., Law Enforcement hostile action suppression techniques), only coordination among the incident

command, the utility, and all appropriate OROs, pursuant to plans/procedures.

Initial law enforcement, fire service, HAZMAT, and emergency medical response to the NPP site may impact the ability to staff REP functions. The ability to identify and request additional resources or identify compensatory measures must be demonstrated. Exercises must also address the role of mutual aid in the incident, as appropriate. An integral part of the response to an HAB scenario at an NPP may also be within the auspices of the Federal Government (e.g., FBI, NRC, or DHS). Protocols for requesting Federal, state, local, and tribal law enforcement support must be demonstrated, as appropriate. Any resources identified through LOA/MOUs must be on the ORO's mobilization list so they can be contacted during an incident, if needed.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Documentation for this criterion has been submitted to FEMA. No evaluation required during the exercise. (Reference SSES Credit Request Letter dated 22 December 2020)

Emergency Operations Management

Sub-element 1.b – Facilities

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) have facilities to support the emergency response.

Criterion 1.b.1: Facilities are sufficient to support the emergency response.

(NUREG-0654/FEMA-REP-1, H.3; G.3.a; J.10.h; J.12; K.5.b)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, SAVs, or by out-of-sequence evaluations.

Responsible OROs must demonstrate, no less than once every 8 years, the availability of fixed facilities that support accomplishment of emergency operations (this includes all alternate and backup facilities). Evaluations are performed for EOCs and JICs, as well as, other fixed facilities such as reception/relocation centers. Some of the areas evaluated within the facilities are adequate space, furnishings, lighting, restrooms, ventilation, backup power, and/or alternate facility, if required to support operations. Radio stations, laboratories, initial warning points and hospitals are not evaluated under 1.b.1.

In addition, facilities will be evaluated for this criterion during the first biennial exercise after any new or substantial changes in structure, equipment, or mission that affect key capabilities, as outlined in respective emergency plans/procedures. A substantial change is one that has a direct effect or impact on emergency response operations performed in those facilities. Examples of

substantial changes include modifying the size or configuration of an emergency operations center, adding more function to a center, or changing the equipment available for use in a center.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Butler Township/Conyngham Borough, and Beaver Township each have a new facility and will be evaluated in person or by interview if the exercise is held virtually.

All other facilities have previously demonstrated this criterion within the eight-year cycle as required.

Sub-element 1.c - Direction and Control

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to control their overall response to an emergency.

Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible.

(NUREG-0654/FEMA-REP-1, A.1.d; A.2.a, b; A.3; C.4, 6)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished in a biennial or tabletop exercise.

Leadership personnel must demonstrate the ability to carry out the essential management functions of the response effort (e.g., keeping staff informed through periodic briefings and/or other means, coordinating with other OROs, and ensuring completion of requirements and requests). Leadership must demonstrate the ability to prioritize resource tasking and replace/supplement resources (e.g., through MOUs or other agreements) when faced with competing demands for finite resources. Any resources identified through LOA/MOUs must be on the ORO's mobilization list so they may be contacted during an incident, if needed.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

In-Person Demonstration: ORO will demonstrate criteria.

Sub-element 1.d – Communications Equipment

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs establish and operate reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as contiguous governments within the EPZ, Federal emergency response organizations, the licensee and its facilities, EOCs, Incident Command Posts, and Field Monitoring Teams (FMTs).

Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations.

(NUREG-0654/FEMA-REP-1, F.1, 2)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion is accomplished initially in a baseline evaluation and subsequently in periodic testing and drills. System familiarity and use must be demonstrated as applicable in biennial or tabletop exercises, or if their use would be required, during an actual event.

ORO must demonstrate that a primary system, and at least one backup system for fixed facilities, is fully functional at all times. Communications systems are maintained and tested on a recurring basis throughout the assessment period and system status is available to all operators. Periodic test results and corrective actions are maintained on a real-time basis. If a communications system or systems are not functional, but exercise performance is not affected, no exercise issue will be assessed.

Communications equipment and procedures for facilities and field units are used as needed for transmission and receipt of exercise messages. All facilities, FMTs, and incident command must have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs must demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations. OROs must ensure that a coordinated communication link for fixed and mobile medical support facilities exists. Exercise scenarios may require the failure of a communication system and use of an alternate system, as negotiated in the Extent-of-Play Agreement.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

In-Person Demonstration: PEMA SimCell and Talen Energy Lead Exercise Controller will provide all communications with the risk counties. PEMA CWWC will accept notifications from Talen Energy Lead Exercise Controller.

The risk counties will communicate with their risk municipalities via public safety radio frequencies (EMA Radio), commercial telephone, Fax, Email, or Amateur Radio Communications (ARES/RACES) or other available means deemed necessary due to limited participation at both the risk counties and municipalities.

Sub-element 1.e – Equipment and Supplies to Support Operations

INTENT

This sub-element derives from NUREG-0654/FEMA-REP-1, which requires that OROs have emergency equipment and supplies adequate to support the emergency response.

Criterion 1.e.1: Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations.

(NUREG-0654/FEMA-REP-1, H.7, 10; I.7, 8, 9; J.10.a, b, c; J.11, 12; K.3.a; K.5.b)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion is accomplished primarily through a baseline evaluation and subsequent periodic inspections.

A particular facility's equipment and supplies must be sufficient and consistent with that facility's assigned role in the ORO's emergency operations plans. Use of maps and other displays is encouraged. For non-facility-based operations, the equipment and supplies must be sufficient and consistent with the assigned operational role. At locations where traffic and access control personnel are deployed, appropriate equipment (e.g., vehicles, barriers, traffic cones, and signs) must be available, or their availability described.

Specific equipment and supplies that must be demonstrated under this criterion include KI inventories, dosimetry, and monitoring equipment, as follows:

KI: Responsible OROs must demonstrate the capability to maintain inventories of KI sufficient for use by: (1) emergency workers; (2) institutionalized individuals, as indicated in capacity lists for facilities; and (3) where stipulated by the plans/procedures, members of the general public (including transients) within the plume pathway EPZ. In addition, OROs must demonstrate provisions to make KI available to specialized response teams (e.g., civil support team, Special Weapons and Tactics Teams, urban search and rescue, bomb squads, HAZMAT, or other ancillary groups) as identified in plans/procedures. The plans/procedures must include the forms to be used for documenting emergency worker ingestion of KI, as well as, a mechanism for identifying emergency workers that have declined KI in advance. Consider carefully the placement of emergency workers that have declined KI in advance.

ORO quantities of dosimetry and KI available and storage location(s) will be confirmed by physical inspection at the storage location(s) or through documentation of current inventory submitted during the exercise, provided in the ALC submission, and/or verified during an SAV. Available supplies of KI must be within the expiration date indicated on KI bottles or blister packs.

As an alternative, the ORO may produce a letter from a certified private or state laboratory indicating that the KI supply remains potent, in accordance with U.S. Pharmacopoeia standards.

Dosimetry: Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers must be available for issuance to all emergency workers who will be dispatched to perform an ORO mission. In addition, OROs must demonstrate provisions to make dosimetry available to specialized response teams (e.g., civil support team, Special Weapons and Tactics Teams, urban search and rescue, bomb squads, HAZMAT, or other ancillary groups) as identified in plans/procedures.

Appropriate direct-reading dosimetry must allow an individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans/procedures.

Direct-reading dosimeters must be zeroed or operationally checked prior to issuance. The dosimeters must be inspected for electrical leakage at least annually and replaced when necessary. Civil Defense Victoreen Model 138s (CD V-138s) (0-200mR), due to their documented history of electrical leakage problems, must be inspected for electrical leakage at least quarterly and replaced when necessary. This leakage testing will be verified during the exercise, through documentation submitted in the ALC and/or through an SAV.

Operational checks and testing of electronic dosimeters must be in accordance with the manufacturer's instructions and be verified during the exercise, through documentation submitted in the ALC and/or through an SAV.

Monitoring Instruments: All instruments must be inspected, inventoried, and operationally checked before each use. Instruments must be calibrated in accordance with the manufacturer's recommendations. Unmodified CDV-700 series instruments and other instruments without a manufacturer's recommendation must be calibrated annually. Modified CDV-700 instruments must be calibrated in accordance with the recommendation of the modification manufacturer. A label indicating such calibration must be on each instrument or calibrated frequency can be verified by other means. In addition, instruments being used to measure activity must have a sticker-affixed to their sides indicating the effective range of the readings. The range of readings documentation specifies the acceptable range of readings that the meter should indicate when it is response-checked using a standard test source.

For FMTs, the instruments must be capable of measuring gamma exposure rates and detecting beta radiation. These instruments must be capable of measuring a range of activity and exposure, including radiological protection/exposure control of team members and detection of activity on air sample collection media, consistent with the intended use of the instrument and the ORO's plans/procedures. An appropriate radioactive check source must be used to verify proper operational response for each low-range radiation measurement instrument (less than 1R/hr) and for high-range instruments when available. If a source is not available for a high-range instrument, a procedure must exist to operationally test the instrument before entering an area where only a high-range instrument can make useful readings.

In areas where portal monitors are used, the OROs must set up and operationally check the monitor(s). The monitor(s) must conform to the standards set forth in the Contamination Monitoring Standard for a Portal Monitor Used for Emergency Response, FEMA-REP-21 (March 1995) or in accordance with the manufacturer's recommendations.

Mutual Aid Resources: If the incoming resources arrive with their own equipment (i.e., monitors and/or dosimetry) they will be evaluated by REP Program standards. FEMA will not inventory equipment that is not part of the REP Program. If an agency has a defined role in the REP Plan, they are subject to the planning process and standards, as well as the guidance of this Manual.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Documentation for this criterion has been submitted to FEMA. (Reference SSES Credit Request Letter from PEMA dated 22 December 2020)

Per the letter received by PEMA from Thomas Scardino, dated January 28, 2021, exercise credit was granted for this criterion by FEMA. The equipment is available at each facility and may be inspected, if requested, but no evaluation is required for this exercise.

EVALUATION AREA 2

Precautionary and/or Protective Action Decision-Making

Sub-element 2.c – Precautionary and/or Protective Action Decision Consideration for the Protection of Persons with Disabilities and Access/Functional Needs

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to determine precautionary and/or protective action decisions, including evacuation, sheltering, and use of KI, if applicable, for groups of persons with disabilities and access/functional needs (e.g., hospitals, nursing homes, correctional facilities, schools, licensed day cares, mobility-impaired individuals, and transportation-dependent individuals). The focus is on those groups of persons with disabilities and access/functional needs that are or potentially will be affected by a radiological release from an NPP.

Criterion 2.c.1: Precautionary and/or protective action decisions are made, as appropriate, for groups of persons with disabilities and access/functional needs.

(NUREG-0654/FEMA-REP-1, D.4; J.9; J.10.d, e)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise that would include the use of plant conditions transmitted from the licensee.

Usually it is appropriate to implement evacuation in areas where doses are projected to exceed the lower end of the range of PAGs, except for incidents where there is a high-risk environmental condition or where high-risk groups (e.g., the immobile or infirm) are involved. In these cases, factors that must be considered include weather conditions, shelter availability, availability of transportation assets, risk of evacuation versus risk from the avoided dose, and precautionary school evacuations. In addition, decisions must be coordinated/communicated with the incident command. In situations where an institutionalized population cannot be evacuated, the ORO must consider use of KI.

Applicable OROs must demonstrate the capability to alert and notify all public-school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students. Demonstration requires that the OROs actually contact public school systems/districts during the exercise

The OROs must demonstrate how the decision-making process takes those with disabilities and access/functional needs (e.g., nursing homes, correctional facilities, licensed day cares, mobility-impaired individuals, and transportation-dependent individuals) into account.

In accordance with plans/procedures, OROs and/or officials of public-school systems/districts must demonstrate the capability to make prompt decisions on protective actions for students. The decision-making process, including any preplanned strategies for protective actions for that ECL, must consider the location of students at the time (e.g., whether the students are still at home, en route to school, or at school).

Since other agencies place requirements on hospitals to prepare for contaminated patients, the REP Program has no need to evaluate hospitals in the EPZ that need to evacuate, or the facilities that are receiving these evacuees, nor does the ORO have the responsibility to provide training or dosimetry to these hospitals/facilities. Additionally, hospital evacuation plans do not need to be reviewed or tested by the REP program.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Decisions and actions at state level will not be evaluated for this exercise.

Counties will discuss through interview their procedures to notify schools and the procedures to notify and assist individuals with access/functional needs. No actual contact with the school system will be made during the plume phase exercise however, a listing of those individuals that would be contacted will be shown to the evaluator.

EVALUATION AREA 3

Protective Action Implementation

Sub-element 3.a – Implementation of Emergency Worker Exposure Control

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimetry and permanent record dosimetry; reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of the PAGs; and the capability to provide KI for emergency workers, always applying the as low as is reasonably achievable (ALARA) principle as appropriate.

Criterion 3.a.1: The OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate record-keeping of the administration of KI to emergency workers.

(NUREG-0654/FEMA-REP-1, K.3.a, b; K.4)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

OROs must demonstrate the capability to provide emergency workers (including supplemental resources) with the appropriate direct-reading and permanent record dosimetry, dosimeter chargers, KI, and instructions on the use of these items. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows an individual(s) to read the administrative reporting limits that are pre-established at a level low enough to consider subsequent calculation of TEDE and maximum exposure limits, for those emergency workers involved in lifesaving activities, contained in the ORO's plans/procedures.

Each emergency worker must have basic knowledge of radiation exposure limits as specified in the ORO's plans/procedures. If supplemental resources are used, they must be provided with just-in-time training to ensure basic knowledge of radiation exposure control. Emergency workers must demonstrate procedures to monitor and record dosimeter readings and manage radiological exposure control.

During a plume phase exercise, emergency workers must demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker must report accumulated exposures during the exercise as indicated in the plans/procedures. OROs must demonstrate the actions described in the plans/procedures by

determining whether to replace the worker, authorize the worker to incur additional exposures, or take other actions. If exercise play does not require emergency workers to seek authorizations for additional exposure, evaluators must interview at least two workers to determine their knowledge of whom to contact in case authorization is needed, and at what exposure levels. Workers may use any available resources (e.g., written procedures and/or coworkers) in providing responses.

Although it is desirable for all emergency workers to each have a direct-reading dosimeter, there may be situations where team members will be in close proximity to each other during the entire mission. In such cases, adequate control of exposure can be achieved for all team members using one direct-reading dosimeter worn by the team leader. Emergency workers assigned to low-exposure rate fixed facilities (e.g., EOCs and communications center within the EPZ, reception centers, and counting laboratories) may have individual direct-reading dosimeters or they may be monitored using group dosimetry (i.e., direct-reading dosimeters strategically placed in the work area). Each team member must still have his or her own permanent record dosimetry. Individuals authorized by the ORO to reenter an evacuated area during the plume (emergency) phase, must be limited to the lowest radiological exposure commensurate with completing their missions.

OROs may have administrative limits lower than EPA-400-R-92-001 dose limits for emergency workers performing various services (e.g., lifesaving, protection of valuable property, all activities). OROs must ensure that the process used to seek authorization for exceeding dose limits does not negatively impact the capability to respond to an incident where lifesaving and/or protection of valuable property may require an urgent response.

OROs must demonstrate the capability to accomplish distribution of KI to emergency workers consistent with decisions made. OROs must have the capability to develop and maintain lists of emergency workers who have ingested KI, including documentation of the date(s) and time(s) they did so. Ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI shall not be performed. OROs must demonstrate the capability to formulate and disseminate instructions on using KI for those advised to take it. Emergency workers must demonstrate basic knowledge of procedures for using KI whether or not the scenario drives the implementation of KI use. This can be accomplished by an interview with the evaluator.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Radiological briefings will be provided to address exposure limits and procedures to replace personnel approaching limits, and how permission to exceed limits is obtained from the county. Emergency workers will also be briefed on when to take KI and on whose authority. OROs should demonstrate the use of applicable dosimetry forms and may do so by interview. No exchange of dosimetry or forms from person to person should occur whether in-person or virtually demonstrated.

NOTE: The demonstration of briefings, issuance of dosimetry, KI and associated documentation will occur during the plume phase exercise. Route Alert teams will not be required to travel the route during the plume phase but will demonstrate traversing the route out of sequence.

Out of sequence Route Alerting will demonstrate PPE, messaging, navigation and timing of the route(s). A radiological briefing will be given to the teams prior to the delivery of the siren failure injects as per the municipal radiological response plans. Teams will be issued “simulated” or “training” PPE and will be able to answer questions on dosimetry and exposure control by interview

OROs who use the PEMA radiological video in addition to their radiological briefing shall indicate where they would show it but are not required to play it.

Players may look up or ask for radiological information from other players. In Pennsylvania, emergency workers do not have turn-back values.

Standard issue of dosimetry and potassium iodide for each category of emergency worker is as follows:

Category A: 1 PRD, 1 DRD, and 1 unit of KI

Category B: 1 PRD and 1 unit of KI

Category C: 1 PRD

Sub-element 3.b – Implementation of KI Decision for Institutionalized Individuals and the General Public

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide KI for institutionalized individuals, and, if in the plans/procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to institutionalized individuals, providing KI to the general public is an ORO option and must be reflected as such in ORO plans/procedures. Provisions must include the availability of adequate quantities, storage, and means of distributing KI.

Criterion 3.b.1: KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals and the general public is maintained.

(NUREG-0654/FEMA-REP-1, J.10.e, f)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

ORO must demonstrate the capability to make KI available to institutionalized individuals, and, where provided for in their plans/procedures, to members of the general public. OROs must demonstrate the capability to accomplish distribution of KI consistent with decisions made. OROs must have the capability to develop and maintain lists of institutionalized individuals who have

ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. Ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI shall not be performed. OROs must demonstrate the capability to formulate and disseminate instructions on using KI for those advised to take it.

If a recommendation is made for the general public to take KI, appropriate information must be provided to the public by the means of notification specified in the ORO's plans/procedures.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Within Pennsylvania, the Pennsylvania Department of Health is responsible for distribution of KI to the general public located within the EPZ. Pre-distribution is accomplished on an annual basis. KI is not distributed to the general public at the time of an emergency.

In Pennsylvania, counties receive KI recommendations from the Commonwealth. *Counties will describe by interview the actions they may take to relay KI information to institutions and/or the public. No person to person exchange of KI inventory or inventory sheets will take place. KI will not be removed from storage locations and boxes will not be opened. KI questions will be addressed through interviews.*

Sub-element 3.c – Implementation of Precautionary and/or Protective Actions for Persons with Disabilities and Access/Functional Needs

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement precautionary and/or protective action decisions, including evacuation and/or sheltering, for all persons with disabilities and access/functional needs. The focus is on those persons with disabilities and access/ functional needs that are (or potentially will be) affected by a radiological release from an NPP.

Criterion 3.c.1: Precautionary and/or protective action decisions are implemented for persons with disabilities and access/functional needs other than schools within area subject to protective actions. (NUREG 0654/FEMA REP 1 J.10.c, d, e, g)

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or by means of drills conducted at any time.

Applicable OROs must demonstrate the capability to alert and notify (i.e., provide PARs and emergency information and instructions to) persons with disabilities and access/ functional needs, including hospitals/medical facilities, licensed day cares, nursing homes, correctional facilities, and mobility-impaired and transportation-dependent individuals. OROs must demonstrate the

capability to provide for persons with disabilities and access/functional needs in accordance with plans/procedures.

Contact with persons with disabilities and access/functional needs and reception facilities may be actual or simulated, as agreed to in the extent of play. Some contacts with transportation providers must be actually contacted, as negotiated in the extent of play. All actual and simulated contacts must be logged.

Since other agencies place requirements on hospitals to prepare for contaminated patients, the REP Program has no need to evaluate hospitals in the EPZ that need to evacuate, or the facilities that are receiving these evacuees, nor does the ORO have the responsibility to provide training or dosimetry to these hospitals/facilities. Additionally, hospital evacuation plans do not need to be reviewed or tested by the REP program.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

The following applies to both in-person or virtual demonstrations:

If the ORO has identified persons with access/functional needs within their jurisdiction; a list of identified persons will be shown to the evaluator.

No copies will be made of data containing Personal Identifiable Information

Criterion 3.c.2: OROs/School officials implement precautionary and/or protective actions for schools. (NUREG-0654/FEMA-REP-1, J.10.c, d, e, g

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a biennial, or tabletop exercise, an actual event, staff assistance visit, or by means of drills conducted at any time.

School systems/districts (these include public and private schools, kindergartens, and preschools) must demonstrate the ability to implement precautionary and/or protective action decisions for students. The demonstration must be made as follows: Each school system/district within the 10 mile EPZ must demonstrate implementation of protective actions. At least one school per affected system/ district must participate in the demonstration. Canceling the school day, dismissing early, or sheltering in place must be simulated by describing to evaluators the procedures

that would be followed. If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to reception centers, congregate care centers, or host schools may actually be demonstrated or accomplished through an interview process.

If accomplished through an interview, appropriate school personnel including decision-making officials (e.g., schools' superintendent/principals and transportation director/bus dispatchers) and at least one bus driver (and the bus driver's escort, if applicable) must be available to

demonstrate knowledge of their role(s) in the evacuation of school children. Communications capabilities between school officials and the buses, if required by the plans/procedures, must be verified.

Officials of the school system(s) must demonstrate the capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the media on the status of protective actions for schools.

If a school facility has emergency plans as a condition of licensing, those plans may be submitted to FEMA review in place of demonstration or interview pursuant to the ORO's plans/procedures as negotiated in the Extent-of-Play Agreement.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of- Play Agreement.

PEMA Negotiated Extent-of-Play:

See page 6 3 B. Plume Exercise – “Out-of-Sequence” Activities

Sub-element 3.d. – Implementation of Traffic and Access Control

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement protective action plans/procedures, including relocation and restriction of access to evacuated/sheltered areas. This Sub-element focuses on selecting, establishing, and staffing of traffic and access control points, and removal of impediments to the flow of evacuation traffic.

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel.

(NUREG-0654/FEMA-REP-1, A.3; C.1, 4; J.10.g, j)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, staff assistance visit, or by means of drills conducted at any time. OROs must demonstrate the capability to select, establish, and staff appropriate traffic and access control points consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation) in a timely manner. OROs must demonstrate the capability to provide instructions to traffic and access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.

Traffic and access control staff must demonstrate accurate knowledge of their roles and responsibilities, including verifying emergency worker identification and access authorization to the affected areas, as per the Extent-of-Play Agreement. These capabilities may be demonstrated by actual deployment or by interview, in accordance with the Extent-of-Play Agreement. In instances where OROs lack authority necessary to control access by certain types of traffic (e.g.,

rail, water, and air traffic), they must demonstrate the capability to contact the state or Federal agencies that have the needed authority, as agreed upon in the Extent-of-Play Agreement.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Pennsylvania State Police have received credit and will not be required to demonstrate for this exercise.

Municipal traffic and access control will be demonstrated by interview. Municipal ACP/TCP roles are identified in each municipal radiological response plan, however only South Centre Township in Columbia County and Salem Township in Luzerne County will be required to demonstrate this criterion. The traffic/access control personnel will not be deployed to the traffic/access control point(s). If the designated assignment is a location within the EPZ, a radiological briefing would be provided to those assigned individuals and include simulated issuance of dosimetry required for the mission. No person to person physical exchange of dosimetry, KI, or forms will take place. Use of dosimetry and forms will be verbalized.

Criterion 3.d.2: Impediments to evacuation are identified and resolved.(NUREG-0654/FEMA-REP-1, J.10.k)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, staff assistance visits or by means of drills conducted at any time.

OROs must demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. In demonstrating this capability, the impediment must remain in place during the evacuation long enough that re-routing of traffic is required and must also result in demonstration of decision-making and coordination with the JIC to communicate the alternate route to evacuees.

When, due to specifics of the scenario or jurisdiction, the impediment cannot be located on an evacuation route, it must be located so as to impact the evacuation. When not possible, actual dispatch of resources need not be physically demonstrated; however, all contact, actual and simulated, must be logged.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement

PEMA Negotiated Extent-of-Play:

OROs should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments, such as tow trucks, need not be demonstrated; however, simulated contacts will be logged. Impediments will remain in place throughout the evacuation. Demonstration will

occur regarding how information pertaining to impediments and rerouting of traffic to alternate routes on an evacuation route is communicated between the municipality and risk county to the Joint Information Center (JIC) to ensure evacuees are notified of alternate routes of travel. All communications with the Talen Energy JIC will be simulated, as the JIC was evaluated in October 2020.

If the scenario does not lead to evacuation the criteria shall be deemed complete if the ORO can describe to the evaluator through controller inject or interview the actions they would take to overcome a major traffic impediment during an evacuation and how such actions would be communicated to the public and affected OROs. (Risk jurisdictions with a planning responsibility.)

EVALUATION AREA 5

Emergency Notification and Public Information

Sub-element 5.a – Activation of the Prompt Alert and Notification System

INTENT

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide prompt instructions to the public within the plume exposure pathway EPZ. Specific provisions addressed in this Sub-element are further discussed in Section V, Part A of this Manual, Alert and Notification Systems.

Criterion 5.a.1: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance.

(NUREG-0654/FEMA-REP-1, E.5, 6, 7)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, drills, or operational testing of equipment that would fully demonstrate capability.

Responsible OROs must demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile exposure pathway EPZ. Following the decision to activate the alert and notification system, OROs must complete system activation for primary alert/notification and disseminate the information/instructions in a timely manner. For exercise purposes, timely is defined as “with a sense of urgency and without undue delay.” If message dissemination is identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Procedures to broadcast the message must be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast of the message(s) or test message(s) is not required. The procedures must be demonstrated up to the point of actual activation. The alert signal

activation should be simulated, not performed. Evaluations of EAS broadcast stations may also be accomplished through SAVs.

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis must be verified during an interview with appropriate personnel from the primary notification system, including verification of provisions for backup power or an alternate station.

The initial message must include at a minimum the following elements:

- Identification of the ORO responsible and the official with authority for providing the alert signal and instructional message.
- Identification of the commercial NPP and a statement that an emergency exists there.
- Reference to REP-specific emergency information (e.g., brochures, calendars, and/or information in telephone books) for use by the general public during an emergency; and
- A closing statement asking that the affected and potentially affected population stay tuned for additional information, or that the population tune to another station for additional information.

If route alerting is demonstrated as a primary method of alert and notification, it must be done in accordance with the ORO's plans/procedures and the Extent-of-Play Agreement. OROs must demonstrate the capability to accomplish the primary route alerting in a timely manner (not subject to specific time requirements). At least one route needs to be demonstrated and evaluated. The selected route(s) must vary from exercise to exercise. However, the most difficult route(s) must be demonstrated no less than once every eight years. All alert and notification activities along the route(s) must be simulated (i.e., the message that would actually be used is read for the evaluator, but not actually broadcast) as negotiated in the Extent of Play. Actual testing of the mobile public address system will be conducted at an agreed-upon location.

ORO's may demonstrate any means of primary alert and notification included in their plans/procedures as negotiated in the Extent-of-Play Agreement.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

The following applies to both in-person or virtual demonstrations:

The Commonwealth of Pennsylvania has implemented a Statewide EAS Control System in cooperation with the Pennsylvania Association of Broadcasters per the State Emergency Communications Committee and Pennsylvania Emergency Alert System State EAS Plan (November 2, 2011). The CRCC (PEMA) is the initiating point for the activation of the EAS. Risk counties have the control equipment for activation of sirens.

Coordination of ANS will be coordinated by PEMA SimCell through the PEMA Bridge line

Criterion 5.a.3: Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654/FEMA-REP-1, E.6, Appendix 3.B.2.c)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, drills, or operational testing of equipment that would fully demonstrate capability.

If the exercise scenario calls for failure of any portion of the primary system(s) or if any portion of the primary system(s) actually fails to function during the exercise, OROs must demonstrate backup means of alert and notification. Backup means of alert and notification will differ from facility to facility.

Backup alert and notification procedures that would be implemented in multiple stages must be structured such that the population closest to the plant (e.g., within 2 miles) is alerted and notified first. The populations farther away and downwind of any potential radiological release would be covered sequentially (e.g., 2 to 5 miles, followed by downwind 5 to 10 miles, and finally the remaining population as directed by authorities). Topography, population density, existing ORO resources, and timing will be considered in judging the acceptability of backup means of alert and notification.

Although circumstances may not allow this for all situations, FEMA and the NRC recommend that OROs and operators attempt to establish backup means that will reach those in the plume exposure EPZ within a reasonable time of failure of the primary alert and notification system, with a recommended goal of 45 minutes. The backup alert message must, at a minimum, include: (1) a statement that an emergency exists at the plant; and (2) instructions regarding where to obtain additional information.

When backup route alerting is demonstrated, **only one route needs to be selected and demonstrated**. All alert and notification activities along the route(s) must be simulated (i.e., the message that would actually be used is read for the evaluator, but not actually broadcast), as negotiated in the Extent-of-Play. Actual testing of the mobile public address system will be conducted at an agreed-upon location.

ORO's may demonstrate any means of backup alert and notification included in their plans/procedures as negotiated in the Extent-of-Play Agreement.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

The following applies to both in-person or virtual demonstrations:

Back-up alert notification of the public, due to a simulated siren failure, will be demonstrated out of sequence on August 11, 2021. (Refer to Attachment A) Injects will be provided by the controller that a particular siren has failed in the municipalities scheduled to demonstrate back-up route alerting.

Berwick Borough, Sector 5 in Columbia County and Conyngham Township, Sector 1 in Luzerne County will be required to demonstrate this criterion.

Issuance of “simulated” or “training” dosimetry will be demonstrated, and a radiological briefing will be given to the teams prior to the delivery of the siren failure injects as per the municipal radiological response plans. Teams will discuss dosimetry and exposure limits by interview.

Teams will read the notification message to the evaluator before departing and will then run the route while being followed by an evaluator. The team will not continually read the emergency announcement but will describe to the evaluator when/where they would make an announcement along the route. Route alerting of the hearing-impaired residents within their jurisdiction will be performed by interview. Hearing impaired notification teams will not be deployed.

Criterion 5.b.1: OROs provide accurate subsequent emergency information and instructions to the public and the news media in a timely manner.

(NUREG-0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c)

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, or drills. The responsible ORO personnel/representatives must demonstrate actions to provide emergency information and instructions to the public and media in a timely manner following the initial alert and notification (not subject to specific time requirements). For exercise purposes, timely is defined as “with a sense of urgency and without undue delay.” If message dissemination is identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Message elements: The ORO must ensure that emergency information and instructions are consistent with PADs made by appropriate officials. The emergency information must contain all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, shelter-in-place instructions, information concerning protective actions for schools and persons with disabilities and access/functional needs, and public inquiry hotline telephone number) to assist the public in carrying out the PADs provided. The ORO must also be prepared to disclose and explain the ECL of the incident. At a minimum, this information must be included in media briefings and/or media releases. OROs must demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion exposure pathway EPZs. This includes demonstration of the capability to use familiar landmarks and boundaries to describe protective action areas.

The emergency information must be all-inclusive by including the four items specified under exercise Demonstration Criterion 5.a.1 and previously identified protective action areas that are still valid, as well as new areas. Information about any rerouting of evacuation routes due to impediments should also be included. The OROs must demonstrate the capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media. In addition, the OROs must demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plans/procedures. OROs must demonstrate the capability to develop emergency information in a non-English language when required by the plans/procedures.

If ingestion pathway measures are exercised, OROs must demonstrate that a system exists for rapid dissemination of ingestion pathway information to predetermined individuals and businesses in accordance with the ORO's plans/procedures.

Media information: OROs must demonstrate the capability to provide timely, accurate, concise, and coordinated information to the news media for subsequent dissemination to the public. This would include demonstration of the capability to conduct timely and pertinent media briefings and distribute media releases as the incident warrants. The OROs must demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and releases must be consistent with PADs and other emergency information provided to the public. Copies of pertinent emergency information (e.g., EAS messages and media releases) and media information kits must be available for dissemination to the media.

Public inquiry: OROs must demonstrate that an effective system is in place for dealing with calls received via the public inquiry hotline. Hotline staff must demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate information source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, must be included, as appropriate, in emergency information provided to the public, media briefings, and/or media releases.

HAB considerations: The dissemination of information dealing with specific aspects of NPP security capabilities, actual or perceived adversarial (terrorist) force or threat, and tactical law enforcement response must be coordinated/communicated with appropriate security authorities (e.g., law enforcement and NPP security agencies) in accordance with ORO plans/procedures.

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

The following applies to both in-person or virtual demonstrations:

*Subsequent emergency information and instructions should be provided to the public and the media in a timely manner. **This will NOT be subject to specific time requirements.** One media briefing will be demonstrated in each risk county.*

Risk counties will receive and handle “Public Inquiry” messages via their individual “Public Inquiry” processes (in compliance with NIMS terminology, Rumor Control is now considered to be “Public Inquiry”). Counties will receive approximately ten (10) public inquiry injects from the PEMA Sim Cell. Counties will be expected to receive and log the calls, identify any trends and verbalize follow-up message development and explain by interview the process of coordinating press releases with the Talen Energy JIC. All communications with the JIC will be simulated, as it was evaluated in October 2020.

Public Inquiry messages may be relayed to the county by any form of communication.

ATTACHMENT A – DEMONSTRATION TABLES

SUSQUEHANNA STEAM ELECTRIC STATION

2020 EXTENT-OF-PLAY DEMONSTRATION TABLES

I. PLUME PHASE EXERCISE

A. Activities – August 10, 2021

1. School Exercise

DEMONSTRATION FOR SCHOOLS		
SCHOOL DISTRICT	SCHOOL	TIME
Berwick Area School District	Berwick Area Middle School	9:00 a.m. – 11:00 a.m.
Greater Nanticoke Area School District	Greater Nanticoke Area Elementary Center	9:00 a.m. – 11:00 a.m.

2. County and Municipal EOCs

DEMONSTRATION FOR OROs		
RISK COUNTY	MUNICIPALITY	TIME
Columbia	N/A	6:00 p.m. – 8:00 p.m.
	Beaver Township	6:00 p.m. – 8:00 p.m.
	Briar Creek Township (Impediment)	6:00 p.m. – 8:00 p.m.
	Berwick/Briar Creek Borough Route Alerting (Out of Sequence)	6:00 p.m. – 8:00 p.m.
	Fishing Creek Township	6:00 p.m. – 8:00 p.m.
	Mifflin Township	6:00 p.m. – 8:00 p.m.
	North Centre Township	6:00 p.m. – 8:00 p.m.
	South Centre Township TCP	6:00 p.m. – 8:00 p.m.
	N/A	6:00 p.m. – 8:00 p.m.
Luzerne	Black Creek Township	6:00 p.m. – 8:00 p.m.
	Butler Township/Conyngham Borough	6:00 p.m. – 8:00 p.m.
	City of Nanticoke	6:00 p.m. – 8:00 p.m.
	Conyngham Township Route Alerting (OOS)	6:00 p.m. – 8:00 p.m.
	Dorrance Township	6:00 p.m. – 8:00 p.m.
	Hollenback Township	6:00 p.m. – 8:00 p.m.
	Hunlock Township	6:00 p.m. – 8:00 p.m.
	Huntington Township/New Columbus Borough	6:00 p.m. – 8:00 p.m.
	Nescopeck Borough	6:00 p.m. – 8:00 p.m.

	Nescopeck Township	6:00 p.m. – 8:00 p.m.
	Newport Township	6:00 p.m. – 8:00 p.m.
	Nuangola Borough	6:00 p.m. – 8:00 p.m.
	Salem Township (Traffic Control Point)	6:00 p.m. – 8:00 p.m.
	Shickshinny Borough	6:00 p.m. – 8:00 p.m.
	Slocum Township (Impediment)	6:00 p.m. – 8:00 p.m.
	Sugarloaf Township	6:00 p.m. – 8:00 p.m.
	Union Township	6:00 p.m. – 8:00 p.m.

B. Activities – August 11, 2021

1. **Route Alerting**

OOS DEMONSTRATION FOR ROUTE ALERTING		
RISK COUNTY	MUNICIPALITY	TIME
Columbia	Berwick/Briar Creek Borough	6:00 p.m.
Luzerne	Conyngham Township	6:00 p.m.

ATTACHMENT B – PREVIOUS ISSUES

SUSQUEHANNA STEAM ELECTRIC STATION 2018

No unresolved issues:

The evaluation of the 2018 Exercise determined that there were no Level 1 Findings; two Level 2 Findings, which were resolved during a re-demonstration on November 28, 2018; and two Plan Issues (PI), which were resolved during the exercise week on October 18, 2018. All prior issues were resolved during the exercise.

APPENDIX E: EXERCISE CREDIT

FEMA's Exercise Credit Letter for the Susquehanna Steam Electric Station

January 28, 2021

U.S. Department of Homeland Security
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404



FEMA

January 28, 2021

David (Randy) Padfield
Director
Pennsylvania Emergency Management Agency
1310 Elmerton Avenue
Harrisburg, PA 17110

Dear Mr. Padfield,

On January 5, 2021, pursuant to 44 C.F.R. Section 350.9(c), "Exercises," the request for relief from the frequency requirement to conduct the Susquehanna Steam Electric Station (SSES) biennial radiological emergency preparedness (REP) exercise for the Commonwealth of Pennsylvania was *approved*, excluding the remaining criteria identified as requiring demonstration.

This letter is in response to your letter dated *December 22, 2020* seeking exercise credit for certain criteria, either demonstrated by other means, such as drills or through actual events. FEMA has reviewed the request and has *approved* exercise credit found on Attachment 1. FEMA acknowledges that the SSES biennial radiological emergency preparedness exercise will take place no later than October 20, 2021. The Region III Technological Hazards Branch will work with PEMA to negotiate an extent-of-play agreement for the outstanding criteria that require demonstration.

If you have any questions, please contact Thomas Scardino at (202) 374-2449.

Sincerely,

**THOMAS A
SCARDINO** Digitally signed by
THOMAS A SCARDINO
Date: 2021.01.28
16:06:50 -05'00'

Thomas Scardino
Chief, Technological Hazards Branch

Justification for Relief Request

- *List of documentation provided by requesting ORO*
 - Cover Letter Request from Pennsylvania Emergency Management Agency
 - Part I – Section 1; Preface, 2019 TMI AAR, 2019 LGS AAR
 - Part II A – Section 2; Annual Government Day Training Documents
 - Part II B – Monitoring and Decontamination Training, Municipal Training Documents
 - Part III – Section 3; List of KI and Dosimetry and Training Drill Summary
 - Part III – Section 4; 2018/2019 Annual Letter of Certification
 - Part III – Section 5; 2018 SSES AAR
 - Part IV – Section 6; Risk Jurisdiction Activations
 - Part IV – Section 7; Support Jurisdiction Activations
 - Part IV – Section 8; On-Site SSES 2020 Exercise Documents
 - Part IV – Section 9; Updated REP Plan Statement
- *Description of how the response to the ongoing COVID-19 pandemic precludes the state and OROs from conducting and participating in the required REP exercise in calendar year 2020 (CY20).*
 - Pennsylvania Emergency Management Agency (PEMA) and associated Offsite Response Organizations (OROs) have been activated as early as Governor Wolf's Proclamation of March 17, 2020. Due to social distancing, travel restrictions, and continued monitoring of the COVID-19 pandemic, it is not feasible to conduct the biennial Radiological Emergency Preparedness (REP) Exercise in CY2020.
- *List of the affected site(s) and ORO(s).*
 - Pennsylvania Commonwealth Response Coordination Center (CRCC)
 - Pennsylvania Joint Information Center (JIC)/Rumor Control
 - Pennsylvania Department of Environment, Bureau of Radiation Protection (BRP) Accident Assessment Center
 - Pennsylvania BRP, Radiological Rapid Response Vehicle
 - Pennsylvania State Field Teams A and B North East Region
 - PA State Traffic and Access Control Points, State Police Bloomsburg Barracks
 - Columbia County Emergency Management Agency
 - Beaver Township
 - Berwick Borough / Briar Creek Township
 - Fishing Creek Township

- Mifflin Township
- North Centre Township
- South Centre Township
- Columbia / Montour Vocational Technical School Emergency Worker Station
- Berwick Area School District
- Berwick Area Middle School
- Luzerne County Emergency Management Agency
- Black Creek Township
- Butler Township / Conyngham Borough
- City of Nanticoke
- Conyngham Township
- Dorrance Township
- Hollenback Township
- Hunlock Township
- Huntington Township / New Columbus Borough
- Nescopeck Township
- Newport Township
- Nuangola Borough
- Salem Township
- Shickshinny Borough
- Slocum Township
- Sugarloaf Township
- Union Township
- Wright Township Fire Department Emergency Worker Station
- Greater Nanticoke School District
- Greater Nanticoke Area Elementary School
- Kennedy Elementary School
- Hazleton Area School District
- Drums Elementary School
- Northwest Area School District
- Huntington Mills Elementary School

- Lackawanna County Emergency Management Agency
- Lackawanna County Reception / Evacuee Monitoring and Decontamination / Mass Care Center
- Lycoming County Emergency Management Agency
- Lycoming County Reception / Evacuee Monitoring and Decontamination / Mass Care Center
- Northumberland County Emergency Management Agency
- Northumberland County Reception / Evacuee Monitoring and Decontamination / Mass Care Center
- Schuylkill County Emergency Management Agency
- Schuylkill County Reception / Evacuee Monitoring and Decontamination / Mass Care
- Union County Emergency Management Agency
- Union County Reception / Evacuee Monitoring and Decontamination / Mass Care
- Wyoming County Emergency Management Agency
- Wyoming County Reception / Evacuee Monitoring and Decontamination / Mass Care
- *Date of last evaluated biennial exercise:* October 16, 2018
- *Date of currently scheduled biennial exercise:* October 20, 2020
- *A statement that rescheduling will be conducted 35 months from the previously evaluated biennial exercise.*
 - Remaining criteria identified below must be demonstrated no later than September 16, 2021
- *A list of activities or assessments conducted since the previously evaluated biennial exercise (e.g., drills, training, dress rehearsals, staff assistance visits [SAVs]).*
 - Annual Government Training July 18, 2019 and July 16, 2020
 - Monitoring and Decontamination Training July 17, 2019
 - Municipal EOC REP Training August 26, 31, and September 10, 22, 2019
 - Annual Offsite Practice Drill August 28, 2019
 - SSES On Site Drill October 20, 2020
 - May 7, 2019 Three Mile Island Nuclear Generating Station Biennial Plume Exercise
 - May 7, 2019 Three Mile Island Nuclear Generating Station Biennial Plume Exercise
 - November 19, 2019 Limerick Generating Station Biennial Plume Exercise

- *Documentation on response activities conducted since the previously evaluated biennial exercise.*
 - COVID-9 Activation Logs for PEMA, Columbia and Luzerne Counties, and supporting risk municipalities beginning March 17, 2020.
- *A statement indicating that rescheduling the biennial exercise was coordinated with applicable OROs and the utility.*
 - Demonstration of remaining criteria was coordinated between PEMA and FEMA Region 3 with evaluation for Columbia and Luzerne Counties and supporting risk municipalities for the week of August 9-13, 2021.

Attachment 1

Criteria Assessed, By Location:

<u>Location</u>	<u>Assessment Area</u>	<u>Date Last Demonstrated</u>	<u>Resolution</u>
Pennsylvania Commonwealth Response Coordination Center (PEMA)	1.a.1, 1. C.1, 1. D.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 2.c.1, 3.a.1, 3. B.1, 3.d.1, 3. D.2, 5.a.1, 5.b.1	2019 TMI Plume AAR	Exercise Credit Granted
Pennsylvania Joint Information Center (JIC)/Rumor Control	1.a.1, 1.d.1, 5.b.1	2019 TMI Plume AAR	Exercise Credit Granted
Bureau of Radiation Protection (BRP) Accident Assessment Center	1.a.1, 1.c.1, 1. D.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2	2019 LGS Plume AAR	Exercise Credit Granted
Pennsylvania BRP, Radiological Rapid Response Vehicle	1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.2	2019 LGS Plume AAR	Exercise Credit Granted
Pennsylvania State Field Teams A and B South Eastern Region	1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.3 (Both)	2019 LGS Plume AAR	Exercise Credit Granted
PA State Traffic and Access Control Points, State Police Bloomsburg Barracks	1.d.1, 1.e.1, 3.a.1, 3.d.1, 3.d.2	COVID-19 2019 LGS Plume AAR	Exercise Credit Granted
Columbia County EOC	1.a.1	COVID-19	Exercise Credit Granted
Columbia County EOC	1.c.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Columbia County EOC	1.d.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Columbia County EOC	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Columbia County EOC	3.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.

Columbia County EOC	3.b.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Columbia County EOC	3.c.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Columbia County EOC	3.c.2	2014, 2016, and 2018 SSES Plume AAR's County leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Columbia County EOC	3.d.1	2014, 2016, and 2018 SSES Plume AAR's PSP is responsible for TCP/ACP responsibilities for evacuation routes. COVID-19	Exercise Credit Granted
Columbia County EOC	3.d.2	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Columbia County EOC	5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Columbia County EOC	5.a.3	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.

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Columbia County EOC	5.b.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Beaver Township (Columbia County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Beaver Township (Columbia County)	1.a.1	COVID-19	Exercise Credit Granted
Beaver Township (Columbia County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Beaver Township (Columbia County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Berwick Borough / Briar Creek Township (Columbia County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Berwick Borough / Briar Creek Township (Columbia County)	1.a.1	COVID-19	Exercise Credit Granted
Berwick Borough / Briar Creek Township (Columbia County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.

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Berwick Borough / Briar Creek Township (Columbia County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Fishing Creek Township (Columbia County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Fishing Creek Township (Columbia County)	1.a.1	COVID-19	Exercise Credit Granted
Fishing Creek Township (Columbia County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Fishing Creek Township (Columbia County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Mifflin Township (Columbia County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Mifflin Township (Columbia County)	1.a.1	COVID-19	Exercise Credit Granted
Mifflin Township (Columbia County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Mifflin Township (Columbia County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted

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		Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	
North Centre Township (Columbia County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
North Centre Township (Columbia County)	1.a.1	COVID-19	Exercise Credit Granted
North Centre Township (Columbia County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
North Centre Township (Columbia County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
South Centre Township (Columbia County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
South Centre Township (Columbia County)	1.a.1	COVID-19	Exercise Credit Granted

South Centre Township (Columbia County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
South Centre Township (Columbia County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Emergency Worker Monitoring and Decontamination Station – Columbia / Montour Vocational Technical School (Columbia County)	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All Emergency Worker Monitoring and Decontamination Stations in Columbia County were evaluated within the 8-year exercise cycle
Berwick Area School District (Columbia County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's	Due for evaluation to support exercise play for the remaining risk school evaluations. The school district was evaluated on three occasions within the 8-year exercise cycle. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Berwick Area School District – Berwick Area Middle School (Columbia County)	3.c.2	Not Evaluated in the 8-year cycle	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	1.a.1	COVID-19	Exercise Credit Granted
Luzerne County EOC	1.c.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	1.d.1	October 16, 2018	Due for evaluation. The listed criteria will be

			demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Luzerne County EOC	3.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	3.b.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	3.c.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	3.c.2	2014, 2016, and 2018 SSES Plume AAR's 2014, 2016, and 2018 SSES Plume AAR's County leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Luzerne County EOC	3.d.1	2014, 2016, and 2018 SSES Plume AAR's PSP is responsible for TCP/ACP responsibilities for evacuation routes. COVID-19	Exercise Credit Granted

Luzerne County EOC	3.d.2	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	5.a.3	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Luzerne County EOC	5.b.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Black Creek Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Black Creek Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Black Creek Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Black Creek Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted

Butler Township / Conyngham Borough (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Butler Township / Conyngham Borough (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Butler Township / Conyngham Borough (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Butler Township / Conyngham Borough (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
City of Nanticoke (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
City of Nanticoke (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
City of Nanticoke (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
City of Nanticoke (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Conyngham Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be

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			demonstrated NLT September 16, 2021 within the 35-month window.
Conyngham Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Conyngham Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Conyngham Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Dorrance Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Dorrance Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Dorrance Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Dorrance Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Hollenback Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month

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			window.
Hollenback Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Hollenback Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Hollenback Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Hunlock Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Hunlock Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Hunlock Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Hunlock Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Huntington Township / New Columbus Borough (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.

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Huntington Township / New Columbus Borough (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Huntington Township / New Columbus Borough (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Huntington Township / New Columbus Borough (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Nescopeck Borough (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 20198	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Nescopeck Borough (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Nescopeck Borough (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted
Nescopeck Borough (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Nescopeck Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Nescopeck Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted

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Nescopeck Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Nescopeck Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Newport Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Newport Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Newport Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Newport Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Nuangola Borough (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Nuangola Borough (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Nuangola Borough (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological	Exercise Credit Granted A list equipment and supplies that reflects

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		equipment and supplies to include KI were submitted for verification.	sufficient quantities for EOC operations will be provided to FEMA.
Nuangola Borough (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Salem Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Salem Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Salem Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Salem Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Shickshinny Borough (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Shickshinny Borough (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Shickshinny Borough (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.

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		verification.	
Shickshinny Borough (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Slocum Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Slocum Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Slocum Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Slocum Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8-year exercise cycle.	Exercise Credit Granted
Sugarloaf Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Sugarloaf Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Sugarloaf Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.

Sugarloaf Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8- year exercise cycle.	Exercise Credit Granted
Union Township (Luzerne County)	1.c.1, 1.d.1, 3.a.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1	October 16, 2018	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Union Township (Luzerne County)	1.a.1	COVID-19	Exercise Credit Granted
Union Township (Luzerne County)	1.e.1	Part II, Section 4 of the PEMA Request Letter. A list of radiological equipment and supplies to include KI were submitted for verification.	Exercise Credit Granted A list equipment and supplies that reflects sufficient quantities for EOC operations will be provided to FEMA.
Union Township (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's Municipal leadership has a minimal role in implementing protective measures for schools. All School Districts have demonstrated this criteria within the 8- year exercise cycle.	Exercise Credit Granted
Emergency Worker Monitoring and Decontamination Station Wright Township Fire Department (Luzerne County)	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All Emergency Worker Monitoring and Decontamination Stations in Luzerne County were evaluated within the 8- year exercise cycle
Greater Nanticoke Area School District (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's	Due for evaluation to support exercise play for the remaining risk school evaluations. The school district was evaluated on three occasions within the 8-year exercise cycle. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month

			window.
Greater Nanticoke Area School District – Greater Nanticoke Area Elementary Center (Luzerne County)	3.c.2	Not Evaluated in the 8-year cycle	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Greater Nanticoke Area School District – Kennedy Elementary School (Luzerne County)	3.c.2	Not Evaluated in the 8-year cycle	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Hazleton Area School District (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's	Due for evaluation to support exercise play for the remaining risk school evaluations. The school district was evaluated on three occasions within the 8-year exercise cycle. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Hazleton Area School District – Drums Elementary School (Luzerne County)	3.c.2	Not Evaluated in the 8-year cycle	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.

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Northwest Area School District (Luzerne County)	3.c.2	2014, 2016, and 2018 SSES Plume AAR's	Due for evaluation to support exercise play for the remaining risk school evaluations. The school district was evaluated on three occasions within the 8-year exercise cycle. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Northwest Area School District – Huntington Mills Elementary School (Luzerne County)	3.c.2	Not Evaluated in the 8- year cycle	Due for evaluation. The listed criteria will be demonstrated NLT September 16, 2021 within the 35-month window.
Lackawanna County EOC (Support County)	1.a.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1 COVID-19 for Activations	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Lackawanna County Reception Center, Evacuee Monitoring and Decontamination, and Mass Care	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.1, 6.c.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Lycoming County EOC (Support County)	1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1 COVID-19 for Activations	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Lycoming County Reception Center, Evacuee Monitoring and Decontamination, and Mass Care	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.1, 6.c.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Montour County EOC (Support County)	1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle

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Northumberland County EOC	1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1 COVID-19 for Activations	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Northumberland County Reception Center, Evacuee Monitoring and Decontamination, and Mass Care	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.1, 6.c.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Schuylkill County EOC (Support County)	1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1 COVID-19 for Activations	2014, 2016, and 2018 SSES Plume AAR's 2019 TMI Plume AAR	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Schuylkill County Reception Center, Evacuee Monitoring and Decontamination, and Mass Care	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.1, 6.c.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Union County EOC	1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1 COVID-19 for Activations	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Union County Reception Center, Evacuee Monitoring and Decontamination, and Mass Care	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.1, 6.c.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Wyoming County EOC	1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1 COVID-19 for Activations	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle
Wyoming County Reception Center, Evacuee Monitoring and Decontamination, and Mass Care	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.1, 6.c.1	2014, 2016, and 2018 SSES Plume AAR's	Exercise Credit Granted All support facilities were evaluated within the 8- year exercise cycle