

10 CFR 50.12  
10 CFR 50, Appendix E  
10 CFR 50.4

September 25, 2020

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Peach Bottom Atomic Power Station, Units 1, 2, and 3  
Facility Operating [Possession Only] License No. DPR-12  
Renewed Facility Operating License Nos. DPR-44 and DPR-56  
NRC Docket Nos. 50-171, 50-277, 50-278 and 72-29

Subject: Request for One-Time Exemption from the Biennial Emergency  
Preparedness Exercise Requirements in 10 CFR 50, Appendix E, Section  
IV.F.2.c, Due to COVID-19 Public Health Emergency

Reference: Letter from Ho K. Nieh, U.S. Nuclear Regulatory Commission, to  
Dr. Jennifer L. Uhle, Nuclear Energy Institute – "Addendum to U.S. Nuclear  
Regulatory Commission Planned Actions to Emergency Preparedness Biennial  
Exercise Requirements for Power Reactor Licensees During the Coronavirus  
Disease 2019 Public Health Emergency, dated September 2, 2020  
(ML20223A152)

In accordance with 10 CFR 50.12, "Specific exemptions," Exelon Generation Company, LLC (Exelon) requests an exemption for Peach Bottom Atomic Power Station (PBAPS), Units 1, 2, and 3, from the requirements of 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section IV.F.2.c. Specifically, Exelon requests a one-time exemption to exclude the participation of Offsite Response Organizations (OROs) in the biennial Emergency Preparedness (EP) Exercise, which is currently scheduled to be conducted on December 8, 2020.

Section IV.F.2.c of 10 CFR 50, Appendix E, specifies the following;

*Offsite plans for each site shall be exercised biennially with full participation by each offsite authority having a role under the radiological response plan. Where the offsite authority has a role under a radiological response plan for more than one site, it shall fully participate in one exercise every two years and shall, at least, partially participate in other offsite plan Exercises in this period.*

On January 31, 2020, the U.S. Department of Health and Human Services declared a public health emergency for the United States to aid the nation's healthcare community in responding to Coronavirus Disease 2019 (COVID-19). On March 11, 2020, the COVID-19 outbreak was characterized as a pandemic by the World Health Organization. In response, State and Local jurisdictions in the Commonwealth of Pennsylvania and the State of Maryland have issued and directed certain health measures. In addition, PBAPS also implemented its site pandemic plan, which includes health measures such as social distancing, group size limitations, and self-quarantine.

The Pennsylvania Emergency Management Agency (PEMA), Maryland Emergency Management Agency (MEMA), and supporting Counties from Pennsylvania (i.e., Chester, Lancaster, and York) and Maryland (i.e., Cecil and Harford) have communicated to Exelon and to the Federal Emergency Management Agency (FEMA) that the current COVID-19 pandemic response has impacted their ability to prepare for the scheduled PBAPS EP Exercise and that they are unable to participate in the EP Exercise as currently scheduled (i.e., December 8, 2020). Consequently, Exelon requests a one-time exemption from the requirements of 10 CFR 50, Appendix E, Section IV.F.2.c, related to the participation of the noted Offsite Response Organizations (OROs) in the scheduled PBAPS biennial EP Exercise.

Attachment 1 to this letter provides the detailed basis and justification for this one-time exemption request and addresses the exemption requirements of 10 CFR 50.12 and the guidance criteria contained in Regulatory Issue Summary (RIS) 2006-03, *"Guidance on Requesting an Exemption from Biennial Emergency Preparedness Exercise Requirements."* This exemption request is also consistent with the guidance issued by the NRC in its letter dated September 2, 2020 (Reference), that provided clarification and additional information to licensees seeking exemption for 2020 offsite biennial exercises that would be required by the provisions of 10 CFR 50, Appendix E, Section IV.F.2.c.

Attachment 2 contains related documentation from PEMA, MEMA, and the noted supporting Counties from Pennsylvania (i.e., Chester, Lancaster, and York) and Maryland (i.e., Cecil and Harford) concerning the inability of these OROs to support the December 8, 2020, PBAPS biennial EP Exercise. Attachment 3 contains a copy of FEMA's report dated July 12, 2018, documenting the results and findings of the evaluations of all jurisdictions and locations that participated in PBAPS's April 17, 2018, biennial Plume Exposure Pathway Emergency Planning Zone (EPZ) Radiological Emergency Preparedness (REP) Exercise, and the Out-of-Sequence Exercise evaluations conducted during March and April of 2018.

Based on the current schedule for conducting the PBAPS biennial EP Exercise (i.e., December 8, 2020) and that the requirements for Exercise participation expires at the end of 2020, Exelon requests approval of the exemption by November 13, 2020.

This submittal contains no regulatory commitments.

If you have any questions or require additional information, please contact Richard Gropp at 610-765-5557.



U.S. Nuclear Regulatory Commission  
10 CFR 50, Appendix E, Section IV.F.2.c  
Request for One-Time Exemption  
Docket Nos. 50-171, 50-277, 50-278 and 72-29  
September 25, 2020  
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Respectfully,



David P. Helker  
Sr. Manager, Licensing and Regulatory Affairs  
Exelon Generation Company, LLC

Attachments: 1) Request for Exemption Related to 10 CFR 50, Appendix E, Section IV.F.2.c  
2) Supporting Documentation from Affected Offsite Response Organizations (with Exhibits)  
3) FEMA Evaluation Report for 2018 PBAPS EP Exercise

cc: w/ Attachments  
Regional Administrator - NRC Region I  
NRC Senior Resident Inspector - Peach Bottom Atomic Power Station  
NRC Project Manager, NRR - Peach Bottom Atomic Power Station  
Director, Bureau of Radiation Protection - Pennsylvania Department of Environmental Resources  
Wade DeHaas, Commonwealth of Pennsylvania  
S. Seaman, State of Maryland

**ATTACHMENT 1**

Peach Bottom Atomic Power Station, Units 1, 2, and 3  
Docket Nos. 50-171, 50-277, 50-278, and 72-29

Request for Exemption  
Related to 10 CFR 50, Appendix E, Section IV.F.2.c

## **EXEMPTION REQUEST**

### **I. SPECIFIC EXEMPTION REQUEST**

In accordance with 10 CFR 50.12, "Specific exemptions," paragraphs (a)(1) and (a)(2)(v), Exelon Generation Company, LLC (Exelon) is requesting U.S. Nuclear Regulatory Commission (NRC) approval of a one-time exemption from the requirements of 10 CFR 50, Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," Section IV.F.2.c. Specifically, Exelon is requesting a one-time exemption to exclude the participation of Offsite Response Organization (ORO) functions for the upcoming Peach Bottom Atomic Power Station (PBAPS) Emergency Preparedness (EP) Biennial Exercise currently scheduled to be performed on December 8, 2020. This exemption request is being submitted as a result of the special circumstances caused by the Coronavirus Disease 2019 (COVID-19) Public Health Emergency (PHE).

On January 31, 2020, the U.S. Department of Health and Human Services declared a public health emergency for the United States to aid the nation's healthcare community in responding to Coronavirus Disease 2019 (COVID-19). On March 11, 2020, the COVID-19 outbreak was characterized as a pandemic by the World Health Organization. State and Local jurisdictions in the Commonwealth of Pennsylvania and the State of Maryland have issued and directed the institution of certain health measures in response to COVID-19 Public Health Emergency (PHE). In response to these declarations, PBAPS implemented its site pandemic plan, which includes health measures and other restrictions (e.g., social distancing, group size limitations, self-quarantining, use of personal protective equipment, etc.).

On March 5, 2020, the Governor of the State of Maryland issued a disaster declaration imposing isolation and other restrictions throughout the State. On March 6, 2020, the Governor of the Commonwealth of Pennsylvania issued a disaster declaration in response to the spread of the COVID-19 and imposed social distancing and other restrictions in the Commonwealth as a result of the COVID-19 PHE. In addition, on September 1, 2020, the Governor of Maryland renewed the disaster declaration in response to the COVID-19 pandemic.

Due to the magnitude of the COVID-19 disaster response and impact on resources, the Pennsylvania Emergency Management Agency (PEMA), Maryland Emergency Management Agency (MEMA), and supporting Counties from Pennsylvania (i.e., Chester, Lancaster, and York) and Maryland (i.e., Cecil and Harford) have communicated to Exelon that the current COVID-19 pandemic response has impacted their ability to prepare for the scheduled PBAPS EP Exercise and that they are unable to participate in the Exercise as currently scheduled. In addition, these OROs have also requested that the Federal Emergency Management Agency (FEMA) provide relief from the biennial Radiological Emergency Preparedness (REP) Exercise frequency requirement. Consequently, Exelon requests a one-time exemption from the requirements of 10 CFR 50, Appendix E, Section IV.F.2.c. related to the inability of the noted OROs from participating during the biennial EP Exercise for PBAPS.

This request for a one-time exemption is consistent with the guidance specified in Regulatory Issue Summary (RIS) 2006-03, *"Guidance on Requesting an Exemption from Biennial Emergency Preparedness Exercise Requirements,"* dated February 24, 2006 (ML053390039),

for circumstances that make it impractical to conduct the scheduled Exercise with all required offsite authorities. This exemption request is also consistent with guidance provided in the NRC's May 14, 2020, letter (ML20120A003) as amended in an NRC letter dated September 2, 2020 (ML20223A152), describing NRC planned actions related to EP Biennial Exercise requirements during the COVID-19 PHE. In accordance with the guidance, the requirements within 10 CFR 50, Appendix E, Section IV.F.2.c would not be demonstrated until the next biennial PBAPS Exercise in 2022.

This one-time exemption supports the isolation restrictions (e.g., social distancing, group size limitations, self-quarantining, use of personal protective equipment, etc.) necessary to protect personnel in response to the 2020 COVID-19 PHE.

## II. BASIS FOR EXEMPTION REQUEST

10 CFR 50, Appendix E, Section IV.F.2.c, stipulates the following:

2. *The plan shall describe provisions for the conduct of emergency preparedness exercises as follows: Exercises shall test the adequacy of timing and content of implementing procedures and methods, test emergency equipment and communications networks, test the public alert and notification system, and ensure that emergency organization personnel are familiar with their duties.*

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- c. *Offsite plans for each site shall be exercised biennially with full participation by each offsite authority having a role under the radiological response plan. Where the offsite authority has a role under a radiological response plan for more than one site, it shall fully participate in one exercise every two years and shall, at least, partially participate in other offsite plan exercises in this period.*

The criteria for granting specific exemptions from 10 CFR 50 regulations are stated in 10 CFR 50.12. In accordance with 10 CFR 50.12(a)(1), the NRC is authorized to grant an exemption upon determining that:

- The exemption is authorized by law.
- The exemption will not present an undue risk to the public health and safety.
- The exemption is consistent with the common defense and security.

Furthermore, as stated in 10 CFR 50.12(a)(2), special circumstances must exist for the NRC to consider granting an exemption. According to 10 CFR 50.12(a)(2)(iv), special circumstances are present whenever the exemption would result in benefit to the public health and safety that compensates for any decrease in safety that may result from the granting of the exemption. Additionally, this request also involves material circumstance not considered when the regulation was adopted for which it would be in the public interest to grant an exemption as described in 10 CFR 50.12(a)(2)(vi).

### **Special Circumstances**

PBAPS is scheduled to conduct the Biennial EP Exercise with PEMA, MEMA, and supporting counties in Pennsylvania (Chester, Lancaster, and York) and Maryland (Cecil and Harford) on December 8, 2020. Due to the ongoing response to COVID-19 PHE, special circumstances have been created that preclude PBAPS from having a full-participation EP Exercise. Specifically, the resource impacts from the ongoing PHE response prohibit State and County participation in the scheduled 2020 Biennial Exercise at PBAPS. PEMA, MEMA, and noted supporting counties have communicated to Exelon and FEMA that the current COVID-19 pandemic response has impacted their ability to prepare for the scheduled PBAPS EP Exercise

Many of the State and Local emergency resources that would normally participate in a PBAPS Biennial EP Exercise are deployed in the ongoing response to the pandemic. Conducting EP Exercises under these conditions would result in hardships and additional costs. Additionally, conducting the EP Exercise could pose health risks to offsite responders, many of whom may be more susceptible to infection and in high-risk groups as deemed by the U.S. Centers for Disease Control and Prevention (CDC). The COVID-19 PHE presents an ongoing national emergency with no predictable end in sight. An exemption from these EP Exercise requirements (i.e., 10 CFR 50, Appendix E, Section IV.F.2.c) would thus result in a net benefit to the health and safety for both the affected ORO and Exelon personnel.

PBAPS intends to conduct the December 8, 2020, EP Exercise as scheduled utilizing Station and Corporate personnel rather than postpone or request exemption from the entire Exercise. Specific practices such as the use of isolation restrictions (e.g., social distancing, group size limitations, self-quarantining, use of personal protective equipment, etc.) will be employed to protect the Station and Corporate Exercise participants. As a result of this decision, only a one-time exemption to the provisions of 10 CFR 50, Appendix E, Section IV.F.2.c is required and being requested.

This one-time exemption, if granted, would support the NRC guidance that licensees engage in activities that do not conflict with practices recommended by the CDC to limit the spread of COVID-19. Exempting representatives from the Commonwealth of Pennsylvania, State of Maryland, and the supporting counties from Pennsylvania (i.e., Chester, Lancaster, and York) and Maryland (Cecil and Harford) from participation in the December 8, 2020, EP Exercise due to the ongoing response to the COVID-19 PHE is consistent with this position.

### **Justification for the Exemption**

In accordance with 10 CFR 50.12(a)(1), the NRC may grant exemptions from certain requirements of the 10 CFR 50 regulations that are authorized by law, will not present undue risk to the public health and safety, and are consistent with the common defense and security.

#### **1. This exemption request is authorized by law:**

In accordance with 10 CFR 50.12, the NRC may grant an exemption from the requirements of 10 CFR 50 if the exemption is authorized by law. The proposed exemption is authorized by law in that no other prohibition of law or statute exists to preclude the activities which

would be authorized by the exemption. The underlying purpose for conducting a biennial EP Exercise is to test the adequacy of emergency plans, to ensure that emergency response organization personnel are familiar with their duties, and to identify and correct weaknesses. The activities performed during the last PBAPS Biennial EP Exercise in 2018, along with out-of-sequence drills and emergency responder training continue to demonstrate that the underlying purpose of conducting an Exercise with participation from State and County authorities has been maintained. Therefore, the proposed exemption will continue to serve the underlying purpose of the regulation.

Granting of the request does not result in a violation of the Atomic Energy Act of 1954, as amended.

**2. This exemption request will not present an undue risk to the public health and safety:**

The underlying purpose of 10 CFR 50, Appendix E, Section IV.F.2.c, requiring offsite Radiological Emergency Plans to be exercised biennially with full participation by each offsite authority, is to ensure that offsite personnel are familiar with their duties and to test the adequacy of the emergency plan.

Adequate emergency response capabilities have been demonstrated during the satisfactory performance during the last PBAPS Biennial EP Exercise in 2018 (April 17, 2018) through the evaluation of Exercise performance and the conduct of out-of-sequence training and activities. Additionally, PBAPS has conducted training drills exercising the principle functional areas of emergency response since the last evaluated Biennial Exercise with varying levels of state and county participation. While these drills and training sessions did not exercise all of the proposed rescheduled offsite functions, they do provide indication that PBAPS has maintained a continuing level of engagement with the State and County authorities to maintain interfaces.

April 17, 2018, PBAPS EP Exercise

The FEMA Region III evaluation of the April 17, 2018, Exercise concluded that: "...the offsite radiological emergency response plans and preparedness for the Commonwealth of Pennsylvania and affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of the radiological emergency."

Additionally, the FEMA Region III evaluation of the Exercise concluded similarly that "...the offsite radiological emergency response plans and preparedness for the State of Maryland and affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of the radiological emergency."

There were no Level 1 issues identified during the 2018 EP Exercise for the Commonwealth of Pennsylvania, State of Maryland, or supporting counties in Pennsylvania (i.e., Chester, Lancaster, and York) and Maryland (i.e., Cecil and Harford).



Exercises/Drills 2018-2020

In addition to the evaluations described above, the table below lists the drills that have been performed since the April 17, 2018, PBAPS EP Exercise. Not all of the drills listed below have exercised the proposed unfulfilled functions; however, the list is provided to show the continuing level of engagement in EP activities for PBAPS and the actual and/or simulated participation with the Commonwealth of Pennsylvania, State of Maryland, and supporting counties in Pennsylvania (i.e., Chester, Lancaster, and York) and Maryland (i.e., Cecil and Harford).

<b>Date</b>	<b>Drills/Exercises</b>
04/17/18	Graded Exercise
05/30/18	Station Medical Drill
06/05/18	Station Drill
06/19/18	Station Drill
09/26/18	Drill and Exercise Performance Qualification Drill
12/04/18	Site Assembly / Accountability Drill
01/30/19	Drill and Exercise Performance Qualification Drill
02/05/19	Off-Year Exercise
06/18/19	Station Drill
06/19/19	Station Medical Drill
09/19/19	Minimum Staff Site ERO Drill
11/15/19	Calvert Cliffs / Peach Bottom LAR Dual-Site Drill
11/27/19	Site Assembly / Accountability Drill
01/15, 01/22, 01/29/2020	1st Quarter 2020 DEP Drill Series
02/11/20	Practice Exercise
09/09/20	Station Drill
09/23/20	Station Medical Drill
09/30/20	Scheduled Practice Exercise (*)

(\*) - Commonwealth of Pennsylvania and State of Maryland OROs are scheduled to receive Notification only due to COVID-19 PHE limitations.

Training

In addition to exercises/drills performed since the last biennial EP Exercise at PBAPS, the following training has been accomplished with the Commonwealth of Pennsylvania and other supporting organizations.

<b>Date</b>	<b>Activity</b>	<b>Group</b>
02/03/18	Radiological Training	PBAPS EPZ Emergency Responders
12/03/18	EAL Training	PBAPS OROs
02/02/19	Radiological Training	PBAPS EPZ Emergency Responders
12/12/19	EAL Training	PBAPS OROs
02/01/20	Radiological Training	PBAPS EPZ Emergency Responders

The following training has been accomplished with the State of Maryland and other supporting organizations.

<b>Date</b>	<b>Activity</b>	<b>Group</b>
01/30/18	Dose Assessment Training	Maryland Department of Environment (MDE)
01/31/18	Field Team Training	MDE
02/03/18	Radiological Training	PBAPS EPZ Emergency Responders
03/13/18	Radiological Training	Whiteford Volunteer Fire Company (VFC)
03/14/18	Radiological Training	Perryville VFC
03/24/18	Radiological Training	Rising Sun VFC
03/27/18	Radiological Training/Reception	Harford County Health Department
03/29/18	Radiological Training/MS1	University of Maryland Upper Chesapeake Health
04/03/18	Radiological Training/MS1	Union Hospital
12/03/18	EAL Training	PBAPS OROs
02/02/19	Radiological Training	PBAPS EPZ Emergency Responders
05/14/19	Dose Assessment Training	MDE
05/23/19	Radiological Training/MS1	Harford Memorial Hospital
12/12/19	EAL Training	PBAPS OROs
02/01/20	Radiological Training	PBAPS EPZ Emergency Responders

The Offsite Radiological Emergency Response (REP) Programs have reached a level of maturity, where PBAPS and the associated OROs have consistently demonstrated a high-level of preparedness. PBAPS and the OROs have maintained this high level through various efforts, of which Exercises are only one part of a comprehensive program. Additionally, given years of successfully conducting numerous emergency drills and Exercises, the one-time exemption of the Biennial EP Exercise requirement (10 CFR 50, Appendix E, Section IV.F.2.c) in no way detracts from the overall state of emergency preparedness.

### **3. This exemption request is consistent with the common defense and security:**

This one-time exemption requests that the NRC waive the requirement for certain OROs to perform certain offsite functions during the Biennial EP Exercise scheduled for December 8, 2020, as a result of the continued response to the COVID-19 PHE. The PHE creates specific circumstances impacting the Commonwealth of Pennsylvania, State of Maryland, and supporting counties in Pennsylvania (i.e., Chester, Lancaster, and York) and Maryland (i.e., Cecil and Harford) which directly impacts the resource availability to participate in the PBAPS scheduled EP Exercise.

The exemption would provide only a one-time relief from the 10 CFR 50, Appendix E, Section IV.F.2.c, requirements for 2020. Full participation from OROs in an EP Exercise will be next evaluated during the 2022 PBAPS Exercise. All other functions will be performed and evaluated as originally scheduled during the December 8, 2020, EP Exercise.

The proposed change to the EP Exercise is not related to security issues and the common defense and security is not impacted. Therefore, the common defense and security are not affected by this exemption request.

In addition, the NRC's September 2, 2020, letter provided additional clarification and information for licensees seeking exemption for 2020 offsite biennial exercises related to 10 CFR 50, Appendix E, Section IV.F.2.c, requirements. Specifically, in order for licenses to receive expedited review of a request for exemption from the Calendar Year (CY) 2020 offsite biennial exercise requirements, licensees should submit a request that contains the information noted below. Exelon has restated each specific request followed by a response.

- *a statement that a reasonable effort was made to reschedule the exercise during CY 2020, but was unsuccessful;*

Response

By letter dated April 20, 2020, Exelon formally informed the NRC of its plans to reschedule its Biennial EP Exercise for PBAPS planned for April 21, 2020, to sometime later in the fourth quarter of 2020 due to the COVID-19 PHE response. The EP Exercise was subsequently scheduled for December 8, 2020. During the interim period, Exelon continued to work with its OROs in preparing for the 2020 Exercise. However, the continued response to COVID-19 PHE by the OROs is impacting their ability to effectively prepare and participate in the PBAPS EP Exercise scheduled for December 8, 2020.

- *a statement from responsible OROs that they are in agreement with the licensee's exemption request and that they are committed to maintaining their radiological emergency plans; and*

Response

Attachment 2 of this submittal contains documentation which includes information from the affected OROs that they are in agreement with the requested exemption and they are committed to maintaining their radiological emergency plans.

- *a statement from responsible OROs that they are not impacted in a manner that would adversely affect their ability to maintain response capability to support emergency response activities to actual nuclear power plant radiological emergencies.*

Response

Attachment 2 of this submittal contains documentation which includes information from the affected OROs that they would not be impacted in a manner that would adversely affect their ability to maintain response capability to support emergency response activities to actual nuclear power plant radiological emergencies, are in agreement with the requested exemption and they are committed to maintaining their radiological emergency plans.

### **III. ENVIRONMENTAL ASSESSMENT**

Exelon has determined that the requested exemption meets the categorical exclusion in 10 CFR 51.22(c)(25), as the requested licensing action is an exemption from the requirements of the Commission's regulations and (i) there is no significant hazards consideration; (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite; (iii) there is no significant increase in individual or cumulative public or occupational radiation exposure; (iv) there is no significant construction impact; and (v) there is no significant increase in the potential for or consequences from radiological accidents. Therefore, in accordance with 10 CFR 51.22(b), no environmental assessment or environmental impact statement needs to be prepared in connection with the proposed exemption request.

If the requested exemption is approved by the NRC, certain OROs scheduled for the PBAPS 2020 Biennial EP Exercise will not be participating as originally scheduled on December 8, 2020. Whether or not these certain OROs participate on this date would not have an effect on the environment since any outdoor activity during an Exercise is limited to minimal use of roads and highways. The proposed action would not significantly increase the probability or consequences of an accident, change the types or quantities of radiological effluents that may be released offsite, or result in a significant increase in public or occupational radiation exposure since there would be no change to facility operations that could create a new accident or affect a previously analyzed accident or release path.

Since the proposed action would not have any adverse environmental effects, there are no alternatives necessary for reducing or avoiding adverse environmental effects. With regard to non-radiological impacts, no changes would be made to non-radiological plant effluents or activities that would adversely affect the environment. Therefore, no significant non-radiological impacts would be associated with the proposed action.

There are no federal permits, licenses, approvals or other entitlements which must be obtained in connection with the proposed action. The proposed action is not subject to any environmental quality standards or requirements imposed by federal, State, regional or local agencies having responsibility for environmental protection.

### **IV. CONCLUSION**

As demonstrated above, Exelon considers that this one-time exemption request from the requirements of 10 CFR 50, Appendix E, Section IV.F.2.c, pertaining to the participation of certain OROs in the PBAPS Biennial EP Exercise on December 8, 2020, is in accordance with the criteria of 10 CFR 50.12. Specifically, this requested exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. Also, special circumstances are present as set forth in 10 CFR 50.12(a)(2).

## **ATTACHMENT 2**

Peach Bottom Atomic Power Station, Units 1, 2, and 3  
Docket Nos. 50-171, 50-277, 50-278, and 72-29

Request for Exemption  
Related to 10 CFR 50, Appendix E, Section IV.F.2.c

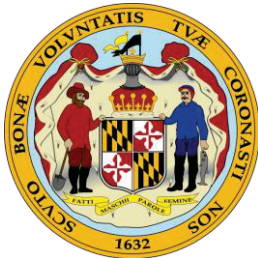
Supporting Documentation from Affected Offsite Response Organizations

- Exhibit 1 - Letter from State of Maryland to FEMA, Region III - Peach Bottom Atomic Power Station Plume Exercise 2020 Exercise Credit / Cancellation Request, dated August 10, 2020 (includes letters from Maryland Counties)
- Exhibit 2 - Letter from PEMA to Exelon Regarding Participation in Peach Bottom 2020 Exercise, dated August 26, 2020
- Exhibit 3 - Letter from the County of Chester to PEMA Regarding Participation in the Peach Bottom 2020 Exercise, dated August 10, 2020
- Exhibit 4 - Letter from the County of Lancaster, Emergency Management Agency, to PEMA Regarding Participation in the Peach Bottom 2020 Exercise, dated August 10, 2020
- Exhibit 5 - Letter from the County of York, Department of Emergency Services, Office of Emergency Management, to PEMA Regarding Participation in the Peach Bottom 2020 Exercise, dated August 13, 2020
- Exhibit 6 - Letter from Pennsylvania Emergency Management Agency to FEMA, Region III, Regarding Participation in the Peach Bottom 2020 Exercise, dated August 21, 2020

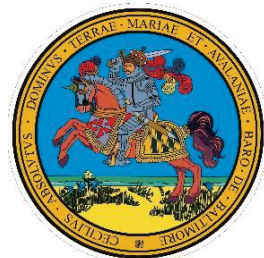
## **Exhibit 1**

Letter from State of Maryland to FEMA, Region III - Peach Bottom  
Atomic Power Station Plume Exercise 2020 Exercise Credit / Cancellation  
Request, dated August 10, 2020 (includes letters from Maryland Counties)





**State of Maryland**



**Peach Bottom Atomic Power Station  
Plume Exercise 2020  
Exercise Credit / Cancellation Request**

**August 2020**

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August 10, 2020

Lilian Hutchinson  
Director, National Preparedness Division  
FEMA Region 3  
615 Chestnut Street  
One Independence Mall, Sixth Floor  
Philadelphia, PA 19106-4404

SUBJECT: Request for Exercise Credit / Cancellation for Peach Bottom Atomic Power Station (PBAPS) 2020 Biennial Exercise

Dear Ms. Hutchinson:

The State of Maryland is requesting relief from the 2020 Peach Bottom Atomic Power Station (PBAPS) FEMA REP biennial exercise frequency due to the ongoing challenges from the COVID-19 pandemic. This request is applicable to MEMA, MDE and other State supporting agencies, Cecil and Harford counties as well as the MS-1 exercises scheduled for Upper Chesapeake and Union Hospitals. The last PBAPS evaluated exercise was completed on April 17, 2018 with no issues identified for any of the participating OROs. In addition, all agencies participated in the February 11, 2020 PBAPS dress rehearsal as well as the FEMA observed November 15, 2019 dual site (PBAPS and CCNPP) exercise.

While the COVID-19 pandemic would challenge the health and safety of participants and evaluators during an exercise, we are certain that an actual response to an event at PBAPS would not jeopardize the safety of the public.

This request has been coordinated and approved by all applicable OROs. We appreciate your timely consideration of this submittal.

Sincerely,

**Russell J. Strickland**  
Digitally signed by  
Russell J. Strickland  
Date: 2020.08.10  
10:20:54 -04'00'

Russell J. Strickland  
Executive Director



August 10, 2020

Lilian Hutchinson  
Director, National Preparedness Division  
FEMA Region 3  
615 Chestnut Street  
One Independence Mall, Sixth Floor  
Philadelphia, PA 19106-4404

SUBJECT: Request for Exercise Credit / Cancellation for Peach Bottom Atomic Power Station (PBAPS) 2020 Biennial Exercise

Dear Ms. Hutchinson:

This request for full exercise credit / cancellation is based on previously accomplished exercise obligations through full participation and evaluation during the 2019 Calvert Cliffs Nuclear Power Plant (CCNPP) Biennial Exercise and the Peach Bottom Atomic Power Station (PBAPS) 2016 and 2018 exercise cycle. The Maryland Emergency Management Agency (MEMA) requests exercise credit be applied towards the rescheduled 2020 Peach Bottom Atomic Power Station (PBAPS) Biennial Exercise.

The State Emergency Operation Center (SEOC) has been fully activated during the COVID-19 response beginning on March 5, 2020 and this event has been a heavy strain on the response community.

The following locations were evaluated by the Federal Emergency Management Agency (FEMA) and documented in the After-Action Reports (AAR) for the 2019 CCNPP exercise and the 2018 PBAPS exercise:

LOCATION	PARTICIPATION	DATE
MEMA Emergency Operations Center (EOC)	FULL	September 7, 2019
MEMA Joint Information Center (JIC)	FULL	September 7, 2019
Maryland Department of Environment (MDE) Accident Assessment	FULL 4.a.2, 4.a.3	September 7, 2019
Maryland State Field Teams	FULL 4.a.2, 4.a.3	September 7, 2019
Maryland Emergency Operations Facility (EOF)	FULL	September 7, 2019

LOCATION	CRITERIA	RESOLUTION
Cecil County Back-up Route Alerting	1.d.1, 1. e.1, 3.a.1, 5. a.3	Met the requirement last evaluation PBAPS 2018 2018 AAR attached.
Cecil County EW Mon/Decon Perryville High School	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6. b.1	Met the requirement last evaluation PBAPS 2018 2018 AAR attached.
Mon/Decon & Mass Care Rising Sun High School	1.c.1, 1.e.1, 3.a.1, 6. a.1, 6.c.1	Met the requirement last evaluation PBAPS 2018 2018 AAR attached.
Harford County Back-up Route Alerting	1.d.1,1. e.1, 3.a.1, 5. a.3	Met the requirement last evaluation PBAPS 2018 2018 AAR attached.
Harford County EW Mon/Decon Fallston High School	1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.1	Met the requirement last evaluation was PBAPS 2016 2016 AAR attached.
Harford County Mon/Decon/Mass Care Patterson Mill High School	1.c.1, 1.e.1, 3.a.1, 6. a.1, 6.c.1	Met the requirement last evaluation was PBAPS 2016 2016 AAR attached.
Conowingo Elementary School	3.c.2	Met the requirement last evaluation was PBAPS 2018 2018 AAR attached.
North Harford Elementary School	3.c.2	Met the requirement last evaluation was PBAPS 2016 2016 AAR attached.
North Harford Middle School	3.c.2	Met the requirement last evaluation was PBAPS 2016 2016 AAR attached.
North Harford High School	3.c.2	Met the requirement last evaluation was PBAPS 2016 2016 AAR attached.

In addition, the State of Maryland is requesting exercise credit for the following criteria for the Counties of Cecil and Harford based on the full activation of both facilities for COVID-19. Cecil County activated on March 5, 2020 and Harford County activated on March 12, 2020. Both jurisdictions also participated in the February 11, 2020 PBAPS full scale dress Rehearsal (DRX) as well as the FEMA observed dual site (PBAPS and CCNPP) exercise on November 13, 2019. The exercise credit is specific to criteria outlined in the REP Program Manual (RPM) that may be credited for real world events and based on actions deemed demonstrated by each county during COVID-19 activations and the PBAPS DRX and includes supporting documentation.

<b>LOCATION</b>	<b>CRITERIA</b>	<b>ATTACHED SUPPORTING DOCUMENT</b>
Cecil County Emergency Operations Center (EOC)	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.c.1, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5. b.1	Incident Action Plan, Sign In Log, 24 Hour Roster/Org Chart, WebEOC Logs. County SitRep Highlighted criteria will need to be validated credit could be given from the DRX, or a phone interview could be conducted to satisfy the requirement.
Harford County Emergency Operations Center (EOC)	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.c.1, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5. b.1	Incident Action Plan, Sign In Log, 24 Hour Roster/Org Chart, WebEOC Logs. County SitRep Highlighted criteria will need to be validated credit could be given from the DRX, or a phone interview could be conducted to satisfy the remaining requirements.

Medical Services Hospitals (MS-1) and other facilities listed below have successfully activated their facilities during COVID-19 and have completed necessary requirements through real world response and demonstration by providing patient handling, implementing cross contamination protocols, activation of shelters, providing support for access/functional needs individuals and transportation dependent, and providing protective actions for schools.

<b>FACILITY/LOCATION</b>	<b>CRITERIA DEMONSTRATED</b>	<b>ATTACHED SUPPORTING DOCUMENT</b>
Union Hospital	1.a.1, 3.a.1*, 6.d.1	Daily County SitRep Web EOC Log Terumo Medical Drill Report
Upper Chesapeake	1.a.1, 3.a.1*, 6.d.1	Daily County SitRep, WebEOC

\*Radiological survey equipment will be validated in the Annual Letter of Certification (ALC)



## **Remaining objectives for County credit or exemption.**

### Sub-element 1.a. – Mobilization

**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; G.3.a; H.3, 4)**

#### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.

#### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents

#### **Union Hospital**

Union Hospital met this objective during the Terumo Medical Corporation Drill report – supporting documents and the response to COVID-19. IAPs (examples) are included as supporting documents

#### **Upper Chesapeake Medical Center (UCMC)**

UCMC and Harford Memorial Hospital are affiliates of the University of Maryland Upper Chesapeake Health System. UCMC met this objective during the Harford Memorial Support Hospital exercise and the COVID Response Sit Reps. The Harford Memorial Hospital. Drill report is included as supporting documents, COVID response WebEOC Logs, IAPs are included as supporting documents.

### Sub-element 1.c – Direction and Control

**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)**

**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.)**

#### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.

#### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents

#### Sub-element 1.d – Communications Equipment

**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, F.1., 2.)**

##### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. Additionally testing of communications equipment will be documented in the 2020 State of Maryland Annual Letter of Certification (ALC).

##### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. Additionally testing of communications equipment will be documented in the 2020 State of Maryland Annual Letter of Certification (ALC).

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

**Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG0654/FEMA-REP-1, H.7, 10; I.7, 8, 9;, J.10.a.b.e;J.11, 12; K.3.a; K.5.b)**

##### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. Additionally testing of communications equipment, calibration of dosimetry and inventories of potassium iodide (KI) will be documented in the 2020 State of Maryland Annual Letter of Certification (ALC).

##### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. Additionally testing of communications equipment, calibration of dosimetry and inventories of potassium iodide (KI) will be documented in the 2020 State of Maryland Annual Letter of Certification (ALC).

#### Sub-element 2.a – Emergency Worker Exposure Control

**Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654/FEMA-REP-1, C.6; f; K.3.a; K.4)**

### Harford County

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents. Emergency Worker briefing materials are included as supporting documents.

### Cecil County

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. Emergency Worker briefing materials are included as supporting documents.

### Sub-element 2.b – Radiological Assessment, Protective Action Recommendations, and Precautionary and/or Protective Action Decisions for the Plume Phase of the Emergency

**Criterion 2.b.1: Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3)**

### Harford County

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.

### Cecil County

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents.

**Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1, A.3; C.4, 6; D.4; J.9; J.10.e, f; m)**

### Harford County

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.

### Cecil County

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents.

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

**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)**

**Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.

**Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents.

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

**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)**

**Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents. Emergency Worker briefing materials are included as supporting documents.

**Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. Emergency Worker briefing materials are included as supporting documents.

**Union Hospital**

Union Hospital met this objective during the Terumo Medical Corporation Drill report – supporting documents and the response to COVID-19. IAPs (example) is included as supporting documents. Emergency Worker briefing materials are included as supporting documents.

**Upper Chesapeake Medical Center (UCMC)**



UCMC and Harford Memorial Hospital are affiliates of the University of Maryland Upper Chesapeake Health System. UCMC met this objective during the Harford Memorial Support Hospital exercise and the COVID Response Sit Reps. The Harford Memorial Hospital. Drill report is included as supporting documents, COVID response WebEOC Logs, IAPs. Emergency Worker briefing materials are included as supporting documents.

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

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

##### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents. Inventory of KI will be included in the 2020 State of Maryland ALC.

##### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. Inventory of KI will be included in the 2020 State of Maryland ALC.

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

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

##### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.

##### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents.

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

**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)**

### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.

### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents.

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

#### **EXTENT OF PLAY**

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

### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents. The DRX MSEL and scenario including impediment injects are included as supporting documents.

### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents. The DRX MSEL and scenario including impediment injects are included as supporting documents.

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

**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 off site 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)**

### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan – supporting documents. The DRX AAR and Web EOC logs are included as supporting documents.



### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents.

**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)**

### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan. The DRX AAR and Web EOC logs are included as supporting documents. The DRX MSEL and scenario including siren failure injects are included as supporting documents.

### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included. The DRX MSEL and scenario including siren failure injects are included as supporting documents.

### **Sub-element 5.b – Subsequent Emergency Information and Instructions for the Public and the Media**

**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)**

### **Harford County**

Harford County met this objective during the response to COVID-19 and the PBAPS DRX. The COVID SNS Plan. The DRX AAR and Web EOC logs are included as supporting documents

### **Cecil County**

Cecil County met this objective during the response to COVID-19 and the PBAPS DRX. The DRX AAR and Web EOC logs are included as supporting documents.

[Sub-element 6.d – Transportation and Treatment of Contaminated Injured Individuals](#)

**Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654/FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)**

**Union Hospital**

Union Hospital met this objective during the Terumo Medical Corporation Drill report and the response to COVID-19. IAPs are included as supporting documents.

**Upper Chesapeake Medical Center (UCMC)**

UCMC and Harford Memorial Hospital are affiliates of the University of Maryland Upper Chesapeake Health System. UCMC met this objective during the Harford Memorial Support Hospital exercise and the COVID-19 Response Sit Reps. The Harford Memorial Hospital drill report is included as well as COVID response WebEOC Logs and IAPs.

Please review our request and contact me with any questions. We look forward to hearing from you.

Sincerely,

Russell J. Strickland  
Executive Director



# Maryland

## Department of the Environment

Larry Hogan, Governor  
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

August 12, 2020

Lilian Hutchinson  
Director, National Preparedness Division  
FEMA Region 3  
615 Chestnut Street  
One Independence Mall, Sixth Floor  
Philadelphia, PA 19106-4404

Re: Supporting the Request for Exercise Credit/Cancellation for Peach Bottom Atomic Power  
Station 2020 Exercise

Dear Ms. Hutchinson:

The Maryland Department of the Environment (MDE) supports the request for exercise credit/cancellation of the previously scheduled Peach Bottom Atomic Power Station (PBAPS) FEMA evaluated exercise. MDE participated in the last PBAPS and CALVEX evaluated exercises on 17 April 2018 and 17 September 2019 respectively, with no issues identified as a participating Offsite Response Organization (ORO). In addition, MDE participated in the 11 February 2020 PBAPS exercise dress rehearsal as well as the FEMA observed 15 November 2019 dual site (PBAPS and CCNPP) exercise.

While the COVID-19 pandemic will challenge the health and safety of exercise participants and evaluators, we are certain that an actual response to an event at PBAPS would not jeopardize the health and safety of the public.

Should you have any questions or need additional information please contact our Nuclear Emergency Response unit ([zack.barthel@maryland.gov](mailto:zack.barthel@maryland.gov) and/or [james.ways@maryland.gov](mailto:james.ways@maryland.gov)).

Sincerely,

Ben Grumbles  
Secretary

**BARRY GLASSMAN**  
HARFORD COUNTY EXECUTIVE



**EDWARD HOPKINS**  
DIRECTOR OF EMERGENCY SERVICES

August 10, 2020

Lilian Hutchinson  
Director, National Preparedness Division  
FEMA Region 3  
615 Chestnut Street  
One Independence Mall, Sixth Floor  
Philadelphia, PA 19106-4404

Dear Ms. Hutchinson,

Harford County supports the request for exercise credit/cancellation of the previously scheduled Peach Bottom Atomic Power Station (PBAPS) FEMA evaluated exercise as well as the MS-1 exercise scheduled for Upper Chesapeake Medical Center. Harford County participated in the last PBAPS evaluated exercise on 17 April 2018 with no issues identified as a participating Offsite Response Organization (ORO). In addition, Harford County participated in the 11 February 2020 PBAPS exercise dress rehearsal as well as the FEMA-observed 15 November 2019 dual site (PBAPS and CCNPP) exercise.

While the COVID-19 pandemic continues to challenge the health and safety of exercise participants and evaluators, we are certain that an actual response to an event at PBAPS would not jeopardize the health and safety of the public.

Should you have any questions or need additional information please contact me or Linda Ploener, Manager, Emergency Preparedness and Planning Branch, at 410-638-3407 or 410-638-4029, respectively.

Sincerely,

Richard A. Ayers  
Emergency Manager

**MARYLAND'S NEW CENTER OF OPPORTUNITY**

410.638.4900 | 410.879.2000 | TTY Maryland Relay 711 | [www.harfordcountymd.gov](http://www.harfordcountymd.gov)  
2220 Ady Road, Forest Hill, Maryland 21050

THIS DOCUMENT IS AVAILABLE IN ALTERNATIVE FORMAT UPON REQUEST

August 10, 2020

Lilian Hutchinson  
Director, National Preparedness Division  
FEMA Region 3  
615 Chestnut Street  
One Independence Mall, Sixth Floor  
Philadelphia, PA 19106-4404

Subject: Supporting the Request for Exercise Credit/Cancellation for Peach Bottom Atomic Power Station 2020 Exercise

Dear Ms. Hutchinson,

Cecil County supports the request for exercise credit / cancellation of the previously scheduled Peach Bottom Atomic Power Station (PBAPS) FEMA evaluated exercise as well as the MS-1 exercise scheduled for Union Hospital. Cecil County participated in the last PBAPS evaluated exercise on 17 April 2018 with no issues identified as participating Offsite Response Organization (ORO). In addition, Cecil County participated in the 11 February 2020 PBAPS exercise dress rehearsal as well as the FEMA observed 15 November 2019 dual site (PBAPS and CCNPP) exercise.

While the COVID-19 pandemic will challenge the health and safety of exercise participants and evaluators, we are certain that an actual response to an event at PBAPS would not jeopardize the health and safety of the public.

Should you have any questions or need additional information please contact me at [richard.brooks@ccdps.org](mailto:richard.brooks@ccdps.org).

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Brooks', with a stylized flourish at the end.

Richard K. Brooks, III  
Director of Emergency Services  
Cecil County Department of Emergency Services

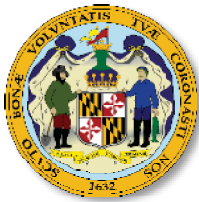


## **Support Documentation Overview**

1. 2020 PBAPS Full-Scale Exercise – Dress Rehearsal:
  - 2020 PBAPS Master Scenario Events List (MSEL)
  - 2020 PBAPS Dress Rehearsal After Action Report – Quick Look
  - 2020 PBAPS Dress Rehearsal WebEOC Documentation Log – Harford County
  - 2020 PBAPS Dress Rehearsal WebEOC Documentation Log – Cecil County
  - Harford County Dosimetry/KI Briefing
  - Public Inquiry Messages
  - EAS Evacuation Exercise Message
  - Harford County Siren Failure Message
  - Harford County Impediment Message
  - Cecil County Siren Failure Message
  - Cecil County Impediment Message
2. 2019 Dual Site Functional Exercise:
  - 2019 CCNPP/PBAPS Dual Site Drill After Action Report – Quick Look
  - 2019 CCNPP/PBAPS Dual Site Extent of Play
  - 2019 CCNPP/PBAPS Dual Site MSEL/Timeline
3. Cecil County COVID-19:
  - COVID Situation Report – 2 June 2020
  - COVID Situation Report – 8 June 2020
  - COVID Situation Report – 10 June 2020
4. Harford County COVID-19:
  - EOC Situation Report #18 – COVID-19 Pandemic Event – 13 April 2020
  - EOC Situation Report #19 – COVID-19 Pandemic Event – 14 April 2020
  - EOC Situation Report #20 – COVID-19 Pandemic Event – 15 April 2020
  - Health Department Strategic National Stockpile Plan
  - UCMC HICS Incident Action Plan – 26 March 2020
  - UCMC HICS Incident Action Plan – 17 April 2020
  - UCMC HICS Incident Action Plan – 5 May 2020
  - UCMC HICS Incident Action Plan – 10 June 2020
  - Exelon Generation – Peach Bottom Site Drill Evaluation Report

5. 2016 PBAPS Full-Scale Exercise After Action Report:
  - FEMA 2016 PBAPS After Action Report/Improvement Plan – 15 July 2016
6. 2018 PBAPS Full-Scale Exercise After Action Report:
  - FEMA 2018 PBAPS After Action Report/Improvement Plan – 12 July 2018
7. MS-1 Drills:
  - Union Hospital (Terumo Corporation) Radiation Exposure Responsibilities & Details
  - UMUC COVID-19 Screening Program
  - UMUC COVID-19 PPE Supplies, Usage, & Dress Out Procedures
  - UMUC PBAPS MS-1 Medical Drill Sign-In Sheet – 23 May 2019
  - UMUC PBAPS MS-1 Medical Drill Sign-In Sheet – 19 June 2019





STATE OF MARYLAND



# **2020 PEACH BOTTOM ATOMIC POWER STATION (PBAPS) EXERCISE**

MASTER SCENARIO EXERCISE LIST (MSEL)

V.1.0 – 11 FEBRUARY, 2020



## Scenario Weather Forecast & Background Scenario Data

### Weather Forecast:

Today is cloudy and somewhat windy with winds from the Northeast. Highs today will be in the low 40s. Probability of precipitation is 10%. The skies will remain cloudy this evening with lows in the low 30's. Tomorrow will be fair and mild with highs in the upper 40's.

### Initial Plant Conditions:

- **Unit 2** is at 100% power, 223 days on line, OLR Status: **Green**
- **Unit 3** is at 100% power, 242 days on line, OLR Status: **Green**

### Equipment OOS:

- **Unit 2**
  - None
- **Unit 3**
  - None

### Planned Evolutions:

- Maintain 100% power on Units 2 and 3.

## Exercise Event Timeline

Event #	Elapsed Time	Clock Time	Inject #	From:	To:	Inject/Message Summary	Expected Responses
1	T=0	0800				<b>Commence Exercise</b>	
2	T≤05	≤0805		PBAPS	All Offsite Stakeholders	<b>Event 1</b> OBE Earthquake and Control Rods Drift An OBE earthquake occurs with an epicenter outside of Dover, DE. Control Room receives multiple alarms of tank level fluctuations and high RCP vibrations. Control Room receives first rod drift at 0805 and then a second rod drift ~1 minute later which requires a manual SCRAM. An electrical ATWS occurs. ARI is unsuccessful ~0807. <b>T = 0 for Alert</b>	Local and State EOCs activate and begin staffing; Open conference bridges; Notifications; Communications with PEMA



## 2020 PBAPS EXERCISE MSEL - 4

Event #	Elapsed Time	Clock Time	Inject #	From:	To:	Inject/Message Summary	Expected Responses
3	T=20	0820		PBAPS		<p><b>Shift Manager Declares MA3</b> – Automatic or manual trip fails to shut down the reactor, and subsequent manual actions taken from the reactor control consoles are not successful in shutting down the reactor.</p> <ul style="list-style-type: none"><li>Automatic or manual scram did not shutdown the reactor as indicated by Reactor Power &gt; 4%.</li></ul> <p>AND</p> <ul style="list-style-type: none"><li>Manual/ARI actions taken at the Reactor Console are not successful in shutting down the reactor as indicated by Reactor Power &gt; 4%.</li></ul> <p><b>Wind Speed 10mph. Wind Direction 265 degrees.</b> <b>No Release in Progress</b></p>	



## 2020 PBAPS EXERCISE MSEL - 5

Event #	Elapsed Time	Clock Time	Inject #	From:	To:	Inject/Message Summary	Expected Responses
4	T≤120	≤0920		PBAPS		<b>Event 2 Aftershock causing RCIC Failure (Mission #1)</b> RCIC Steam leak in the room as indicated by increasing radiation, room temps and fire alarm. RCIC isolation valves failed to isolate MO-2-13-15 and MO-2-13-016. Fuel Failure increases  <b>T = 0 for Site Area Emergency</b>	
5	T≤135	≤0935		PBAPS	All Offsite Stakeholders	<b>Station Emergency Director Declares FS1</b> – Loss of two Fission Product Barriers. <b>Loss of the Primary Containment Barrier CT6.1 or CT6.3</b> <b>AND</b> <b>Potential Loss of the Reactor Coolant Barrier RC4.3</b>  <b>Wind Speed 10 mph. Wind Direction 265 degrees.</b> <b>Release in Progress</b>	PARs discussed, PADs decided and implemented; Siren Activation



## 2020 PBAPS EXERCISE MSEL - 6

Event #	Elapsed Time	Clock Time	Inject #	From:	To:	Inject/Message Summary	Expected Responses
6	T~140	~0940	1	Cecil County Controller	Cecil County 911 Supervisor	At the 1 <sup>st</sup> Emergency Siren Activation Time, the Cecil County 911 Supervisor receives the message, "You sounded the sirens at _____ (activation time). All sirens sounded as expected except siren 51. Siren 51 failed to activate and is seen as blinking yellow on the siren controller."	The expected action for the County 911 Supervisor is to notify the County EOC Director or appropriate representative (Fire and/or EMS) that a siren has failed. This should trigger the dispatch of personnel to complete route alerting. FEMA will be at the staging area (Rising Sun Fire Department) to evaluate this process.
7	T~140	~0940	2	Harford County Controller	Harford County 911 Supervisor	At the 1 <sup>st</sup> Emergency Siren Activation Time, the Harford County 911 Supervisor receives the message, "You sounded the sirens at _____ (activation time). All sirens sounded as expected except siren 65. Siren 65 failed to activate and is seen as blinking yellow on the siren controller."	The expected action for the County 911 Supervisor is to notify the County EOC Director or appropriate representative (Fire and/or EMS) that a siren has failed. This should trigger the dispatch of personnel to complete route alerting. FEMA will be at the staging area (Harford County EOC) to evaluate this process.



## 2020 PBAPS EXERCISE MSEL - 7

Event #	Elapsed Time	Clock Time	Inject #	From:	To:	Inject/Message Summary	Expected Responses
8	T<140	<0940		Control Cell	Cecil Co EOC, Harford Co EOC, MEMA SEOC	Control cell will make no less than 5 public inquiry phone calls to each agency, following "Site Area Emergency Question Script" following declaration of the SAE.	
9	T≤230	≤1030		PBAPS		<b>Event 4</b> Containment Radiation exceeds 955 R/Hr.  <b>T = 0 for General Emergency.</b>  <b>NOTE:</b> The Emergency Director has the authority to monitor trending parameters nearing an EAL threshold and make an EAL determination based on the inability to mitigate the trending parameter.	





## 2020 PBAPS EXERCISE MSEL - 8

10	$T \leq 245$	$\leq 1045$		PBAPS	All Offsite Stakeholders	<p><b>Station Emergency Director Declares FG1</b> – loss of all three Fission Product Barriers</p> <p><b>Loss of Fuel Clad Barrier FC5</b> (<math>&gt;955\text{R/hr}</math>) AND <b>Loss of the Reactor Coolant Barrier RC5</b>(Containment Radiation <math>&gt;100\text{R/hr}</math> in DW) AND <b>Loss of the Primary Containment Barrier CT6.1 or CT6.3</b></p> <p><b>Protective Action Recommendation (PAR)</b> issued within 15 minutes of GE declaration.</p> <ul style="list-style-type: none"><li>• Evacuate 2-mile radius 360°.</li><li>• Evacuate the 2-5 miles downwind sectors <b>C / D / E / F / G</b></li><li>• KI to be administered to the general public in accordance with state procedures and advise the remainder of the EPZ to Monitor and Prepare.</li></ul>	
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## 2020 PBAPS EXERCISE MSEL - 9

Event #	Elapsed Time	Clock Time	Inject #	From:	To:	Inject/Message Summary	Expected Responses
						<ul style="list-style-type: none"><li>Protective Action Recommendation <b>IS NOT</b> the result of a Rapidly Progressing Severe Accident.</li></ul> <b>Wind Speed 10 mph. Wind Direction 265 degrees.</b> <b>Release in Progress</b>	
11	T~250	1050	3	Cecil County Controller	Cecil County EOC or Appropriate Representative	At the Evacuation Order, the Cecil County EOC Director is told: "A sinkhole has caused a traffic impediment in the vicinity of Route 222 and Ratledge Lane. Traffic is backing up. The closure is projected to be greater than 2 hours."	The expected action for the County EOC is to take necessary measures to re-route evacuation traffic, and coordinate with the JIC to communicate the alternate route to evacuees leaving the area. Actual dispatch of resources need not be demonstrated however all simulated contacts must be logged.



## 2020 PBAPS EXERCISE MSEL - 10

Event #	Elapsed Time	Clock Time	Inject #	From:	To:	Inject/Message Summary	Expected Responses
12	T~250	<1050	4	Harford County Controller	Harford County EOC or Appropriate Representative	At 5 minutes past the Evacuation Order, the Harford County EOC Director is told "A sinkhole has caused a traffic impediment on Route 136 just south of Route 440. Traffic is backing up. The closure is projected to be greater than 2 hours."	The expected action for the County EOC is to take necessary measures to re-route evacuation traffic, and coordinate with the JIC to communicate the alternate route to evacuees leaving the area. Actual dispatch of resources need not be demonstrated however all simulated contacts must be logged.
13	T<250	<1050		Control Cell	Cecil Co EOC, Harford Co EOC, MEMA SEOC	Control cell will make no less than 6 public inquiry phone calls to each agency, following "General Emergency Question Script" following declaration of the GE.	
14	T=275	1115				<b>Exercise Terminated</b>	



## Acronyms

- EMS** – Emergency Medical Services
- EOC** – Emergency Operations Center
- FEMA** – Federal Emergency Management Agency
- GE** – General Emergency
- HPCI** - High-Pressure Coolant Injection
- JIC** – Joint Information Center
- MEMA** – Maryland Emergency Management Agency
- MSEL** – Master Scenario Exercise List
- MWe** – Megawatt Electric
- PAD** – Protective Action Decision
- PBAPS** – Peach Bottom Atomic Power Station
- RCS** – Reactor Cooling System
- SAE** – Site Area Emergency
- SBGT** - Stand-by Gas Treatment
- SM** – Shift Manager



## Communications Plan

**Marcia Seibel:** 302-584-5948

**Marci Catlett:** 443-379-7891

**Lauren Bond:** 443-539-6886

**Rick Woods:** 443-532-0571



# PBAPS Dress Rehearsal

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## *AAR Quick Look*

### *February 11, 2020 Security Notice*

This document is For Official Use Only (FOUO), not intended for public distribution. This document contains observations intended to improve incident response. The information contained within should not be released without approval.



## Incident Overview/Executive Summary

The Peach Bottom Atomic Power Station (PBAPS) Dress Rehearsal was sponsored by the Maryland Emergency Management Agency (MEMA) and Exelon Corporation and

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supported by Pennsylvania Emergency Management Agency (PEMA), Cecil and Harford County Emergency Management Agencies.

The purpose of this exercise was to evaluate player actions against current response plans and capabilities for a nuclear power plant-related incident at PBAPS affecting the State of Maryland in preparation for the April 21<sup>st</sup> FEMA evaluated exercise. Exercise planners utilized the elements described in the Radiological Emergency Preparedness (REP) Program Manual to develop this exercise.

The objective for the PBEX Dress Rehearsal was to demonstrate reasonable assurance that the public can be protected during a nuclear power plant emergency affecting the State of Maryland.

This AAR will focus on the actions performed at the Maryland SEOC (Strategy Room) and coordinated efforts between PEMA, Cecil and Harford counties.

## Key Findings

- Δ Communications regarding Protective Action Recommendations (PARs) and Protective action Decisions (PADs) were not well coordinated. The County EMA directors initiated Protective Actions before they were issued by the Secretary MDE.
- Δ Decisions regarding the use of Potassium Iodide (KI) for emergency workers for State and county emergency workers need to be improved with the PBAPS risk Jurisdictions and the Commonwealth of Pennsylvania.
- Additional items included from the WebEOC AAR as Attachment 1

## Incident Timeline

Time	Event/Decision Point
0820	<b>Shift Manager Declares MA3</b> – Automatic or manual trip fails to shut down the reactor, and subsequent manual actions taken from the reactor control consoles are not successful in shutting down the reactor.
0935	<b>Station Emergency Director Declares FS1</b> – Loss of two Fission Product Barriers. <b>Loss of the Primary Containment Barrier CT6.1 or CT6.3 AND Potential Loss of the Reactor Coolant Barrier RC4.3</b>
1024	<b>PAD #1 PBAPS</b> Shelter Livestock, Water restrictions, Close Parks and Recreation Areas. PAD for Emergency Workers to ingest KI for State workers. Not agreed to by Harford and Cecil counties.



Time	Event/Decision Point
1045	<b>Station Emergency Director Declares FG1</b> – loss of all three Fission Product Barriers
1156	<b>PAD #2 PBAPS.</b> Evacuate / Public Ingest KI in Zones 3, 5, 6, and 7. Shelter Public in Zones 1, 2 and 4. Shelter livestock 50-miles in sector F, G, H and J.
1230	Exercise terminated

## Observed Strengths

- The MJOC handled the notifications and dissemination of information from the two sites by designating one person to for each site. This avoided dissemination of incorrect information that could have easily occurred.
- The introductory use of Rad Responder will enhance the ability and information sharing from the MDE field teams.

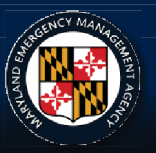
## Observed Areas for Improvement/Suggested Actions

- There was disagreement on the decision for emergency workers to ingest KI. The Maryland PBAPS risk jurisdictions opted to follow the recommendation / decision from Pennsylvania stating it would create confusion with the local responders.
  - Recommendation: Consider revising the MDE PAR form to indicate when a jurisdiction does not follow a recommendation or decision made from the State.
- Maryland was not included on the Senior State Official call from the Exelon EOF.
- Consider loading the completed PAD forms in WebEOC.



## Closing

The exercise demonstrated that Maryland is prepared to respond to a simultaneous incident at a both CCNPP and PBAPS Fixed Nuclear Facilities and can adequately protect the health and safety of the public



## Attachment 1

# After Action Review

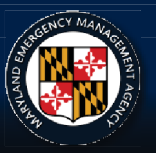
Training Event: 11 Feb 20 Peach Bottom Dress Rehearsal

<u>Record #</u>	Synopsis
<u>747</u>	<p><u>Comments or Issues</u> May I speak Rule, keep cool and level headed, use the runner to ask questions outside the JIC</p> <p><u>Recommendations for Improvement</u></p>
<u>746</u>	<p><u>Comments or Issues</u> Credenza/more table space in JIC.</p> <p><u>Recommendations for Improvement</u></p>
<u>745</u>	<p><u>Comments or Issues</u> Need printer in JIC.</p> <p><u>Recommendations for Improvement</u></p>
<u>744</u>	<p><u>Comments or Issues</u> Governor's PIO list... who is updating? Who is in charge? Should we take it over?</p> <p><u>Recommendations for Improvement</u></p>
<u>743</u>	<p><u>Comments or Issues</u> Have designated proof-readers. To scrutinize documents.</p>





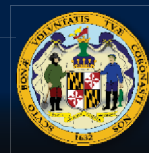
	<b><u>Recommendations for Improvement</u></b>
<u>742</u>	<p><b><u>Comments or Issues</u></b> JIC/Strat Liaison to help support the creation of press release content.</p> <p><b><u>Recommendations for Improvement</u></b> Identified that new JIC Manager with no prior experience might not have knowledge or necessary content.</p>
<u>741</u>	<p><b><u>Comments or Issues</u></b> Digital forms should be sent to us and printed.</p> <p><b><u>Recommendations for Improvement</u></b> To tell Jo instead of waiting for runner or figure out a process that is efficient.</p>
<u>740</u>	<p><b><u>Comments or Issues</u></b> Gchat protocol, figure out a system to streamline Gchat group names and constituents for JIC and PIO.</p> <p><b><u>Recommendations for Improvement</u></b></p>
<u>739</u>	<p><b><u>Comments or Issues</u></b> Update Gov Delivery Templates to be more user friendly for the public.</p> <p><b><u>Recommendations for Improvement</u></b></p>
<u>738</u>	<p><b><u>Comments or Issues</u></b> After General Emergency, JIC received both PAR and PAD which created confusion.</p> <p><b><u>Recommendations for Improvement</u></b> Explain what a PAR and PAD is during training or before exercise. Not having prior experience as to who. Also decide who is the one that is providing either the PAR or the PAD to the JIC? The runner or someone else.</p>
<u>737</u>	<p><b><u>Comments or Issues</u></b> Cecil posted protective actions on WebEOC at 11:02 before PAD call was complete in the STRAT Room.</p> <p><b><u>Recommendations for Improvement</u></b> Streamline communication between the STRAT and the JIC. We need to be the first people to know the status.</p>
<u>736</u>	<p><b><u>Comments or Issues</u></b> JIC Manager doesn't have the bandwidth to upload press releases on WebEOC.</p>



	<p><b><u>Recommendations for Improvement</u></b> One person dedicated to uploading PR on WebEOC.</p>
<u>734</u>	<p><b><u>Comments or Issues</u></b> Gov Delivery templates full of typos/formatting errors.</p> <p><b><u>Recommendations for Improvement</u></b> Better vet the GovDelivery templates prior to use - some typos/formatting errors already existed in the templates.</p>
<u>733</u>	<p><b><u>Comments or Issues</u></b> Need to agree on numbering protocols for releases of boilerplate vs. actual Figure out a way to better organize the boilerplate press release order with the actual real-time posted order.</p> <p><b><u>Recommendations for Improvement</u></b> Numbering boilerplate with letters and actual press releases with numbers. Use an alpha-numeric code i.e - Boilerplate would be A - J and the real-time be 01 - 10. Therefore, if the third real-time press release for the sequential order would be 3F</p>
<u>732</u>	<p><b><u>Comments or Issues</u></b> No media/public query sheets available.</p> <p><b><u>Recommendations for Improvement</u></b> Ed needs to make copies of the media/public query sheets for grades exercise.</p>
<u>731</u>	<p><b><u>Comments or Issues</u></b> ATT KIONA: Gegg Bortz from natural resources to receive WEbEOC info, for WebEOC Wednesdays. Does not have access.</p> <p><b><u>Recommendations for Improvement</u></b> Find out if natural resources has someone with WebEOC log in. We could get additional PIO help from them.</p>
<u>730</u>	<p><b><u>Comments or Issues</u></b> No list for press release distribution before exercise.</p> <p><b><u>Recommendations for Improvement</u></b> Set up a list for press release distribution for exercises the day before the exercise.</p>
<u>729</u>	<p><b><u>Comments or Issues</u></b> Gov Delivery is slowing us down. Keeps on logging us out.</p> <p><b><u>Recommendations for Improvement</u></b> Change System in Gov Delivery to not continuously log out user.</p>



728	<p><b><u>Comments or Issues</u></b> Had a no show from the Department of the Environment (Jay Anderson).</p> <p><b><u>Recommendations for Improvement</u></b> We need a comprehensive list documented on a google drive excel spreadsheet so that we can know w</p>
727	<p><b><u>Comments or Issues</u></b> Have a log system in WebEOC to direct requests to the PIO or JIC.</p> <p><b><u>Recommendations for Improvement</u></b> Right now we have hard copy forms that the call takers annotate, but nobody is transcribing that informa</p>
726	<p><b><u>Comments or Issues</u></b> The Peach Bottom Real Time GIS Data Layers were not responding or working perfectly to the WebEOC sure if the layers were the correct ones or where the issue was. Also, most of the old layers were not w</p> <p><b><u>Recommendations for Improvement</u></b> DoIT needs to update the map service urls of the layers that have issue loading. Also, the issue with the with DoIT and personally look into the latter one and perform tests to make sure everything works for Ap</p>
725	<p><b><u>Comments or Issues</u></b> Make sure to add use of Press Release at every event where they are generated.</p> <p><b><u>Recommendations for Improvement</u></b></p>
724	<p><b><u>Comments or Issues</u></b> Shelter Board Recommendation: When a shelter is "opened/closed" on the shelter board, it should auto "open" a shelter on 2 different boards.</p> <p><b><u>Recommendations for Improvement</u></b> Board feature redesign / update</p>
723	<p><b><u>Comments or Issues</u></b> 1) playbook did not discuss best practices of how Ops Section chief would delegate relevant tasks to dep 2) Email password within playbook was out of date! 3) Deputy ops section chief struggled to verbally communicate quickly with ops section chief due to 2 se 4) The file library is loaded with GREAT information, unfortunately the information is not readily found w 5) Playbook mentions what to do but not how to carry out those actions.</p> <p>Thank you for the invite to participate, I learned a lot.</p> <p><b><u>Recommendations for Improvement</u></b> 1) Please create some sub sections or notes to refer the ops sec chief duties that are appropriate for the 2) Please update password for emails 3) Ops Section Chief and Deputy agreed that shadowing and communication capabilities would be great requires a deputy though. 4) A search feature would be beneficial. For example the playbook I used mentions the CMOP however 5) Some actions such as "Lead Operations Objectives Meeting" are mentioned but key items such as fre</p>



playbook is meant to be a reference guide, these items would be GREATLY beneficial. The playbook also contains information. As a general recommendation, an "Actionable Items or Events" section with instructions and a P.S.: If this is something I can assist in developing I would love to assist if cleared with Marcia, Brian, and

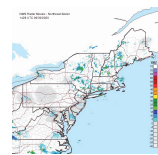
722

**Comments or Issues**

could not see any press releases under press release tab  
Not all MDDF personnel had their position as an available choice

**Recommendations for Improvement**





## Maryland Incident Log

Training Event: 11 Feb 20 Peach Bottom Dress Rehearsal

Local - County - Harfor

Search

Clear Search

[Print PDF](#) [Create Entry](#)

### Other

Record #: 64684

Date/Time: 02/11/2020 11:30:00

Name: susan.ayers

Position: Local - County -  
Harford

Attachment(s):

Address/Location:

Not mapped in Osprey

Peach Exercise is terminated at this time

Local - County - Harford - susan.ayers at 11:30:00 on 02/11/2020

This information is not for public disclosure and is intended for authorized WebEOC users only.

### Other

Record #: 64652

Date/Time: 02/11/2020 11:14:40

Name: susan.ayers

Position: Local - County -  
Harford

Attachment(s):

Address/Location:

Not mapped in Osprey

Harford County will evacuate 0-10miles

1121hrs sounding sirens /EAS message at 1124hrs

Local - County - Harford - susan.ayers at 11:14:40 on 02/11/2020

This information is not for public disclosure and is intended for authorized WebEOC users only.

### Other

Record #: 64607

Date/Time: 02/11/2020 10:55:03

Name: susan.ayers

Position: Local - County -  
Harford

Attachment(s):

Address/Location:

Not mapped in Osprey

Maryland had declared State of Emergency 1048hrs  
1033hrs. Emergency Level FG1

Local - County - Harford - susan.ayers at 10:55:03 on 02/11/2020

This information is not for public disclosure and is intended for authorized WebEOC users only.

### Other

Record #: 64529

Date/Time: 02/11/2020 10:16:49

Name: susan.ayers

Position: Local - County -  
Harford

Attachment(s):

Address/Location:

Not mapped in Osprey

Siren 65 failed Boyd Road and Briniger Rd  
HCSO requested to begin Route Alerting

Local - County - Harford - susan.ayers at 10:16:49 on 02/11/2020

This information is not for public disclosure and is intended for authorized WebEOC users only.

### Other

Record #: 64519

Date/Time: 02/11/2020 10:11:33

Name: susan.ayers

Position: Local - County -  
Harford

Attachment(s):

Address/Location:

Not mapped in Osprey

Sounded Sirens at 1015hrs  
EAS message #4 1018hrs  
Terminate 1018hrs

Local - County - Harford - susan.ayers at 10:11:33 on 02/11/2020

This information is not for public disclosure and is intended for authorized WebEOC users only.

### Radiological Emergency

Record #: 64491

Date/Time: 02/11/2020 09:34:53

Site Area Emergency 0931hrs  
Emergency Level FS1  
Radiological Release in Progress  
Harford County Risks Schools evacuating at this time.

Name: susan.ayers

Position: Local - County -  
Harford

Attachment(s):

Address/Location:

Not mapped in Osprey

Stored feed and water is recommended at this time/Shelter Live Stock  
Restrict waterways and closing all Harford County Parks

Local - County - Harford - susan.ayers at 09:34:53 on 02/11/2020

**This information is not for public disclosure and is intended for authorized WebEOC users only.**

Image Not Found



## Position Log

Local - County - Cecil

[Create Entry](#)

Training Event: 11 Feb 20 Peach Bottom Dress Rehearsal

[Print PDF](#)

### Fire and Emergency Services

Record #: 64705

Date/Time: 02/11/2020  
11:38:36

Name: Denise.Hill.M.

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

THIS IS A DRILL \*\* All EMS personnel have been told to stand down. Drill is over \*\* THIS IS A DRILL

Local - County - Cecil - Denise.Hill.M. at 11:38:36 on 02/11/2020

Record #: 64704

Date/Time: 02/11/2020  
11:37:26

Name: nancy.reasin

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

\*\*\*\*\*This is a drill  
Cecil Co. Rising Sun High School is now closed, all staff have exited.  
\*\*\*\*\* This is a drill

Local - County - Cecil - nancy.reasin at 11:37:26 on 02/11/2020

### Fire and Emergency Services

Record #: 64699

Date/Time: 02/11/2020  
11:32:25

Name: paul.massarelli

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

This is a drill

Companies have started to recall members and deescalate

This is a drill.

Local - County - Cecil - paul.massarelli at 11:32:25 on 02/11/2020

Record #: 64695

Date/Time: 02/11/2020  
11:23:50

Name: Michael.McCardell

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

Each emergency worker issued one DRD, one PRD, a dosimetry/ KI report form, and supply of KI.  
KI only taken when authorized by County Health Official.  
Dosimetry report form must be completed by every emergency worker.

Local - County - Cecil - Michael.McCardell at 11:23:50 on 02/11/2020

### \*\*Drill/Exercise\*\*

Record #: 64691

Date/Time: 02/11/2020  
11:31:54

Name: Michelle.Lloyd

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

\*\*\*THIS IS A DRILL\*\*\*\*

ENDEX ENDEX ENDEX

\*\*\*THIS IS A DRILL\*\*\*\*\*

Local - County - Cecil - Michelle.Lloyd at 11:31:54 on 02/11/2020

Record #: 64679

Date/Time: 02/11/2020  
11:28:52

Name: Vernita.Coverdale

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

No known outages at this time

Local - County - Cecil - Vernita.Coverdale at 11:28:52 on 02/11/2020

Not mapped in Osprey

**\*\*Drill/Exercise\*\***

Record #: 64677

Date/Time: 02/11/2020  
11:26:37

Name: Michelle.Lloyd

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

\*\*\*THIS IS A DRILL\*\*\*

Ag will be sheltering livestock and using stored feed/water to 50 miles. KI directed to be taken by gen public and emergency workers. Municipal LEO to assist CCSO with traffic/security operations. CCSO to continue route alerting. A local declaration of emergency has been made by the County Executive.

\*\*\*THIS IS A DRILL\*\*\*

Local - County - Cecil - Michelle.Lloyd at 11:26:37 on 02/11/2020

**Fire and Emergency Services**

Record #: 64658

Date/Time: 02/11/2020  
11:16:12

Name: paul.massarelli

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

This is a Drill

All fire companies have been advised to administer KI to all of their personnel and insure all personnel have received the training associated with the KI and dosimeters.

Fire companies are assisting with evacuation in their box areas.

This is a drill

Local - County - Cecil - paul.massarelli at 11:16:12 on 02/11/2020

**Fire and Emergency Services**

Record #: 64653

Date/Time: 02/11/2020  
11:16:23

Name: Denise.Hill.M.

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

THIS IS A DRILL \*\* All EMS personnel at the staging area and assisting with evacuation have been instructed to take their KI \*\*\* THIS IS A DRILL

Local - County - Cecil - Denise.Hill.M. at 11:16:23 on 02/11/2020

**\*\*Drill/Exercise\*\***

Record #: 64647

Date/Time: 02/11/2020  
10:55:55

Name: Michael.McCardell

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

Ensure all emergency workers receiving Dosimetry/KI units are briefed on use and PAG  
Ensure all emergency workers read DRD's every 30 minutes  
Maintain Dosimeter-KI distribution at Station 8 and radiation exposure records.

Local - County - Cecil - Michael.McCardell at 10:55:55 on 02/11/2020

**Fire and Emergency Services**

Record #: 64639

Date/Time: 02/11/2020  
10:58:40

Name: Denise.Hill.M.

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

THIS IS A DRILL \*\* No additional special needs personnel requests have been received. THIS IS A DRILL

Local - County - Cecil - Denise.Hill.M. at 10:58:40 on 02/11/2020

Record #: 64629

Date/Time: 02/11/2020  
11:03:43

Name: nancy.reasin

Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

\*\*\*\*This is a drill

Shelter manager and staff at Rising Sun High School set and ready for evacuees. Red Cross present and ready.

\*\*\*\*\* This is a drill

Local - County - Cecil - nancy.reasin at 11:03:43 on 02/11/2020

<p>Record #: <u>64627</u>  Date/Time: 02/11/2020 11:00:01  Name: nancy.reasin  Position: Local - County - Cecil  Attachment(s):  Address/Location:  Not mapped in Osprey</p>	<p>****This is a drill  Shelter manager and staff at Rising Sun High School set and ready for evacuees. Red Cross present and ready.  ***** This is a drill  Local - County - Cecil - nancy.reasin at 11:00:01 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b>  Record #: <u>64616</u>  Date/Time: 02/11/2020 10:58:33  Name: paul.massarelli  Position: Local - County - Cecil  Attachment(s):  Address/Location:  Not mapped in Osprey</p>	<p>This is a drill  Station 6, 7 and 8, are now fully staffed  this is a drill  Local - County - Cecil - paul.massarelli at 10:58:33 on 02/11/2020</p>
<p><b>**Drill/Exercise**</b>  Record #: <u>64611</u>  Date/Time: 02/11/2020 10:56:01  Name: daniel.coulter  Position: Local - County - Cecil  Attachment(s):  Address/Location: Rising Sun High School  Not mapped in Osprey</p>	<p><b>**THIS IS A DRILL**</b>  Monitoring and decontamination for the public is ready to receive at Rising Sun High School. Nurses have established first aid stations in the CRC.  <b>**THIS IS A DRILL**</b>  Local - County - Cecil - daniel.coulter at 10:56:01 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b>  Record #: <u>64608</u>  Date/Time: 02/11/2020 10:55:21  Name: Denise.Hill.M.  Position: Local - County - Cecil  Attachment(s):  Address/Location:  Not mapped in Osprey</p>	<p><b>THIS IS A DRILL *** All EMS workers have received their KI and dosimeters. All personnel are prepared to assist with evacuating*** THIS IS A DRILL</b>  Local - County - Cecil - Denise.Hill.M. at 10:55:21 on 02/11/2020</p>
<p><b>**Drill/Exercise**</b>  Record #: <u>64604</u>  Date/Time: 02/11/2020 10:55:33  Name: Michelle.Lloyd  Position: Local - County - Cecil  Attachment(s):  Address/Location:  Not mapped in Osprey</p>	<p><b>***THIS IS A DRILL**</b>  Received notification from Exelon/PB of the escalation of alert to GENERAL EMERGENCY. EAL FG-1. Cecil to evacuate sectors F &amp; G; KI to general public and emergency workers. All actions under SAE to continue.  Also received notification of a sinkhole at Rt. 222/Ratledge Rd., MSP/CCSO advised; SHA to handle.  <b>***THIS IS A DRILL**</b>  Local - County - Cecil - Michelle.Lloyd at 10:55:33 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b>  Record #: <u>64600</u>  Date/Time: 02/11/2020 10:55:34  Name: paul.massarelli  Position: Local - County - Cecil  Attachment(s):  Address/Location:  Not mapped in Osprey</p>	<p>This is a Drill  All fire companies have been updated as to the status. Companies are still assisting with notifications and are preparing to assist with evacuation. KI kits have been distributed to staff  This is a drill  Local - County - Cecil - paul.massarelli at 10:55:34 on 02/11/2020</p>
<p><b>**Drill/Exercise**</b>  Record #: <u>64567</u>  Date/Time: 02/11/2020 10:38:27</p>	<p><b>**THIS IS A DRILL**</b>  Monitoring and decon staff have arrived at Rising Sun High School and are setting up to receive.</p>

<p>Name: daniel.coulter</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location: Rising Sun High School</p> <p>Not mapped in Osprey</p>	<p><b>**THIS IS A DRILL**</b></p> <p>Local - County - Cecil - daniel.coulter at 10:38:27 on 02/11/2020</p>
<p>Record #: <u>64566</u></p> <p>Date/Time: 02/11/2020 10:39:31</p> <p>Name: George.Stanko</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p>SRO at Rising Sun High School will provide security at the shelter there</p> <p>Local - County - Cecil - George.Stanko at 10:39:31 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b></p> <p>Record #: <u>64564</u></p> <p>Date/Time: 02/11/2020 10:35:07</p> <p>Name: Denise.Hill.M.</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>THIS IS A DRILL *** On call paramedics sent to assist at the mass care center at Rising Sun High School *** THIS IS A DRILL</b></p> <p>Local - County - Cecil - Denise.Hill.M. at 10:35:07 on 02/11/2020</p>
<p><b>**Drill/Exercise**</b></p> <p>Record #: <u>64561</u></p> <p>Date/Time: 02/11/2020 10:32:37</p> <p>Name: Holly.Trego</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p>This is a drill</p> <p>3rd call. Concerned that they heard the generators had failed, and was wondering how long it could last with out power. Caller from Reisterstown, and was refered to information that has been confirmed and to monitor local news (radio/television) for updates and protective procedures should they be required.</p> <p>Local - County - Cecil - Holly.Trego at 10:32:37 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b></p> <p>Record #: <u>64557</u></p> <p>Date/Time: 02/11/2020 10:30:43</p> <p>Name: Denise.Hill.M.</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>THIS IS A DRILL *** Updated the fire companies on the current status *** THIS IS A DRILL</b></p> <p>Local - County - Cecil - Denise.Hill.M. at 10:30:43 on 02/11/2020</p>
<p><b>**Drill/Exercise**</b></p> <p>Record #: <u>64549</u></p> <p>Date/Time: 02/11/2020 10:25:48</p> <p>Name: Michelle.Lloyd</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>***THIS IS A DRILL***</b></p> <p>Siren 51 experienced a failure. Law Enforcement along with Fire will be initiating route alerting.</p> <p><b>***THIS IS A DRILL**</b></p> <p>Local - County - Cecil - Michelle.Lloyd at 10:25:48 on 02/11/2020</p>
<p><b>Utilities and Energy</b></p> <p>Record #: <u>64548</u></p> <p>Date/Time: 02/11/2020 10:24:48</p> <p>Name: Vernita.Coverdale</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location: Peach Bottom</p> <p>Not mapped in Osprey</p>	<p>Peach Bottom Exercise</p> <p>No Loss of Power at this time</p> <p>Local - County - Cecil - Vernita.Coverdale at 10:24:48 on 02/11/2020</p>



## Position Log

▣ Local - County - Cecil

[Create Entry](#)

Training Event: 11 Feb 20 Peach Bottom Dress Rehearsal

[Print PDF](#)

### \*\*Drill/Exercise\*\*

Record #: 64547

Date/Time: 02/11/2020  
10:25:08

Name: Sharon.Jefferson

▣ Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

Red Cross Trailer and two volunteers in route to Rising Sun High School

Local - County - Cecil - Sharon.Jefferson at 10:25:08 on 02/11/2020

### Fire and Emergency Services

Record #: 64543

Date/Time: 02/11/2020  
10:21:45

Name: Denise.Hill.M.

▣ Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

THIS IS A DRILL \*\* Coordinated with Fire to dispatch personnel to the hearing impaired residents homes and other locations to make sure they are aware of the emergency. THIS IS A DRILL

Local - County - Cecil - Denise.Hill.M. at 10:21:45 on 02/11/2020

Record #: 64542

Date/Time: 02/11/2020  
10:22:59

Name: George.Stanko

▣ Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

Recd Siren 51 failure. Initiating route alert procedures

Local - County - Cecil - George.Stanko at 10:22:59 on 02/11/2020

### Fire and Emergency Services

Record #: 64538

Date/Time: 02/11/2020  
10:19:14

Name: Denise.Hill.M.

▣ Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

THIS IS A DRILL \*\* Ambulances and the special needs buses have been dispatched to the staging area at Station 8. THIS IS A DRILL \*\*\*

Local - County - Cecil - Denise.Hill.M. at 10:19:14 on 02/11/2020

### Fire and Emergency Services

Record #: 64534

Date/Time: 02/11/2020  
10:18:14

Name: paul.massarelli

▣ Position: Local - County -  
Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

This is a drill

Fire companies notified to do a door to door notification of the affected area.

this is a drill

Local - County - Cecil - paul.massarelli at 10:18:14 on 02/11/2020

### \*\*Drill/Exercise\*\*

Record #: 64531

Date/Time: 02/11/2020  
10:17:21

Name: Holly.Trego

▣ Position: Local - County -  
Cecil

Attachment(s):

2nd call regards to event. Caller from Reisterstown and concerned about terrorist attack. Caller was reassured there is no reports of being terrorist related, and to monitor local radio/television news for any updated information or actions regarding the incident.

Local - County - Cecil - Holly.Trego at 10:17:21 on 02/11/2020



Address/Location:  
Not mapped in Osprey

Record #: 64526  
Date/Time: 02/11/2020  
10:12:00  
Name: nancy.reasin  
□ Position: Local - County -  
Cecil  
Attachment(s):  
Address/Location:  
Not mapped in Osprey

\*\*\*\* This is a DRILL \*\*\*\*Notified shelter manager to respond to Rising Sun High School to open shelter. Shelter Staff Notified and responding. Red Cross also responding \*\*\*\*\* THIS IS A DRILL  
Local - County - Cecil - nancy.reasin at 10:12:00 on 02/11/2020

### Fire and Emergency Services

Record #: 64518  
Date/Time: 02/11/2020  
10:08:57  
Name: Denise.Hill.M.  
□ Position: Local - County -  
Cecil  
Attachment(s):  
Address/Location:  
Not mapped in Osprey

THIS IS A DRILL \*\* 2 special needs transport buses available from the County if needed. No requests for evacuation from residences or businesses as of this time. THIS IS A DRILL \*\*\*  
Local - County - Cecil - Denise.Hill.M. at 10:08:57 on 02/11/2020

Record #: 64496  
Date/Time: 02/11/2020  
10:01:20  
Name: Holly.Trego  
□ Position: Local - County -  
Cecil  
Attachment(s):  
Address/Location:  
Not mapped in Osprey

Received one phone call in regards to the event at Peach Bottom and fear of "Chernobyl" event. Caller was advised that there is an event, and there is a release however no protective actions as of yet, and to keep monitoring the situation by listening to local news/radio to get reliable updates to the event.  
Local - County - Cecil - Holly.Trego at 10:01:20 on 02/11/2020

### \*\*Drill/Exercise\*\*

Record #: 64485  
Date/Time: 02/11/2020  
09:51:25  
Name: Michael.McCardell  
□ Position: Local - County -  
Cecil  
Attachment(s):  
Address/Location:  
Not mapped in Osprey

Notification to radiological staff.  
Inventory of Dosimeter -KI Units and forms completed for EOC and Union Hospital.  
Verify all organizations who received KI Units have completed inventory  
Coordinated with CCSO for Dosimeter-KI units to station 8.  
Ensure PRD and control PRD form from Union Hospital will be delivered to EOC  
Local - County - Cecil - Michael.McCardell at 09:51:25 on 02/11/2020

### Fire and Emergency Services

Record #: 64482  
Date/Time: 02/11/2020  
09:57:01  
Name: paul.massarelli  
□ Position: Local - County -  
Cecil  
Attachment(s):  
Address/Location:  
Not mapped in Osprey

This is a drill  
All fire company staffing remains the same  
This is a drill  
Local - County - Cecil - paul.massarelli at 09:57:01 on 02/11/2020

### Fire and Emergency Services

Record #: 64474  
Date/Time: 02/11/2020  
09:45:58  
Name: Denise.Hill.M.  
□ Position: Local - County -  
Cecil  
Attachment(s):  
Address/Location:  
Not mapped in Osprey

\*\*THIS IS A DRILL\*\* Contacted the Fire companies to update the list of available ambulances and personnel. THIS IS A DRILL \*\*\*\*  
Local - County - Cecil - Denise.Hill.M. at 09:45:58 on 02/11/2020

### \*\*Drill/Exercise\*\*

Record #: 64465

THIS IS A DRILL

<p>Date/Time: 02/11/2020 09:50:54</p> <p>Name: daniel.coulter</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location: Rising Sun High School</p> <p>Not mapped in Osprey</p>	<p>EP Coordinator has been notified of site area emergency. Monitoring and Decon staff have been directed to report to the CRC at Rising Sun High School.</p> <p>Local - County - Cecil - daniel.coulter at 09:50:54 on 02/11/2020</p>
<p><b>**Drill/Exercise**</b></p> <p>Record #: 64459</p> <p>Date/Time: 02/11/2020 09:50:21</p> <p>Name: Michelle.Lloyd</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>***THIS IS A DRILL**</b></p> <p>Notification received from Exelon/PB of a Site Area Emergency that there is fission product barrier degradation. There IS airborne release. No protective actions recommended. Winds 265 deg at 10 mph.</p> <p><b>***THIS IS A DRILL8888</b></p> <p>Local - County - Cecil - Michelle.Lloyd at 09:50:21 on 02/11/2020</p>
<p>Record #: 64457</p> <p>Date/Time: 02/11/2020 09:50:28</p> <p>Name: Connie.Kamit</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>**THIS IS A DRILL**</b></p> <p>Wind slight change, still no immediate danger...</p> <p><b>**THIS IS A DRILL**</b></p> <p>Local - County - Cecil - Connie.Kamit at 09:50:28 on 02/11/2020</p>
<p><b>**Drill/Exercise**</b></p> <p>Record #: 64435</p> <p>Date/Time: 02/11/2020 09:41:02</p> <p>Name: Connie.Kamit</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>THIS IS A DRILL.</b></p> <p>Local - County - Cecil - Connie.Kamit at 09:41:02 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b></p> <p>Record #: 64438</p> <p>Date/Time: 02/11/2020 09:42:45</p> <p>Name: paul.massarelli</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>This is a drill</b></p> <p>Station 7 has 8 PA equipped vehicles Station 8 has 5 PA equipped Vehicles</p> <p>Local - County - Cecil - paul.massarelli at 09:42:45 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b></p> <p>Record #: 64426</p> <p>Date/Time: 02/11/2020 09:32:04</p> <p>Name: Denise.Hill.M.</p> <p>Position: Local - County - Cecil</p> <p>Attachment(s):</p> <p>Address/Location:</p> <p>Not mapped in Osprey</p>	<p><b>THIS IS A DRILL ** There are currently no special needs in the area need evacuating. *** THIS IS A DRILL</b></p> <p>Local - County - Cecil - Denise.Hill.M. at 09:32:04 on 02/11/2020</p>
<p><b>Fire and Emergency Services</b></p> <p>Record #: 64410</p> <p>Date/Time: 02/11/2020 09:20:29</p> <p>Name: paul.massarelli</p> <p>Position: Local - County - Cecil</p>	<p><b>This is a Drill</b></p> <p>Station 1- Not attended Station 2-1 engine, 1-medic, 1-tanker Station 3- 2 engines, 1 tanker, 2 medics, 1 ambulance, 1 truck Station 4- 1 engine, 1 truck, 1 ambulance Station 5- 1 brush truck, 1 engine Station 6- 1 engine 1 tanker, 1 truck, 1 medic Station 7- 3 engines, 1 tanker, 2 medics, 2 boats Station 8- 2 engines, 1 tanker, 1 truck, 2 ambulances Station 9- not attended</p>

<div>Attachment(s):</div> <div>Address/Location:</div> <div>Not mapped in Osprey</div>	<div>This is a drill</div> <div>Local - County - Cecil - paul.massarelli at 09:20:29 on 02/11/2020</div>
<div>Fire and Emergency Services</div> <div>Record #: <u>64406</u></div> <div>Date/Time: 02/11/2020 09:20:23</div> <div>Name: Denise.Hill.M.</div> <div>Position: Local - County - Cecil</div> <div>Attachment(s):</div> <div>Address/Location:</div> <div>Not mapped in Osprey</div>	<div><b>**THIS IS A DRILL**</b> Confirmed all companies have received their dosimeters and KI, have inventoried their supplies and prepared them for distribution. <b>*** THIS IS A DRILL</b></div> <div>Local - County - Cecil - Denise.Hill.M. at 09:20:23 on 02/11/2020</div>
<div>Record #: <u>64399</u></div> <div>Date/Time: 02/11/2020 09:19:35</div> <div>Name: nancy.reasin</div> <div>Position: Local - County - Cecil</div> <div>Attachment(s):</div> <div>Address/Location:</div> <div>Not mapped in Osprey</div>	<div><b>*****This is a drill</b></div> <div>Nancy Reasin &amp; Stephanie Smith present for DSS at EOC</div> <div><b>This is a drill*****</b></div> <div>Local - County - Cecil - nancy.reasin at 09:19:35 on 02/11/2020</div>
<div>Fire and Emergency Services</div> <div>Record #: <u>64395</u></div> <div>Date/Time: 02/11/2020 09:18:56</div> <div>Name: Denise.Hill.M.</div> <div>Position: Local - County - Cecil</div> <div>Attachment(s):</div> <div>Address/Location:</div> <div>Not mapped in Osprey</div>	<div><b>THIS IS A DRILL **</b> All companies notified and have current staffing numbers. They will call back with updates. <b>*** THIS IS A DRILL</b></div> <div>Local - County - Cecil - Denise.Hill.M. at 09:18:56 on 02/11/2020</div>
<div>Fire and Emergency Services</div> <div>Record #: <u>64390</u></div> <div>Date/Time: 02/11/2020 09:15:34</div> <div>Name: Denise.Hill.M.</div> <div>Position: Local - County - Cecil</div> <div>Attachment(s):</div> <div>Address/Location:</div> <div>Not mapped in Osprey</div>	<div><b>**THIS IS A DRILL**</b> Not all companies answering the phone. Will continue to call. <b>** THIS IS A DRILL</b></div> <div>Local - County - Cecil - Denise.Hill.M. at 09:15:34 on 02/11/2020</div>
<div>Fire and Emergency Services</div> <div>Record #: <u>64387</u></div> <div>Date/Time: 02/11/2020 09:12:58</div> <div>Name: paul.massarelli</div> <div>Position: Local - County - Cecil</div> <div>Attachment(s):</div> <div>Address/Location:</div> <div>Not mapped in Osprey</div>	<div><b>This is a Drill</b></div> <div>All Fire companies have been notified, still waiting on callback with staffing numbers</div> <div><b>This is a Drill</b></div> <div>Local - County - Cecil - paul.massarelli at 09:12:58 on 02/11/2020</div>
<div><b>**Drill/Exercise**</b></div> <div>Record #: <u>64381</u></div> <div>Date/Time: 02/11/2020 09:12:10</div> <div>Name: Holly.Trego</div> <div>Position: Local - County - Cecil</div> <div>Attachment(s):</div> <div>Address/Location:</div>	<div><b>This is a drill</b></div> <div><b>Rumor control staffed.</b></div> <div>Local - County - Cecil - Holly.Trego at 09:12:10 on 02/11/2020</div>

Not mapped in Osprey



Position Log

Local - County - Cecil

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Training Event: 11 Feb 20 Peach Bottom Dress Rehearsal

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### Fire and Emergency Services

Record #: 64376

Date/Time: 02/11/2020  
09:07:57

Name: Denise.Hill.M.

Position: Local - County - Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

THIS IS A DRILL \*\* EMS Companies in Cecil County are being notified.

Local - County - Cecil - Denise.Hill.M. at 09:07:57 on 02/11/2020

Record #: 64375

Date/Time: 02/11/2020  
09:07:59

Name: paul.massarelli

Position: Local - County - Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

This is a drill  
The fire/rescue desk is staffed  
This is a drill

Local - County - Cecil - paul.massarelli at 09:07:59 on 02/11/2020

### \*\*Drill/Exercise\*\*

Record #: 64372

Date/Time: 02/11/2020  
09:02:14

Name: Michelle.Lloyd

Position: Local - County - Cecil

Attachment(s):

Address/Location:

Not mapped in Osprey

\*\*THIS IS A DRILL\*\* Cecil County received notification from Exelon/PB that there has been a system malfunction at PB and they declared an Alert. Notification was made to our EOC staff and we activated to a partial level. \*\*THIS IS A DRILL\*\*

Local - County - Cecil - Michelle.Lloyd at 09:02:14 on 02/11/2020

# Dosimetry/ KI Briefing

For Operations in the field





# Who is an Emergency Worker

- Any person who will be working in public safety or public service.
- If you have a task that requires entry into the 10 mile zone
- Example include:
  - Firefighters
  - Police Officers
  - Bus Drivers
  - DPW Workers
  - Health Department



# Dosimetry Set



## Rad Attachment 4 – INDIVIDUAL DOSIMETRY / KI REPORT FORM

Emergency Worker's Name: \_\_\_\_\_ Social Security Number: \_\_\_\_\_  
 Home Address: \_\_\_\_\_ Emergency Worker's Organization: \_\_\_\_\_  
 County: \_\_\_\_\_ Emergency Worker's Signature: \_\_\_\_\_

Direct Reading Dosimeter (DRD) Information												
Mission Description	Date / Time	DRD Serial No.	Initial Reading	Initial + 30 min	Initial + 1 hour	Initial + 1.5 hours	Initial + 2 hours	Initial + 2.5 hours	Initial + 3 hours	Initial + 3.5 hours	Initial + 4 hours	Final Reading
/	/	/	/	/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/	/	/	/	/
/	/	/	/	/	/	/	/	/	/	/	/	/
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**Direct Reading Dosimeter (DRD) Instructions (TABLE ABOVE):**  
 Wear the DRD on the chest. Enter a brief "Mission Description" and the current date. Enter the DRD serial number from the side of your DRD. Look through your DRD to identify and document your initial DRD reading. Every 30 minutes thereafter, read your DRD and document the new reading. At the conclusion of the mission, document the "Final Reading." Document each mission inside the 10 mile zone separately. Do not exceed 5 Rem without County Authorization.

**Thermoluminescent Dosimeter (TLD) Instructions (TABLE TO THE BOTTOM RIGHT):**  
 Wear the TLD on the chest with the film facing out. Enter the TLD serial number from the front of the TLD. Enter the date and time the TLD was issued and who or which organization gave it to you. Document the date and time the TLD was returned and to whom or which organization it was returned.

**KI Instructions (TABLE TO THE BOTTOM):**  
 Take KI only on the direction of the County Health Officer. Take 1 tablet (130 mg) once each day. If you have an adverse allergic reaction to the drug, discontinue taking KI and report to your supervisor immediately.

Dose Limit	Emergency Activity Performed	Condition
5 Rem	All Activities	All activities during emergency
10 Rem	Protecting Major Property	Lower dose not practical Requires County Approval
25 Rem	Lifeguarding missions for large populations	Lowers dose not practical Requires County Approval
> 25 Rem	Lifeguarding missions for large populations	Only as a volunteer basis to persons fully aware of risks. Requires County Approval

POTASSIUM IODIDE (KI) RECORD				POTASSIUM IODIDE (KI) RECORD (cont)			
Day	Date	Time	Amount Taken	Day	Date	Time	Amount Taken
Day 1			1 tablet/130mg	Day 8			1 tablet/130mg
Day 2			1 tablet/130mg	Day 9			1 tablet/130mg
Day 3			1 tablet/130mg	Day 10			1 tablet/130mg
Day 4			1 tablet/130mg	Day 11			1 tablet/130mg
Day 5			1 tablet/130mg	Day 12			1 tablet/130mg
Day 6			1 tablet/130mg	Day 13			1 tablet/130mg
Day 7			1 tablet/130mg	Day 14			1 tablet/130mg

**Thermoluminescent Dosimeter (TLD)**

Serial No. \_\_\_\_\_

ISSUED BY: \_\_\_\_\_

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

TURNED IN TO: \_\_\_\_\_

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

READING OF TLD: \_\_\_\_\_ mRem

DATE OF READING: \_\_\_\_\_

# Direct Read Dosimeter (DRD)



- Current reading should be zero
- Attach DRD to outer layer of clothing between the neck and waist
- **MUST CHECK DRD EVERY 30 MINUTES**



# Thermoluminescent Dosimeter (TLD)



- Very sensitive dosimeter
- Attach TLD to outer layer of clothing between neck and waist
- Keep with you at all times
- **DO NOT EXCHANGE WITH ANYONE ELSE**



# Dosimetry/KI Form

## Rad Attachment 4 – INDIVIDUAL DOSIMETRY / KI REPORT FORM

Emergency Worker's Name: \_\_\_\_\_

Social Security Number: \_\_\_\_\_

Home Address: \_\_\_\_\_

Emergency Worker's Organization: \_\_\_\_\_

County: \_\_\_\_\_

Emergency Worker's Signature: \_\_\_\_\_

Direct Reading Dosimeter (DRD) Information												
Mission Description	Date / Time	DRD Serial No.	Initial Reading	Initial + 30 min	Initial + 1 hour	Initial + 1 h 30 m	Initial + 2 hours	Initial + 2 h 30 m	Initial + 3 hours	Initial + 3 h 30 m	Initial + 4 hours	Final Reading
	/											
	/											
	/											
	/											
	/											
	/											
	/											
	/											

### Direct Reading Dosimeter (DRD) Instructions (TABLE ABOVE):

Wear the DRD on the chest. Enter a brief "Mission Description" and the current date. Enter the DRD serial number from the side of your DRD. Look through your DRD to identify and document your initial DRD reading. Every 30 minutes thereafter, read your DRD and document the new reading. At the conclusion of the mission, document the "Final Reading." Document each mission inside the 10 mile zone separately. Do not exceed 5 Rem without County Authorization.

### Thermoluminescent Dosimeter (TLD) Instructions (TABLE TO THE BOTTOM RIGHT):

Wear the TLD on the chest with the film facing out. Enter the TLD serial number from the front of the TLD. Enter the date and time the TLD was issued and who or which organization gave it to you. Document the date and time the TLD was returned and to whom or which organization it was returned.

### KI Instructions (TABLE TO THE BOTTOM):

Take KI only on the direction of the County Health Officer. Take 1 tablet (130 mg) once each day. If you have an adverse allergic reaction to the drug, discontinue taking KI and report to your supervisor immediately.

### Protective Action Guidelines for Emergency Workers:

Dose Limit	Emergency Activity Performed	Condition
5 Rem	All Activities	All activities during emergency
10 Rem	Protecting Major Property	Lower dose not practical Requires County Approval
25 Rem	Lifesaving missions for large populations	Lower dose not practical Requires County Approval
> 25 Rem	Lifesaving missions for large populations	Only on a volunteer basis to person fully aware of risks. Requires County Approval

POTASSIUM IODIDE (KI) RECORD			
	Date	Time	Amount Taken
Day 1			1 tablet/130mg
Day 2			1 tablet/130mg
Day 3			1 tablet/130mg
Day 4			1 tablet/130mg
Day 5			1 tablet/130mg
Day 6			1 tablet/130mg
Day 7			1 tablet/130mg

POTASSIUM IODIDE (KI) RECORD (cont)			
	Date	Time	Amount Taken
Day 8			1 tablet/130mg
Day 9			1 tablet/130mg
Day 10			1 tablet/130mg
Day 11			1 tablet/130mg
Day 12			1 tablet/130mg
Day 13			1 tablet/130mg
Day 14			1 tablet/130mg

Thermoluminescent Dosimeter (TLD)	
Serial No. _____	
ISSUED BY:	
Name: _____	
Organization: _____	
Date: _____ Time: _____	
TURNED IN TO:	
Name: _____	
Organization: _____	
Date: _____ Time: _____	
READING OF TLD: _____ mRem	
DATE OF READING: _____	

- Used to document serial numbers
- Complete form with:
  - Name
  - Address
  - County Employee Number
- Keep form with you at all times
- Return form and meters at the end of the emergency



# IOSAT Package



- Also known as KI or Potassium Iodide
- Keep package with you at all times
- **Do Not Take Unless Directed By The EOC.**
- If directed to take the pills, take **1** pill a day for a total of 14 days or until you are advised to stop taking them.
- **If you are allergic to iodine, contact the EOC before taking.**
- Contact the EOC immediately if you experience any side effects such as:
  - Metallic Taste in mouth
  - Shortness of breath
  - Swelling of salivary glands
- Mark the Dosimetry / KI form for each pill you take.





# Supervisor TLD Issue Log

RAD ATTACHMENT 3  
TLD Dosimetry Issue Log[illegible]

- To be completed by supervisor
- Records all emergency workers who receive TLD's

\*Required for control and monitoring TLD's only

REVIEWED BY: \_\_\_\_\_ DATE: \_\_\_\_\_



# Exposure Limits

- Emergency works should attempt to keep exposure As Low As Reasonably Achievable – known as **ALARA**
- Remember – Check dosimeter every 30 minutes.
- Readings of 5 REM or more – contact the Radiological (RAD) Officer at the EOC
- Total dose of 25 REM – Leave the area and contact the RAD officer at the EOC.
- Lifesaving missions – can exceed 25 REM total, voluntary basis only. Maximum exposure of 75 REM also voluntary basis only. Approval by RAD officer needed.
- Do not exceed 75 REM



# Questions

How often should you check your DRD?

Every 30 Minutes

You are to contact the county EOC Radiological Officer if you observe a reading of \_\_\_\_ REM

5 REM

Where should you wear the dosimeters?

Between neck and waist on outer layer of clothing

When should you take the KI pills?

Only on instruction of the county health officer

At what reading total exposure should you leave the area?

25 REM



## Contact Information

- **Radiological Officer**  
**410-588-5783**



<b>MESSAGE NUMBER</b>	<b>SITE AREA EMERGENCY QUESTIONS</b>
<b>1</b>	I heard on the radio that there's been an explosion at the Peach Bottom Power Station. What's going on there?
<b>2</b>	My neighbor told me that she heard that there was an explosion at the Plant has any radiation been released? Has there been any radioactive contamination?
<b>3</b>	I heard there has been an explosion at the Peach Bottom plant, and my husband works there, have there been any injuries? Has everyone been accounted for?
<b>4</b>	Hi, a neighbor of mine heard over the scanner that there was an explosion at Peach Bottom, if we evacuate can I take my dogs and cats?
<b>5</b>	We understand that there is a problem at one of your nuclear plants, what is the problem? Is it serious?
<b>6</b>	I understand that if we have to evacuate we can't take our pets with us to the evacuation center. Is this true?
<b>7</b>	Hello, I am house sitting at the home of a relative near the Conowingo dam , I heard on the radio that there has been an emergency situation at the plant, do I need to leave the area, and I am not a normal resident here. Can I go home? What should I do I called the information center and they referred me to you?
<b>8</b>	If people are told to leave their homes, when can they return to their homes? What about their family pets? You mention livestock, but not family pets? These are part of our family too?
<b>9</b>	My husband works as a Security Officer at the plant, I've tried to reach him and I cannot, all the lines are busy. How can I reach him? I need to talk to him right away?
<b>10</b>	Listen, my husband has been looking for our calendar for twenty minutes. We live on Route 1 near the dam. Which zone is that? I heard an ambulance siren. Does this mean we should evacuate?
<b>11</b>	I heard there was an explosion at the Peach Bottom Nuclear Power Plant. Is there radiation in the atmosphere and do we need to evacuate?
<b>12</b>	Hello, I heard there was an explosion at the Peach Bottom Power Station and that people have been killed, do we need to evacuate?
<b>13</b>	I heard that the schools are being evacuated. I want to go to pick up my kids. Will they be brought home by bus, can I wait for them?
<b>14</b>	I heard there was an explosion at the Peach Bottom Power Station and that several people have died. Who will pay for helping people with food and clothing if people are told to leave their homes?
<b>15</b>	I understand that if we have to evacuate we can't take our pets with us to the evacuation center. Is this true?
<b>16</b>	If people are told to leave their homes, when can they return to their homes? What about their family pets? You mention livestock, but not family pets?
<b>17</b>	I just heard that there has been an accident at the plant that there was an explosion at the Peach Bottom Power Station and that radiation is in the atmosphere do we need to evacuate?
<b>18</b>	Hello, I heard on the radio that because of an explosion, the plant has caught fire and is melting down. Have people been told to evacuate? Is this really like Chernobyl or Three Mile Island??



<b>TIME CALLED</b>	<b>GENERAL EMERGENCY QUESTIONS</b>
<b>19</b>	I have a just heard that Peach Bottom is releasing radioactivity into the atmosphere. What should I do? Who can I call for assistance? Do we need to evacuate?
<b>20</b>	Hello, my name is _____, I run a business near the Conowingo Dam, and I just heard that Peach Bottom is releasing radioactivity into the air and melting down. What should I do should I send my workers home?
<b>21</b>	Do you have any idea of the meltdown at Peach Bottom Power? I heard there was an explosion at the Peach Bottom Power Station and that radiation is in the atmosphere, that people have been killed and unit may melt down, do we need to evacuate?
<b>22</b>	Hello. We run a green house just outside of Whiteford. Will we still be able to sell our plants after this is over? We could lose our business!!!
<b>23</b>	Hello, I have heard that there was an accident at the Peach Bottom Nuclear Power Plant and several people have been irradiated, is this true? Has anyone been killed, is the station melting down?
<b>24</b>	Hello, my name is _____, I just heard from a neighbor of mine that there Peach Bottom Power Station has been melting down for the past hour, is this true? Do we need to evacuate?
<b>25</b>	I heard there was an explosion at the Peach Bottom Power Station and that the smoke is contaminating the atmosphere, do we need to evacuate? Will Exelon pay for people to go to hotels until they can return to their homes? If this is like Chernobyl's meltdown we may never be able to return to our homes?
<b>26</b>	How long will it take before everything is back to normal there? Are there any chances of it getting worse? How many people have been killed?
<b>27</b>	Hi, I am from a local media outlet. Is there any chance that we could interview someone in charge there? We feel the public should know what is happening by hearing it from a direct source. How many casualties are involved?
<b>28</b>	I have a nursery and green house off Rt. 24 in Harford County, and I just heard that Peach Bottom is releasing radioactivity into the atmosphere. What should I do with my plants? Will they be okay to sell? What can I do to protect my plants? This is my livelihood? I cannot shelter or move all of them some of them inside. Who can I call for assistance?
<b>29</b>	I heard there was an explosion at the Peach Bottom Power Station and that radiation is in the atmosphere and that the station may possibly melt down, do we need to evacuate? Can we take our pets?
<b>30</b>	Do you have any idea if we will lose power or how long will the plant be out of service? I heard there was an explosion at the Peach Bottom Power Station and that radiation is in the atmosphere do we need to evacuate? Is the station melting down like Three Mile Island?
<b>31</b>	I heard there was an explosion at the Peach Bottom Power Station and that radiation is in the atmosphere do we need to evacuate? Who will pay for people to go to hotels until they can return to their homes, if the station melts down, how many people have been injured?



TIME CALLED	GENERAL EMERGENCY QUESTIONS
32	I heard there was an explosion at the Peach Bottom Power Station and that the station is melting down, people have been killed and that radiation is in the atmosphere. I run a machine shop off Route 621 in York County. Should I just evacuate what will happen to my shop and machinery?
33	If I have taken KI can I stay at home? How many tablets of KI should I give my dog?

MESSAGE # 4  
Date/Time: 2/11/20 11:14



BARRY GLASSMAN  
Harford County Executive

## EMERGENCY ALERT SYSTEM



< < < **THIS IS AN EXERCISE** > > >

SUBJECT OF MESSAGE: EVACUATION

DATE / TIME MESSAGE IS TO BE BROADCAST: 2/11/20 11:24

ISSUED TO: WXCX 103.7 FM WHFC 91.1 FM HCN

RELEASED BY: Department of Emergency Services

AUTHORIZATION: [Signature]

~~Because of the potential of a Peach Bottom~~  
*Harford County Executive has declared a state of emergency.*

*Barry Glassman*  
The following message has been released by Harford County Executive Barry Glassman, the Department of Emergency Services, and Cecil County Department of Emergency Services.

*the county executive and*  
Because of the General Emergency declared at the Peach Bottom Atomic Power Station, the County Executive and Cecil County's Emergency Manager have ordered that persons living or working in a ten-mile area around the plant evacuate immediately.

Consult your Emergency Planning for the Peach Bottom Area brochure or visit <http://www.harfordcountymd.gov/DocumentCenter/View/5327> or [www.ccdes.org](http://www.ccdes.org) to determine if you are in the ten-mile area and for instructions for evacuation. Follow evacuation routes for your area.

Citizens residing within ten miles of Peach Bottom Atomic Power Station should take their Potassium Iodide tablets now. Potassium Iodide tablets will also be available at the designated Reception Centers located at Fallston High School, Harford Community College, and Rising Sun High School.

Stay tuned to this station for official bulletins and special instructions issued by Harford and Cecil Counties.

< < < **THIS IS AN EXERCISE** > > >

(BROADCASTER: REPEAT THIS MESSAGE CONTINUOUSLY FOR 15 MINUTES, THEN ONCE EVERY 15 MINUTES)

## Harford County Exelon Controller Message

DELIVER MESSAGE AT: 1<sup>st</sup> Emergency Siren Activation Time : \_\_\_\_\_

Message For: Harford County 911 Supervisor  
Location: Harford County 911 Center  
Message From: Visual indication from the Siren Controller in the 911 Center

---

### INSTRUCTIONS:

At the 1<sup>st</sup> Emergency Siren Activation Time, read the following message to the Harford County 911 Supervisor:

***“You sounded the sirens at \_\_\_\_\_ (activation time). All sirens sounded as expected except siren 65. Siren 65 failed to activate and is seen as blinking yellow on the siren controller.”***

---

### CONTROLLER INFORMATION:

You are not permitted to tell the 911 Supervisor what action he must take with regard to this message.

Note the time you provided this message: \_\_\_\_\_ and ensure the time is provided to the FEMA representative in the County EOC.

---

### EXPECTED ACTIONS:

The expected action for the County 911 Supervisor is to notify the County EOC Director or appropriate representative (Fire and/or EMS) that a siren has failed. This should trigger the dispatch of personnel to complete route alerting.

## **Harford County Exelon Controller Message**

Evacuation Order Time: \_\_\_\_\_

DELIVER MESSAGE AT:          Evacuation Notification Time + 5 minutes: \_\_\_\_\_

Message For:          Harford County EOC Director or appropriate representative  
Location:              Harford County EOC  
Message From:        Harford County 911 Center

---

### INSTRUCTIONS:

At 5 minutes past the Evacuation Order, read the following message to the Harford County EOC Director:

***“A sinkhole has caused a traffic impediment on Route 136 just south of Route 440. Traffic is backing up. The closure is projected to be greater than 2 hours.”***

---

### CONTROLLER INFORMATION:

You are not permitted to tell the EOC Director what action he must take with regard to this message.

Note the time you provided this message: \_\_\_\_\_ and ensure the time is provided to the FEMA representative in the County.

---

### EXPECTED ACTIONS:

The expected action for the County EOC is to take necessary measures to re-route evacuation traffic, and coordinate with the JIC to communicate the alternate route to evacuees leaving the area. Actual dispatch of resources need not be demonstrated however all simulated contacts must be logged.

## Cecil County Exelon Controller Message

DELIVER MESSAGE AT: 1<sup>st</sup> Emergency Siren Activation Time : \_\_\_\_\_

Message For: Cecil County 911 Supervisor  
Location: Cecil County 911 Center  
Message From: Visual indication from the Siren Controller in the 911 Center

---

### INSTRUCTIONS:

At the 1<sup>st</sup> Emergency Siren Activation, read or provide the following message to the Cecil County 911 Supervisor:

***“You sounded the sirens at \_\_\_\_\_ (activation time). All sirens sounded as expected except siren 51. Siren 51 failed to activate and is seen as blinking yellow on the siren controller.”***

---

### CONTROLLER INFORMATION:

You are not permitted to tell the 911 Supervisor what action he must take with regard to this message.

Note the time you provided this message: \_\_\_\_\_ and ensure the time is provided to the FEMA representative in the County EOC.

---

### EXPECTED ACTIONS:

The expected action for the County 911 Supervisor is to notify the County EOC Director or appropriate representative (Fire and/or EMS) that a siren has failed. This should trigger the dispatch of personnel to complete route alerting.

## **Cecil County Exelon Controller Message**

Evacuation Order Time: \_\_\_\_\_

DELIVER MESSAGE AT:          Evacuation Notification Time + 5 minutes: \_\_\_\_\_

Message For:          Cecil County EOC Director or appropriate representative  
Location:              Cecil County EOC  
Message From:        Cecil County 911 Center

---

### INSTRUCTIONS:

At 5 minutes past the Evacuation Order, read the following message to the Cecil County EOC Director:

***“A sinkhole has caused a traffic impediment in the vicinity of Route 222 and Ratledge Lane. Traffic is backing up. The closure is projected to be greater than 2 hours.”***

---

### CONTROLLER INFORMATION:

You are not permitted to tell the EOC Director what action he must take with regard to this message.

Note the time you provided this message: \_\_\_\_\_ and ensure the time is provided to the FEMA representative in the County EOC.

---

### EXPECTED ACTIONS:

The expected action for the County EOC is to take necessary measures to re-route evacuation traffic, and coordinate with the JIC to communicate the alternate route to evacuees leaving the area. Actual dispatch of resources need not be demonstrated however all simulated contacts must be logged.



# CCNPP / PBAPS Dual Site Drill

## *AAR Quick Look*

*November 15, 2019 Security Notice*

This document is For Official Use Only (FOUO), not intended for public distribution. This document contains observations intended to improve incident response. The information contained within should not be released without approval.



## Incident Overview/Executive Summary

The Calvert Cliffs Nuclear Power Plant (CCNPP)/Peach Bottom Atomic Power Station (PBAPS) dual site drill was sponsored by the Maryland Emergency Management Agency (MEMA) and Exelon Corporation and supported by Pennsylvania Emergency Management Agency (PEMA), Calvert, Cecil, Dorchester, Harford and St. Mary's County Emergency Management Agencies. The Federal Emergency Management Agency





(FEMA) observed the exercise from MEMA, PEMA and the Exelon Coatesville Emergency Operations Facility (EOF) and Joint Information Center (JIC).

The purpose of this exercise was to evaluate player actions against current response plans and capabilities for a nuclear power plant-related incident at two sites affecting the State of Maryland and for Exelon to demonstrate to the Nuclear Regulatory Commission (NRC) that the Coatesville EOF and JIC could adequately respond to simultaneous events at the CCNPP and PBAPS. Exercise planners utilized the elements described in the Radiological Emergency Preparedness (REP) Program Manual to develop this exercise.

The objective of the Dual Site Exercise was to demonstrate reasonable assurance that the public can be protected during a nuclear power plant emergency at two sites affecting the State of Maryland.

This AAR will focus on the actions performed at the Maryland SEOC (Strategy Room).

## Key Findings

- + Coordinated communications regarding Protective Action Recommendations (PARs) and Protective action Decisions (PADs) were well coordinated in the Strategy room using the respective conference bridge telephone lines.
- Δ Decisions regarding the use of Potassium Iodide (KI) for emergency workers for State and county emergency workers need to be improved with the PBAPS risk Jurisdictions and the Commonwealth of Pennsylvania.

## Incident Timeline

Time	Event/Decision Point
0810	An Operational Basis Earthquake (OBE) with the epicenter outside of Dover, DE results in subsequent <b>Alert</b> Declaration at <b>PBAPS</b> for and Anticipated Transient Without Scram (ATWAS) and 2 control rods fail to insert. An <b>Alert</b> is declared at <b>CCNPP</b> for a leak detected in the Spent Fuel Pool
0953	<b>Site Area Emergency</b> Declared at <b>PBAPS</b> for Loss or Potential Loss of two Fission Product Barriers. Duty Officer and Director on call notified and begin staffing of SEOC (simulated)
1005	<b>Site Area Emergency</b> Declared at <b>PBAPS</b> for Loss or Potential Loss of two Fission Product Barriers.



Time	Event/Decision Point
1024	<b>PAD #1 PBAPS</b> Shelter Livestock, Water restrictions, Close Parks and Recreation Areas. PAD for Emergency Workers to ingest KI for State workers. Not agreed to by Harford and Cecil counties.
1038	<b>PAD #1 CCNPP</b> Shelter Livestock, Water restrictions, Emergency Workers Ingest KI, Close parks, Move risk schools to host schools, Restrict Waterways, Close Parks and Recreation Areas
1032	<b>General Emergency</b> Declared at <b>CCNPP</b> - Spent Fuel Pool level cannot be restored.
1050	<b>PAD #2 CCNPP</b> . Evacuate / Public Ingest KI in Zones 1 and 8. Shelter / Public Ingest KI in Zone 2, 3 and 7. Shelter livestock 50-miles in Sectors C, D, E. Close all waterways. Air restrictions 10-miles around plant to 10,000 ft.
1142	<b>General Emergency</b> Declared at <b>PBAPS</b> – Loss of two Fission Product Barriers with Loss or Potential loss of the Third Barrier
1156	<b>PAD #2 PBAPS</b> . Evacuate / Public Ingest KI in Zones 3, 5, 6, and 7. Shelter Public in Zones 1, 2 and 4. Shelter livestock 50-miles in sector F, G, H and J.
1230	Exercise terminated

## Observed Strengths

- The MJOC handled the notifications and dissemination of information from the two sites by designating one person to for each site. This avoided dissemination of incorrect information that could have easily occurred.
- The dual command staff demonstrated excellent collaboration and coordination between the risk jurisdictions – Calvert, Cecil, Dorchester, and St. Mary's Counties.
- The Command Staff clearly communicated the events at CCNPP and PBAPS and the Protective Action Decisions (PADs) by using the white board in the Strategy room. (Attachment 1).
- The introductory use of Rad Responder will enhance the ability and information sharing from the MDE field teams.



## Observed Areas for Improvement/Suggested Actions

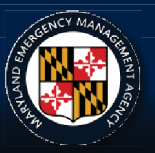
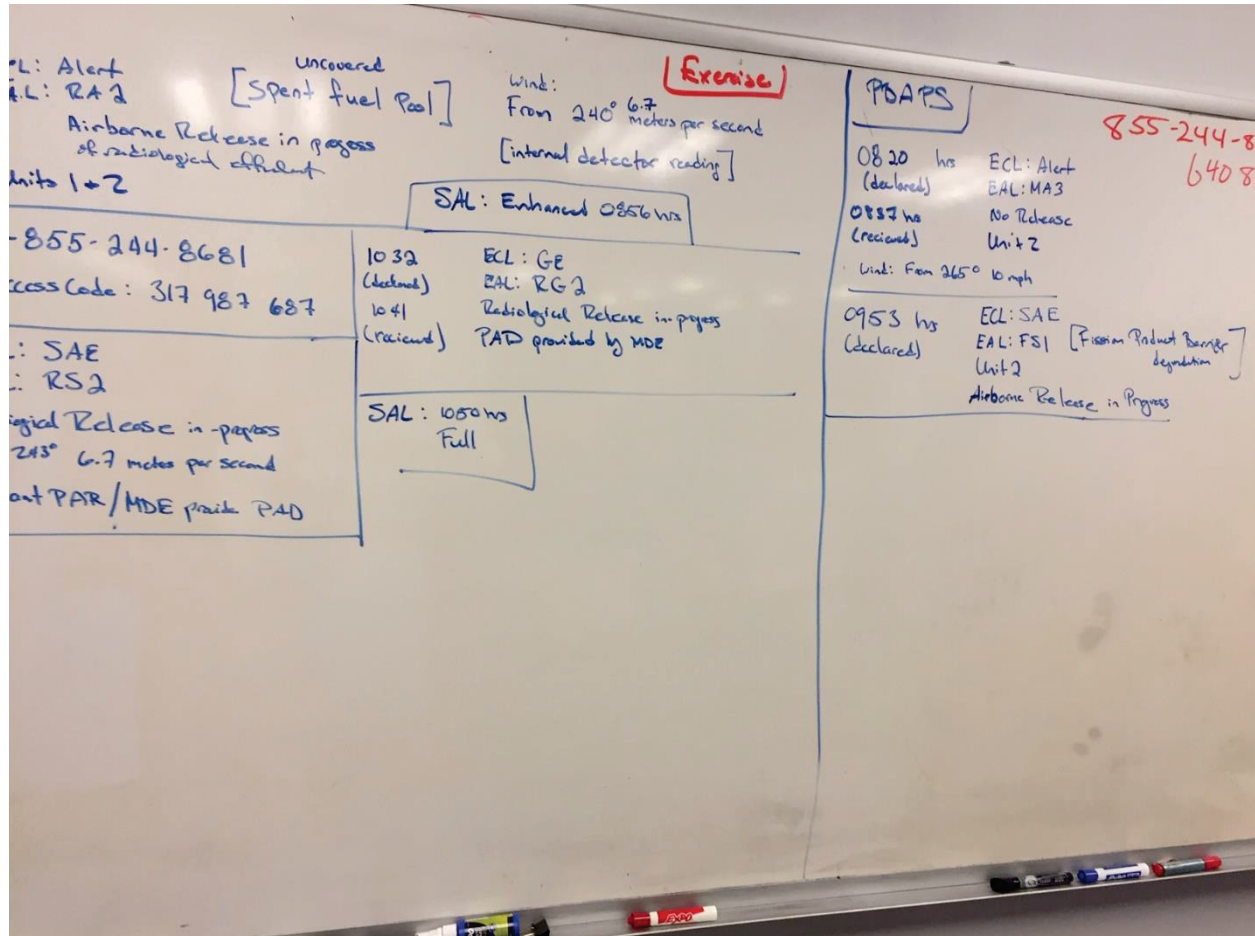
- There was disagreement on the decision for emergency workers to ingest KI. The Maryland PBAPS risk jurisdictions opted to follow the recommendation / decision from Pennsylvania stating it would create confusion with the local responders.
  - Recommendation: Consider revising the MDE PAR form to indicate when a jurisdiction does not follow a recommendation or decision made from the State.
- Maryland was not included on the Senior State Official call from the Exelon EOF.
- Consider loading the completed PAD forms in WebEOC.

## Closing

The exercise demonstrated that Maryland is prepared to respond to a simultaneous incident at a both CCNPP and PBAPS Fixed Nuclear Facilities and can adequately protect the health and safety of the public



## Attachment 1



## CCNPP / PBAPS Duel Site Exercise

Drill Day 11/15/19

Exelon will be conducting a dual site REP exercise on **November 15, 2019** that includes both Calvert Cliffs Nuclear Power Plant (CCNPP) AND the Peach Bottom Atomic Power Station (PBAPS). The main objective of the drill is for Exelon to demonstrate to the Nuclear Regulatory Commission (NRC) the ability to implement the Emergency Plan at the Coatesville Emergency Operations Facility (EOF) with simultaneous events at CCNPP and PBAPS.

The objective for Maryland will be to coordinate simultaneous Assessment and Protective Action Decisions (PADS) for a duel site event.

Practice Day 10/9/19

MEMA will be running a dual site practice drill starting at **0800 on Wednesday 10/9**. Exelon will be conducting a CCNPP drill only so MEMA Controllers will inject the PBAPS portion of the scenario.

The expectation for PEMA, Harford and Cecil counties:

- PEMA initiate the conference bridge with Maryland
- Harford and Cecil counties to participate on the conference bridge with MEMA/MDE to coordinate protective actions.

The expectations for Calvert, St. Mary's and Dorchester counties:

- Receive the CCNPP Event notification calls from the EOF.
- Participate on the conference bridge with MEMA/MDE to coordinate protective actions.

We will also be using the draft Exelon State/Local Event Notification Form (attached)

The drill will end by 1200.

# MSEL

Time	Facility	ECL	Required Actions
0800	CCNPP	Alert	MEMA initiate conference bridge with Calvert, St Mary's and Dorchester
TBD	PBAPS	Alert	PEMA initiate conference bridge with MEMA  MEMA initiate conference bridge with Harford and Cecil
TBD	CCNPP	SAE	Coordinate PAD with Calvert, St Mary's and Dorchester
TBD	PBAPS	SAE	Coordinate PAD with PEMA  Coordinate PAD with Harford and Cecil
TBD	CCNPP	GE	Coordinate PAD with Calvert, St Mary's and Dorchester
TBD	PBAPS	GE	Coordinate PAD with PEMA  Coordinate PAD with Harford and Cecil
1200	PBAPS / CCNPP	Drill Termination	

PEMA - 717-649-0253 (Tony's Cell) Bridge Phone **888-330-1716** Access Code: **3735545**

Harford - 410-638-3407

Cecil - 410-392-2014

## 2.2 DRILL TIMELINE

Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
T = 0	0800	<p><b>Initial Conditions:</b>  <b>Unit 2</b> – 100% power for the last 206 days. OLR is green.  <b>Unit 3</b> – 100% power for the last 82 days. OLR is green.</p> <p><b>Equipment OOS:</b>  Unit 2</p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p>Unit 3</p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>Meteorological Data:</b>  Today is cloudy and somewhat windy with winds from the WSW. Highs today will be in the low 40s. Probability of precipitation is 10%. The skies will remain cloudy this evening with lows in the low 30's. Tomorrow will be fair and mild with highs in the upper 40's.</p>	<p><b>Initial Conditions:</b>  <b>Unit 1</b> – 100% power for the last 256 days. OLR is green.  <b>Unit 2</b> – 100% power for the last 130 days. OLR is green.</p> <p><b>Equipment OOS:</b>  Unit 1</p> <ul style="list-style-type: none"> <li>• A Train Maintenance Week <ul style="list-style-type: none"> <li>◦ 11 HPSI pump OOS (Bearing replacement)</li> </ul> </li> </ul> <p>Unit 2</p> <ul style="list-style-type: none"> <li>• None</li> </ul> <p><b>Meteorological Data:</b>  Today is cloudy and somewhat windy with winds from the West. Highs today will be in the upper 40s. Probability of precipitation is 20%. The skies will remain cloudy this evening with lows in the mid 30's. Tomorrow will be fair and mild with highs in the upper 50's</p>



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
T = 5	0805		<p><b><u>CC-Event 1: Failure of Containment Sump MOVs</u></b></p> <p>Operators will receive a Containment sump alarm (J-21) due to normal containment leakage reaching the sump level drain set point. Operators will drain the containment sump to the ECCS pump room sump. Containment sump MOVs 5462 and 5463 will fail to close due to breaker failure and lose partial indication.</p> <p><b><u>Crew Response (Completed by Control Cell):</u></b> Dispatch an Operator to the MOVs to investigate.</p> <p><b><u>Alarms:</u></b> J-21 CNMT Normal Sump LVL Hi</p>

T = 10	0810	<p><b><u>PB-Event 1 OBE Earthquake and Control Rod Drifts</u></b></p> <p>An OBE earthquake occurs with an epicenter outside of Dover, DE. Control Room receives multiple alarm of tank level fluctuations and high RCP vibrations. Control Room receives first rod drift at 0815 and then a second rod drift ~1 minute later which requires a manual SCRAM. An electrical ATWS occurs. ARI is unsuccessful ~0817.</p> <p><b>T = 0 for Alert</b></p> <p><b>Concurrent HU4 on Unit 3</b></p> <p><b>Controller Note:</b></p> <ul style="list-style-type: none"> <li>One control rod is to remain full out during scenario (46-35)</li> </ul>	<p><b><u>CC-Event 2 OBE Earthquake causes flooding from 12 Saltwater Header Rupture in Service Water Pump Rm</u></b></p> <p>Flooding from 12 Saltwater header upstream of 1CV5153 causes damage to all 3 Service Water Pumps and 13 Aux Feed Water Pump. Water quickly floods the room.</p> <ul style="list-style-type: none"> <li>11 and 12 Service Water pumps trip.</li> <li>13 SRW PP and 13 AFW PP will be unable to start. Water level will reach above the pedestal. This causes a loss of all service water.</li> <li>Crew trips U1, all rods insert, and reactor is at 0% power.</li> </ul>
		<p><b><u>Alarms:</u></b></p> <ul style="list-style-type: none"> <li>319 G-2 OBE Earthquake exceeded</li> <li>211 D-4 "Rod Drift" (rod 42-31)</li> </ul> <p><b><u>Crew Response (Completed by Control Cell):</u></b></p> <ul style="list-style-type: none"> <li>Enter SE-5 Earthquake (mini scenario)</li> <li>Alarm response has crew enter ON – 121 "Rod Drift"</li> <li>On second rod drift (46-31) crew enters T-100 "Scram"</li> <li>Once ATWS occurs crew enters T-101 "RPV Control"</li> <li>NLO dispatched to HCU.</li> <li><b><u>Crew will initiate GP-3 Normal plant shutdown on U3. All U3 parameters and indications are normal.</u></b></li> </ul>	<p><b>T = 0 for ALERT when 11 &amp; 12 Service Water Pumps trip</b></p> <p><b>Concurrent HU4 on Unit 2</b></p> <p><b><u>Alarms:</u></b></p> <ul style="list-style-type: none"> <li>J-18 SRW PP RM LVL Hi</li> <li>K-22 Turb Bldg SRW HDR Press Lo</li> <li>K-8 12 SRW HDR Press Lo</li> <li>K-4 11 SRW HDR Press Lo</li> </ul> <p><b><u>Crew Response (Completed by Control Cell):</u></b></p> <ul style="list-style-type: none"> <li>AOP-7A &amp; 7B</li> <li>EOP – 0 Reactor Trip</li> <li>EOP – 1 Post Trip Immediate Actions</li> <li><b><u>Crew will initiate Normal plant shutdown on U2. All U2 parameters and indications are normal.</u></b></li> </ul>
T = 15	0815	<p><b>CONTROL CELL:</b> The actions in this block will be conducted by a control cell using the simulator.</p>	



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
		Crew isolate and vent the SCRAM air discharge header, per T-214. The reactor will successfully shut down.	
		<p><b>CONTROL CELL:</b> The actions in this block will be conducted by a control cell using the simulator.</p> <p><b>Shift Manager Declares MA3</b> – Automatic or manual trip fails to shut down the reactor, and subsequent manual actions taken from the reactor control consoles are not successful in shutting down the reactor.</p> <ul style="list-style-type: none"> <li>Automatic or manual scram did not shutdown the reactor as indicated by Reactor Power &gt; 4%.</li> </ul> <p>AND</p> <ul style="list-style-type: none"> <li>Manual/ARI actions taken at the Reactor Console are not successful in shutting down the reactor as indicated by Reactor Power &gt; 4%.</li> </ul>	<p><b>CONTROL CELL:</b> The actions in this block will be conducted by a control cell using the simulator.</p> <p><b>Shift Manager declares Alert – MA5</b></p> <p>“The occurrence of <b>ANY</b> of the following hazardous events: Internal or External flooding event.</p> <p><b>AND</b></p> <p>b. Event damage has caused indications of degraded performance to one train of a <b>SAFETY SYSTEM</b> required by Technical Specifications for the current operating mode.</p> <p><b>AND</b></p> <p>c. <b>EITHER</b> of the following:</p> <ul style="list-style-type: none"> <li>Event damage has caused indications of degraded performance to a second train of the <b>SAFETY SYSTEM</b> required by Technical Specifications for the current operating mode.</li> </ul> <p><b>No Release in progress</b> <b>Wind Direction:</b> From 290° <b>Wind Speed:</b> 5.0 m/s</p>
T = 20	0820	<p><b>Wind Speed 10mph. Wind Direction 265 degrees.</b> <b>No Release in Progress</b></p>	



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
T = 25	0825	<b>CONTROL CELL:</b> The actions in this block will be conducted by a control cell.  Shift Manager activates the ERO, initiates off-site agency notification AND directs NRC notification.	
T = 30	0830		<b>CONTROL CELL:</b> The actions in this block will be conducted by a control cell.  Shift Manager activates the ERO, initiates off-site agency notification AND directs NRC notification.
T ~40	~0840		Per AOP-7B step V.B.2, Operations removes EDG 1B from service due to loss of service water. Ops will dispatch an EO to perform OI-21B 6.10.
T = 100	0940	<b>PB-Event 2 RCIC Failure</b> RCIC Steam leak in the room as indicated by increasing radiation, room temps and fire alarm. RCIC isolation valves failed to isolate MO-2-13-15 and MO-2-13-016. Fuel Failure occurs  <b>T = 0 for Site Area Emergency</b> <b>ALARMS:</b> <ul style="list-style-type: none"> <li>• Panel 218 D-2 "MSL Rad Hi"</li> <li>• Panel 218 D-1 "MSL Rad Hi-Hi"</li> <li>• Panel 218 E-2 "Air Eject Disch. Rad Hi"</li> <li>• Panel 218 E-1 "Air Eject Disch. Rad Hi-Hi"</li> <li>• 003 D-1 "Main Stack Hi-Hi"</li> <li>• 003 D-2 "Main Stack Hi"</li> <li>• 007 Fire D-7A "RCIC Room Smoke Detector"</li> <li>• Panel 210 J-3 "High Area Temp"</li> <li>• TRS-2-13-139, PT.2</li> </ul>	



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
T <sub>≤115</sub>	≤0955	<b>Station Emergency Director Declares FS1 – Loss of two Fission Product Barriers.</b> <b>Loss of the Primary Containment Barrier CT6.1 or CT6.3</b> <b>AND</b> <b>Potential Loss of the Reactor Coolant Barrier RC4.4</b> <b>Wind Speed 10mph. Wind Direction 265 degrees.</b> <b>Release in Progress</b>	
		Conditions of fuel failure begin to show on plant parameter data systems.	
T~120	~1000	The operating crew will close the MSIVs when MSL HI-HI Alarm is received, resulting in Main Stack effluent reading elevating to approximately ~3E+5 uCi/sec. Cont. Rad from ~1R/hr to 21R/hr.	



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
T = 155	1035		<p><b>CC-Event 3 Loss of 14 4Kv bus and Loss of Coolant Accident on Hot Leg.</b></p> <p>Loss of 14 4kV bus due to a fault. This causes loss of B train of safety injection. Concurrently the transient causes a large leak on the 11 Hot Leg.</p> <ul style="list-style-type: none"> <li>The crew will align 13 HPSI to the 11 4kV bus. Loss of indication occurs on 1-HS-301Z.</li> <li>If the crew attempts to start 13 HPSI the pump will fail to start.</li> <li>The crew will secure 2 remaining RCPs.</li> <li>Crew may crosstie 1Y09 and 1Y10 with 1Y09 supplying instrument buses to repower their instruments and controllers.</li> <li>Loss of safety injection and core cooling causes further fuel damage.</li> <li>Wide Range Noble Gas Monitor rises to ~3.0E7uCi/sec.</li> </ul> <p><b>T=0 for SAE (FS1)</b>  <b>Crew Enters:</b>  AOP-7I Loss of 4kV, 480 Volt or 208/120 Volt Instrument Bus Power</p> <p><b>Alarms:</b>  R-3 Unit 1 4kV ESF Feeder Breaker Trip  G-13 Actuation System UV Relay Trip</p>
T~ 157	~1037		<p><b>CC-Event 4: RVLMS Reaches &lt;10"</b></p> <p>With no core injection Reactor Vessel inventory will lower to below &lt;10 inches on RVLMS indications.</p> <p><b>T = 0 for General Emergency when 10" light illuminates</b></p>



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
			<p><b>Station Emergency Director declares General Emergency FG1.1.</b></p> <p><b>Loss of Containment - CT 4.1c:</b> Containment isolation is required AND ANY of the following: C. UNISOLABLE pathway from containment to the environment exists.</p> <p><b>AND</b></p> <p><b>Loss of RCS - RC 1:</b> Automatic or manual ECCS (SIAS) actuation is required by EITHER of the following:</p> <ul style="list-style-type: none"> <li>a. UNISOLABLE RCS Leakage</li> </ul>
T ≤ 170	T ≤ 1050		<p>OR</p> <ul style="list-style-type: none"> <li>b. SG tube RUPTURE</li> </ul>
			<p><b>AND</b></p> <p><b>Potential loss of Fuel Clad – FC.3 RVLMS levels &lt; 10-inch alarm.</b></p> <p><b>Protective Action Recommendation:</b></p> <ul style="list-style-type: none"> <li>• Initiate a staged evacuation.</li> <li>• Evacuate 1, Shelter 3.</li> <li>• Evacuate all marine zones.</li> </ul> <p><b>Wind Speed 5 m/s. Wind Direction 290degrees.</b></p> <p><b>Release in Progress</b></p>
T=172	T= 1052		<p>Ops Crew ties MCC 114 to MCC 104 providing power to all LPSI header MOVs. This provides even flow to the core which maintains some injection for minimal core cooling.</p>



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
T = 210	1130	<p><b><u>PB-Event 3. LOCA occurs in Drywell.</u></b></p> <p>An unisolable steam leak occurs in the drywell. Crew will not be able to identify the source of the leak. Drywell pressure will rise to 10 psig in thirty minutes, and then slowly lowers. Fuel failure occurs from the pressure transient.</p> <p>Containment High rad monitors increase to ~1020 R/hr. over 10 minutes.</p> <p>Containment spray valves fail to open.</p>	
T = 215	1135	<p><b><u>PB-Event 4 Containment Radiation exceeds 955R/Hr.</u></b></p> <p><b>T = 0 for General Emergency.</b></p> <p><b>NOTE:</b> The Emergency Director has the authority to monitor trending parameters nearing an EAL threshold and make an EAL determination based on the inability mitigate the trending parameter.</p>	



Scenario Time	CLOCK TIME	MAJOR EVENT	
		PEACH BOTTOM	CALVERT CLIFFS
T ≤ 230	T ≤ 1140	<b>Station Emergency Director Declares FG1</b> – loss of all three Fission Product Barriers  <b>Loss of Fuel Clad - FC5.</b> Containment Radiation >955R/hr AND <b>Loss of the Reactor Coolant Barrier RC5.</b> Containment Radiation >100R/hr. AND <b>Loss of the Primary Containment Barrier CT6.1 or CT6.3</b>  <b>Protective Action Recommendation:</b> <ul style="list-style-type: none"><li>• Evacuate 2-mile radius 360°.</li><li>• Evacuate the 2-5 miles downwind sectors C / D / E / F / G</li></ul>	
		<ul style="list-style-type: none"><li>• KI to be administered to the general public in accordance with state procedures and advise the remainder of the EPZ to Monitor and Prepare.</li><li>• Protective Action Recommendation <b>IS NOT</b> the result of a Rapidly Progressing Severe Accident.</li></ul> <b>Wind Speed 10mph. Wind Direction 265degrees.</b> <b>Release in Progress</b>	
T ~ 255	~1215	<b>Terminate Exercise.</b>	



## Situation Report (SitRep) – 02 June 2020

### Incident: 27 Jan 2020 Cecil County COVID-19

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#### COVID-19 Status

CORONAVIRUS (COVID-19)

##### 1. Testing Operations:

- Christiana Care Union Hospital: Doing testing through State Lab and Lab Corps (no change)
- Results turn-around time reported as 48-72 hours

##### 2. Information Call Line:

Cecil County Health Department established call line for those with questions during business hours of 8a-5p at 410-996-1005

#### Situational Assessment

**JIC Meeting:** JIC meets daily at 0900 will all PIOs to ensure consistent and coordinated message is being shared throughout The County to avoid misinformation and rumors.



**Emergency Operations Center:** Following the declaration of the local state of emergency, the EOC will be activated to a partial status virtually, with physical staffing from 0800-1700 at 1600 hours.

**DES:** Continuing to watch numbers in the upcoming weeks following Memorial Day and this weekend. Today starts Hurricane Season. Also working on preparations for any potential violence/protests/riots following the unrest Nationwide. Governor's press conference tomorrow at 5p.

**Courts:** Continue current ops until June 19. June 22, judges/judicial staff returns, and remaining staff will be operating at 50% capacity. Office to remain closed to public through July 20, when open to public.

**Social Services:** Pandemic EBT money to be distributed this month

**County Library:** Contactless pickup to being at select branches 6/10. Bookdrops are open with more details to come.

**CCPS:** Hosting recovery plan workshop virtual to allow for public input to plan.

**ChristianaCare, Union Hospital:** Beds are scheduled to be delivered today.

**Board of Elections:** Awaiting possible notification of extension of elections due to unrest in Baltimore; cannot distribute results until all jurisdictions on same page/time schedule.

#### Cecil County COVID-19 SNAPSHOT

Positive: 389 Deceased: 30

#### COVID-19 Cases Community Spread Apparent



#### County Actions and Operations

1. Beginning March 23<sup>rd</sup>, all employees will be given a health screening of 8 questions & temperature scan before being permitted to enter County buildings.
2. County Government remains closed to all except mission-critical and essential employees at COB on 04/07/2020.
3. DES Paramedics change shift to 24/72 and Communications to 24/48 effective respective morning shift change 04/11/2020

#### Emergency Operations Center

Activation Level: ENHANCED

#### Community Lifelines Status:



- **Continued forecasting of PPE shortages:** Multiple agencies, including several volunteer fire companies have requested gloves, N-95 Respirators, surgical masks, face shields, gowns, hand sanitizer, etc. Updated supply requests have been sent up to MEMA via WebEOC.
- **FIT Testing:** Currently awaiting the needed solutions to complete fit tests.

#### COVID-19 Tasks



1. All depts/agencies – Please continue to complete COOP readiness self-assessments immediately – what are your most critical tasks/services, and how will you continue operations with potentially reduced staffing?
2. Please TRACK ALL TIME/RESOURCES allocated to COVID-19
3. Instituting temporary hires of EMS clinicians to staff various buildings within Cecil County to assist in screening assessments.
4. Working on plan for alternative/mass care/surge plan sites with ESFs 6 & 8, Union Hospital, and other agencies within Cecil County as well as working on supply warehouse.





## Situation Report (SitRep) – 08 June 2020

### Incident: 27 Jan 2020 Cecil County COVID-19

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#### COVID-19 Status

CORONAVIRUS (COVID-19)

##### 1. Testing Operations:

- Christiana Care Union Hospital: Doing testing through State Lab and Lab Corps (no change)
- Results turn-around time reported as 48-72 hours

##### 2. Information Call Line:

Cecil County Health Department established call line for those with questions during business hours of 8a-5p at 410-996-1005

#### Situational Assessment

**JIC Meeting:** JIC will be transitioning to calls at 0900 on Tuesdays and Thursdays as the County transitions to more reopening and will continue to ensure consistent information.



**Emergency Operations Center:** Following the declaration of the local state of emergency, the EOC will be activated to a partial status virtually, with physical staffing from 0800-1700 at 1600 hours.

**DES:** Highlighted updates from Governor's press conference. Beginning 6/8, County buildings to remain closed to public- access by appointment only for essential business. All employees who telework will continue to do so and maintaining social distancing, wearing mask, and less than 10 persons in a group.

**CCSO:** Continuing to monitor the 'protests' within the County.

**Courts:** Courts live with 50% staff working in office on COOP plan. Trials to being June 15.

**County Library:** Offices are staffed, answering calls and taking hold orders. Contactless pickup to being at select branches 6/10. WiFi extension to be completed by Wednesday.

**Board of Elections:** Continuing to receive ballots and will canvass all ballots postmarked through June 2. Provisional canvass takes place on June 10 final canvas is set for June 12. Election will not be certified, and final results posted until at least June 12.

#### Cecil County COVID-19 SNAPSHOT

Positive: 422 Deceased: 31

#### COVID-19 Cases Community Spread Apparent



#### County Actions and Operations

1. Beginning March 23<sup>rd</sup>, all employees will be given a health screening of 8 questions & temperature scan before being permitted to enter County buildings.
2. County Government remains closed to all except mission-critical and essential employees at COB on 04/07/2020.
3. DES Paramedics change shift to 24/72 and Communications to 24/48 effective respective morning shift change 04/11/2020

#### Emergency Operations Center

Activation Level: ENHANCED

#### Community Lifelines Status:



- **Continued forecasting of PPE shortages:** Multiple agencies, including several volunteer fire companies have requested gloves, N-95 Respirators, surgical masks, face shields, gowns, hand sanitizer, etc. Updated supply requests have been sent up to MEMA via WebEOC.
- **FIT Testing:** Currently awaiting the needed solutions to complete fit tests.

#### COVID-19 Tasks



1. All depts/agencies – Please continue to complete COOP readiness self-assessments immediately – what are your most critical tasks/services, and how will you continue operations with potentially reduced staffing?
2. Please TRACK ALL TIME/RESOURCES allocated to COVID-19
3. Instituting temporary hires of EMS clinicians to staff various buildings within Cecil County to assist in screening assessments.
4. Working on plan for alternative/mass care/surge plan sites with ESFs 6 & 8, Union Hospital, and other agencies within Cecil County as well as working on supply warehouse.



## Situation Report (SitRep) – 10 June 2020

### Incident: 27 Jan 2020 Cecil County COVID-19

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#### COVID-19 Status

CORONAVIRUS (COVID-19)

##### 1. Testing Operations:

- Christiana Care Union Hospital: Doing testing through State Lab and Lab Corps (no change)
- Results turn-around time reported as 48-72 hours

##### 2. Information Call Line:

Cecil County Health Department established call line for those with questions during business hours of 8a-5p at 410-996-1005

#### Situational Assessment

**JIC Meeting:** JIC will be transitioning to calls at 0900 on Tuesdays and Thursdays as the County transitions to more reopening and will continue to ensure consistent information.



**Emergency Operations Center:** Following the declaration of the local state of emergency, the EOC will be activated to a partial status virtually, with physical staffing from 0800-1700 at 1600 hours.

**DES:** County buildings to remain closed to public- access by appointment only for essential business. All employees who telework will continue to do so and maintaining social distancing, wearing mask, and less than 10 persons in a group. Watching numbers as of the morning, 17 states reporting increases in cases & hospitals expecting to be at capacity. Task Force moving to 'oncall' status; continue notifications electronically & resume calls if needed.

**Health Department:** Continuing with telework & appointment only visits.

**CCSO:** Continuing to monitor the 'protests' within the County.

**Courts:** Courts live with 50% staff working in office on COOP plan. Trials to being June 15.

**County Library:** Offices are staffed, answering calls and taking hold orders. Contactless pickup to being at select branches 6/10. WiFi extension to be completed by Wednesday.

**Board of Elections:** Provisional & web canvass to be completed by tomorrow with final canvass on Friday, hoping to certify election that afternoon. Next week, will begin staffing office & open by appointment only.

#### Cecil County COVID-19 SNAPSHOT

Positive: 429 Deceased: 31

#### COVID-19 Cases Community Spread Apparent



#### County Actions and Operations

1. Beginning March 23<sup>rd</sup>, all employees will be given a health screening of 8 questions & temperature scan before being permitted to enter County buildings.
2. County Government remains closed to all except mission-critical and essential employees at COB on 04/07/2020.
3. DES Paramedics change shift to 24/72 and Communications to 24/48 effective respective morning shift change 04/11/2020

#### Emergency Operations Center

Activation Level: ENHANCED

#### Community Lifelines Status:



- **Continued forecasting of PPE shortages:** Multiple agencies, including several volunteer fire companies have requested gloves, N-95 Respirators, surgical masks, face shields, gowns, hand sanitizer, etc. Updated supply requests have been sent up to MEMA via WebEOC.
- **FIT Testing:** Currently awaiting the needed solutions to complete fit tests.

#### COVID-19 Tasks



1. All depts/agencies – Please continue to complete COOP readiness self-assessments immediately – what are your most critical tasks/services, and how will you continue operations with potentially reduced staffing?
2. Please TRACK ALL TIME/RESOURCES allocated to COVID-19
3. Instituting temporary hires of EMS clinicians to staff various buildings within Cecil County to assist in screening assessments.
4. Working on plan for alternative/mass care/surge plan sites with ESFs 6 & 8, Union Hospital, and other agencies within Cecil County as well as working on supply warehouse.



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**Harford County Department of Emergency Services**

**Emergency Operations Center**

***Situation Report #18– COVID-19 Pandemic Event***

***13 April 2020***

**WebEOC Incident Name: Incident: 12 Mar 20 Harford County COVID-19**

**WebEOC URL: <https://webeoc.mema.maryland.gov/eoc7>**

**Current Harford County COVID Confirmed Cases – 142**

**Total State Confirmed Cases – 8936**

**New Cases Today – 711**

**Governor Hogan issues Stay At Home Executive Order - March 30, 2020.**

Federal Major Disaster Declaration granted for MD: March 26, 2020

Harford County EOC Status: **Enhanced (as of 1700 hrs on 12 March 2020)**

Maryland State EOC Status: **Full (as of 0500 hrs on 12 March 2020)**

Harford County Government Status: **Open/Modified**

Public School System Closed Status: **Closed through April 24, 2020.**

Current BG&E Power Outages: 82

Current Delmarva Power Outages: 152

EOC Commander: **Rick Ayers, Emergency Manager**

**Significant Impacts:**

- Local hospital surge.
- Potential call volume in 911 center.
- Potential call volume for EMS.

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**Operations Section**

**Public Safety Branch:**

- H2H starts April 15<sup>th</sup> 0800-2000 7 days per week until at least May 6<sup>th</sup>. They are providing 2 BLS staffed and equipped units to supplement the County's EMS service both Volunteer and Career. They will be placed out in the County and locations are being determined as I write this. They are in the CAD as Hart to Heart units and the providers will be affiliated under DES. Their responsibility will be to handle surge calls due to increased EMS call volume or if we lose clinicians due to COVID.

**DISPATCH:**

DAILY Report		HCSO Calls for Service (No MDC / O Src)	Fire Calls for Service	EMS Calls for Service	Total Phone Calls Received
Saturday, April 11, 2020		85	18	46	426
Sunday, April 12, 2020		78	24	47	385

**Community Services:**

**Nothing to Report**

**FIRE/EMS:**

**Nothing to Report**



**HEALTH DEPARTMENT: (UPDATE)**

- Updated Interim Guidance for Employers, Business, MGMT of CIS Worker



Crit Infrast Workers  
Guidance\_04122020

- The Interagency Go Team process has been finalized and will launch today. These teams are geared toward providing support to long term care facilities facing COVID-19 outbreaks. You will find three attachments for your information and guidance.
  - 1) Covid Go Team Description
  - 2) WebEOC Information Requirements & Procedure
  - 3) Go Team Request Flowchart
- **Important Points:**
  - Local EMs and local Health Officers will be the first point of contact for facilities to ensure local officials are aware and can lead the request and response process.
  - These Go Teams are short-term interventions and do not serve as long-term staffing solutions.
  - WebEOC will be utilized for requests and the procedure is outlined in the attachments.



COVID Go Team  
Flowchart.pptx



FINAL Go Team  
WebEOC Information Requirements & Procedure



FINAL Covid Go  
Team Brief Description

**HOSPITALS:**

- We have broken down our phases by ICU, IMC and Med/Surg/Cardiac tele. For UCMC we are in phase 2 for ICU, IMC & Med/Surg/Cardiac Tele and at HMH we are in phase 1 for ICU/IMC & Med/Surg/Cardiac Tele.

**IT DEPARTMENT:**

**Nothing to Report**

**LAW ENFORCEMENT: (UPDATE)**

**HCSO:**

- This center will be a one stop shop for all HCSO personnel to call about Covid issues. Also any outside first responder agency can contact that center for hotel use. Hopefully everyone is aware of the hotel availability. We will be tracking employees, PPE, Health matters, governors' orders, etc etc.
- 410-836-5440 is the number which is for first responders and agencies but **NOT FOR THE PUBLIC.**
- Reported during 1600-2400 on 4/10/20 a commander from the Detention Center advised that a civilian employee has been home quarantining since March 30<sup>th</sup> has received a positive COVID-19 test. The employee was tested the day prior.
- Positive – 6 (5 LE Investigative Services Bureau, 1 CIV Corrections)- 2 out of work  
Negative – 8  
Pending Test Results – 6  
PUI/High Risk Exposure – 1  
Recovered (RTW) - 4

Just working on education and one message from the COVID19 Fusion Center.

- We had barricade today with a subject who advised he was COVID19 positive. The barricade was on Island Branch Road 21161. Hazmat assisted with decontamination, which we appreciated. Subject was taken into custody after negotiations and other tactics. Discussions to charge with stay at home and shelter were discussed with States Attorney which was ultimately decided to not charge at this time.

**MSP: Nothing to Report**

**APD: Nothing to Report**

**BAPD: Nothing to Report**

**HDGPD: Nothing to Report**

**LOGISTICS:**

- Please continue to email [covidrequest@harfordpublicsafety.org](mailto:covidrequest@harfordpublicsafety.org) for urgent needs

**MIEMSS:**

**Nothing to Report**

**PIO GROUP:**

- A very quick, but notable update...at the direction of [Governor Larry Hogan](#), the [Maryland Department of Health](#) will begin posting COVID-19 data by ZIP code.  
For complete data, visit: <https://coronavirus.maryland.gov/>
- **IMPORTANT:** Please note that no cell size 7 or smaller would be published. As a result, of Harford's 22 zip codes, only 6 have published numbers (Abingdon, Bel Air 21014, Bel Air 21015, Edgewood, Forest Hill, Joppa).

**MD DEPARTMENT OF AGING:**

**Nothing to Report**

**Operational Overview**

**Incidents/Events:**

- The Harford County Health Dept. has set up a new phone number for the COVID-19 crisis. Refer callers to the new number, 410-838-1500.
- A hotel is available to all County first responders for self-isolation purposes which is co-managed by DES & HCSO. Contact Dispatch for notification to Bill Snyder (Fire/EMS) or Major Daniel Galbraith (Law Enforcement).
- The hotel is operational, but we need to get some MOU's with fire, EMS and LE. The County Law Dept is putting something together now.

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- We are getting requests into a different distribution list we use for comm with you on a regular basis, but it should not be for this event. Please **do not give out** **eocops**@harford..... For all requests use [covidrequest@harfordpublicsafety.org](mailto:covidrequest@harfordpublicsafety.org).
- Harford Crisis Center is no longer accepting walk-ins and will need to call the center.
- MEMA has approved Non-Congregate care for homeless and vulnerable population that have may have been exposed to COVID-19 for isolation and/or quarantine.



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**Harford County Department of Emergency Services**

**Emergency Operations Center**

***Situation Report #19– COVID-19 Pandemic Event***

***14 April 2020***

**WebEOC Incident Name: Incident: 12 Mar 20 Harford County COVID-19**

**WebEOC URL: <https://webeoc.mema.maryland.gov/eoc7>**

**Current Harford County COVID Confirmed Cases – 147**

**Total State Confirmed Cases – 9472**

**New Cases Today – 536**

**Governor Hogan issues Stay At Home Executive Order - March 30, 2020.**

Federal Major Disaster Declaration granted for MD: March 26, 2020

Harford County EOC Status: **Enhanced (as of 1700 hrs on 12 March 2020)**

Maryland State EOC Status: **Full (as of 0500 hrs on 12 March 2020)**

Harford County Government Status: **Open/Modified**

Public School System Closed Status: **Closed through April 24, 2020.**

Current BG&E Power Outages: 82

Current Delmarva Power Outages: 152

EOC Commander: **Rick Ayers, Emergency Manager**

**Significant Impacts:**

- Local hospital surge.
- Potential call volume in 911 center.
- Potential call volume for EMS.

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**Operations Section**

**Public Safety Branch:**

- H2H starts April 15<sup>th</sup> 0800-2000 7 days per week until at least May 6<sup>th</sup>. They are providing 2 BLS staffed and equipped units to supplement the County's EMS service both Volunteer and Career. They will be placed out in the County and locations are being determined as I write this. They are in the CAD as Hart to Heart units and the providers will be affiliated under DES. Their responsibility will be to handle surge calls due to increased EMS call volume or if we lose clinicians due to COVID.

**DISPATCH:**

DAILY Report		HCSO Calls for Service (No MDC / O Src)	Fire Calls for Service	EMS Calls for Service	Total Phone Calls Received
Sunday, April 12, 2020		78	24	47	385
Monday, April 13, 2020		107	27	72	656

**Community Services:**

**Nothing to Report**

**FIRE/EMS:**

**Nothing to Report**

**HEALTH DEPARTMENT:**

- Updated Interim Guidance for Employers, Business, MGMT of CIS Worker



Crit Infrast Workers  
Guidance\_04122020

- The Interagency Go Team process has been finalized and will launch today. These teams are geared toward providing support to long term care facilities facing COVID-19 outbreaks. You will find three attachments for your information and guidance.
  - 1) Covid Go Team Description
  - 2) WebEOC Information Requirements & Procedure
  - 3) Go Team Request Flowchart
- **Important Points:**
  - 🔊 Local EMs and local Health Officers will be the first point of contact for facilities to ensure local officials are aware and can lead the request and response process.
  - 🔊 These Go Teams are short-term interventions and do not serve as long-term staffing solutions.
  - 🔊 WebEOC will be utilized for requests and the procedure is outlined in the attachments.



COVID Go Team  
Flowchart.pptx



FINAL Go Team  
WebEOC Informationteam Brief Descriptio



FINAL Covid Go  
Team Brief Descriptio

**HOSPITALS:**

- We have broken down our phases by ICU, IMC and Med/Surg/Cardiac tele. For UCMC we are in phase 2 for ICU, IMC & Med/Surg/Cardiac Tele and at HMH we are in phase 1 for ICU/IMC & Med/Surg/Cardiac Tele.

**IT DEPARTMENT:**

**Nothing to Report**



**LAW ENFORCEMENT:**

**HCSO:**

- This center will be a one stop shop for all HCSO personnel to call about Covid issues. Also any outside first responder agency can contact that center for hotel use. Hopefully everyone is aware of the hotel availability. We will be tracking employees, PPE, Health matters, governors' orders, etc etc.
- 410-836-5440 is the number which is for first responders and agencies but **NOT FOR THE PUBLIC.**
- Positive – 6 (5 LE Investigative Services Bureau, 1 CIV Corrections)- 2 out of work  
Negative – 8  
Pending Test Results – 6  
PUI/High Risk Exposure – 1  
Recovered (RTW) - 4

Just working on education and one message from the COVID19 Fusion Center.

- We had barricade today with a subject who advised he was COVID19 positive. The barricade was on Island Branch Road 21161. Hazmat assisted with decontamination, which we appreciated. Subject was taken into custody after negotiations and other tactics. Discussions to charge with stay at home and shelter were discussed with States Attorney which was ultimately decided to not charge at this time.

**MSP: Nothing to Report**

**APD: Nothing to Report**

**BAPD: Nothing to Report**

**HDGPD: Nothing to Report**

**LOGISTICS:**

- Please continue to email [covidrequest@harfordpublicsafety.org](mailto:covidrequest@harfordpublicsafety.org) for urgent needs

**MIEMSS: (UPDATE)**

- Effective 4/13/20 @ 1000 hours - Mouth-to-Mouth Ventilations During COVID-19 Catastrophic Health Emergency..



PSAP Letter.pdf

**PIO GROUP: (UPDATE)**

- A very quick, but notable update...at the direction of [Governor Larry Hogan](#), the [Maryland Department of Health](#) will begin posting COVID-19 data by ZIP code.  
For complete data, visit: <https://coronavirus.maryland.gov/>
- **IMPORTANT:** Please note that no cell size 7 or smaller would be published. As a result, of Harford's 22 zip codes, only 6 have published numbers (Abingdon, Bel Air 21014, Bel Air 21015, Edgewood, Forest Hill, Joppa).

- **Complaints of Businesses and Enforcement**

There was a call today between the health department and local law enforcement about the authority to close non-essential businesses and the handling of complaints. Consensus was reached during the meeting that in Harford County, Law Enforcement has been handling the Stay-at-Home Order, Prohibition of Gatherings Larger Than 10 Persons, and Closure of Non-Essential Businesses, in a smooth and structured way – and that the new executive order would allow the Local Health Department to build on current operations by providing Social Distancing technical consultation to those essential businesses in need of assistance. For the Health Department, Marcy Austin, will be the point of contact – and we will provide her contact information to Law Enforcement in case public health technical assistance is needed.

- **Map by Zip Code**

Lastly, we've posted Harford County COVID-19 zip code map of positive cases on our website. You can find it [HERE](#). Again, for zip codes less than 7, the number of positive cases will not be listed to protect the identity of the patient. Here's the link:

<https://harfordcountyhealth.com/coronavirus-covid-19-information/>

**MD DEPARTMENT OF AGING:**

**Nothing to Report**

Operational Overview

Incidents/Events: (UPDATE)

- The Harford County Health Dept. has set up a new phone number for the COVID-19 crisis. Refer callers to the new number, 410-838-1500.
- A hotel is available to all County first responders for self-isolation purposes which is co-managed by DES & HCSO. Contact Dispatch for notification to Bill Snyder (Fire/EMS) or Law Enforcement Call Center @ 410-836-5440.
- The hotel is operational, but we need to get some MOU's with fire, EMS and LE. The County Law Dept is putting something together now.
- We are getting requests into a different distribution list we use for comm with you on a regular basis, but it should not be for this event. Please **do not give out** **eocops**@harford..... For all requests use [covidrequest@harfordpublicsafety.org](mailto:covidrequest@harfordpublicsafety.org).
- Harford Crisis Center is no longer accepting walk-ins and will need to call the center.
- MEMA has approved Non-Congregate care for homeless and vulnerable population that have may have been exposed to COVID-19 for isolation and/or quarantine.



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**Harford County Department of Emergency Services**

**Emergency Operations Center**

***Situation Report #20– COVID-19 Pandemic Event***

***15 April 2020***

**WebEOC Incident Name: Incident: 12 Mar 20 Harford County COVID-19**

**WebEOC URL: <https://webeoc.mema.maryland.gov/eoc7>**

**Current Harford County COVID Confirmed Cases – 152**

**Total State Confirmed Cases – 10,032**

**New Cases Today – 560**

**Governor Hogan issues Stay At Home Executive Order - March 30, 2020.**

Federal Major Disaster Declaration granted for MD: March 26, 2020

Harford County EOC Status: **Enhanced (as of 1700 hrs on 12 March 2020)**

Maryland State EOC Status: **Full (as of 0500 hrs on 12 March 2020)**

Harford County Government Status: **Open/Modified**

Public School System Closed Status: **Closed through April 24, 2020.**

Current BG&E Power Outages: 13

Current Delmarva Power Outages: 3

EOC Commander: **Rick Ayers, Emergency Manager**

**Significant Impacts:**

- Local hospital surge.
- Potential call volume in 911 center.
- Potential call volume for EMS.

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**Operations Section**

**Public Safety Branch:**

- H2H starts April 15<sup>th</sup> 0800-2000 7 days per week until at least May 6<sup>th</sup>. They are providing 2 BLS staffed and equipped units to supplement the County's EMS service both Volunteer and Career. They will be placed out in the County and locations are being determined as I write this. They are in the CAD as Hart to Heart units and the providers will be affiliated under DES. Their responsibility will be to handle surge calls due to increased EMS call volume or if we lose clinicians due to COVID.

**DISPATCH:**

DAILY Report		HCSO Calls for Service (No MDC / O Src)	Fire Calls for Service	EMS Calls for Service	Total Phone Calls Received
Monday, April 13, 2020		107	27	72	656
Tuesday, April 14, 2020		77	19	63	452

**Community Services:**

**Nothing to Report**

**FIRE/EMS:**

**Nothing to Report**

**HEALTH DEPARTMENT:**

- Updated Interim Guidance for Employers, Business, MGMT of CIS Worker



Crit Infrast Workers  
Guidance\_04122020

- The Interagency Go Team process has been finalized and will launch today. These teams are geared toward providing support to long term care facilities facing COVID-19 outbreaks. You will find three attachments for your information and guidance.

- 1) Covid Go Team Description
- 2) WebEOC Information Requirements & Procedure
- 3) Go Team Request Flowchart

- **Important Points:**

- Local EMs and local Health Officers will be the first point of contact for facilities to ensure local officials are aware and can lead the request and response process.
- These Go Teams are short-term interventions and do not serve as long-term staffing solutions.
- WebEOC will be utilized for requests and the procedure is outlined in the attachments.



COVID Go Team  
Flowchart.pptx



FINAL Go Team  
WebEOC Information



FINAL Covid Go  
Team Brief Description

**HOSPITALS: (UPDATE)**

- We have broken down our phases by ICU, IMC and Med/Surg/Cardiac tele. For UCMC we are in phase 2 for ICU, IMC & Med/Surg/Cardiac Tele and at HMM we are in phase 1 for ICU/IMC & Med/Surg/Cardiac Tele.

- **Surge Tents**

The surge tents erected in the parking lots of Harford Memorial and Upper Chesapeake did not withstand the wind and weather of this week very well. As a result, they have been dismantled and will be replaced by a solid structure from the Maryland Department of Health for each campus. These robust structures can accommodate 10 patients with a nurses' station and would be used as previously described for CoVid positive patients that are lower in acuity. We anticipate that these new structures will be completed by the end of the weekend. Amy Myers continues to refine the draft surge plan which calls for other campus-based but non-traditional treatment locations such as conference rooms and the cafeteria.



- **Faster Lab Testing**

Two important developments in our quest for faster turnaround time (TAT) lab testing. First, we received and were in the process of validating an analyzer system that would have provided rapid results via Abbott Labs. Unfortunately, the state Department of Health discovered a serious safety/accuracy issue with the machine which resulted in a request to cease implementation until further testing and validation could be completed by Abbott. We have been told that part of the validation requires the processing of 150 known positive and 150 known negative tests to be certain that the new analyzer returns the same 150 results in each category. Regrettably, the state testing yielded 0 matches of 150 samples in each category.

- The second development is the acquisition of the Cepheid analyzer today. These machines will also return results in as little as 1 hour (16 samples can be tested simultaneously each hour). Our team is assembling the device and will begin validation tomorrow and Thursday. If things progress well, this capability may be online as soon as Friday.

- **Mobile Specimen Collection**

The VEIP testing has gone very well. Last week alone we collected samples from more than 225 people. As a result, we will begin to collect on Fridays as well. This makes our new hours as follows:

Monday 10 a.m.-2 p.m.

Wednesday 10 a.m.-2 p.m.

Thursday 10 a.m.-2 p.m.

**Friday 10 a.m.-2 p.m. –Will begin this week on April 17<sup>th</sup>**

- Thanks to our partners at the County Health Department, MVA, Maryland State Police and the UM UCH team lead by Vickie Bands and Leslie Clark, for making this operation a smooth one. Additional information can be found at [www.UMUCH.org/VEIPTesting](http://www.UMUCH.org/VEIPTesting)
- **Hospital Volume and Elective Cases**  
The daily volume at the two hospitals has been and continues to be lower than typical for this time of year. This is the result of social distancing/stay at home, as well as the policy to cancel elective surgical cases and all routine ambulatory appointments. Today, UMMS extended the elective surgery policy “until further notice,” and will review this stance each week. Dr. Younus and others are beginning to track clinical metrics to ensure that we do not delay screenings and other health checks for people with chronic conditions that may require an in-person office visit. More to come on this.

**IT DEPARTMENT:**

**Nothing to Report**

**LAW ENFORCEMENT:**

**HCSO:**

- This center will be a one stop shop for all HCSO personnel to call about Covid issues. Also any outside first responder agency can contact that center for hotel use. Hopefully everyone is aware of the hotel availability. We will be tracking employees, PPE, Health matters, governors' orders, etc etc.
- 410-836-5440 is the number which is for first responders and agencies but **NOT FOR THE PUBLIC.**
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- MEMA has approved Non-Congregate care for homeless and vulnerable population that have may have been exposed to COVID-19 for isolation and/or quarantine.

# Harford County Health Department

## Strategic National Stockpile Plan

Plan for the Receipt and Dispensing of Medications  
and Points of Distribution (POD) Operations



**Public Health**  
Prevent. Promote. Protect.

**Harford County  
Health Department**

Version 5.3  
January 2, 2020

**Public Health Emergency Preparedness and Response  
Harford County Health Department**

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## EXECUTIVE SUMMARY

In the event of a terrorist attack from a biological, chemical, radiological, nuclear or explosive (CBRNE) weapon, the number of casualties and/or possible exposures will rapidly overwhelm Harford County's healthcare system and existing resources and supplies. Furthermore, the need may arise for the rapid mass prophylaxis of citizens living and/or working in the affected area and surrounding city/county within 48 hours.

This plan includes provisions for coordinating actions that will ensure a mechanism for the receipt, management, distribution, and dispensing of the contents of the Strategic National Stockpile (SNS) to those who need it. The Strategic National Stockpile consists of medicines, medical supplies, equipment and vaccines to be supplied, at the request of the State, by the Federal government in case of a large-scale public health emergency in their jurisdiction. The SNS assets are intended to supplement and replace stocks normally held by healthcare facilities and to support expanded dispensing capabilities.

Primary responsibilities for the Strategic National Stockpile Plan lie with Harford County Health Department, Division of Emergency Services, Harford County Sheriff's Department and other Municipality police departments, the County Attorney, Department of Community Services, City of Aberdeen, City of Havre de Grace, Town of Bel Air, Department of Public Works, Harford County Volunteer Fire and Emergency Medical Services Association, Harford County Public Schools, Upper Chesapeake Health System, Aberdeen Proving Grounds, and Harford County Public Information Office.

The Harford County Health Department Strategic National Stockpile Plan will be carried out pursuant to the National Response Plan (NRP) and in compliance with National Incident Management System (NIMS) Guidelines.

The Harford County Health Department Strategic National Stockpile Plan is referenced in the County's All-Hazard Plan.

In order to meet the 48 hour time requirement and maximize the throughput at PODs, policies are in place to allow non-medical personnel to dispense antibiotics to the public during a CRI event. Two primary forms of getting antibiotics to the public are utilized in Maryland: Public PODs and Closed PODs. Public PODs are planned for in centrally located areas, run by the local health department and are open to the general public. Alternatively, Closed PODs have been established with key partners. Closed PODs are restricted to a particular segment of the population and are run by a partnering organization such as a business, in collaboration with the health department. Closed PODs are in place in Maryland for acute care hospitals, DOD facilities, first responder groups, special populations groups, and large employers.

MDH will coordinate the delivery of antibiotics and required information sheets to the pre-identified public PODs and Closed PODs which meet the state direct delivery requirements. Local health departments oversee POD operations within their jurisdiction and report back to MDH on throughput, medication supplies, and outstanding resource requests.



The State manages all aspects of receiving, staging, storing, transporting, and protecting SNS assets up to their delivery to local PODs where local agencies assume custody and dispense the medications to the public.

<b>Hour</b>	<b>MDH Actions</b>	<b>LHD Actions</b>
0:00	Decision to activate catastrophic aerosolized anthrax response plan and request SNS materiel	
0:30	Notifications to partners to activate mass dispensing plans; stand up RSS Emergency Warehouse	Activate PODs- mobilize staff, access and set-up POD sites
1:00	Activate mass printing plans with printing partners to begin printing of medication screening forms & information sheets	
12:00 (or sooner)	SNS materiel (Push Pack and/or Managed Inventory) arrive at the Maryland RSS Emergency Warehouse; materiel is inventoried and begins to be shipped to Open PODs and state “direct ship” (large) Closed PODs	
24:00 (or sooner)	All PODs (Closed & Open) have received medical countermeasures; MDH continues to monitor for resupply requests	PODs have received SNS medical countermeasures & non-medical dispensing begins
48:00	Monitor LHD dispensing efforts for resupply needs and track dispensing throughput and medication inventory throughout the state.	Dispensing of initial 10-day course is complete; stand-down select PODs based on demand
Sustained Operations	Monitor LHD dispensing efforts for resupply needs and track dispensing throughput and medication inventory throughout the state.	Dispensing of remaining 50-day regime until complete; stand-down select PODs based on demand.
Demobilization	Demobilization and recovery will be initiated when SNS distribution operations scale down as sufficient capability and capacity are identified to serve the affected population.	PODs will be systematically shut down, materials inventoried and returned to the state RSS warehouse. Conduct exit interviews, submit an AAR, participate in meetings as required, and ensure all records and reports are submitted to the appropriate officials.

## LETTER OF PROMULGATION

This plan is adopted as the Harford County Health Department “Strategic National Stockpile Plan.” It addresses the request and distribution of the Strategic National Stockpile and the mitigation, preparedness, response and recovery operations of the Harford County Health Department.

Each of the departments, agencies and private organizations assigned responsibilities in the plan participated in the development, review, and revision process. Therefore, the information contained in the basic plan, and appendices reflect approval of their assigned responsibilities. Furthermore, those organizations assigned responsibilities herein are committed to the training, exercising, and maintenance of the Harford County Health Department Strategic National Stockpile plan.

This plan is designed to comply with applicable Federal and State emergency planning criteria and provides the policies and procedures to be followed in dealing with emergency and disaster situations. It replaces all other emergency plans and is effective immediately upon receipt and for implementation in accordance with its provisions.

---

Date

---

Health Officer

---

Deputy Health Officer

---

Public Health Emergency Preparedness Coordinator

---

Harford County Emergency Manager



## Record of Changes

The Harford County Health Department is responsible for the maintenance, revision and distribution of this plan.

Changes and revisions will be made in the event of:

- Weaknesses identified for correction in after-action reports
- Significant personnel or responsibility shifts
- Agency organizational or government infrastructure adjustments
- State law or regulations changes
- Any other condition that affects this plan

Please refer to the “Record of Changes” form on the following page.

<b>RECORD OF CHANGES</b>			
#	Date of Change	Nature of the Change	Change made by Print and Sign Name Provide Title
1	11-12-07	Updated SNS Coordinator personal cell and SNS Alternate Coordinator designation and contact information. Also changed SNS Local Planning Coordinators table.	<div>Lee Daffin (Print)</div> <div>(Sign)</div> <div>Emergency Planner (Title)</div>
2	7-8-08	Updated contact information. Clarified the meaning of special populations in section 2.1.9. Version is now 3.3.	<div>Lee Daffin (Print)</div> <div>(Sign)</div> <div>Emergency Planner (Title)</div>
3	7/10/09	Overall review and inclusion of distribution elements.	<div>Lisa Swank (Print)</div> <div>(Sign)</div> <div>Emergency Coordinator (Title)</div>
4	07/6/10	Updated SNS Plan in several sections due to staff changes and annual TAR review.	<div>Lisa Swank (Print)</div> <div>(Sign)</div> <div>Emergency Coordinator (Title)</div>
5	07/08/11	Update SNS Plan in several sections due to staff changes.	<div>Bobbie Rupert (Print)</div> <div>(Sign)</div> <div>Emergency Planner (Title)</div>
6	4/10/12	Update SNS Plan in several sections	<div>Lisa Swank (Print)</div> <div>(Sign)</div> <div>Emergency Coordinator (Title)</div>
7	1/8/13	Updated SNS Plan in several sections due to staff changes and increased POD staffing.	<div>Lisa Swank (Print)</div> <div>(Sign)</div> <div>Emergency Coordinator (Title)</div>
8	11/6/14	Update: Executive Summary, 4.2 SNS Request, 6.4 POD Operations, addition of 6.7 Lg Term Dispensing Op and update POD demobilization.	<div>Lisa Swank (Print)</div> <div>(Sign)</div> <div>Emergency Coordinator (Title)</div>

## DISTRIBUTION LIST

Below is a list of individuals and organizations in possession of a controlled copy of this plan. Controlled copyholders will be provided updates and revisions—plan holders are responsible for posting and recording these changes.

Copy #

Plan Recipient

1  
2  
3



## ACKNOWLEDGEMENTS

Harford County would like to recognize the following organizations whose plans served as models for ours:

Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, Version 10.02 dated August 2006

The Mississippi Department of Health Plan for Receiving, Distributing, and Dispensing Strategic National Stockpile Assets. (November 3, 2006).

Appendix 6 to Annex H. Texas Bioterrorism Preparedness and Response Plan. (May 18, 2004).

# Harford County Health Department Strategic National Stockpile Plan

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## SNS Coordinator

### **Lisa Swank, RN, BSN – Emergency Preparedness Coordinator**

<b>Work Phone</b>	–	<b>410-877-1028</b>
<b>Work Cell</b>	–	<b>443-807-8528</b>
<b>Personal Cell</b>	–	<b>443-866-8129</b>
<b>Home Phone</b>	–	<b>443-512-0439</b>
<b>Alternate Contact</b>	–	<b>410-706-8704</b>

## SNS Alternate Coordinators

### **Dr. Russel Moy – Harford County Deputy Health Officer**

<b>Work Phone</b>	–	<b>410-877-1012</b>
<b>Work Cell</b>	–	<b>443-617-7745</b>
<b>Personal Cell</b>	–	<b>443-834-3493</b>
<b>Home Phone</b>	–	<b>410-785-5335</b>
<b>Alternate Contact</b>	–	<b>410-785-5335</b>

### **Marcy Austin - Harford County Administrator**

<b>Work Phone</b>	–	<b>410-877-2348</b>
<b>Work Cell</b>	–	<b>410-937-8114</b>
<b>Personal Cell</b>	–	<b>443-527-1847</b>
<b>Home Phone</b>	–	<b>443-527-1847</b>



## Plan Development, Maintenance, and Updating

### A. Plan Development

1. The plan is meant to include provisions for coordinating actions that will ensure a mechanism for the receipt, management, distribution, and dispensing of the contents of the Strategic National Stockpile (SNS) to those who need it. All pertinent organizations were included in its development to include governmental entities, the healthcare community, community groups, and businesses, when appropriate.

### B. Plan Maintenance

1. The plan is reviewed by members of the Public Health Emergency Preparedness Team at least once a year to ensure currency and relevancy. The plan will also be reviewed, as soon as practical, after any drill, exercise, or actual event to review lessons learned and “gaps” in the Plan in order to modify the plan.

- a. New information, responsibilities, and/or technology that can substantially alter preparedness and response efforts will be incorporated into the plan as soon as practical.
- b. Modifications, lessons learned, after-action reports, etc., from drills, exercises, or actual emergencies, will be incorporated in the plan as soon as practical.

### C. Plan Updating Procedure

1. The Harford County Health Department Strategic National Stockpile Plan shall be maintained with up-to-date information at all times. To ensure this commitment, the Public Health Emergency Preparedness team will undertake an annual review of this plan.

2. The plan will be reviewed to verify that:

- a. Specific position definitions and responsibilities are up-to-date and valid.
- b. The emergency contact/notifications procedures are up-to-date and valid.
- c. The levels of alert are consistent with local levels of alert of neighboring response agencies.
- d. All reference material is current and valid.
- e. The names and contact information for all personnel and agencies are correct and up-to-date.
- f. Any and all “Memorandums of Understanding” are current and in effect.

- g. All emergency equipment and supplies relied upon are still available and ready for deployment.
- 3. If any deficiency is noted, appropriate action shall be undertaken to correct the deficiency and a written memorandum issued noting the deficiency and the expected date of correction.
- 4. Upon completion of the review, the plan shall be updated with all revisions listed on the “Record of Changes,” located at the front of this plan just behind the “Annual Review Certification.”
- 5. The Public Health Emergency Preparedness team will ensure all relevant stakeholders listed on the Distribution List receive a copy of the updated plan.
- 6. Should any change or revision of this plan require training or education of personnel, the Public Health Emergency Preparedness team will establish and provide such training.
- 7. In addition to the regularly scheduled reviews, any of the following situations will require an immediate plan review:
  - a. A facility modification resulting in a change to a facility and/or facility process.
  - b. Any significant equipment modification or the procurement of new equipment.
  - c. Any organizational changes in positions/personnel named in the plan.
  - d. The results of any exercises that are carried out.

#### D. Administration and Logistics

- 1. Each agency is responsible for purchasing the necessary equipment, supplies, and personal protective equipment as required to implement this plan.
- 2. Agencies should establish or modify Mutual Aid Agreements, Memoranda of Understanding, and Standard Operating Procedures, as necessary.
- 3. Each agency will track and document resource purchases and other expenses of an emergent nature during the pandemic and employee hours logged in response to an actual pandemic in accordance with existing policies.

#### E. Plan Training

- 1. Training on this plan is provided to all county personnel and other involved parties by the Harford County Health Department.

## Plan Congruence

### A. Planning Partners

The following organizations make up the Harford County SNS advisory/ work group and meet annually to review and/or update the SNS planning elements in the all -hazards plan:

Harford County Health Department also representing Harford County Medical Reserve Corps  
Harford County Division of Emergency Management Services also representing CERT  
Office of Homeland Security  
Harford County Sheriff  
Harford County Attorney  
Harford County Government  
Harford County Division of Community Services/ Transportation/ Disabilities Coordinator  
City of Aberdeen Police  
City of Havre de Grace Police  
Town of Bel Air Police  
Harford County Department of Public Works  
Harford County Volunteer Fire and Emergency Medical Services Association  
Harford County Public School System  
Upper Chesapeake Health System (Upper Chesapeake Medical Center and Harford Memorial Hospital)  
Aberdeen Proving Grounds- military installation  
Harford County Public Information Office  
Harford County Detention Center  
CORE Service Agency (Mental Health)  
Harford County Administration/Finance

Please see Appendix A-1 for an overview of the county EOP plan and Appendix A-2 for reference to the SNS annex in the Harford County Emergency Operation Plan.

The Harford County SNS plan is updated annually based on deficiencies revealed during SNS exercises/drills, work group discussions, trainings and Technical Assistance Reviews.

### B. Pertinent Plan Documents

This plan was developed in concurrence with the following plan documents:

FEMA. Guide for All-Hazard Emergency Operations Planning (State and Local Guide 101).  
September 1996.

## ACRONYMS AND DEFINITIONS

### Acronyms:

BERT	Biological Emergency Response Team
CDC	Centers for Disease Control and Prevention
CPHPR	Center for Public Health Preparedness and Response
CRI	Cities Readiness Initiative
DDC	Disaster District Committee
DEA	Drug Enforcement Agency
DEM	Division of Emergency Management
DOC	Department Operations Center
DFO	Disaster Field Office
MDH	Department of Health and Mental Hygiene
DHS	Department of Homeland Security
EAS	Emergency Alert System
EOC	Emergency Operations Center
EOP	Emergency Operation Plan
ERT	Epidemiology Response Team
ESC	Emergency Support Center
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HAN	Health Alert Network
HCHD	Harford County Health Department
ICS	Incident Command System
IDEAS	Infectious Disease Epidemiology and Surveillance
LRN	Laboratory Response Network
MEMA	Maryland Emergency Management Agency
MOA	Memorandum of Agreement
NPS	National Pharmaceutical Stockpile (former name of SNS)
PIO	Public Information Officer
POD	Point of Dispensing
RSS	Receiving, Staging, and Storing (of the SNS)
SERT	State Emergency Response Team
SNS	Strategic National Stockpile
SOC	State Operations Center
SOG	Standard Operating Guideline(s)
SOP	Standard Operating Procedure
TARU	Technical Advisory Response Unit
VMI	Vendor Management Inventory

### Definitions:

**Dispensing Sites** - The community locations where the public receives prophylactic medicines. Individuals who may have been exposed to a biological pathogen / infectious agent, but are not yet exhibiting symptoms of disease, utilize the dispensing sites. Individuals who appear to be ill will be sent to treatment facilities.

**Distribution** - The process of delivering the SNS from a receiving, staging, and storing (RSS) warehouse to dispensing sites, treatment facilities, and/or other locations.

**Prophylactic Drugs** - The drugs that protect against diseases, such as the agents that cause anthrax, tularemia and plague.

**Strategic National Stockpile/Program** - (Formerly named the National Pharmaceutical Stockpile), the SNS is maintained and managed by the Centers for Disease Control and Prevention (CDC) and Department of Homeland Security (DHS). The SNS program ensures the availability of medicines, antidotes, vaccines, medical supplies, and medical equipment necessary to counter the effects biological pathogens and chemical nerve agents. The CDC stores packages at strategic locations throughout the United States to facilitate arrival of the 12-hour Push Package at the requested location within 12-hours or less after a federal decision to deploy is made.

**Technical Advisory Response Unit (TARU)** - The federal SNS group of skilled individuals who arrive with the first shipment of the SNS to assist and advise state and local officials in putting the SNS assets to prompt and effective use.

**Treatment Facilities** - The locations in a community where people who are already symptomatic receive treatment. These include hospitals, clinics, and other sites that treat persons who are sick.

## **PART I: Prepare**

### **Chapter 1 Introduction**

#### **1.1 Overview**

If a major natural disaster or technological accident occurs or a terrorist attack involving a weapon of mass destruction (chemical, biological, or blast) is used, state and local (S/L) jurisdictions probably will deplete their supplies of pharmaceuticals and other medical items rapidly. Anticipating this situation, Congress established a massive stockpile of pharmaceuticals, vaccines, medical supplies, equipment, and other items to augment local supplies of critical medical items. That stockpile, managed by the Centers for Disease Control and Prevention (CDC), is known as the Strategic National Stockpile (SNS) and the program for managing it, the Strategic National Stockpile Program (SNSP).

The Strategic National Stockpile consists of medicines, medical supplies, equipment and vaccines to be supplied, at the request of the State, by the Federal government in case of a large-scale public health emergency in their jurisdiction. The SNS assets are intended to supplement and replace stocks normally held by healthcare facilities and to support expanded dispensing capabilities.

CDC describes the categories of SNS assets as follows:

- 12-Hour Push Packages – medical supplies, equipment, and pharmaceuticals pre-packed in air cargo containers for immediate shipment. As the name implies, 12-Hour Push Packages can be deployed anywhere in the United States and its territories within 12 hours after a request is made.
- Vendor Managed Inventory (VMI) – palletized stockpiles of pharmaceuticals, medical supplies and equipment for use in large-scale emergencies. Normally, this materiel can be sent within 24 to 36 hours after approval for deployment. The form, packaging, and method of delivery of managed inventory can vary widely with circumstances.
- Vaccines – the repository for various types and quantities of vaccines.
- Technical Advisory Response Unit (TARU) – a group of individuals from the CDC able to provide technical advice to assist state and local responders on managing SNS assets in response to a large-scale emergency.
- Receiving, staging and storing SNS assets for distribution within the State is a State role. Refer to the Maryland State SNS Plan for details on the state plan.
- Points of Distribution (PODs) are the facilities identified by Harford County Health Department as the destinations for SNS assets to be delivered by the state. The set up and operation of PODs is the focus of this plan.



## **1.2 Purpose of the Plan**

This plan includes provisions for coordinating actions that will ensure a mechanism for the receipt, management, distribution, and dispensing of the contents of the Strategic National Stockpile (SNS) to those who need it. The stockpile is designed to support the jurisdiction's actions in response to a terrorist attack or other public health disaster.

## **1.3 Scope of the Plan**

The scope of the plan is to: 1) describe operational procedures related to request, receipt, and distribution of SNS assets; 2) provide coordinated management of any SNS assets assigned to the county during a major public health and medical emergency; and 3) communicate a strategy for training, exercises, and evaluation of the plan.

# **Chapter 2 Background**

## **2.1 Assumptions**

- a. Local, state, and federal agencies and organizations will coordinate activities for preparedness, prevention, response and recovery during public health emergencies.
- b. Detection of exposure to biological agents could occur days or weeks after exposed individuals have left the site where a biological release, intentional or unintentional has occurred.
- c. Personnel identified as state and local level responders including critical continuity of operations staff may be at risk of exposure and as such may be among the first to receive medication for prophylaxis and/or personal protective equipment (PPE) to counteract the affects of the identified hazard. Dispensing of prophylaxis to family members of responders also may be included when appropriate and as available.
- d. The need for medical triage and disaster behavioral health services in anticipated.
- e. Public information and instructions will be disseminated when appropriate, to facilitate public access to SNS materials.
- f. Harford County Health Department will use a non-medical model when dispensing from their PODs.
- g. It is expected that some medications may need to be repackaged from bulk form into unit dosing prior to distribution. Drug repackaging into unit dosing will occur at the state level.

- h. Sufficient storage, operational space and security will be available at the pre-selected local POD sites. Harford County Health Department will use a non-medical model in mass prophylaxis clinics.
- i. The State of Maryland will manage all aspects of receiving, staging, storing, transporting and protecting SNS assets up to their delivery to local PODs, where local agencies assume custody and dispense medications to the public.
- j. Harford County will have at its disposal the resources of the Department of Health and Mental Hygiene (MDH) and all SNS partner community agencies.
- k. Upon notification and/or detection of a biological event requiring mass vaccination or dispensing of medications, the Health Officer, through the Harford County Health Department will deploy Harford County Health Department staff, request state and county volunteers and request the use of Harford County government employees to assist with the response operation.
- l. Specialized responders such as Fire/Emergency Medical Services/Hazardous Materials (HazMat), Law Enforcement, Public Works or Transportation may be put at risk and therefore be prioritized for treatment. Harford County Health Department staff may be deemed essential by the Clinical Manager for the purposes of the event and all Harford County Health Department staff who provide any type or service or work at response clinic operations will be provided with appropriate personal protective equipment (PPE) and medications/vaccinations as needed by the situation in advance of their reporting to duty.
- m. Staff will be trained on the proper use of PPE prior to working at Points-of-Distribution (PODs), or Just-in-Time (JIT) training will be provided on site prior to assignment.
- n. It is anticipated that hospitals and medical facilities will utilize their own internal stocks first for prophylaxis to their affected staff. In the event that these supplies are not sufficient, it will be expected that Points-of-Contact (POCs) at hospitals and medical facilities will communicate the numbers of needed medications to the Harford County Health Department for assistance using the Maryland Facility Resource Emergency Database (FRED). If FRED is not available, POCs have been instructed to utilize 800MHz radios, fax, cellular, email, regular phone, and other forms of communication.

## **2.2 Situation**

- a. Hazard Vulnerability Assessment  
Harford County is unlike many counties in Maryland due to its geographical location near many targets which would be potentially attractive to terrorist groups, as well as having its own share of rich targets. Briefly:

Located approximately 30 miles northeast of **Baltimore, MD**

Located approximately 70 miles northeast of **Washington, D.C.**

Located approximately 80 miles southwest of **Philadelphia, PA**

**Peach Bottom Nuclear Generating Station** located in Peach Bottom Township, York County, PA and approximately 5 miles from the border with MD and Harford County or 30 miles from Bel Air (county seat).

**Aberdeen Proving Grounds**, occupying more than 72,500 acres and serving as a center for Army material testing, laboratory research and military training, is home to 66 tenants and a host of satellite activities; houses 2,148 military family members; and is one of the largest employers in the state of Maryland.

**Conowingo Dam**, a large hydroelectric dam in the Lower Susquehanna River, is located 9.9 miles from the river mouth at the Chesapeake Bay, about 5 miles south of the Pennsylvania border and 45 miles northeast of Baltimore, and serving as a bridge for U.S. Route 1 across the Susquehanna River

- b. In the event of a terrorist attack from a biological, chemical, radiological, nuclear or explosive (CBRNE) weapon, the number of casualties and/or possible exposures will rapidly overwhelm Harford County's healthcare systems and existing resources and supplies. Furthermore, the need may arise for the rapid mass prophylaxis of citizens living and/or working in the affected area and surrounding city/county within 48 hours.
- c. The results of the Hazard Vulnerability Assessment conducted by the Harford County Health Department are presented in Tables 1 - 3.

Table 1 shows the overall assessment of the likelihood of certain events occurring cross tabulated with the impact such an event would have on public health.

Table 2 displays the vulnerability ratings for critical facilities in Harford County.

Table 3 displays projected mortality and evacuation estimates in various CBRNE events.

Table 1: Hazard/Risk Assessment by Incident (not facility dependent or public event specific)

<b>Probability of Occurrence</b>	<b>High</b>	Transportation Accident	Non-Smallpox BT incident HazMat accident	Pandemic Flu
	<b>Medium</b>	Violent Crimes Extreme Temperatures Wildfires Conventional Explosive Device Agricultural disaster	Catastrophic Weather incident (blizzard, flooding, tornado) “Dirty Bomb”/RDD	Other natural disease epidemics Smallpox Water and/or food contamination
	<b>Low</b>	Riots Other Natural Environmental Incidents	Chemical agent attack	Nuclear Attack
		Low	Medium	High
<b>Public Health Impact</b>				

Table 2: Critical Facilities Vulnerability Assessment

<b>Ranking</b>	<b>Potential Target Name</b>	<b>Vulnerability Rating</b>
1	Aberdeen Proving Ground - Edgewood Area	9
2	Harford County EOC & Communications Tower	8
3	Harford County Water Plants	8
4	Upper Chesapeake Medical Center	8
5	Harford Memorial Hospital	8
6	Bel Air Water Plant (Maryland-American)	8
7	Peach Bottom Atomic Power Station	8
8	I-95 Bridge, Susquehanna River	8
9	US 40 Bridge, Susquehanna River	8
10	BGE Complex, Jolly Road	7
11	Verizon Telephone Switching Center, Bel Air	7

12	Havre de Grace Water Plant	7
13	Aberdeen Water Plants	7
14	Van Bibber Water Plant (APG)	7
15	BGE Gas Gate, Darlington	7
16	Clorox Products Manufacturing	7
17	National Ammonia	7
18	Harford County Water Towers (13)	7
19	Havre de Grace Water Tanks	7
20	Harford County Sheriff's Office	7

See Appendix B-1: Hazard Vulnerability Assessment (Public Health) for the complete list of the target list.

Table 3: Harford County Maximum Values for CBRNE Planning Factors

	Maximum Evacuation				
	Max Non-Injured	Max Walking	Max Stretcher	Max "Worried Well"	Max Deceased
Chemical	5,000	6,450	3,600	4,300	650
Biological	185,900	3,000	950	35,000	150
Radiological	1,825	1,100	500	2,500	75
Nuclear	0	50	75	34,875	0
Explosive	1,650	1,000	300	250	300

d. Scenarios:

1. Chemical

- Harford County Farm Fair, Friday/Saturday
- 20,000 maximum on site
- Dispersal effective (helicopter), nerve agent mid-grade

2. Biological

- Hospitals and Clinics region-wide
- County population 225,000
- Week 1, 750 hospitalized with flu-like symptoms (Bubonic Plague)
- Week 2, 12,000 – 15,000 additional cases

3. Radiological

- Ripken Stadium, special event
- 6,000 maximum on site
- 100lb explosive, 10 oz. Cesium 137
- 50 dead from explosion

4. Nuclear

- County Courthouse, Bel Air
- Population of area evacuated – 35,000
- Possible hoax, ADM claim
- High-profile event

5. High Explosive

- Upper Chesapeake Medical Center
- Mid-afternoon, mid-week; 3,500 area population
- Self evacuation of area
- Water main break

e. Current Population

Below are the demographics for Harford County as of 2013.

Table 4: Harford County Population Demographics in 2018

	<u>2018</u>
Total Population	<b>253,956</b>
Under 18 years old	56,378
0-4	14,222
Total Households	<b>92,895</b>
<u>Avg. Household Size</u>	<u>2.67</u>

Sources: US Bureau of the Census, 2018 Census of Population and Housing.  
Harford County Demographic Data and Growth Trends, as of July 2018

## f. Head of Household Model for PODs

Harford County will ask that the head of each household go to their nearest POD and pick up any needed medications for each person living in their house. Utilizing this model will greatly reduce the throughput at each POD. There are **nine** PODs in Harford County.

Consider the following utilizing the population demographics from 2018:

Table 5: Anticipated Walk-In POD Throughput (based on 2018 Head of Household Statistics)								
Total Households in 2018	# Processed Per Hour Over 24 Hours	Throughput, measured in <b>People Per Hour</b> (PPH), depending on number of PODs						
		3	4	5	6	7	8	9
92,895	3,871	1,290	968	774	645	553	484	430

The expectation is to not exceed 600 PPH at any POD location.

## g. Projected Population and POD Estimates

Below are the projected demographics for Harford County through 2035 and

Table 6: Projected Harford County Population Through 2030				
	2020	2025	2030	2035
Total Population	267,350	277,320	287,662	298,389
Sources: Harford County Demographic Data and Growth Trends, as of July 2018				

Table 7: POD Throughput Based on Total Households in Harford County at Various Projected Population Levels - Head of Household Model								
Total Households	# Processed Per Hour Over 24 Hours	Throughput, measured in <b>People Per Hour</b> (PPH), depending on number of PODs						
		3	4	5	6	7	8	9
100,000	4,167	1,389	1,042	833	695	595	521	463
110,000	4,583	1,528	1,146	917	764	655	573	509
120,000	5,000	1,667	1,250	1,000	833	714	625	556



## **Chapter 3 Legal Authority (See Appendix C-1 )**

### **3.1 Annotated Code of MD: Article\_Health-General**

- a. §18-902: Discusses the authority of the Secretary of Health to evaluate and modify existing disease surveillance procedures to detect a catastrophic health emergency.
- b. §18-903: After consulting with the appropriate licensing board, the Secretary of Health shall publish protocols to assist health care practitioners in developing plans to respond to a catastrophic health emergency.
- c. §18-903: Speaks to developing a process to license, certify, or credential both licensed health care practitioners and out-of-state health care practitioners who may be needed to respond to a catastrophic health emergency.
- d. §18-904: Require health care providers to disclose information to an agency of the federal, State, or local governments or another health care provider detailing the presence and use of deadly agents.
- e. §18-905: The use of isolation and quarantine if the Secretary of Health determines that it is medically necessary and reasonable to prevent or reduce the spread of the disease or outbreak believed to have been caused by exposure to a deadly agent.

### **3.2 Annotated Code of MD: Article\_Public Safety**

- a. §14-3A-01: Discusses statutes related to defining “Catastrophic health emergency” has a situation in which extensive loss of life or serious disability is threatened imminently because of exposure to a deadly agent.
- b. §14-3A-03: The Governor may order the Secretary of Health or other designated official to seize immediately anything needed to respond to the medical consequences of the catastrophic health emergency.
- c. §14-3A-06: A health care provider is immune from civil or criminal liability if the health care provider acts in good faith and under a catastrophic health emergency proclamation.

### **3.3 Maryland Public Health Emergency Preparedness Legal Handbook (See Appendix C-2 )**

- a. Individuals who volunteer for the state may be covered under the Maryland Tort Claims Act and considered “State personnel” for immunity purposes. The Code of Maryland Regulations, Title 25, Subtitle 02, Chapter 01 defines a volunteer as a person who: “(a) [i]s performing services to or for a unit of State government, the employees of which are considered State personnel...(b) [i]s engaged in the actual performance of the services...at the time of the incident giving rise to a claim; and (c) [i]n the performance of the services...(i) [i]s participating in a formal volunteer program, or (ii)[b]efore the beginning of those services, is formally recognized by the unit as a volunteer.”  
COMAR 25.02.01.02B(8).
- b. The Worker’s Compensation Act is codified at MD.CODE ANN., LAB. & EMPL. §§ 9-101et seq. (west 2002).  
“[E]ach governmental unit or quasi-public corporation that has at least 1 covered employee” is an “employer” that must provide Workers’ Compensation under the Labor and Employment provision of the Maryland Code. MD.CODE ANN., LAB. & EMPL. § 9-201(2) (West 2002).

### **3.4 Maryland MDH Staff Compensation Requirements** (See Appendix C-3)

## **PART II: Respond**

### **Chapter 4 Concept of Operations**

#### **4.1. Local Events/ Actions Prior to Requesting SNS Assets**

- a. Existing public health surveillance systems may detect an incident for which SNS resources will likely be required. Harford County Public Schools share their daily school absenteeism data with the state through the state Essence surveillance system and with Harford County Health Department. In addition to this data, the Harford County Health Department also reviews every public school's health suite visit reports to track reported symptoms.  
See Appendix D-1: Harford County Surveillance MOU
- b. Local, regional and state supplies of pharmaceuticals and medical material will be immediately assessed and will be the first to be used in an organized response. The local hospital and MDH will be consulted regarding the identification of medical-supply wholesalers. Supplies may become rapidly depleted, thus requiring consideration of requesting SNS assets.

#### **4.2 Request/ Deployment Strategic National Stockpile Assets**

- a. The decision to deploy SNS assets will be a collaborative effort among local, state, and federal officials. The decision will begin at the local level when officials identify a potential or actual situation that they believe has the potential to threaten the health or safety of their community.
- b. Activation of SNS Assets  
The decision to deploy the Strategic National Stockpile will be a collaborative effort among local, state, and federal officials. The Governor may request assistance from the federal government when response efforts challenge or exceed the medical or public health capabilities of the jurisdiction. The request should outline the incident and certify that combined jurisdictional resources are insufficient to respond effectively.
  - 1. Local jurisdiction (including private resource) requests will be managed through the local Emergency Operation Center (EOC).
  - 2. Regional asset requests: See Appendix D-2
  - 3. State asset requests will originate at the local EOC and then directed to the Maryland Emergency Management Agency.
- c. Local Procedures for SNS Request

1. After receiving clear indication that an attack or suspected attack using biological agents has occurred, the Health Officer or his designee will notify MDH and the Harford County Emergency Operation Center's (EOC) Emergency Manager, who will in turn notify local political leadership. In a chemical or radiological event, the Health Officer or his designee will be notified by either the EOC Emergency Manager, or the responding public safety officials.

2. The Health Officer or his designee and the EOC Emergency Manager will confer regarding the need to request SNS assets for the County. See Appendix D-3: Local SNS Request Tool

3. The Health Officer or his designee (See Appendix D-4: Letter of Designation) has the responsibility and authority to request SNS resources through State Officials. The Health Officer or his designee will initiate the request of the stockpile by contacting the Maryland Department of Health and Mental Hygiene (MDH).

4. See Appendix A-2 for the integration of the NIMS compliant, local SNS plan in the county All-Hazards Plan (EOP).

d. MDH Notification Process (see Appendix D-5)

1. **Primary Contact:**

MDH Physician-on-Call:

Pager: 410 407-6154; once every 5 minutes x3 before going to secondary;

*And*

Text Messaging: [4104076154@usamobility.net](mailto:4104076154@usamobility.net) ;

*And*

Direct email sent to : [MDoncall.MDH@maryland.gov](mailto:MDoncall.MDH@maryland.gov) ; (Will notify all on-call physicians and EMT Team-on-Call);

Maryland Systems Communications (SYSCOM):

410 706-7813/7815;

410 795-7365 (MDH After Hours)

2. **Secondary Notification Procedure:**

MDH Emergency Management Team-on-Call

Pager: 410 681-0935;

Text Messaging: [4106810935@usamobility.net](mailto:4106810935@usamobility.net) ;

Blackberry: 443 865-7833

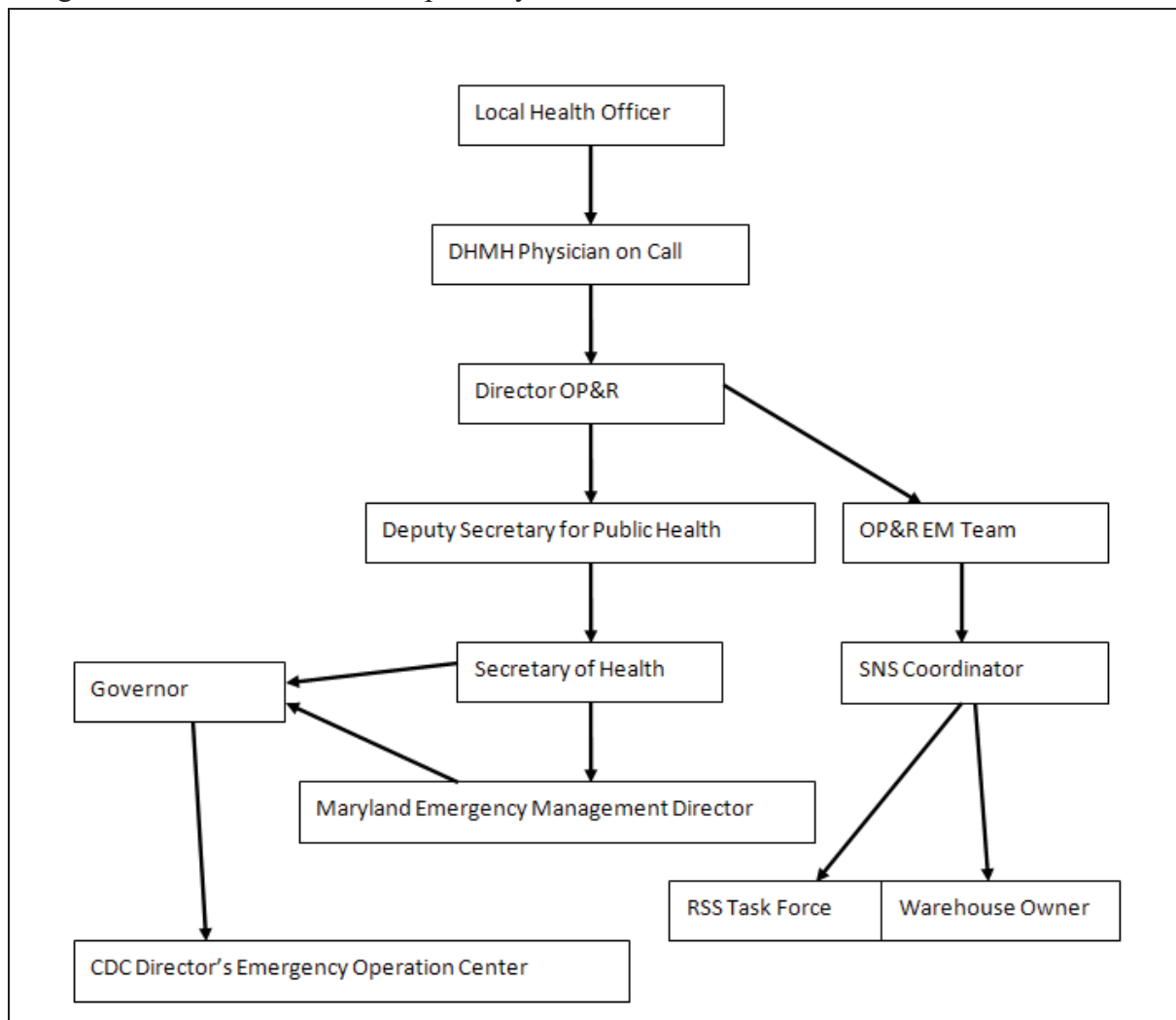
Email Back Up: [EMonCall.MDH@maryland.gov](mailto:EMonCall.MDH@maryland.gov)

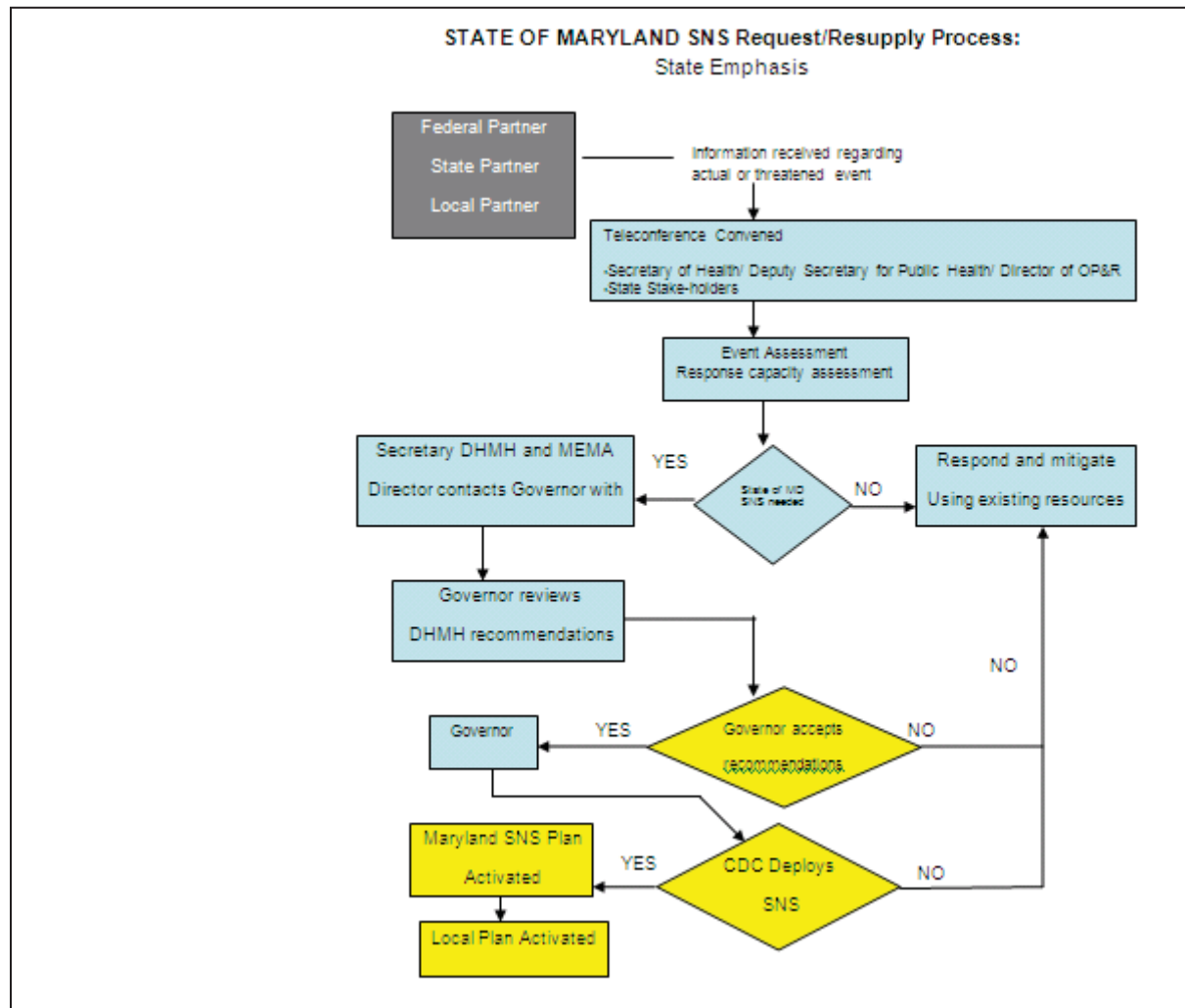
Maryland Systems Communications (SYSCOM):  
410 706-7813/7815;

3. MDH in coordination with MEMA will determine whether or not the need can be met with state resources and evaluate the need to request SNS materials.

4. The Governor, or his designee(s), are authorized to request SNS assets from the CDC. It is not necessary for the Governor to declare a state of disaster or a state of emergency to request the deployment of the SNS.

Figure 1 SNS Communication pathway from local level to state to federal.





- e. During a federally declared disaster, all state requests for assets should follow the prescribed request process as defined by DHS/FEMA in 44 Code of Federal Regulations (CFR).<sup>13</sup>
  1. In that request process, the state or territory completes an action request form (ARF) that describes the federal assistance and capability required. This process is done at the state emergency operations center (SEOC) in conjunction with the DHS/FEMA regional response coordination center (RRCC) or a joint field office (JFO), if established, and submitted to DHS/FEMA. An HHS regional emergency coordinator (REC) may be located at the SEOC or the JFO or remotely available to assist the state or territory with the request process.

2. Upon submission of the ARF, DHS/FEMA may then direct HHS, through the mission assignment process, to provide the appropriate assistance. HHS will analyze the request and determine which operating division is best suited to fill the request and direct the deployment of assets. In some instances, HHS may determine that the best option is to purchase the assets directly from the vendor; in which case, the vendor would ship the assets directly to the SLTT and would not involve CDC. Figure 3 demonstrates this request process.

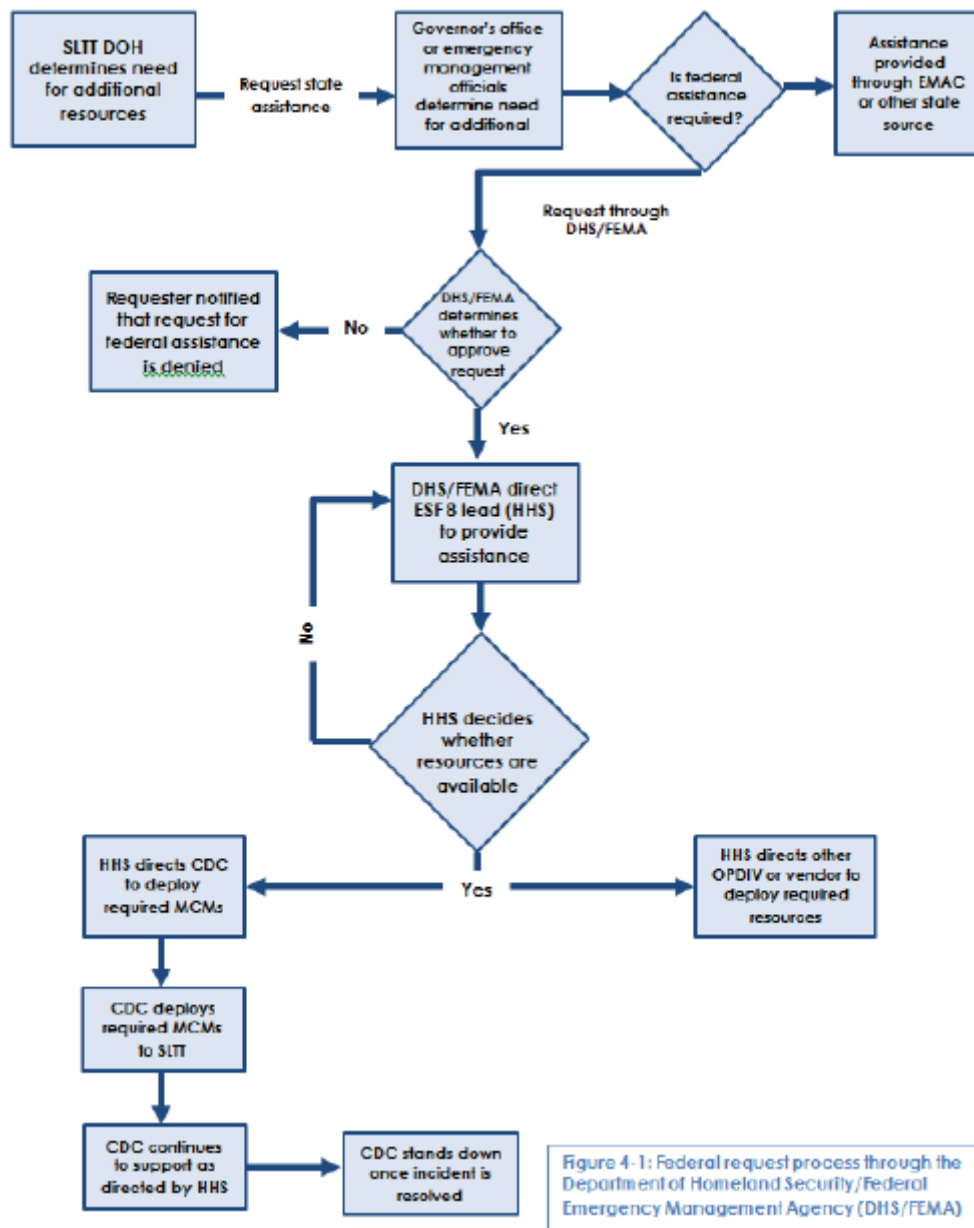


Figure 3 Federal request process through the Dept of Homeland Security/FEMA



f. SNS Deployment

1. When the decision to request the SNS is made, MDH will initiate SNS distribution operation in coordination with other state and federal agencies as well as the affected local jurisdiction(s). The state and local health department will coordinate POD delivery of SNS supplies using the POD Data Collection Sheet.

See Appendix D-6: MDH POD Data Collection Sheet

2. Upon arrival of the SNS in Maryland, the IMATS inventory tracking system will be activated to track SNS materials from point of arrival to point of medication distribution to PODs, push sites, and treatment centers. All supply and re-supply requests will be made using this system or the local PatTrac backup system in the event of IMATS failure.

See Appendix D-7: IMATS Inventory Tracking System

See Appendix D-8: IMATS Quick Guides

3. SNS response operations may span multiple local jurisdictions and require a comprehensive emergency strategy. When multiple jurisdictions are involved, SNS response operations will be coordinated between local EOC's, MDH Command Center, and the Maryland Joint Operation Center (MJOC).

4. The operation of the RSS is a state responsibility. Appropriate personnel have been designated to sign for the receipt of SNS assets.

5. Distribution (transportation of SNS assets) is a state responsibility and is planned for by MDH in cooperation with supporting state agencies and contracted trucking companies.

See Appendix D-9: SNS 12 Hour Push Package Items

See Appendix D-10: SNS PP Template

See Appendix D-11: SNS PPG Items

6. Coordination with treatment centers is a shared responsibility between MDH and the Harford County Health Department.

7. Controlled Substance Distribution

If controlled substances are requested, the state-designated Drug Enforcement Agency (DEA) registrant, or his/her agent, will be at the RSS warehouse to sign for the controlled substances, and they will initiate a DEA Form 222 for any Schedule II controlled substances. The DEA registrant, or his/her agent, may be authorized to sign for all materials or may be authorized to sign for the controlled substances alone.

- Schedule II drugs or other substances that have a high potential for abuse; currently have an accepted medical use in treatment in the

United States, or have a currently accepted medical use with severe restrictions; abuse may lead to severe psychological or physical dependence.

- Controlled substances:
  - Diazepam (auto injectors)
  - Morphine Sulfate (10 mg/ml)
  - Morphine Sulfate Injection (10 mg/ml)
  - Oxycodone/Acetaminophen (5mg/325mg)
  - Fentanyl Injection (0.05mg/ml)
  - Midazolam (5mg/5ml vials)
- Schedule II drugs requested by the locals would be delivered by the state to the hospital not to a POD.

#### 8. Cold Chain Management

The vaccine cold chain will be maintained throughout the delivery process and storage period up until the time the vaccine is administered.  
See Appendix D-12: CDC Vaccine Storage and Handling Toolkit May 2014

#### f. Receipt of SNS Supplies

1. Once the Health Officer is notified that an SNS delivery will take place the SNS Security Coordinator and Health Department Incident Commander will be notified and the security plan will be activated.
2. When the security personnel arrive at each POD site they will notify the POD Commander and await the SNS delivery.
3. Upon the arrival of the SNS supplies, the security personnel will notify the POD Commander who will then notify POD Logistics. POD Logistics will work with the Supply Unit Clerk to inventory the supplies with WASP bar code scanners and the POD SNS Inventory Spreadsheet. A paper system will be used as the back-up system.  
See Appendix D-13: POD SNS Inventory Spreadsheet

#### g. Hospital Requests for SNS Assets

1. Hospitals in Maryland that are in need of SNS Assets may request them through their Local Health Department or local Emergency Management Agency using the SNS Supply Request Form.  
See Appendix D-14: SNS Request and Resupply SOP  
See Appendix D-14a: SNS Request and Resupply SOP  
See Appendix D-15: SNS Supply Request Form

## Hospital Request Procedures (LHD EOC open, DHMH EOC open)



Figure 3 Hospital Request Procedures

### h. Local PODs: Resupply of SNS Assets

1. The POD Medication Distributors at Station 3 should keep a watchful eye over how many bottles of medication they have remaining in their dispensing area. When their supply is less than half full, they should notify their Station Supervisor that they require more medication. Supply requests will be relayed from the Station Supervisor to the Supply Unit Clerk via walkie talkie. The Supply Unit Clerk will pull the amount of medication needed and send it to Station 3 via the Runner to resupply the station.

2. The Supply Unit Clerk is responsible for maintaining a watch over the POD's supply of equipment and medication. The Supply Unit Clerk will utilize the Resupply Triggers and Inventory Control Worksheet to determine when needed medication supplies run low, the Supply Unit Clerk should notify the POD Logistics Section Chief, who will notify the POD Commander and fax, email or phone the SNS Supply Request Form information to the DOC Dispensing Site Coordinator.

See Appendix D-16: Resupply Triggers

See Appendix D-13: POD SNS Inventory Spreadsheet

3. The DOC Site Coordinator will communicate with the DOC Operations Section Chief to determine if more SNS supplies are required from the State RSS. This decision will have to take into consideration the amount

of supplies/ resources available in the county at that time. The Health Department Incident Commander will be informed of the situation.

4. If more SNS supplies are required from the State RSS, the DOC SNS Procurement/ Inventory Management Unit Leader will ensure the PODs SNS Supply Request Form is complete and then fax the Request Form to the MDH Operations Center. The form may also be submitted to the MDH Operations Center via webEOC or email.

See Appendix D-17: MDH Operations Center Contact Information

See Appendix D-18: SNS Resupply Communication Pathway for PODs and Hospitals

See Appendix D-19: SNS Supply Communication Pathway based on EOC Operations

- i. SNS POD Supply Inventory and Tracking  
POD SNS Inventory Spreadsheets can be faxed as requested by the DOC Dispensing Site Coordinator. The state IMATS inventory tracking system will be utilized to report local POD inventory status to the state RSS warehouse. A DOC Inventory Tracking Form may be used as well.  
See Appendix D-20: DOC Inventory Tracking Form

- j. Transfer of Custody from the state RSS to local POD sites or Hospital/ Treatment Centers with no Controlled Substances.

1. When the assets have been apportioned, or when re-supply requests have been approved, inventory pick sheets will be generated from the IMATS inventory tracking system, and the appropriate materials will be pulled and stacked on pallets.

2. Orders will be verified for accuracy by the state RSS Quality Assurance Unit prior to Loading the delivery truck.

3. Four copies of the pick sheet will be given to the truck driver:

- Signature Copy
- Bill of Lading Copy
- POD/ Hospital-Treatment Center record copy
- POD/ Hospital-Treatment Center return copy

4. The truck driver will sign all four copies and keep them with him, except for the Signature copy. This will be given to the state RSS Distribution Chief.

5. Upon arrival to the POD/ Hospital-Treatment Center the driver will have the facility representative sign all three copies. The facility representative at the local POD will be the Supply Unit Clerk.

6. The facility will retain the Record copy.
  7. The driver retains the Bill of Lading copy.
  8. The driver is responsible for delivering the POD/ Hospital-Treatment Center Return copy to the RSS Distribution Chief upon his arrival back to the RSS.
- k. Transfer of Custody from state RSS to local Hospital-Treatment Centers with Controlled Substances.
1. When the assets have been apportioned, or when re-supply requests have been approved, inventory pick sheets will be generated from the irms<sup>TM</sup> inventory tracking system, and the appropriate materials will be pulled and stacked on pallets.
  2. There are no plans to ship controlled medications to local PODs.
  3. Orders containing Controlled drugs will be given to the state RSS Controlled Substance Officer of the state RSS Re-Packaging Unit for filling. All boxes of the order that contain controlled substance will have a colored tape wrapped around them to identify them as controlled medications.
  4. All boxes containing controlled medication will be stacked on the top outside portion of the pallet so they are clearly visible.
  5. The state RSS Controlled Substance Officer will ensure the state RSS Quality Assurance Team and the state RSS Shipping and Receiving Unit are aware of the controlled substance in the order.
  6. Orders will be checked for accuracy and loaded onto delivery vehicles.
  7. A DEA Form 222 will be completed by the state RSS Controlled Substance Officer and given to the truck driver, along with four copies of the pick sheet.
    - Signature Copy
    - Bill of Lading Copy
    - Hospital-Treatment Center Record Copy
    - Hospital-Treatment Center Return Copy
  8. The driver will sign all four copies of the Pick Sheet and keep them all Except for the Signature Copy which will be given the state RSS Distribution Chief.

9. When the driver arrives at the Hospital-Treatment Center he/she will have the facility representative sign all three copies and have the DEA Registrant sign the DEA 222 Form.

10. The Hospital-Treatment Center will retain a copy of the DEA Form 222 and the Original will be returned to the RSS, and given to the state RSS Controlled Substance Officer.

11. The Hospital-Treatment Center site will retain the Record Copy.

12. The truck driver will retain the Bill of Lading.

13. The Return copy will be given to the state RSS Distribution Chief, when the driver returns to the RSS.

### **4.3 Responsibilities**

a. All state agencies are responsible for the following tasks:

1. Fulfill roles and responsibilities as assigned in the State of Maryland Emergency Operations Plan and its supporting annexes.

2. Ensure personnel understand their roles and responsibilities during SNS response operations.

3. Ensure response personnel are appropriately trained in accordance with NIMS guidelines.

4. Develop Standard Operating Procedures (SOP's) to operationalize responsibilities designated in this document.

5. Identify staffing requirements and maintain current notification procedures to ensure appropriately trained agency personnel are available for SNS operations.

6. Pre-Identify by agency location; state agency responders, essential personnel required to maintain continuity of operations, and family members. Provide this information to the MDH Office or Preparedness and Response on an annual basis to plan for dispensing of prophylaxis medications.

7. Provide suitable distribution vehicles and licensed drivers as requested.

8. Participate in exercise planning, exercises, and development of after action reports (AAR).

9. Identify state facilities that meet the push site definition and coordinate with the local health department to incorporate inclusion of these facilities into local dispensing plans.
- b. MDH Office of Preparedness and Response (OP&R) is responsible for coordinating state health and medical services statewide and will serve as the primary state agency responsible for the coordination of response operations during an SNS deployment. As the primary agency OP&R will:
1. Oversee SNS preparedness activities; develop, maintain and review, and implement the State SNS Plan, and serve as final state authority on SNS activities.
  2. Develop and maintain comprehensive SNS SOP's to delineate state public health responsibilities, provide guidance and templates for LHD's.
  3. Continue to develop disease surveillance networks. Provide ongoing education about potential epidemic diseases and disease outbreaks to local health departments, health practitioners, emergency managers, and first responders.
  4. Conduct ongoing surveillance for adverse health effects and initiate appropriate control activities involving public and private health care facilities, providers, and LHD's.
  5. Participate in programs to detect the release of airborne pathogens. Provide warning to government and public health community of a potential bioterrorism event.
  6. Coordinate the initiation of appropriate disease control measures at all levels of public health.
  7. Coordinate state decision-making; regarding allocations when resources are scarce or arrive in multiple shipments over extended periods of time. Issue guidance to assist local officials with resource allocation decisions.
  8. Communicate SNS related issues with state and federal leadership and external partners as deemed necessary.
  9. Coordinate SNS planning with neighboring states.
  10. Make recommendation to the Governor about the necessity of requesting SNS assets for the CDC. This decision will be made in collaboration with local, state and federal officials.



11. Develop, maintain, and provide procedures with related training on the Inventory Management system and its backup.
12. Develop procedures for repackaging bulk SNS materials. Identify and train personnel to implement and execute procedures for repackaging SNS material.
13. In the event of a public health emergency, the Public Information Officer serving on the Command Staff of the MDH Command Center will be responsible for information dissemination utilizing the Joint Information Center (JIC).
14. MDH managed State Hospitals will coordinate with LHD's to develop Push Site procedures.
15. Provide guidance and support for volunteer recruitment, training and maintenance.
16. Coordinate with professional medical associations to identify volunteers that can be deployed to all local jurisdictions as requested.
17. Review after action reports and evaluation methodology and approve appropriate changes in SNS plans.
18. Responsible for the planning and operation of the State RSS Site. The state will assume custody of the Push Pack from the federal authorities, be responsible for the transportation of SNS supplies to the state RSS site, and manage all aspects of RSS operations, including the warehousing, repackaging if necessary, and distribution to local jurisdictions.

c. Supporting State Agencies

1. Maryland Department of Health and Mental Hygiene (MDH) is the coordinating agency for State SNS planning, and has the authority to recommend that the Centers for Disease Control and Prevention deliver SNS assets to the State, based upon epidemiological or laboratory data that would indicate an imminent public health emergency resulting in the depletion of local drug inventories and medical supplies which would impede the Local effort to respond effectively to an event.
2. Governor's Office of Homeland Security serves as the direct liaison to the U.S. Department of Homeland Security, as well as coordinating state departments, agencies, counties, and municipalities in matters of homeland security and emergency preparedness.
3. Maryland Emergency Management Agency is responsible for

coordinating the state response in any major emergency or disaster. This includes supporting local governments, and coordinating assistance with the Federal Emergency Management Agency. MEMA will operate and manage the State Emergency Operations Center (SEOC) when the SNS Plan has been activated.

4. Maryland Board of Pharmacy has been designated to re-package bulk medication stocks into unit of use units when required.

d. Harford County Health Department

1. Provide initial public health response operation, including surveillance for adverse health effects.
2. Determine the requirement to request pharmaceuticals and other medical materials.
3. Take the lead role in the development, planning, preparation, exercise and training for the medication distribution functions at the local level.
4. Establish policies to ensure personnel are available and key personnel are appropriately assigned, trained, and licensed (when applicable). Identify volunteers as necessary to fulfill local responsibilities.
5. Identify multiple potential POD sites and consider alternative medication distribution methods. Monitor suitability and availability of PODs regularly.
6. Develop SOP's for the operation of POD sites.
7. Plan for the provision of disaster behavioral health services.
8. Pre-plan with local POD site, treatment centers and emergency management agencies for unloading equipment and resources.
9. Coordinate SNS planning with neighboring health jurisdictions.
10. Identify local level responders, and develop procedures to provide mass prophylaxis through a system that ensures continuity of operations.
11. Assist local law enforcement agencies in the development and exercise of security for the medication distribution function.
12. Coordinate with treatment centers and organizations identified as push sites to obtain contact information and develop plans and procedures for

medication delivery and dispensing. In addition to locally identified push sites, this should include state and federal facilities within the jurisdiction the meet the definition of a push site.

13. Utilize redundant communication systems to rapidly disseminate and receive health alerts between state and LHD staff.

14. Identify vulnerable populations and develop alternate methods for disseminating information and distributing medications to these populations.

e. Other Local Agencies

1. Please see Table 8 for local SNS assignments and responsibilities:

Table 8 Local SNS Assignments and Responsibilities

<b>TASK</b>	<b>LEAD</b>	<b>SECONDARY (if applicable)</b>
Local level Area Command & Control	Local Emergency Management	Health Department
Request (local to state)	Health Department	Local Emergency Management
Transportation Escort for SNS supplies and POD staff	Harford County Sheriff's Department	Municipality Police Depts. Department of Public Works
Receipt/Stage/Store (if applicable)	Health Department	Department of Community Services
Repackaging (if required)	Health Department	Department of Community Services
Distribution (if required)	Health Department	Department of Public Works
Dispensing	Health Department	Department of Community Services- Harford Co Gov't
Inventory Control	Health Department	Harford County Government
Overall Security- including POD sites	Harford County Sheriff's Department	Municipality Police Departments
Communication	Local Emergency Management	R.A.C.E.S.- HAM radio operators
Treatment Center Coordination	Upper Chesapeake Health System	Health Department
Training/Exercises	Health Department	Local Emergency Management
POD site locations	Harford County Public School System	Harford County Government

2. See Appendix A-1 for overall county agency responsibilities in the all-hazard plan.
3. See Appendix D-21 for the Human Services Annex in the all-hazard plan. Harford County employees (1,579) are available to assist with medical and health services in an emergency.
4. See Appendix D-22 for the Harford County Government Organizational Chart.
5. See Appendix D-23 for the Harford County Health Department Organizational Chart.
6. See Appendix D-24 Warehouse Space MOU in the event a large area would be required for supply storage.
7. See Appendix D-25 for the MOU between Aberdeen Proving Ground and Harford County, Maryland.

## **Chapter 5 Command and Control**

### **5.1 State Command and Control**

- a. Direction and control of the SNS deployment will be exercised in accordance with the State of Maryland Emergency Operations Plan, the National Incident Management System (NIMS) and the National Response Framework (NRF) requirements.
- b. MDH provides technical support and guidance to affected local officials and responding state agencies. Direction and control of state resources and activities will be conducted from the State EOC in coordination with the MDH Command Center.

### **5.2 Establishment of Distribution Operations Center (DOC)**

- a. The Harford County Health Department formally adopts the National Incident Management System (NIMS) Incident Command System (ICS) as its standard method of command and control.
- b. The DOC will be located in the Command Center of the Harford County Health Department. The role of the DOC is to coordinate all activities and operations of the Health Department from one central location. The DOC serves as the area command center, providing communication between the local PODs, treatment centers, and the State RSS. At the very minimum, the DOC should have an Incident Manager, a PIO, a Liaison Officer (who may be positioned at the local

EOC) and four Section Chiefs (Planning, Operations, Logistics, and Administrative/Finance).

- c. See Appendix E-1 for DOC ICS chart.
- d. See Appendix E-2 for the DOC Job Action Sheets.
- e. See Appendix E-3 for the first and second shift plan for staffing the DOC. Sixteen staff and four relief staff for each 12 hour shift. A total of 40 staff are required.
- f. Staffing for the DOC will come from Health Department staff trained on what SNS is and our role in the operational process.  
See Appendix E-4 DOC Staff List
- g. The Harford County automated call down system, Connect CTY, will be utilized to contact all DOC staff members for the purpose of assembly at the Health Department Incident Command and to send notification to all Harford County staff of the incident and planned SNS response.  
See Appendix E-5: Connect CTY  
See Appendix E-6: DOC Staff Contact Information

### **5.3 POD Command and Control**

- a. The command and control of the PODs is accomplished using NIMS ICS. Every POD will have a command center (or command post) that is located in the facility but away from the immediate activities of dispensing. Each POD command center will be identified by their designated letter. For instance Bel Air Middle will be identified as POD A. See Appendix E-7: POD Radio Call Signs.
- b. PODs should all have a POD Commander, as well as a PIO and a Safety Officer and two Section Chiefs: Logistics Section Chief and Operations Section Chief.
- c. The Operations Section, under an Operations Section Chief, will oversee the majority of actions performed at the POD. Operations, depending on staff resources, will have four areas of function: Traffic, Station 1, Station 2, and Station 3. Traffic will be responsible for ensuring cars move through the POD in an orderly fashion and will serve as runners in between stations. Station 1 is where the Medication Worksheet will be given out. Station 2 is where the worksheet will be collected, checked for accuracy and completeness, and the proper medications to be given will be identified. Station 3 is where medication will be dispensed and literature given.
- d. The Logistics Section, under the Logistics Section Chief, will be divided into Service, Support, and Security branches. The Service Branch will include the Communications Unit which will provide communications between the POD and DOC. The Support Branch will include the Supply Unit which will ensure

adequate stocks of all medications and proper record keeping. The Security Branch will provide on -site security for all staff members and the medication.

- e. See Appendix E-8 for the POD ICS Chart.

## **Chapter 6 Establishment of Local PODs**

### **6.1 Locations of Public POD Sites**

- a. Each POD site includes the following characteristics:
  - Adequate parking for staff
  - Accessibility to the general public
  - Sufficient climate controlled space
  - Restrooms
  - Running water
  - Electricity
- b. See Appendix F-1 for the list of primary POD sites.
- c. See Appendix F-2 for the list of alternate POD sites.

### **6.2 Decision to Open Public POD Sites (Scalability)**

- a. The HCHD, in collaboration with the Harford County Sheriff and town police have identified nine primary (and nine alternate) PODs sites geographically dispersed to equitably serve Harford County residents.
- b. The decision concerning which site(s) will ultimately be used will be made in collaboration with the Harford County Public School System at the time of the event. Considerations in making that decision include:
  - The size of the event
  - The location of the event
  - The nature of the disease
  - Availability of the site
  - Length of time the site is likely to be needed

### **6.3 POD Staffing**

- a. Harford County Health Department employees are required to annually sign a policy letter from the Harford County Health Officer indicating their status as an Essential Employee or Designated Essential Employee. As such, they understand that in a disaster they can be activated for a response. Health department services will be temporarily halted in a disaster so that personnel can be released for other assignments as needed.

See Appendix F-3: HC Health Department Essential Employee Designee

See Appendix F-4: HC Health Department Employee Information Page

- b. Harford County Health Department employees will be called to assemble using the county's automated call down system. All Harford County Government employees are able to be reached via this system as well.  
See Appendix E-5: Connect CTY  
See Appendix F-5: HC Gov't Connect CTY group
- c. Each public POD requires approximately 33 staff members/ shift (24 dispensing staff, 3 relief staff, 4-6 law enforcement, and 1 RACES operator). Therefore, for nine PODs for two 12 hour shifts a total of 594 staff will be required over a 24 hour period. Staff will report to the POD 30 minutes prior to shift change in order to receive a shift report and just in time training.

Table 9: POD Staffing Chart

<b>Title</b>	<b>Description</b>	<b>POD Area Physical Location</b>	<b>Location within ICS Structure</b>	<b>Number Needed</b>
POD Commander	Overall, responsible and accountable for all POD functions	POD Command Center – Inside school/building	Command Staff	1
Public Information Officer	Responsible for communicating with media as well as assisting Communications group	POD Command Center – Inside school/building	Command Staff	1
Safety Officer	Responsible for keeping employees and the public safe during a POD activation.	POD Command Center – Inside school/building	Command Staff	1
Operations Section Chief	Oversees Traffic, Station 1, Station 2, and Station 3 groups	POD Command Center – Inside school/building	General Staff	1
Logistics Section Chief	Oversees Support, Service, and Security Branches to support POD	POD Command Center – Inside school/building	General Staff	1
Traffic/ Security Liaison	Ensures smooth traffic flow at entrance and exit to POD.	Close to POD Stations 1 at Entrance 1 at Exit	Operations	1 HCHD Supervisor 2 Traffic Police
Form Distributor	Responsible for handing out forms to heads of households.	Station 1	Operations/ Station 1 Group	2 (including 1 supervisor)
Form Collector/Checker	Responsible for checking completeness of forms and deciding which medication should be given based on the answers to questions.	Station 2	Operations/ Station 2 Group	5 (including 1 supervisor)
Medication Filler/ Distributor	Processes order for medication and distributes to heads of households	Station 3	Operations/ Station 3 Group	9 (including 1 supervisor)



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Relief Staff			Operations Station 1-3	3
Supply Unit Clerk	Responsible for ordering supplies/maintaining inventory.	POD Command Center – Inside school/building	Logistics	2 Unit Clerks Supervisor runner
Communications Group (primary focus on radio communication)	Oversees all communications functions.	POD Command Center – Inside school/building	Logistics	1 (from R.A.C.E.S.)
Security Branch	Maintains safety of staff and supplies at POD site.	1 in Command Center – inside school	Logistics	Police Supervisor

See Appendix F-6: POD Staffing Plan

See Appendix F-7: POD Job Action Sheets

c. Care/ Feed Plan for Staff

1. The POD will have indoor bathrooms.
2. There will be a designated staff rest area with cot.
3. A designated staff eating area with refrigerator, tables and chairs.
4. Employees will be instructed to bring a bag lunch with them at the start of their shift.
5. Meals may also be provided by local eateries and or grocery stores, situation permitting. Payment would be made using the health department credit card. School cafeterias may also be utilized during the school year as they will have a Supply of food in stock.  
See Appendix F-9: State of MD Contract Services-catering
6. See Appendix F-10: Injury Reports

d. Additional staff support will be provided by:

1. Harford County Government employees : 1,579 employees  
See Appendix F-11 for the all-hazard county EOP annex discussing human Services.  
See Appendix D-21: Harford County Government Organizational Chart
2. Harford County Medical Reserve Corps (MRC): 37 volunteers  
See Appendix F-13 for the county MRC roster
3. State of MD Medical Professional Volunteer Corps (MPVC)/  
ESAR-VHP: 102 volunteers  
See Appendix F-14 for the MPVC/ ESAR-VHP roster for Harford County

e. Badging of Staff and Volunteers

1. The Health Department Just In Time Badging SOP will be followed to create photo IDs for staff and volunteers who require them. Staff and volunteers will be required to sign-in at each shift and given a dated wrist band each time they report. The wrist band will be placed on the individual's wrist prior to leaving the ID station.  
See Appendix F-15: Just In Time Photo Badging SOP.

f. Volunteer Management

Harford County has a county Spontaneous Volunteers and Donations Management Plan. Volunteers will report to a central county location where they will be screened for possible assignment to the Health Department. The Health Department may receive volunteers from the central county location, directly from the community or from community partner agencies. See Appendix F-16.

1. The Health Department will ask the volunteer to present their ID, complete an MRC application, Sign-In, and wear a dated Health Dept wristband.
2. Screening, credentialing and licensing will be addressed using the Harford County Medical Reserve Corps EOP. This will be completed for both medical and non-medical volunteers.  
See Appendix F-17: Medical Reserve Corps EOP
3. Job Action Sheets will be provided along with Just in Time training.  
See Appendix F-7: POD Job Action Sheets

g. Liability

- The Worker's Compensation Act is codified at MD.CODE ANN., LAB. & EMPL. §§ 9-101et seq. (west 2002).
- §14-3A-06: A health care provider is immune from civil or criminal liability if the health care provider acts in good faith and under a catastrophic health emergency proclamation.
- Individuals who volunteer for the state may be covered under the Maryland Tort Claims Act and considered "State personnel" for immunity purposes. The Code of Maryland Regulations, Title 25, Subtitle 02, Chapter 01 defines a volunteer as a person who: "(a) [i]s performing services to or for a unit of State government, the employees of which are considered State personnel...(b) [i]s engaged in the actual performance of

the services...at the time of the incident giving rise to a claim; and (c) [i]n the performance of the services...(i) [i]s participating in a formal volunteer program, or (ii)[b]efore the beginning of those services, is formally recognized by the unit as a volunteer.”

COMAR 25.02.01.02B(8).

- The Harford County Spontaneous Volunteers and Donations Management Plan also addresses liability and compensation for volunteers. See Appendix F-16.

## 6.4 POD Set Up

- a. Harford County Health Department will be operating nine drive thru POD sites at various school locations within the county. Each POD site will have three stations.  
See Appendix F-18 : Harford County School Map  
See Appendix F-19: Harford County Public School Organizational Chart  
See Appendix F-20 : Harford County Public School List Directory  
See Appendix F-21 : Harford County Public School Administration Directory  
See Appendix F-22 : Harford County School Emergency Representatives  
See Appendix F-23 : Harford County Public School Emergency Contact List  
See Appendix F-24 : Primary POD Directions  
See Appendix F-25 : Alternate POD Directions  
See Appendix F-26 : Primary and Alternate Site Specific POD Layouts
- b. Each POD has a supply list. Supplies will be loaded by the logistics team from the health department storage facility onto wheeled, metal, POD carts that can be locked. The carts will then be wheeled into trailers and transported to each POD site. The Harford County Health Department owns three trailers, however, please see Appendix F-28 for additional trailer resources should they be needed.  
  
See Appendix F-27: Primary and Alternate POD Supply List/ Go Kits.  
See Appendix F-28 : Trailer Resource List
- c. Each dispensing site will have a signage kit which will include multiple A-frames with signs, tape and cable ties. Dispensing sites will have clearly marked entrance and exit points along with law enforcement traffic control at each location to help traffic move along.  
See Appendix F-29: Public POD Set Up Photos
- d. Printed material (drug and agent fact sheets and medication worksheet) will be provided by the state at the time of SNS delivery or each POD may use their supply of paper to make copies on the school copy machines.  
See Appendix F-30: List of local printing resources

- e. Office Equipment maintained inside each POD facility: phone (land line), fax machine, internet capability and at least one hand truck.
- f. The following resources will be requested through the local Emergency Management agency:
  - Portable toilets. See Appendix F-9: State of MD Contract Services
  - Generators (Currently have nine).  
See Appendix F-9: State of MD Contract Services
  - Outside lighting (Currently have 18 floodlights). Request made to county public works for additional lighting.
  - Tow trucks. See Appendix F-31: Towing companies

## 6.5 POD Operations

- a. The main goal of a POD is to dispense/ administer medications and to educate citizens in order to minimize the number of citizens who may become ill.  
Types of POD set ups include:
  - 1. Full medical POD for the purpose of providing triage (according to state/federal guidance), vaccinations, screenings, education on medication side effects, signs of illness, guidance on caring for patients at home and staffed with nurses, pharmacists and physicians.
  - 2. Modified medical POD for the purpose of providing education on medication side effects, signs of illness, guidance on caring for patients at home, screenings or providing vaccinations and staffed with nurses and/or pharmacists with an on call physician available for questions. In a CRI event, this might be utilized for the dispensing of the additional 50-day regime of prophylaxis for anthrax.
  - 3. Non-medical POD for the sole purpose of quick distribution of medication and staffed with individuals who may not be medical personnel. In a CRI event, this would be utilized for the dispensing of the initial 10-day prophylaxis regime for anthrax.

See Appendix F-32: Overall POD Information Chart

- b. Prophylaxis of critical infrastructure personnel / first responders and families will be completed prior to opening public PODs using a closed POD model.
  - 1. The county automated call down system, Connect CTY, will be utilized to notify representatives from the identified first responder and critical infrastructure groups of the time and place to pick up the allotted

medication for their department, which will include enough medication for employees and family members.

See Appendix F-33: Closed POD First Responders

See Appendix F-34: First Responder POD Contacts

See Appendix F-35: Closed POD Photos

2. Once the representative arrives, they must present an agency photo ID and sign a Chain of Custody Form prior to being given the agency's medication allotment.

See Appendix F-36: Chain of Custody Form

3. The agency representative will take back the medication to their facility for a closed POD set up to distribute to their employees. The employees in turn will take the medication home to their family members.

4. POD training has been completed with each agency and each agency has a closed POD plan for dispensing the medication to their employees and family member. Each agency also received at least one copy of the CRI Pocket Field Operations Guide.

See Appendix F-37: CRI Field Operations Guide.

5. Harford County Health Department Employees

Health Department employees are included in this action, however, each employee will report to the identified first responder location along with a family member, if possible, to pick up their medication. The employee will remain and receive their assignment while the family member will return home with the medication.

6. The state will be making direct SNS deliveries to both hospitals and Aberdeen Proving Ground-military installation.

See Appendix F-38: Hospital Closed POD

See Appendix F-39: APG Closed POD

- c. The POD is the primary site for the distribution of prophylactic medications in the form of pills or vaccinations to the public. While PODs may vary in location, physical layout, number of staff, and the overall structure of every POD should be the same.  
See Appendix F-40: Procedural SOPs for POD Operations
- d. Medication will be provided to all individuals FREE of charge. No one will be required to pay for any medication dispensed at a POD. No health insurance is required. No prescription is required.
- e. Identification will not be required at the POD. Local and/or state residency is not a requirement to receive medications. Anyone, regardless of where they work or live, may pick up medications.

- f.     Definition of Household  
A household is defined as the person or persons residing at one address. Any person living at the address may be considered a “household representative.”
- g.     Limits on Pickup  
There is no limit on the number of pill bottles (units of use) a person may pick up at a POD. If the dispenser suspects fraudulent activity, he or she should contact the POD Commander to investigate further. Do not stop the dispensing line due to one person’s situation.
- h.     Allocating Limited Materiel  
If allocating limited materiel becomes necessary, directions will be received/requested from either federal or state entities.
- i.     Pickup for Neighbors and Households  
Any household representative may pick up medications for the entire household. All members of the household receiving medications must be listed on the Medication form. If a neighbor or family member is homebound or otherwise unable to physically visit the POD, a designee may also pick up their medications.
- j.     Minors  
If a homebound adult sends a family member under 18 to pickup the medications for the household, this is allowable assuming that the Medication Worksheet is filled out in its entirety. It may be necessary for the minor to return home with the form so that it can be filled out accurately.
- k.     Handling of symptomatic individuals  
If an individual shows symptoms while at the POD we will call an ambulance to come and take them to the hospital. The patient and their family will be given information while they wait for the ambulance.  
See Appendix F-41 :Hospital Regional MOU
- l.     Adverse Events  
The public will be provided with a prescription information sheet (drug package insert) for the purpose of providing information on adverse events.
- m.     Adverse Event Reporting  
The individual would be asked their zip code and we would determine which POD they picked up their medication from. We would then locate their Medication Worksheet and document which lot they got the medication from. Timely recall would be communicated using the IMATS system.
- n.     All applicable Emergency Use Authorizations (EUAs) and Investigational New Drug (IND) Protocols shall be followed by all state and local healthcare providers, staff and volunteers, as well as all Closed PODs, healthcare providers,

staff, and volunteers involved in any mass dispensing or mass vaccination operations.

- o. Displaced persons  
All displaced persons will be referred to the Department of Social Services and the Harford County Department of Community Services.
- p. Data Collection  
Data collection will take place on the Medication Worksheet. It will consist of a person's name and zip code or complete address and phone number if they have one. They will be asked three questions to determine which medication is best for them. The medication label will be affixed to the Medication Worksheet. Forms will be collected and data entered at a later date. The data collected will assist in identifying what percent of the population was served in each zip code as well as helping to track where different medication lot numbers were dispensed from. The Harford County Health Department will utilize the Call Centers or Rumor Control to manage reports of adverse side effects.  
See Appendix F-42: Medication Worksheet  
See Appendix F-43: Call Center
- q. Inventory Control  
Each medication that is given to an individual will be scanned so that its lot number can be properly recorded and lot numbers expired as drug is distributed. The state IMATS inventory tracking system will be utilized along with an excel spreadsheet and WASP bar code scanner.
- r. Education  
Individuals will be given instructions on how to dose a child and other event-specific educational information.
- s. Measures Used to Increase Throughput
  1. Use of a non-medical POD model.
  2. Designating Head of Household for medication pick up.
  3. Improving traffic flow thru the drive thru POD
    - Criteria: We are going to re-examine the traffic pattern flow through the POD and alter it to increase throughput as well as request additional staff.
    - Authorization: A change in POD operation to increase client throughput can only be made by the Incident Manager.



- Procedure: The POD Manager will contact the Dispensing Site Coordinator to request a change in POD operations (increase staff at Station 2 and Station 3).
  - The Dispensing Site Coordinator will obtain details regarding the current functioning of the POD and if current staff are being fully utilized. The Dispensing Site Coordinator will assess if a staff member can be moved into a different position to speed the throughput and their current position eliminated.
  - If it appears that more staff will be needed, the Dispensing Site Coordinator will report the situation to the Operations Section Chief who will decide whether or not the POD operation should be altered.
- t. Evacuation Plans  
If people are inside a facility and need to evacuate they should follow each facility's posted fire evacuation route. If people are outside the facility evacuation becomes necessary, the event will be assessed as to which resources will be necessary. These resources may include a 911 response, tow truck, etc. Traffic flow would be redirected by law enforcement and assistance would be given by available staff.

## 6.6 Special Populations

- a. Special populations are defined in the Harford County All Hazard Plan as individuals and groups that by their nature or location require identification and planning considerations prior to and during emergencies. The local Emergency Management agency maintains confidential lists of special populations in Harford County.
- b. Special populations may include: the sensory, mobility, or mentally impaired; children, residents in nursing and assisted living homes; home-bound persons who may have unique medical problems; homeless; illiterate or limited English speaking proficiency<sup>1</sup>; migrant workers; and citizens without transportation. Special populations can be thought of in two major groups:
1. Demographic Group: This group includes demographically distinct populations or individuals whose demographic distinction may put them at risk of isolation during an emergency.

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<sup>1</sup> Limited English proficiency refers to individuals who have difficulty or are unable to read, write, speak, or understand the English language.

- Examples of demographically distinct populations may include racial minorities; ethnic minorities; populations with distinct cultural or linguistic needs; elders; children; refugees and immigrants; institutionalized individuals, etc.
2. Health Conditions Group: This group includes individuals or populations with physical disabilities or other functional health impairments that at times may entail dependence on mechanical or technological equipment and also may put them at risk of isolation during an emergency.
- Examples of individuals with health conditions may include persons who are deaf or hard of hearing; visually impaired; use of a wheelchair; homebound; or have a mental health and/or substance abuse conditions, etc.

## 6.7 Alternate Dispensing Modalities

- a. Should it be impossible to utilize the drive-thru model for the PODs, the traditional walk-in model, as described in the CRI FOG manual, can be utilized.  
See Appendix F-37: CRI FOG Manual  
See Appendix F-44: Walk in POD Floor Plan
- b. Closed PODs. Representatives from each Closed POD site, see Appendix F-45: Closed POD Plan Template will, pick up the medication for their population at POD A or have a direct ship from the state RSS warehouse.
1. POD A pick ups  
See Appendix F-34: First Responder Closed PODs.  
*First responder PODs include the following: law enforcement, Detention Center, Emergency Management Agency, Fire/EMS, Public Works, Health Department.*  
See Appendix F-48: Nursing Home Closed PODs.  
See Appendix F-49: Large Assisted Living Facility Closed PODs.
2. Direct ship from state RSS warehouse  
See Appendix F-38: Hospital Closed PODs.  
See Appendix F-39: Aberdeen Proving Ground- military installation
- c. Mobile Dispensing Units (MDUs)
1. MDUs will supplement the distribution process by traveling to pre determined school sites in highly dense population areas of the county where transportation may also be an issue for some residents who may need to walk to a POD.

See Appendix F-50: GIS county map of densely populated areas

See Appendix F-51: MDU school locations

See Appendix F-52: MDU Standard Operating Procedure

2. MDUs will transport medication to Senior Apartment Complexes.

See Appendix F-53: Locations of Senior Apartments

3. MDUs may travel to any identified location in the county where access to medical care appears to be a problem during the event.

## **6.8 Long Term-Dispensing Operations**

- a. During a CRI anthrax event, some or all PODs will be closed following the delivery of the initial 10-day antibiotic regime.
  1. If the state is able to deliver the remaining 50-day antibiotic regime to local pharmacies then no PODs will remain open. However, a county call center may continue to operate to handle any questions or concerns residents may still have such as side effects from the medication, why it is important to continue taking the medication.
    - The health department will provide the 50-day antibiotic regime to those individuals (those living below the poverty level or on a fixed income) who cannot afford the administration fee charged by a local pharmacy.
  2. If, however, the state is unable to deliver the remaining 50-day antibiotic regime to local pharmacies then one or more PODs will remain open depending on the amount of population affected.

## **Chapter 7 Communications**

### **7.1 State SNS Communication**

- a. During an incident requiring the delivery of the SNS, a Joint Information Center (JIC) will be located at MEMA. A Public Information Officer (PIO) will be on duty as part of the SEOC Command Staff during all shifts. The PIO's duties include:
  1. Releasing background information on the SNS.
  2. Managing media relations and the release of all public information about State activities related to the SNS deployment.
  3. Coordinating with MDH's PIO.

4. Coordinating with PIOs from state and federal agencies involved in the SNS deployment.
5. Providing support to PIOs at Local Health Departments (LHD's)
6. Additional state-level PIO duties may include:
  - Using Web EOC for tracking and sharing information.
  - Setting up state-level event Web site.
  - Providing SNS information to partners and stakeholders

## **7.2 Tactical Communication Policies and Procedures**

- a. All tactical communication will be conducted using plain text. Under no circumstances are agencies and individuals to use ten-codes and other codes which may be misinterpreted or misunderstood by the receiving station.
- b. Transmissions should be short and concise, and sent on designated channels.
- c. Messages and instructions of any kind should be written on the appropriate ICS form; if RACES (Ham) operators are present, they may use the corresponding RACES ICS forms.  
See Appendix G-1: Amateur Radio Communication Go Kit Instructional Manual.
- d. See Appendix G-2: Harford County EOP Communications Annex
- e. See Appendix G-3: Harford County Health Department Risk Communication Plan and Media Manual

## **7.3 Staff Activation and Call Down**

- a. **CONNECT CTY EMERGENCY NOTIFICATION SERVICE**  
A web based emergency notification tool which can be used to inform and mobilize staff of the Harford County Health Department in the event of an emergency. Call downs can be initiated through the web or over the phone via Connect CTY. The web address for the Connect CTY services is as follows:  
<http://www.blackboardconnectcty.com>  
See Appendix G-4: Harford County Health Department Call Down Roster.  
See Appendix E-5: Connect CTY

## **7.4 PIO Staff/ Training/ Partner Contacts**

- a. State of MD Health Department PIOs  
See Appendix G-5: Maryland Health Department PIO List

- b. Harford County PIO's and PIO training  
See Appendix G-6: Harford County PIO and PIO training
- c. Harford County Partner PIOs  
See Appendix G-7: Harford County Partner PIO List
- d. See Appendix G-8: Key local and state Partner Contact List

## **7.5 Public Information/ Risk Communication Policies and Procedures**

- a. Public Notification and Opening of PODs  
Once the Emergency Operations Center (EOC) is activated, a countywide Connect CTY message will be issued to inform the public of the incident and provide instructions as to next steps. This will also be the method used to announce POD openings and internet sites where the Medication Worksheet can be downloaded and completed prior to coming to the POD.
- b. Rumor Control/ Call Center will be established at the EOC to receive incoming calls and disseminate information to the public.
- c. Harford County Cable Network will provide public service announcements.
- d. Harford County Emergency Management has Connect-CTY which is cable of recording, scheduling, sending, and tracking thousands of personalized messages (voice, SMS text messaging, and e-mail) in minutes. The Connect-CTY service can send an unlimited number of voice and text messages to residents, businesses, staff, or any combination of these groups. Messages can be sent in your own voice by either using a telephone and a computer connected to the Internet to schedule delivery of messages, or by using just a telephone to record and send a message should you be subject to an evacuation, electrical outage or unable to access a computer.
- e. Other methods of communication dissemination in the event of power outage include: Flyers and Bullhorns.  
See Appendix G-9: Newspaper flyer  
See Appendix G-10: POD Information Sheets  
See Appendix G-11: Drug Information Sheets
- f. Communications to Special Populations
  - 1. Illiterate Population  
See Appendix G-12: Pictograms
  - 2. Deaf Population  
See Appendix G-13: Sign Language Resources  
See Appendix G-10: POD Information Sheets

**3. Homebound Population**

For those individuals who cannot drive to the POD themselves, they can send someone who can pick up the medication for them. If this does not work for an individual, they may contact Rumor Control/ County Call Center (410-838-5800) to request a homebound delivery.

4. Interpreters will be available to assist with the communication of those who speak a different language, such as Spanish or Korean. A phone number to call with directions in their language will be given, and culture sensitive and specific flyers will be distributed.

See Appendix G-14: Health Department Language Interpretation Contracts

See Appendix G-15: Spanish POD flyers

See Appendix G-15a: English Version

See Appendix G-12: Pictograms

5. The nursing homes and assisted livings are registered with our state Facility Resource Emergency Database (FRED)/ MEMRAD. This is a web-based, alert and data collection system. No special software is required to install it. In the event of an emergency, authorized personnel will determine the medical, logistical and geographical scope of the event and issue an alert to the relevant providers. Providers then log onto the FRED system, read the details about the event, gather any requested information and enter it into the FRED system.

**6. Alternate Dispensing Modes**

See Appendix G-16: Messages concerning Alternate Dispensing Modes

## **7.6 POD Internal Communication**

- a. Internal tactical within POD
  - Primary: Walkie Talkies
  - Secondary: Cell Phones
  - Tertiary: Runners
- b. See Appendix G-17: POD Signs

## **7.7 POD External Communication**

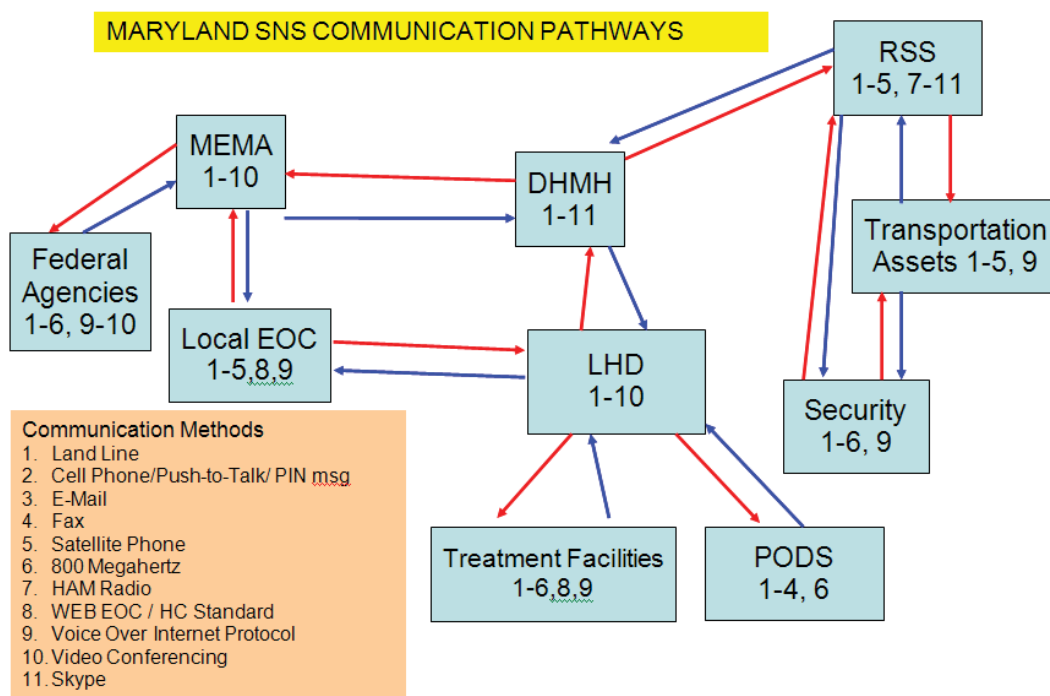
- a. External tactical from POD to DOC
  - Primary: 800 MHz radio
  - Secondary: Telephone/Cell Phones
  - Tertiary: R.A.C.E.S. Ham Radios

See Appendix G-18 : 800 MHz Just in Time Training with channel usage  
See Appendix G-18a: 800 MHz Training Presentation  
See Appendix G-1 : Ham Radio Go Kit Manual

- b. Tactical Communications from HD DOC to Local EOC
  - Primary: 800 MHz radio
  - Secondary: Telephone/Cell Phones
  - Tertiary: R.A.C.E.S. Ham Radios
- c. Tactical Communications from Local EOC to State EOC
  - Primary: 800 MHz radio
  - Secondary: Telephone/Cell Phones
  - Tertiary: R.A.C.E.S. Ham Radios
- d. POD PIO
  - See Appendix G-19: POD Media Manual JIT Training



Figure 5 Maryland SNS Communication Pathways



## 7.8 Public Information Resources

- The public will receive information about: the event, the location of medication dispensing sites (PODs), what to expect when they arrive at the dispensing sites, and medication instructions using the avenues listed below.  
See Appendix G-20: Local PIO Media List

### 1. Television Channels

- WBAL TV Channel 11
- WJZ TV Channel 13
- WMAR TV Channel 2

### 2. Radio Station (still viable if no electricity)

See Appendix G-21: Anthrax Audio Segments

- WBAL AM 1090

### 3. Connect CTY Messages (still viable if no electricity)

- Harford County automated messaging system (managed by HC Emergency Management) which utilizes phone and e-mail.

4. Websites

- <http://preparedness.MDH.maryland.gov/SitePages/Home.aspx>
- [http://www.harfordcountyhealth.com/?page\\_id=134](http://www.harfordcountyhealth.com/?page_id=134)

5. Printed Flyers at POD sites (still viable if no electricity)

See Appendix F-30: Sources of county printing

See Appendix G-10: POD Information Flyers

6. Police Bullhorn from roving police cars (still viable if no electricity).

7. Newspaper insert

See Appendix G-9: Newspaper flyer

- The Aegis

8. See Appendix G-23: Press Release Templates

## **7.9 Other Communication Methods**

a. Voice-Over-Internet Protocol Phone

See Appendix G-24 : VOIP Tips for Use

See Appendix G-25: Photo of Health Department VOIP phone

b. Fixed Satellite Phone

See Appendix G-26: SkyTerra Fixed Satellite Phone User Guide

See Appendix G-27 : Photo of Health Department Fixed Satellite Phone

c. Polycom (Audio-Visual Conference Capability) three units

See Appendix G-28: Polycom Quick Tips

See Appendix G-29: Photo of Health Department Polycom

## **Chapter 8 Security**

### **8.1 Health Department SNS Security Personnel at the Distribution Operations Center**

a. Security Coordinators have been identified and act as law enforcement liaisons.

See Appendix E-6 : DOC Designated Staff and Contact Information

See Appendix H-1 : DOC Security Training/ Orientation

### **8.2 SNS Security Agencies**

a. Harford County Sheriff's office is the lead agency for providing SNS security.

1. They will provide escorts for medical material in transit and POD personnel.
  2. They will also provide POD security to those locations outside of townships.
- b. Harford County Sheriff's Department  
45 South Main Street  
Bel Air, MD 21014  
410-692-7879
- c. The Aberdeen Police Department, Bel Air Town Police, and Havre de Grace Police Department will provide POD security in their jurisdictions.
- Aberdeen Police Department  
60 N. Parke Street  
Aberdeen, MD 21001  
410-272-2121
- Bel Air Police Department  
39 N. Hickory Avenue  
Bel Air, MD 21014  
410-638-4500
- Havre de Grace Police Department  
711 Pennington Avenue  
Havre de Grace, MD 21078  
410-939-2121
- d. SNS security agencies meet annually to review the SNS security plan.  
See Appendix H-2: SNS Security Meetings
- e. See Appendix H-3: Harford County Law Enforcement Contact List
- f. See Appendix H-4 : Security Guard Companies

### **8.3 POD Security**

- a. In coordination with Harford County Health Department the combined forces of all municipality-based police forces and the county's Sheriffs' department will coordinate and assure that all points of distribution (POD) locations have adequate security at each location  
See Appendix H-5: POD Specific Security Plans  
See Appendix H-6: POD Security Staffing and Positions

See Appendix H-7 : Harford County EOP Police Annex

- b. Security Sweep  
Law Enforcement will perform a security sweep both inside and outside of the facility prior to facility use/occupancy by staff or product according to their Security Sweep Standard Operating Procedures.
- c. Security Shifts  
Security staff will utilize 12 hour shifts. Security staff will rotate to provide duty relief for each staff member during the shift period.
- d. Supplemental Security Staff
  - 1. Fallston Fire Police
  - 2. Retired Maryland State Police
  - 3. State contracted security firms
- e. No Specialized Unit needs were identified with any of the community POD sites.
- f. Security staff will identify transportation routes between PODs and identify times of delivery based on available security escorts.
- g. Physical barriers  
The best method for barricades is the use of vehicles. They can be easily moved if the situation changes.
- h. Rules of Engagement and Use of Force guidelines for Law Enforcement  
Rules of Engagement and Use of Force guidelines are kept in the strictest of confidence within each law enforcement agency in Harford County. Each agency's SOP may be obtained from their headquarters.
- i. Security Breach  
Following the discovery of a security breach at a POD site, POD security will be notified and actions will be taken in accordance with their agency's Standard Operating Procedures.
- j. Evacuation Plans  
If people are inside a facility and need to evacuate they should follow each facility's posted fire evacuation route. If people are outside the facility evacuation becomes necessary, the event will be assessed as to which resources will be necessary. These resources may include a 911 response, tow truck, etc. Traffic flow would be redirected by law enforcement and assistance would be given by available staff.  
See Appendix F-31 : Towing Companies

## 8.4 Badging of Staff and Volunteers

- a. The Health Department Just In Time Badging Standard Operating P will be followed to create photo IDs for staff and volunteers who require them. Staff and volunteers will be required to sign-in at each shift and given a dated wrist band each time they report. The wrist band will be placed on the individual's wrist prior to leaving the ID station.  
See Appendix F-15: Just In Time Photo Badging SOP.

## **PART III: Recovery**

### **Chapter 9 Demobilization**

#### **9.1 Overall Demobilization and SNS Materiel Recovery**

- a. Demobilization and recovery will be initiated when SNS distribution operations scale down as sufficient capability and capacity are identified to serve the affected population.
- b. Demobilization and recovery activities include but are not limited to:
  - 1. Recovery and/or disposal of unused SNS materiel back to the RSS.
  - 2. Demobilization of all mobilized resources.
  - 3. Reimbursement and documentation collection.
  - 4. After action reporting and improvement planning.

#### **9.2 POD Demobilization**

- a. POD Commander will ensure all POD records and reports are turned in to the DOC Dispensing Site Coordinator and participate in the After Action Report Process.
- b. POD supervisors will conduct exit interviews with direct reports.
- c. The POD Operation Chief will supervise the break down and repacking of all equipment/supplies at each Station. Dispose of any biomedical waste materials according to local, state and federal guidelines. Ensure facility is cleaned and returned to former operating condition and document damages incurred during the event.
- d. The POD Logistics Chief will arrange to have all equipment/supplies returned to place of origin and state of readiness.

#### **9.3 Department Operations Center Demobilization**

- a. Demobilization Phase will begin as end of mission becomes eminent. PODs will be systematically shut down, all materials inventoried and returned to the state RSS warehouse.

- b. DOC Incident Commander will conduct exit interviews with local officials and Command Staff, submit an After Action Review, participate in any meetings as required, and ensure all records and reports are submitted to the appropriate officials.
- c. Command Staff
  - 1. Safety/ Security Coordinator: Ensure all records and reports are turned in to the Incident Manager. Conduct exit interviews with direct reports. Participate in the After Action process.
  - 2. Public Information/Liaison Officer: Submit media contact documentation to the Incident Commander Identify issues and participate in the After Action Report.
- d. General Staff and Reporting Units
  - 1. Logistics Section Chief: Ensure all records and reports are turned in to the Incident Manager. Conduct exit interviews with direct reports. Arrange transportation to have all equipment/supplies, including durable medical equipment, returned to the RSS or place of origin and state of readiness. An inventory list will be utilized to track returned supplies as well as documenting them in the IMATS software system. Supplies may be stored in the local HCHD warehouse unit until such time as they may be returned to the RSS. Participate in the After Action process.
  - 2. Tactical Communications/IT Support: Remove all communications equipment and pack it appropriately for transport. Account for all communications equipment issued to staff. Identify and tag all equipment needing repair and/or replacement. Ensure all records and reports are turned over to the Logistics Section Chief. Identify issues for After Action Report.
  - 3. Planning Section Chief: Ensure all records and reports are turned in to the Incident Manager. Conduct exit interviews with direct reports. Participate in the After Action process.
  - 4. Finance/Administration Section Chief: Ensure all records and reports are turned in to the Incident Manager. Conduct exit interviews with direct reports. Participate in the After Action process.
  - 5. Operations Section Chief: Ensure all records and reports are turned in to the Incident Manager. Conduct exit interviews with direct reports. Supervise the break down and repacking of all equipment/supplies at each



station. Ensure facility is cleaned and returned to former operating condition. Participate in the After Action process.

6. Staffing/Volunteer Coordinator: Demobilize and debrief all volunteers and staff members. Ensure all records and reports are turned over to the Operations Section Chief. Identify issues for After Action Report.

7. Distribution Coordinator: Ensure all records and reports are turned over to the Operations Section Chief. Identify issues for After Action Report.

8. Patient Coordinator: Ensure all records and reports are turned over to the Operations Section Chief. Identify issues for After Action Report.

9. Dispensing Coordinator: Collect all POD records and reports. Ensure that all paperwork is complete for submission to Operations Section Chief. Identify issues for the After Action Report and participate in the process.

10. Hospital/Alt Care Facilities Coordinator: Ensure that all paperwork is complete for turn in to Operations Section Chief. Identify issues for the After Action Report and participate in the process.

## **PART IV: Training- Exercises**

### **Chapter 10 Training**

#### **10.1 Training Coordinators**

- a. Designated Training Coordinator and Assistant Training Coordinator  
See Appendix I-1: Health Department Designated Training Coordinators

#### **10.2 Training Resources**

- a. See Appendix I-2 : Harford County Health Department Training Database
- b. SNS-CRI Staff Overview and Training
  - Course Objective- Learn about possible threats, SNS mission, SNS request process, SNS security, communication devices and pathways, POD dispensing plan and a review of POD Information sheets.
  - Target Audience- all employees.
  - Scheduling- every year
- c. New Employee Training  
See Appendix I-3: Harford County New Employee Training Packet
  1. NIMS IS-700 course mandatory on line class for all employees
    - Course Objective-Learn about the National Incident Management System
    - Target Audience- all new employees.
    - Scheduling- within three to six months of hire.
  2. Incident Command Review
    - Course Objective- Learn the definition of Incident Command System and the roles associated with it.
    - Target Audience- all new employees
    - Scheduling- within three to six months of hire.
  3. Bioterrorism Agent Categories

- Course Objective- Learn the basic definition of Bioterrorism and Category differences between agents .
  - Target Audience- all new employees
  - Scheduling- within three to six months of hire.
4. Overview of the SNS and CRI planning efforts in our county and region
- Course Objective- Learn about possible threats, SNS mission, SNS request process, SNS security, communication devices and pathways, POD dispensing plan and a review of POD Information sheets.
  - Target Audience- all new employees
  - Scheduling- within three to six months of hire.
5. Individual and Family Preparedness
- Course Objective- Provide information on emergency supply lists, family emergency planning, and creating a family emergency health sheet.
  - Target Audience- all new employees
  - Scheduling- within three to six months of hire.
- d. Medical Training
1. CPR
- Course Objective- Provide information on how to perform CPR and operate an AED.
  - Target Audience- medical professionals and any non medical professional who is interested in taking the training.
  - Scheduling- every two years to keep certification valid.
2. First Aid
- Course Objective- Provided either through CPR training or on line to perform basic first aid.
  - Target Audience- medical professionals and any non medical

professional who is interested in taking the training.

- Scheduling- every two years to keep certification valid.

e. POD Dispensing Training

1. Public PODs

- Course Objective- Learn about possible threats, SNS mission, SNS request process, SNS security, communication devices and pathways, Harford County's POD dispensing plan (drive-thru), and a review of POD Information sheets.
- Target Audience- all health department employees and any volunteer willing to assist the health department with POD operations.
- Scheduling- every year for health department employees and as needed.

2. Closed PODs

- Course Objective- Learn about possible threats, SNS mission, SNS request process, SNS security, communication devices and pathways, review Closed POD plan template, review of POD Information sheets, and determining the location and number of individuals served.  
See Appendix F-45: Closed POD Plan Template
- Target Audience- infrastructure personnel or special needs population groups.
- Scheduling- as needed.

f. Communication Pathways and Communication Equipment Training

- Course Objective- Learn about possible communication devices and pathways used in an emergency.
- Target Audience- all health department employees, infrastructure personnel or special needs population groups.
- Scheduling- as needed.

g. PIO Training

- Course Objective- Learn about risk communication messages, working with the media, and a PIO checklist.
  - Target Audience- health department employees
  - Scheduling- as needed.
- h. Psychological First Aid
- Course Objective- Learn basic skills that will begin the process of mental health healing following a traumatic event.
  - Target Audience- health department employees
  - Scheduling- as needed.
- i. IRMS- Inventory Tracking System
- Course Objective- Learn about the state SNS inventory tracking system.
  - Target Audience- health department employees
  - Scheduling- as needed.
- j. Call Down Participation
- Course Objective- Become familiar with the county's automated calling system so health department employees will be familiar with the system and reminded that they will be called to respond to a health emergency.
  - Target Audience- health department employees
  - Scheduling- quarterly.

### **10.3 Just in Time Training**

- a. Personnel are trained at the time of the event by health department staff or the POD Operations Section Chief.

1. POD Job Action Sheets

See Appendix F-7: POD Job Action Sheets

2. Photo ID Badging

See Appendix F-15 Just in Time Photo Badging SOP

3. 800 MHz Radio Usage

See Appendix G-18: 800 MHz Just in Time Training with channel usage

See Appendix G-18a: 800 MHz Training Presentation

4. POD Media Management

See Appendix G-19: POD Media Manual JIT training

## **Chapter 11 Exercises**

### **11.1 Harford County Exercises**


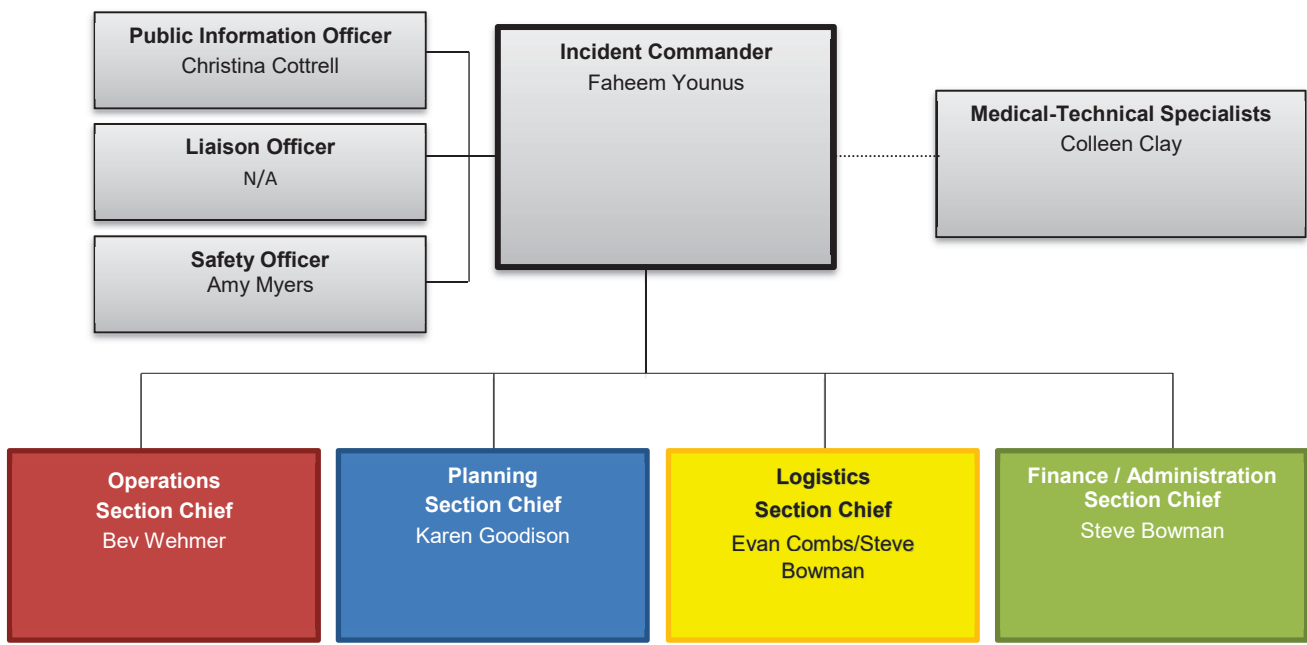
- a. See Appendix J-1: Harford County Health Department Exercise Database

### **11.2 Evaluations**

- a. At least one HCHD employee will be trained in the Homeland Security Exercise and Evaluation Program (HSEEP) in order to develop after-action reports (AAR) and improvement plans (IP).
- b. Evaluations will be conducted through After Action Reports and debriefings (see Appendix J-2): Harford County Health Department After Action Policy.
- c. Training materials will be adjusted based on the results of these evaluation tools.

# HICS INCIDENT ACTION PLAN (IAP) QUICK START

## COMBINED HICS 201—202—203—204—215A

	<b>2. Operational Period</b>  DATE: FROM: <u>3/26/2020</u> TO: <u>3/26/2020</u>  TIME: FROM: <u>07:45</u> TO: <u>16:00</u>
<b>3. Situation Summary</b> <span style="float: right;">— HICS 201 —</span> <b>3/26/2020 COVID-19 08:00</b>  CONFIRMED CASES: MD-500; UCMC-2; HMH-0 PUI: UCMC-1; HMH-0  70K in US, 2 weeks behind Italy (like NYC). First week of April, US will have the highest number of cases in the world. Pressures remain around COVID testing/turnaround time and PPE.  <b>3/26/2020 COVID-19 16:00</b> <b>Isolation Policy Updates</b> <ul style="list-style-type: none"> <li>Newly distributed pink isolation signs have gone out to the nursing units.</li> <li>Epic Orders –             <ol style="list-style-type: none"> <li>Airborne, Droplet &amp; Contact Precautions order continuous until discontinued (for patients with combination of illnesses, i.e., MDRO, influenza and TB; high suspicion of active COVID infection, critically ill or expected need for aerosol generated procedures).</li> <li>Enhanced Droplet &amp; Contact Precautions order continuous until discontinued (suspicion of active COVID infection with less potential for airborne transmission)</li> </ol> </li> <li>Patients likely to require aerosol generating procedures require negative pressure rooms</li> </ul>	
<b>4. Current Hospital Incident Management Team</b> (fill in additional positions as appropriate) <span style="float: right;">— HICS 201, 203 —</span>	
 <pre> graph TD     IC[Incident Commander Faheem Younus]     PIO[Public Information Officer Christina Cottrell]     LO[Liaison Officer N/A]     SO[Safety Officer Amy Myers]     MTS[Medical-Technical Specialists Colleen Clay]     OSC[Operations Section Chief Bev Wehmer]     PSC[Planning Section Chief Karen Goodison]     LSC[Logistics Section Chief Evan Combs/Steve Bowman]     FASC[Finance / Administration Section Chief Steve Bowman]      IC --- PIO     IC --- LO     IC --- SO     IC -.- MTS     IC --- OSC     IC --- PSC     IC --- LSC     IC --- FASC         </pre>	



## HICS INCIDENT ACTION PLAN (IAP) QUICK START

### COMBINED HICS 201—202—203—204—215A

**5. Health and Safety Briefing** Identify potential incident health and safety hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards. — HICS 202, 215A —

- PAPR malfunction, missing a knob on the bottom of them. Trying to understand how to get this fixed. The PAPR sucks in contaminated air. Need checks and balances that you are using good equipment.

**6. Incident Objectives**

— HICS 202, 204 —

Section Chief	6a. OBJECTIVES 6b. STRATEGIES / TACTICS	6c. RESOURCES REQUIRED	6d. ASSIGNED TO	STATUS by end of day
<b>Incident Commander</b>	Redo PUI Algorithm to reflect new Iso. Precautions	Doc. Lead- Visio	All PAOs and Val Leatherman	OPEN
<b>Medical Technical</b>	<ul style="list-style-type: none"> <li>Isolation Precautions one-pager to Operations</li> <li>PAPR machine not properly set up- fix this!</li> </ul>	Logistics to assist with equipment checks	Colleen Clay/Evan Combs	COMPLETE
<b>Safety</b>	<ul style="list-style-type: none"> <li>Finalize surge drills for table tops on 3/27.</li> <li>Evaluate other equipment needs during surge (IV pumps/channels, etc.)</li> </ul>	All Chiefs	Amy Myers	OPEN
<b>Public Info. Officer</b>	<ul style="list-style-type: none"> <li>Work on 3pmWebex call to fix audio issues</li> </ul>	Additional IT support	Christina Cottrell and Martha Mallonee	OPEN
<b>Operations</b>	<ul style="list-style-type: none"> <li>Clearly educate isolation precautions, proper signage and Epic screens (Nursing)</li> <li>Security- ED Ambu entrance, visitors sneaking in</li> </ul>	Med-Tech support with one-pager and pink isolation signs	Bev Wehmer and Julie Moats	COMPLETE
<b>Planning</b>	<ul style="list-style-type: none"> <li>Follow-up on more on outstanding TM/PUI test results.</li> <li>Staying on top of Biofire availability.</li> </ul>		Karen Goodison and Diane Stevens	COMPLETE
<b>Logistics</b>	<ul style="list-style-type: none"> <li>OR cleaning wait times to be determined today</li> <li>Labor Pool Unit Leader to meet today.</li> <li>Supply Unit Leader- Continue PPE counts daily</li> <li>Employee Wellbeing/Health- seek guidance on TM travel</li> </ul>	<ul style="list-style-type: none"> <li>Med-Tech to help support neg. pressure OR procedures</li> <li>Additional support for community donations- Betty Mitchell</li> </ul>	Evan Combs Lindsay Durham Joe Higinbotham Toni Shivery	ON-GOING
<b>Finance</b>	Properly classify the incremental costs on the Payroll side.		Steve Bowman	ON-GOING

**7. Prepared by**

PRINT NAME: **Valerie Leatherman**

DATE/TIME: 3/28/2020 19:43

SIGNATURE: \_\_\_\_\_

FACILITY: UNIVERSITY OF MD UPPER CHESAPEAKE HEALTH



**Purpose:** Short form combining HICS Forms 201, 202, 203, 204, and 215A  
**Origination:** Incident Commander or Planning Section Chief  
**Copies to:** Command Staff, Section Chiefs, and Documentation Unit Leader

## HICS INCIDENT ACTION PLAN (IAP) QUICK START


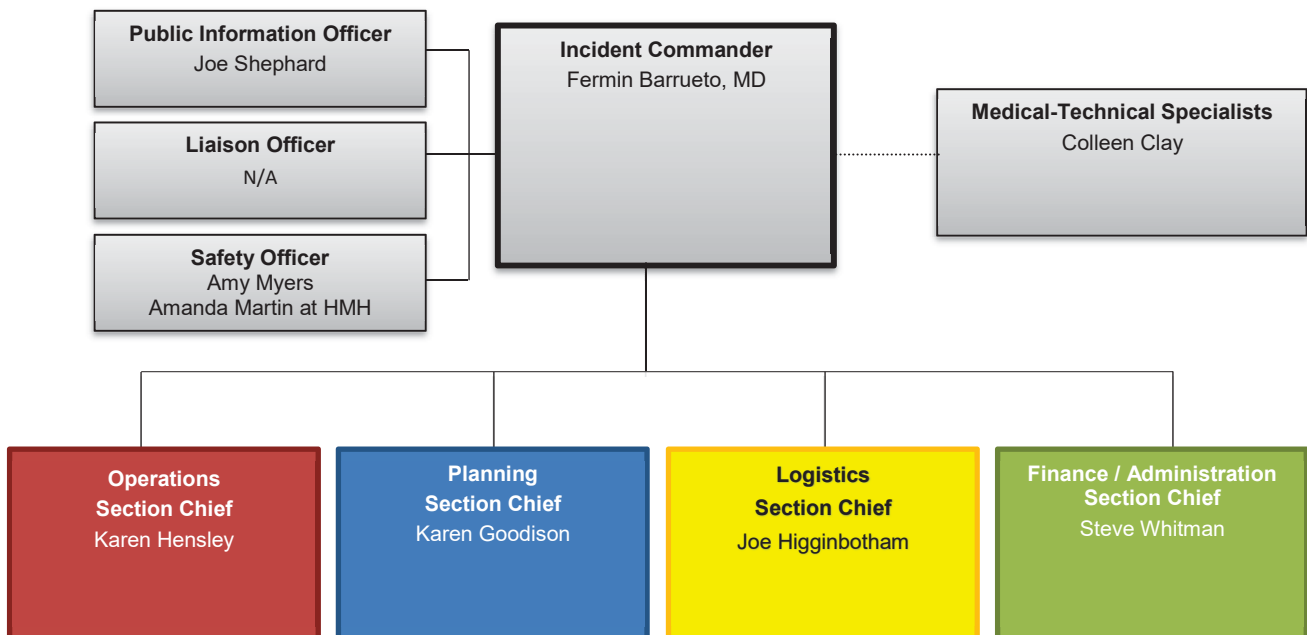
### COMBINED HICS 201—202—203—204—215A

- PURPOSE:** The Incident Action Plan (IAP) Quick Start is a short form combining HICS Forms 201, 202, 203, 204 and 215A. It can be used in place of the full forms to document initial actions taken or during a short incident. Incident management can expand to the full forms as needed.
- ORIGINATION:** Prepared by the Incident Commander or Planning Section Chief.
- COPIES TO:** Duplicated and distributed to Command and General staff positions activated. All completed original forms must be given to the Documentation Unit Leader.
- NOTES:** If additional pages are needed for any form page, use a blank HICS IAP Quick Start and repaginate as needed. Additions may be made to the form to meet the organization's needs.

NUMBER	TITLE	INSTRUCTIONS
1	<b>Incident Name</b>	Enter the name assigned to the incident.
2	<b>Operational Period</b>	Enter the start date (m/d/y) and time (24-hour clock) and end date and time for the operational period to which the form applies.
3	<b>Situation Summary</b>	Enter brief situation summary.
4	<b>Current Hospital Incident Management Team</b>	Enter the names of the individuals assigned to each position on the Hospital Incident Management Team (HIMT) chart. Modify the chart as necessary, and add any lines/spaces needed for Command staff assistants, agency representatives, and the organization of each of the General staff sections.
5	<b>Health and Safety Briefing</b>	Summary of health and safety issues and instructions.
6	<b>Incident Objectives</b>	
	<b>6a. Objectives</b>	Enter each objective separately. Adjust objectives for each operational period as needed.
	<b>6b. Strategies / Tactics</b>	For each objective, document the strategy/tactic to accomplish that objective.
	<b>6c. Resources Required</b>	For each strategy/tactic, document the resources required to accomplish that objective.
	<b>6d. Assigned to</b>	For each strategy/tactic, document the Branch or Unit assigned to that strategy/tactic.
7	<b>Prepared by</b>	Enter the name and signature of the person preparing the form. Enter date (m/d/y), time prepared (24-hour clock), and facility.

# HICS INCIDENT ACTION PLAN (IAP) QUICK START

## COMBINED HICS 201—202—203—204—215A

	<b>2. Operational Period</b>  DATE: FROM: <u>4/17/2020</u> TO: <u>4/17/2020</u>  TIME: FROM: <u>07:45</u> TO: <u>16:00</u>
<b>3. Situation Summary</b> <span style="float: right;">— HICS 201 —</span>  <u>4/17/2020 COVID-19 0800 Debrief:</u> <b>CONFIRMED CASES:</b> MD- 11,572; HarCo.- 176; UCMC- 23; HMH- 0 <b>PUI:</b> UCMC- 9; HMH- 2 <b>Vents in use:</b> UCMC- 13, 5 COVID; HMH - 1  <u>4/17/2020 COVID-19 1530 Debrief:</u> <b>CONFIRMED CASES:</b> MD- 11,572; HarCo.- 176; UCMC- 25 ; HMH- 0 <b>PUI:</b> UCMC- 2; HMH- 0 <b>Vents in use:</b> UCMC- 2; HMH -1  BAHF has 3 positive residents with 3 tests pending. FHHR has had some asymptomatic staff come back positive. The strike team will be called in, but they do not know how long it will take for them to arrive. Once strike team arrives, they will assess the skilled nursing facilities PPE and IP best practices. We may get additional feedback, once the state completes the assessment.	
<b>4. Current Hospital Incident Management Team</b> (fill in additional positions as appropriate) <span style="float: right;">— HICS 201, 203 —</span>	
 <pre> graph TD     IC["Incident Commander Fermin Barrueto, MD"]     PIO["Public Information Officer Joe Shephard"]     LO["Liaison Officer N/A"]     SO["Safety Officer Amy Myers Amanda Martin at HMH"]     MTS["Medical-Technical Specialists Colleen Clay"]     OSC["Operations Section Chief Karen Hensley"]     PSC["Planning Section Chief Karen Goodison"]     LSC["Logistics Section Chief Joe Higginbotham"]     FASC["Finance / Administration Section Chief Steve Whitman"]      IC --- PIO     IC --- LO     IC --- SO     IC -.- MTS     IC --- OSC     IC --- PSC     IC --- LSC     IC --- FASC       </pre>	

## HICS INCIDENT ACTION PLAN (IAP) QUICK START

### COMBINED HICS 201—202—203—204—215A

**5. Health and Safety Briefing** Identify potential incident health and safety hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards. — HICS 202, 215A —

Continued trend upwards at UMMS to 246 positive COVID patients. Continue monitoring nursing homes and testing employees.

**6. Incident Objectives** — HICS 202, 204 —

Section Chief	6a. OBJECTIVES 6b. STRATEGIES / TACTICS	6c. RESOURCES REQUIRED	6d. ASSIGNED TO	STATUS (by 4pm)
<b>Incident Commander</b>	Local SNF Admissions: hospitals will test, prioritize through VEIP, creating COVID unit	Dept. of Health	Dr. Younus/Colin Ward	On Going
	Plasma transfusion process: consent, lab, blood bank	UMMS	Dr. Leo/Dr. Barrueto	On-Going
<b>Medical Technical</b>	Reprocessing N95s: supplies on backorder, process complete; supplies needed and unavailable as of 4/16	Work with Log./Ops.	Colleen Clay	On-Going
	Gown conservation plan	Work with Log., Safety	Colleen Clay/Combs	On-Going
<b>Safety</b>	Continued Surge Planning	Operations/Logistics	Amy Myers	On Going
	Triage Pavilions at UCMC and HMH, should be installed by 4/19	Operations/Logistics		On Going
<b>Public Info. Officer</b>	6 Policies effective today; communication about temp screenings: statement on convalescent plasma; message to the community about the intensity of work	N/A	Joe Shepherd	On Going
<b>Operations</b> <ul style="list-style-type: none"> <li>Medical Care/Pharmacy</li> <li>Infrastructure</li> <li>Security</li> <li>Patient/Family Assistance</li> <li><b>Education</b></li> </ul>	Direct Admission COVID Screening	Jokhadar	Hensley	OPEN
	Temperature Check process going live Monday, April 20 <sup>th</sup> : use Labor Pool & give guidelines	Labor Pool	Hensley/Hicks/Durham	Complete
	OB/BHU COVID Testing on Admission: Test all OB patients upon admission;	Planning	Hensley	On Going
	Operationalize 60 iPads for TM/Patient Communication	CMIO	Hensley	OPEN
<b>Planning</b> <ul style="list-style-type: none"> <li>Testing</li> <li>Alternate Care Site</li> <li>Discharge Planning</li> </ul>	Cepheid training this weekend at UCMC; Cepheid validation next week at HMH; testing BHU admits and hold pts in ED until resulted – test current BHU pts now	Lab	Stevens/Goodison	On Going
	Continued Discharge Planning for COVID patients	Nursing/Hospitalists	Clark	On Going
<b>Logistics</b> <ul style="list-style-type: none"> <li>Supplies</li> <li>Labor Pool</li> <li>Employee Health and Wellbeing</li> </ul>	UV Tower planning for N95 reprocessing; Weigh UV Tower vs. Sterrad process	Med Tech	Combs	OPEN
	Mask distribution vacancies at HMH this weekend	Labor Pool	Labor Pool	OPEN
<b>Finance</b>	N/A	N/A	Craig Willig	N/A
<b>HMH</b>	N/a	N/A	Lisa Jennings	N/A

<b>7. Prepared by</b>	PRINT NAME: Rebecca Adelman & Jane Gordon	SIGNATURE: _____
	DATE/TIME: 4/17/2020	FACILITY: UNIVERSITY OF MD UPPER CHESAPEAKE HEALTH



**Purpose:** Short form combining HICS Forms 201, 202, 203, 204, and 215A  
**Origination:** Incident Commander or Planning Section Chief  
**Copies to:** Command Staff, Section Chiefs, and Documentation Unit Leader

## HICS INCIDENT ACTION PLAN (IAP) QUICK START


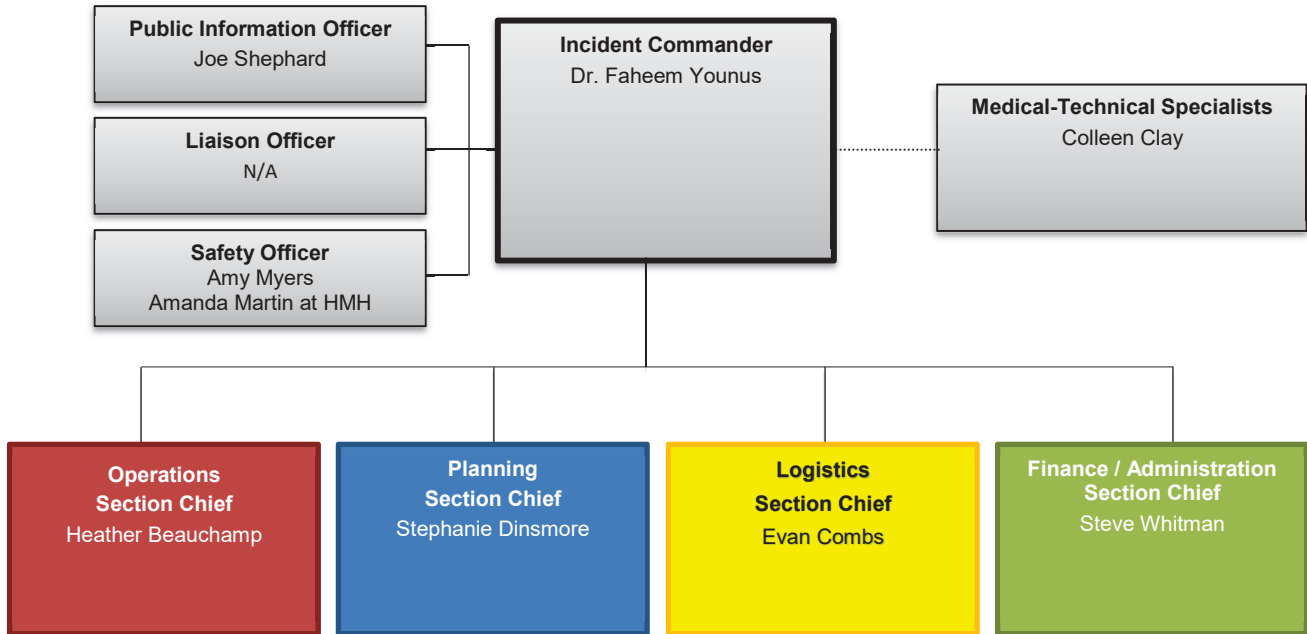
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# HICS INCIDENT ACTION PLAN (IAP) QUICK START

## COMBINED HICS 201—202—203—204—215A

	<b>2. Operational Period</b>  DATE: FROM: <u>5/5/2020</u> TO: <u>5/5/2020</u>  TIME: FROM: <u>07:45</u> TO: <u>16:00</u>
<b>3. Situation Summary</b> <span style="float: right;">— HICS 201 —</span>  <u>5/5/2020 COVID-19 0800 Debrief:</u> <b>CONFIRMED CASES:</b> MD-27,117, Har. Co.- 499; UCMC- 27; HMH- 3 <b>PUI:</b> UCMC- 5; HMH- 0 <b>Total Deaths:</b> UCMC- 12 total; HMH- 0 <b>Vents in use:</b> UCMC- 8, 4 COVID; HMH – 2, 1 COVID <b>PAO- Dr. Girio-Herrera</b>  <u>5/5/2020 COVID-19 1530 Debrief:</u> <b>CONFIRMED CASES:</b> UCMC- 29 ; HMH- 3 <b>PUI:</b> UCMC- 4; HMH- 3  Tests Performed 5/4: 31 at UCMC, 5 positive; 14 at HMH, 0 positive	
<b>4. Current Hospital Incident Management Team</b> (fill in additional positions as appropriate) <span style="float: right;">— HICS 201, 203 —</span>	
	
<b>5. Health and Safety Briefing</b> Identify potential incident health and safety hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards. <span style="float: right;">— HICS 202, 215A —</span>	

# HICS INCIDENT ACTION PLAN (IAP) QUICK START

## COMBINED HICS 201—202—203—204—215A

### 6. Incident Objectives

— HICS 202, 204 —

Section Chief	6a. OBJECTIVES 6b. STRATEGIES / TACTICS	6c. RESOURCES REQUIRED	6d. ASSIGNED TO	STATUS (by 4pm)
<b>Incident Commander</b>	Continued awareness of SNF and UMMS positivity for surge planning: FHHR patients resolving; BHHR pending; Citizens had staff member (+)	UMMS, SNF	Incident Commander	On Going
	Universal Testing Go-Live 5/5 at 10am: ED room sit 45 min after AGP, additional education on PUI and cohort of patients	MT, Ops	Incident Commander	Completed
<b>Medical Technical</b>	Gloves in Foley Kits	MT	Coleen Clay	On Going
	Isolation Resolutions w/ UMMS guidance: sent DocHalo to remove PUI flag	UMMS	Colleen Clay	On Going
	Plan for patient cohort	MT	Colleen Clay	Completed
	3 (+) 3W TM Investigations	Occ. Health	Colleen Clay	On Going
<b>Safety</b>	Continued build of IMC/ICU Cohort Unit: windows and warm/cold zones almost complete	Facilities	Amy Myers	On Going
	Additional surge space and 40 additional negative pressure machines	Facilities/Ops		On Going
	Triage Pavilions at UCMC and HMH: add fence for security purposes	Operations/Logistics		On Going
<b>Public Info. Officer</b>	Plasma patient discharge: video and pictures	PIO	Joe Shephard	Complete
<b>Operations</b> <ul style="list-style-type: none"> <li>Medical Care/Pharmacy</li> <li>Infrastructure</li> <li>Security</li> <li>Patient/Family Assistance</li> <li><b>Education</b></li> </ul>	PPE conservation: Daily Bundle/Clustering activities and shared responsibilities with other clinical teams: Will develop chart system. (finger sticks, etc.)	Education, RT, Rehab	Hicks	On Going
	N95 reprocessing – asked for pictures to use as examples of what not to reprocess. Wednesday 5/6 go live	Education	Hicks	On Going
	Education on NP collection	Education	Hicks/Beauchamp	Completed
<b>Planning</b> <ul style="list-style-type: none"> <li>Testing</li> <li>Alternate Care Site / Population Health</li> <li>Discharge Planning</li> </ul>	BioFire validations	Lab	Stevens	On Going
	Use VEIP station to test surgical patients 24 hrs prior to surgery	Lab/Provider	Clark	On Going
	HMH Rehab Unit: meeting Wednesday	N/A	Leslie Clark	On Going
<b>Logistics</b> <ul style="list-style-type: none"> <li>Supplies</li> <li>Labor Pool</li> <li>Employee Health and Wellbeing</li> </ul>	Gowns: Continued Gown Procurement; review reusable gowns Wipes: purple top 72 received 5/5	N/A	Joe H.	On Going
	HERO Support Program for TMs: meeting Wednesday	All	Clark/Shivery	On Going
	Jabber App to improve communication : trial on 1E from 1-9p; need assistance from call center; planned go-live Monday	Dr. Jokhadar	Evan Combs	On Going
<b>Finance</b>	N/A	N/A	Whitman	N/A
<b>HMH</b>	BHU private rooms after negative test (mtg 5/5 at 1:30) identified 5 rooms on BHU to convert to inpatient beds on BHU. Review Triage Tent at HMH	Planning/Operations	Martin/BHU	On Going

### 7. Prepared by

PRINT NAME: Rebecca Adelman

DATE/TIME: 5/5/2020

SIGNATURE: \_\_\_\_\_

FACILITY: UNIVERSITY OF MD UPPER CHESAPEAKE HEALTH



**Purpose:** Short form combining HICS Forms 201, 202, 203, 204, and 215A  
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## HICS INCIDENT ACTION PLAN (IAP) QUICK START

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# HICS INCIDENT ACTION PLAN (IAP) QUICK START

## COMBINED HICS 201—202—203—204—215A

<div style="display: inline-block; background-color: black; color: white; padding: 5px 10px; font-weight: bold; font-size: 1.2em;">COVID-19 RESPONSE</div>	<b>2. Operational Period</b>  DATE: FROM: <u>6/10/2020</u> TO: <u>6/10/2020</u>  TIME: FROM: <u>07:45</u> TO: <u>16:00</u>																																																																																											
<b>3. Situation Summary</b> <span style="float: right;">— HICS 201 —</span>  <u><b>6/10/2020 COVID-19 0800 Debrief:</b></u> <u><b>UCMC:</b></u> 14 COVID+, 8 PUIs, 8 vents (2 COVID vents), 176 census , 22 of 36 ICU/IMC beds full <u><b>HMH:</b></u> 0 COVID+, 6 PUIS, 0 vents (COVID vents), 69 census, 7 of 14 ICU/IMC beds full <b>OR Cases:</b> <u><b>HMH</b></u> – 4 cases; 1 23-hour, 1 pre-surgery admit <u><b>UCMC</b></u> – 22 cases; 2 23-hour, 2 pre-surgery admit <u><b>Cath and Angio-</b></u> 2 possible admissions (0 ICU/IMC)																																																																																												
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PAO today - Dr. Girio-Herrera PAO last 24 hours - Dr. Barrueto																																																																																												
<b>4. Current Hospital Incident Management Team</b> (fill in additional positions as appropriate) <span style="float: right;">— HICS 201, 203 —</span>																																																																																												
<pre> graph TD     IC[Incident Commander Dr. Faheem Younus]     PIO[Public Information Officer Christina Cottrell]     LO[Liaison Officer N/A]     SO[Safety Officer Amy Myers Amanda Martin at HMH]     MTS[Medical-Technical Specialists Colleen Clay]     Ops[Operations Section Chief/AOC Heather Beauchamp]     Plan[Planning Section Chief Stephanie Dinsmore]     Log[Logistics Section Chief Joe Higinbothom]     Fin[Finance / Administration Section Chief Steve Witman]      IC --- PIO     IC --- LO     IC --- SO     IC --- MTS     IC --- Ops     IC --- Plan     IC --- Log     IC --- Fin       </pre>																																																																																												

# HICS INCIDENT ACTION PLAN (IAP) QUICK START

## COMBINED HICS 201—202—203—204—215A

**5. Health and Safety Briefing** Identify potential incident health and safety hazards and develop necessary measures (remove hazard, provide personal protective equipment, warn people of the hazard) to protect responders from those hazards. — HICS 202, 215A —

**6. Incident Objectives** — HICS 202, 204 —

Section Chief	6a. OBJECTIVES 6b. STRATEGIES / TACTICS	6c. RESOURCES REQUIRED	6d. ASSIGNED TO	STATUS (by 4pm)
<b>Incident Commander</b>	UMMS IC Updates		All ICs	On Going
<b>Medical Technical</b>	OR Gowns laundering/utilization	UMMS IP	Clay	Open
	<b>Glidescope Blades Action Plan:</b> inventory, collection boxes & reprocessing; Moving to titanium reusable	BioMed/Central Sterile- David Scruggs	Clay/Higinbothom/Leo	On Going
	Cleaning of semi-private COVID+ rooms	Operations/EVS	Clay/EVS	Completed
	<b>Organize AGP standards for outpatient procedures-</b> developing strategy	Facilities/Ambulatory	Clay/Dinsmore	On Going
	Contact Investigation gap on TM exposed to asymptomatic COVID+ patients; not completing SmartSheet	Occ. Health	Clay	Completed
	<b>Signage for elevated standard precautions-</b> comments on UMMS policy	UMMS	Clay	Open
	<b>Cleaning of 1 East</b> to reopen as non-cohort unit, look at use of UV light; target cleaning completion Friday.	EVS	Clay	On Going
<b>Safety</b>	<b>Construction Timeline/Grid:</b> GI Suite, BHU, 1 East/1 West- awaiting finance: Periop walls completed, waiting on door installation; working on CCE walls, doors end of July.	Evan/Thom	Myers	On Going
	<b>Triage Pavilions</b> at UCMC and HMH; Begin using as Level 4 & 5 triage patients seen in pavilion. Group look at all potential uses for pavilion and who makes decision.	Operations/ED	Myers	On Going
	<b>1 East to 1 West</b> (3-Phase Unit) move, storage room in KCC garage; meeting with construction team. Phase 1 10 beds, Phase 2 14 beds (26 total beds over 4 weeks); need cleaning plan for 1W	Hensley/James	Myers	On Going
	<b>Training for Cohort Units:</b> focus on cleaning, donning and doffing and documentation of training. Videos for training, etc.- review draft education	Edu./Hazmat Instructors	Myers/Thomas	On Going
	<b>Timeline Summary of HICS Events</b>	-	Martin	On Going
	<b>1East Reopening Plan:</b> Terminal cleaning then Survidice; define opening date (challenges of elevator, etc.); Peds nursing training	EVS	Myers/Combs	Completed
<b>Public Info. Officer</b>	WMAR Interview with Dr. Rosenblatt		Mallonee	Completed
	VEIP/MDOT correction testing number on Google	UMMS	Mallonee	On Going
	Serology Q&A	Goodison/Hensley	Mallonee	Completed
	<b>Workplace Safety Campaign</b> social distancing, masking, etc. Survey, symptom screening vs temp screening, reminders to follow guidelines for safety. Need ambassador: Dawn Clark	UMMS	PIO/Dawn Clark	Open
<b>Operations</b> <ul style="list-style-type: none"> <li>Medical Care/Pharmacy</li> <li>Infrastructure</li> <li>Security</li> <li>Patient/Family Assistance</li> <li><b>Education</b></li> </ul>	<b>Transfer Workgroup</b> from Upper Chesapeake to HMH & Repatriation process for patients (DocHalo Group): 3 workgroups for MedSurg/IMC; OR; ED transfer processes.	Operations	Jokhadar/Adelman	On Going
	Continued education on eye protection, algorithm, focused reviews with units, etc. – focus on ancillary areas & rounding	Education	Hicks	On Going
	<b>Virtual Patient Connect (VPC)</b> roll out service to all other units with iPads and communication with community: as of 6/5 had 44 total calls: working on awareness/marketing of VPC	Call Center/PIO/UMSS	Crowe-Jackson	On Going



**Purpose:** Short form combining HICS Forms 201, 202, 203, 204, and 215A  
**Origination:** Incident Commander or Planning Section Chief  
**Copies to:** Command Staff, Section Chiefs, and Documentation Unit Leader

## HICS INCIDENT ACTION PLAN (IAP) QUICK START

### COMBINED HICS 201—202—203—204—215A

	<b>CVPR/Angio labs</b> patient recovery: plan for recovering patients in progress and staffing plan, mtg 6/9	Myers/Clay/Lewis	Wilson/Albright	On Going
<b>Planning</b> <ul style="list-style-type: none"> <li>Testing</li> <li>Alternate Care Site / Population Health</li> <li>Discharge Planning</li> </ul>	<b>Serology Testing</b> – clarification that Employee ID is not needed during registration, opening HMH times	Hensley/PIOs	Goodison	On Going
	<b>HMH 2N/4T Transitional Care Unit</b> (20 semi-private rooms)- reviewing staffing plan, documentation & Hospitalist coverage: begin moving to 4T in interim, mtg. 6/9 & 6/11 with Hosp. coverage	Working with UMMS Finance, OHCQ, MHA	Clark/Wehmer/Ward	On Going
<b>Logistics</b> <ul style="list-style-type: none"> <li>Supplies</li> <li>Labor Pool</li> <li>Employee Health and Wellbeing</li> </ul>	<b>Supplies:</b> Wipes low; setting up 1W & 2N inventory needs	N/A	Joe Higinbothom	On Going
	<b>Level 4 OR Gowns &amp; Surgical Mask Shortage:</b> consider reusable gowns- UMMS approved, UMMC to use reusable and reallocate disposables to UCMC/HMH; consider Level 3 gowns	Katherine/Gonze	Joe Higinbothom	On Going
	<b>TM Wellness/UMatter:</b> weekly workgroup, continuing UMatter Moments, calendar of themes and topics through July	PIO/HR	Wellness Team	On Going
	<b>Labor Pool/Call Center:</b> Decision to discontinue Call Center on nights on 6/10-One-Pager for ACs, new hours 7a-7p. Discuss Labor Pool as well- decision to close clinical labor pool Friday.	Gordon/Albright	Combs	On Going
<b>Finance</b>	Additional bids on unfunded capital construction projects; seeking additional FEMA support	N/A	Witman	N/A
<b>HMH</b>	<b>HMH Triage Tent:</b> had to move patients off 3ST on 6/4	-	Martin	On Going

<b>7. Prepared by</b>	PRINT NAME: Rebecca Adelman  DATE/TIME: 6/10/2020	SIGNATURE: _____  FACILITY: UNIVERSITY OF MD UPPER CHESAPEAKE HEALTH
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## HICS INCIDENT ACTION PLAN (IAP) QUICK START

### COMBINED HICS 201—202—203—204—215A

- PURPOSE:** The Incident Action Plan (IAP) Quick Start is a short form combining HICS Forms 201, 202, 203, 204 and 215A. It can be used in place of the full forms to document initial actions taken or during a short incident. Incident management can expand to the full forms as needed.
- ORIGINATION:** Prepared by the Incident Commander or Planning Section Chief.
- COPIES TO:** Duplicated and distributed to Command and General staff positions activated. All completed original forms must be given to the Documentation Unit Leader.
- NOTES:** If additional pages are needed for any form page, use a blank HICS IAP Quick Start and repaginate as needed. Additions may be made to the form to meet the organization's needs.

NUMBER	TITLE	INSTRUCTIONS
1	<b>Incident Name</b>	Enter the name assigned to the incident.
2	<b>Operational Period</b>	Enter the start date (m/d/y) and time (24-hour clock) and end date and time for the operational period to which the form applies.
3	<b>Situation Summary</b>	Enter brief situation summary.
4	<b>Current Hospital Incident Management Team</b>	Enter the names of the individuals assigned to each position on the Hospital Incident Management Team (HIMT) chart. Modify the chart as necessary, and add any lines/spaces needed for Command staff assistants, agency representatives, and the organization of each of the General staff sections.
5	<b>Health and Safety Briefing</b>	Summary of health and safety issues and instructions.
6	<b>Incident Objectives</b>	
	<b>6a. Objectives</b>	Enter each objective separately. Adjust objectives for each operational period as needed.
	<b>6b. Strategies / Tactics</b>	For each objective, document the strategy/tactic to accomplish that objective.
	<b>6c. Resources Required</b>	For each strategy/tactic, document the resources required to accomplish that objective.
	<b>6d. Assigned to</b>	For each strategy/tactic, document the Branch or Unit assigned to that strategy/tactic.
7	<b>Prepared by</b>	Enter the name and signature of the person preparing the form. Enter date (m/d/y), time prepared (24-hour clock), and facility.

## PEACH BOTTOM SITE DRILL EVALUATION REPORT

### Executive Summary/Introduction

#### Drill/Exercise Description:

Date: 6/18/2019 Site PI Drill

6/19/2019 HP/Medical Drill

Drill Type: Daytime/Drill



The overall performance during the Site PI Drill was determined to be **Satisfactory**. Ops Crew PS05 (SM A. Izquieta) and ERO Team 4 (SED M. Retzer) participated. It is concluded that, had the events actually occurred, the health, safety, and welfare of the public would have been adequately protected.

The overall performance during the Semi-Annual HP drill was determined to be **Satisfactory**. The HP drill involved RP personnel in order to identify and quantify contamination and to take actions to control and decontaminate the area. This included obtaining contaminated water sample for analysis.

The overall performance of the Annual Medical Drill was determined to be **Satisfactory**. This drill involved First Aid / Medical Team Response to a contaminated injured person. The team then transferred the individual to Off-site Medical Responders and the drill concluded with demonstration of response by the Harford Memorial Hospital Emergency Response Staff.

- Control Room/Simulator (CR) Performance:.....**Satisfactory**
- Technical Support Center (TSC) Performance: .....**Satisfactory**
- Operational Support Center (OSC) Performance: .....**Satisfactory**
- First Aid / Medical Responders Performance:.....**Satisfactory**
- Harford Hospital Emergency Response Staff: .....**Satisfactory**

### NRC Performance Indicator Summary


**8 of 8** opportunities were successfully demonstrated.

### ERO Performance Objective Summary

- All Selected Overall Objectives were successfully demonstrated.
- All Selected Facility Objectives were successfully demonstrated.
- Demonstration Criteria Failures:
  - CR failed 0 Demonstration Criteria.
  - TSC failed 1 Demonstration Criteria.
  - OSC failed 1 Demonstration Criteria.
- Drills credited to this Drill Report (All Demonstration Criteria for the following Objectives were evaluated)
  - Semi-Annual HP Drill K.4
  - Annual Medical Drill B.8, F.5, L.1, L.2, L.3

### CAP Summary

- Zero (0) Level 3 Condition Reports generated.
- Six (6) Level 4 Condition Reports generated.

Prepared By: Doug Striebig  
Sr. EP Specialist 

Date: 7/16/19

Approved By: Julie McDonald  
Station EP Manager

Date: 7/16/19



## Overall Lessons Learned

Notable Performances - NONE

Areas for Improvement - See CAP Summary

### 6/18/19 Station PI Drill Sequence of Events

Time	Action
0805	<b>[T=0 UE]</b> ☹ Earthquake Alarms and Rod Drift
0807	<b>[T=0 Alert]</b> ☹ Unit 2 Failure to SCRAM (ATWS)
0814	Declaration ☹ MA5
0815	PA Announcement
0819	Everbridge Notification
0821	<b>State / Local Alert Notification</b> ☹
0840	<b>ENS Notification for Alert – MA5 declared due to ATWAS on Unit 2</b>
0923	<b>[T=0 Site Area Emergency]</b> ☹
0929	Declaration ☹ FS1 declared
0929	<b>ENS Notification for SAE</b>
0935	PA Announcement
0942	<b>State and Local SAE Notification</b> ☹
0946	Assembly Started
1008	Assembly Completed
1019	<b>[T=0 GE]</b> ☹ Loss of Barrier >955R/hr in Drywell
1021	<b>Declaration</b> ☹
1021	<b>ENS Notification for GE</b>
1027	PA Announcement
1030	<b>State and Local General Emergency / PAR Notification</b> ☹
	<b>Site Status</b>
0838	OSC minimum staffing/full staffing/activated
0837	TSC minimum staffing/ full staffing
0844	TSC activated
	<b>Release Path</b>
0925	<b>[T=0 for Release in Progress]</b>
0929	<b>Release in Progress Identified / Release path identified</b>
1021	<b>PAR determined (Wind 30°, 10 mph, Stability Class D) – PARs identified</b>
1052	Terminated Exercise

### 6/19/19 Medical and HP Drill Sequence of Events

Time	Action
0831	PA Announcement for drill commencement
0846	Initial incident report to Main Control Room
0848	PA Announcement – Medical Response Team respond to Unit 2 Fuel Floor. RO initiated SE-12 actions and communicated expectations to Incident Commander
0855	Medical/First Aid Team Responders arrive at Unit 2 Fuel Floor incident scene. Immediately apply pressure to wound area. RP evaluated conditions and determined Protective clothing entry requirements. Responders donned proper PC's. Incident Commander established communications with MCR
0857	Initiated drill call to York County EOC (Control Cell) for offsite emergency services assistance for Ambulance response to the Station
0902	Hospital initiates setup for receiving contaminated injured patient
0902	Surveys and sampling performed of victim and the surrounding area. Area properly posted as contaminated area
0903	Follow up call to York County EOC providing Medical History
0905	Security contacted and notified of ambulance responding to the station. Security responded promptly to ensure site access
0909	Ambulance arrives at the Station



0914	Initial call to Harford Hospital established Point of contact and update of conditions
0917	<b>MEDICAL DRILL TIMEOUT</b> – Timeout was taken to move the drill scenario and personnel from the Unit 2 Fuel Floor to the SMB Facilities Roll up door area for transfer to ambulance crew
0920	HP Drill actions performed, including initial dose rate and contamination surveys, establishing contaminated area boundaries and assessing airborne contamination. The incident area was posted contaminated area to control access and contain contamination.
0920	Following the victims simulated removal from the area, the area was surveyed, CAM air samples were evaluated, water samples were obtained and processed for transport for analysis. The need for additional air sample was evaluated and discussed
0934	Area was decontaminated, surveyed and posting returned to as found conditions. Proper disposal of contaminated materials was completed during decontamination and recovery of the area
0935	Hospital decontamination tent is setup complete
0943	<b>DRILL RESTART-</b>
0943	Incident Commander and RP Tech initiate briefing with Ambulance crew and Security Officers. Ambulance Crew issued dosimetry from Security MAF packets
0950	Hospital Radiologically controlled area setup complete per procedure. Hospital staff personnel donning the designated protective clothing.
0952	Victim transferred to ambulance crew and loaded into ambulance for transport
0956	RP Tech with a meter escorts victim in ambulance. Ambulance exits site enroute to Hospital
1000	Onsite portion of HP / Medical Drill is complete
1041	RP Technician arrives at Hospital
1045	Ambulance arrives at Harford Hospital
1048	RP Tech from Ambulance briefs Hospital Emergency Staff Team Leader on patient status. Patient transferred from ambulance care to Hospital ER Staff care.
1056	Hospital ER Staff performs initial decon attempt, contamination levels were lowered to 700ccpm.
1058	2 <sup>nd</sup> decontamination attempt lowers contamination to < 100ccpm. (Wound area is clean)
1100	Patient surveyed post decontamination and is cleared as clean and released. Ambulance Crew and resources were surveyed and released.
1103	Patient is transferred from the decontamination area to clean area
1109	Hospital ER Staff completes removal of Protective Clothing. One individual was simulated contaminated (400 ccpm) on wrist. RP decontaminated and re-surveyed <100 ccpm
1110	Drill was terminated

### **Drill Objectives**

The consensus of the controller team was that, on an overall basis, the following ERO drill objectives were satisfactorily demonstrated. This conclusion is supported by a review of drill documentation and comments.

This conclusion is supported by a review of drill documentation and comments.

A.1 Command and Control	H.1 TSC Support of Emergency Operations
A.2 Operational Agreements	H.3 OSC Support of Emergency Operations
B.1 Shift Response	H.4 Timely Facility Activation
B.2 On-Shift Emergency Direction	I.1 Accident Recognition and Assessment
B.3 Line of Succession	I.2 Core Damage Assessment
B.4 Non-Delegable Responsibilities	I.3 Release and Dose Assessment
B.5 Minimum ERO Staffing Requirements	J.1 Warning Onsite Personnel
B.6 Full ERO Staff Augmentation	J.4 Assembly and Accountability
B.8* Coordinate with Off-Site Emergency Services	J.5 Demonstrate use of Protective Clothing
D.1 Classification	J.6 KI
E.1 Offsite Notification	J.7 PARs
E.2 ERO Notification	K.1 Emergency Exposure
E.3 Initial Notification Message Content	K.2* Emergency Worker Exposure
F.2 Federal Communications Systems	K.3* Action Levels for Decontamination
F.3 Utility Communication Systems	K.4* Contamination Control Practices
F.5* Communicate with Medical Support	K.5 Habitability Controls
	L.1* Radiological Capabilities of Hospital
	L.2* Provide First Aid On-Site
<b>*Demonstrated in 6/19 HP/Medical Drill</b>	L.3* Contaminated Injured Person Transport

## NRC Drill / Exercise Performance Indicator

Based on NEI 99-02 criteria, there were 8 performance opportunities in this drill; all 8 were successful. The performance outcomes are presented below.

Opportunity	Facility	Outcome
Alert Classification ⌚	SCR	Successful
Alert Notification ⌚	SCR	Successful
SAE Classification ⌚	TSC	Successful
SAE Notification ⌚	TSC	Successful
GE/PAR Classification ⌚	TSC	Successful
GE/PAR Notification ⌚	TSC	Successful
⌚ Denotes a key time tied to the PI opportunities located on timeline above.		

## Drill-Related Condition Reports

The following Condition Reports generated as a result of this drill describe any facility/functional area issues, exercise management issues, facility/equipment issues or program/procedure issues.

CR Number	Category	Level	Description of Condition
4257720	TSC	4	UNSAT DC E.1.4 – Completion of the SAE Notification was > 15 minutes (16)
4259544	OSC	4	UNSAT DC H.3.4 – OSC Team tracking board was not maintained up to date. Team did not communicate status changes of individual teams
4259754	Facilities / Equipment	4	Evaluate relocation of TSC Library (Engineering) PMS PC to Main TSC Area
4258303	Facilities / Equipment	4	ED kits at Security RP and Security to evaluate the equipment and materials, (Specifically ED's) staged in the MAF for off-site responder Protected Area Entries.
4258296	Facilities / Equipment	4	The patient litter outside S1-1 did not work properly. Unable to adjust height for loading patient
4258326	Misc.	4	1. Evaluate possible planned responses by the security officers to an expected ambulance, with the change in security checkpoint. 2. SY-AA-101-117 4.1.3.F "obtain required badges, documentation, and dosimetry, as applicable", was interpreted as all personnel instead of the victim only. 3. Feedback on Hospital actions 4. Unclear communications about Ambulance response location for the drill. 5. Feedback to use 3911 / 4911 for initial MCR contact

**EXELON EMERGENCY PREPAREDNESS  
Controllers, Evaluators and Participants  
Peach Bottom Nuclear Generating Station**

**Participation Summary**  
**6/18/19 Station PI Drill**

**Off-Site Participation**

- Pennsylvania Emergency Management Agency (PEMA)
  - Chester County EOC
  - Lancaster County EOC
  - York County EOC
- Maryland Emergency Management Agency (MEMA)
  - Cecil County EOC
  - Harford County EOC

**Exelon Participation**

- Simulator Control Room (SCR)
- Station Technical Support Center (TSC)
- Station Operational Support Center (OSC)

**6/19/19 HP and Medical Drill**

**Off-Site Participation**

- York County EOC
- Harford Memorial Hospital
- Southern EMS Ambulance

**Exelon Participation**

- Main Control Room (MCR)
- First Aid / Medical Response Team (OPS and RP)

**Distribution List**

- |                                |                  |
|--------------------------------|------------------|
| • Corporate Manager EP, MA     | Nick Alexakos    |
| • Corporate Manager EP, MW     | Christina Nelson |
| • Manager Peach Bottom EP      | Julie McDonald   |
| • Sr. Manager EP               | Dennis Moore     |
| • VP, Licensing and Regulatory | George Gellrich  |
| • Station Emergency Director   | Matt Retzer      |
| • Shift Emergency Director     | Adrian Izquieta  |
| • Plant Manager                | Matt Herr        |

**EXELON EMERGENCY PREPAREDNESS  
Controllers, Evaluators and Participants  
Peach Bottom Nuclear Generating Station**

**6/18/19 Station PI Drill**

<b>Position</b>	<b>Name</b>	<b>Position</b>	<b>Name</b>
Lead Evaluator	Julie McDonald	<b>EOF</b>	
<b>Control Room (Simulator)</b>		EOF Lead Controller	NA
Scenario Controller	Steve Flickinger	Lead Evaluator	NA
LOR Assessment	Brian Woodard / Steve Melick	Bridge Evaluators	NA
Lead Evaluator (DEP)	Rory Flynn	RP Controllers/Evaluators	NA
Simulator Operator	Durand Adams	Logistics Evaluator	NA
EP Evaluator	Rory Flynn	Logistics Controller/ Evaluator	NA
Ops Evaluator	Chris Weichler / Roy Glackin	Tech Evaluator	NA
<b>TSC</b>		<b>JIC</b>	
Lead Controller	Julie McDonald	Lead Controller	NA
Lead Evaluator	Jeff Moore	Evaluators	NA
C&C / OPS Eval.	Jeff Moore	Media Monitoring	NA
RPM/Chemistry Controller/Evaluator	Howard McCrory	Rumor Control	NA
Technical Evaluator	Kurt Kunkle	Mock Media	NA
Eng/CDAM	Kurt Kunkle	<b>Off-Site Field Teams</b>	
Security Evaluator	Julie McDonald	FMT Evaluator	NA
Logistics Evaluator	Alex Stathes / John McGee / Sam Hansell	FMT Evaluator	NA
<b>OSC</b>		<b>Control Cell</b>	
Lead Evaluator	Jamie Doan	ENS	Kevin Sprague
Lead Controller	Doug Striebig	HPN	NA
OSC C&C / Eval.	Elizabeth Haupin	State	
Mechanical Maint	Fawad Durrani	<b>Observers</b>	
Elect/I&C Maint	Kevin Gellrich		
RP Controller	Corey Fabricante		
OSC OPS Controller	Scott Kareis / Brandon Dewitt		



**EXELON EMERGENCY PREPAREDNESS  
Controllers, Evaluators and Participants  
Peach Bottom Nuclear Generating Station**

<b>Participants</b>		<b>Participants</b>	
<b>Position</b>	<b>Name</b>	<b>Position</b>	<b>Name</b>
<b>Control Room (Simulator)</b>		<b>TSC</b>	
Shift Manager	Adrian Izquieta	Station Emergency Dir. / SAM Decision Maker	Matt Retzer
Shift Supervisor (CRS)	Samij Patel	TSC Director	Becky Salvador
Station Technical Advisor	Randy Wood	Ops Manager	Tony Hightower
Reactor Operators	Bradley Kemerer (PRO) Matt George (4 <sup>th</sup> RO)	Tech Manager	Julian Laverde
Communicators	Dan Mease (NRC) Kevin Gromann (NARS)	C/TH Engineer	Curt Reynolds
Ops Status Communicator	Chris Ferrara	Electrical Engineers	John Hopson / Keith Kauffman
Damage Control Communicator	Gerald Zellmer	Mechanical Engineers	Kelly Hamm / Bryan Holcomb
<b>OSC</b>		Maintenance Manager	Ron Toomey
OSC Director	Jason Fisher	RP Manager	Dave Taylor
Assistant OSC Director	Andy Way	Radiation Controls Coordinator	Chris Crabtree
OSC Operations Lead	Zach Shukur	Radiation Controls Engineer	Shawn Shahan / Ed Andersen
OSC Equipment Operators	A. Lawing / S. Hunter E. Wilks / E. Tyndall	Security Coordinator	Jim Wilson
OSC Chemistry Lead	Soozie Allen	Logistics Coordinator	Megan Witman
OSC MMD Lead	Sam Martin	ENS Communicator	Jana Lowe
OSC Mech. Responders	R. Eshbach / L. Crampton	HPN Communicator	Stephanie Teo
OSC ELEC/IC Lead	Larry Padre	Technical Comm.	NA
OSC Elec./ I&C Responders	M. Meckley / B. Jacobs	State/Local Communicator	Shawn Quick
OSC RP Lead	Rebekah Benson	Damage Control Communicator	Tracy Angelbert
OSC RP Responders	D. Lowman / J. Urbanek R. Workinger / S. Patterson E. Sandstrom / N. Irwin	Operations Communicator	Brad Powell / Sara Andersen
Damage Control Com	Eric Wiertel	State Local Communicator	Shawn Quick
<b>FMT</b>			
FMT Member	NA		
FMT Member	NA		

**EXELON EMERGENCY PREPAREDNESS  
Controllers, Evaluators and Participants  
Peach Bottom Nuclear Generating Station**

**6/19/19 Medical Drill and HP Drill**

<b>Participants</b>		<b>Controllers / Evaluators</b>	
<b>Position</b>	<b>Name</b>	<b>Position</b>	<b>Name</b>
<b>Control Room</b>		<b>Control Room</b>	
Shift Supervisor (CRS)	Troy Ralston	Shift OPS	Scott Kareis
Reactor Operators / Shift Communicator	Brett Henry	Control Room	Julie McDonald
<b>First Aid / Medical Response</b>		<b>First Aid / Medical Response</b>	
Simulated Victim	Lew Hess	Lead Controller	Doug Striebig
RP Tech	Paul Scarborough	Lead Evaluator	Julie McDonald
RP Tech	Ricky Workinger	RP Controller/Evaluator	Robby Marquette
Incident Commander	Adam Lawing	RP Evaluator (HP Drill)	Cat Jacobus
Equipment Operator	Jamie Baker	Hospital Evaluator	Glenn Fehring
Equipment Operator	Ted Wilks		
Southern York EMS	Dennis Emmel		
Southern York EMS	Daniel Trahan		

- Note – Harford Hospital Emergency Response Staff participated in the drill



# Peach Bottom Atomic Power Station After Action Report/ Improvement Plan

Exercise Date – April 27, 2016

Radiological Emergency Preparedness (REP) Program



**FEMA**

*Published July 15, 2016*



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## EXECUTIVE SUMMARY

On April 27, 2016, a full-scale Plume Exposure Pathway exercise was demonstrated and evaluated for the 10 Mile Emergency Planning Zone (EPZ) around the Peach Bottom Atomic Power Station (PBAPS) by the Federal Emergency Management Agency (FEMA), Region III. The previous full-scale exercise at this site was evaluated on April 7, 2014.

Out-of-Sequence demonstrations were conducted on March 2, 7-9, 24, 29, 30, and 31, 2016. 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 Plans and Procedures (RERP) to protect the property and lives of residents and transients in the event of an emergency at PBAPS. The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region III 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, one Level 2 Finding that was successfully re-demonstrated, and no Plan Issues. All prior Performance and Planning Issues were resolved during the previous 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 Planning 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 many individuals in the Commonwealth of Pennsylvania and the risk jurisdictions; Chester, Lancaster, and York Counties. FEMA also wishes to acknowledge the State of Maryland and the risk jurisdictions of Harford and Cecil Counties. 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 were evident during the exercise.

---

## **SECTION 1: EXERCISE OVERVIEW**

### **1.1 Exercise Details**

**Exercise Name**

Peach Bottom Atomic Power Station Plume

**Type of Exercise**

Radiological Emergency

**Exercise Date**

April 27, 2016

**Program**

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

**Scenario Type**

Plume Exposure Pathway

### **1.2 Exercise Planning Team Leadership**

Federal POC(s):

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Federal Emergency Management Agency  
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**1.3 Participating Organizations**

Agencies and organizations of the following jurisdictions participated in the Peach Bottom Atomic Power Station exercise:

**State Jurisdictions**

**State of Maryland**

- Maryland Army National Guard
- Maryland Association of Soil Conservation Districts
- Maryland Department of Agriculture
- Maryland Department of Environment
- Maryland Department of General Services
- Maryland Department of Health and Mental Hygiene
- Maryland Department of Human Resources
- Maryland Department of Information Technologies
- Maryland Department of Transportation
- Maryland Emergency Management Agency
- Maryland Institute for Emergency Services Systems
- Maryland Joint Operations Center
- Maryland Natural Resources Police
- Maryland Public Service Commission
- Maryland Social Services
- Maryland State Highway Administration
- Maryland State Police
- Maryland Technology Assistance Program

**Cecil County**

- Airville Volunteer Fire Company
- Baltimore County Government
- Bel Air Police Department
- Cecil County Department of Emergency Services
- Cecil County Department of Social Services
- Cecil County Emergency Management
- Cecil County Health Department
- Cecil County Public Schools
- Cecil County Sheriff's Office
- Cecil County Soil Conservation District

**Harford County**

- Baltimore County
- Baltimore Gas and Electric
- Bel Air Police Department

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Harford County Administrator  
Harford County Communications  
Harford County Community College  
Harford County Community Services  
Harford County Department Public Works, Roads  
Harford County Department Public Works, Water & Sewer  
Harford County Emergency Services  
Harford County Health Department  
Harford County Human Resources  
Harford County Local Emergency Planning Committee  
Harford County Mental Health  
Harford County Parks and Recreation  
Harford County Public Schools Transportation  
Harford County Sheriff's Office  
Havre De Grace Police Department

**Commonwealth of Pennsylvania**

Pennsylvania Department of Administration  
Pennsylvania Department of Aging  
Pennsylvania Department of Agriculture  
Pennsylvania Department of Conservation and Natural Resources  
Pennsylvania Department of Corrections  
Pennsylvania Department of Education  
Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection  
Pennsylvania Department of Fish and Boat  
Pennsylvania Department of General Services Administration  
Pennsylvania Department of Health  
Pennsylvania Department of Infrastructure  
Pennsylvania Department of Military and Veteran's Affairs  
Pennsylvania Department of Public Welfare  
Pennsylvania Department of Transportation  
Pennsylvania Emergency Management Agency  
Pennsylvania Game Commission  
Pennsylvania Liquor Control Board  
Pennsylvania Public Utility Commission  
Pennsylvania State Police  
Pennsylvania Turnpike Commission

**Chester County**

Chester County Department of Emergency Services  
Chester County Department of Emergency Services, 911 Center  
Chester County Department of Emergency Services, Facilities Department

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Chester County Department of Emergency Services, Technical Division  
Chester County FIRST/Private Sector  
Chester County Health Department  
Chester County Sheriff's Office  
Oxford Area School District  
Oxford Area High School  
Chester County Amateur Radio Emergency Services  
Union Fire Company #1  
West Nottingham Township Emergency Operations Center  
West Nottingham Township Police Department

**Lancaster County**

Lancaster County Board of Commissioners  
Lancaster County Chief Clerk  
Lancaster County Commissioners  
Lancaster County Geographical Information System  
Lancaster County Public Safety Training Center  
Lancaster County Sheriff  
Lancaster County-Wide Communications  
Lancaster County South Central Task Force  
Penn Manor School District  
Marticville Middle School  
Solanco Area School District  
Solanco High School  
Clermont Elementary School  
Providence Elementary School  
Rawlinsville Fire Department

**York County**

York Adams Disaster, Crisis, Outreach and Referral Team  
York Adams Transportation Authority  
York City Bureau of Health  
York County 911  
York County Commissioners  
York County Department of Emergency Services  
York County HazMat Team  
York County Office of Emergency Management  
York County Parks and Recreation  
York County Penn State Extension  
York County Sheriff's Office  
York Skywarn  
Quarryville Borough Emergency Management Agency  
Quarryville Fire Department

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Quarryville Law Enforcement

**Private Organizations**

American Red Cross  
Blue Ridge News  
Delmarva Power  
Exelon Nuclear  
Knowledge Center, Inc.  
Penn State Cooperative Extension  
Radio Amateur Communications Emergency Services  
Wellspan York Hospital  
WXCY Radio  
Union Hospital  
Darlington Volunteer Fire Company  
Upper Chesapeake Memorial Hospital  
Rising Sun Emergency Medical Services  
AMTRAK  
Baltimore Gas and Electric  
The Aegis

**Federal Organizations**

United States Coast Guard  
United States Department of Agriculture

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## **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 were established following the Three Mile Island Nuclear 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 on the basis of observation and evaluation of exercises of the plans and procedures 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 June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993; 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,

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- U.S. Department of Agriculture,
- U.S. Department of the Interior, and
- U.S. Food and Drug Administration.

Representatives of these agencies serve on the Region III Radiological Assistance Committee (RAC), which is chaired by FEMA. A REP Plume Exposure Pathway Exercise was evaluated April 27, 2016, and Medical Services drills were conducted March 24, 2016 & March 31, 2016 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 Peach Bottom Atomic Power Station. The purpose of this exercise report is to present the 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 evaluator team, with final determinations made by the FEMA Region III Radiological Assistance Committee (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:

- A. 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;
- B. Radiological Emergency Preparedness Program Manual, January 2016

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", and includes the Purpose and Design, Exercise Objectives, Capabilities, and Activities, and the Scenario Summary.

Section 3 of this report, entitled "Analysis of Capabilities", presents detailed Drill 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 "Conclusion", is a description of the Regions overall assessment of the capabilities of the participating organizations. It also presents information on planning issues if any were identified. The Appendices, present supplementary information:

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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

**Emergency Planning Zone Description**

The following is a basic description of the plume exposure Emergency Planning Zone (EPZ): Exelon Nuclear owns and operates the Peach Bottom Atomic Power Station (PBAPS). The station consists of one 40-megawatt (MW), high-temperature, gas-cooled reactor (Unit 1), decommissioned in October 1974, and two operating boiling water reactors (Units 2 and 3) rated at 1,065 MW per unit. The operating licenses for the facility were granted in October 1973 (Unit 2) and July 1974 (Unit 3); commercial operation began at the site in July 1974 (Unit 2) and December 1974 (Unit 3).

The coordinates of the plant site are 39°45'32" north (latitude) by 76°16'9" west (longitude). The site consists of 620 acres located on the west shore of Conowingo Pond, a reservoir formed by the backwater of the Conowingo Dam on the Susquehanna River. The site is primarily in Peach Bottom Township, York County, Pennsylvania; a small portion of the property lies in Lancaster County in southeastern Pennsylvania near the mouth of Rock Run Creek. The minimum exclusion distance (distance from the center point of the reactor vessel to the site area boundary) specified for the PBAPS is 2,700 feet. Exelon Nuclear owns all the land within the exclusion area; there are no private residences on site.

The plant is located about 38 miles north-northeast of Baltimore, Maryland; 45 miles southeast of Harrisburg, Pennsylvania; and 20 miles south-southeast of Lancaster, Pennsylvania. The nearest communities are Delta, Pennsylvania, and Cardiff, Maryland, which are located approximately four and five miles west-southwest of the site, respectively. There are 97 sirens providing coverage for the 10-mile EPZ; 65 are in Pennsylvania. Soils of the Manor-Glenelg Association predominate in the site area. These soils, which are generally underlain by schist or phyllite, are shallow to moderately deep and are found on moderate to very steep slopes. The general topography of the site is hilly, with elevations ranging from 110 feet to over 460 feet above mean sea level (MSL); the plant is 116 feet above MSL.



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The site is characterized by broad ridge tops and steep hillsides along the river. The climate in this area of York County is mild but humid. Prevailing winds are from the west. The average rainfall is approximately 40.5 inches, and the average annual temperature is 52.8° Fahrenheit. The area in the immediate vicinity of the plant is mostly agricultural. There are no commercial airports within a 10-mile radius. The closest major airport is in Harrisburg, about 50 miles northwest of the site. A smaller airport servicing commuter and private aircraft is located in Lancaster, about 25 miles north of the site. No public highways pass through the plant, and no major arterial highways pass near it. Access to the plant is by two roads: one, from the nearby town of Delta, leads to the decommissioned Unit 1 area and Information Center; the other passes north of Delta and enters the plant area near Units 2 and 3.

The 10-mile EPZ for PBAPS, with a total risk population of approximately 57,645, covers the following jurisdictions:

**Commonwealth of Pennsylvania**

**Risk Counties:**

**Chester County**

West Nottingham Township

**Lancaster County**

Drumore Township

East Drumore Township

Fulton Township

Little Britain Township

Martic Township

Providence Township

Quarryville Borough

**York County**

Delta Borough

Fawn Grove Borough

Fawn Township

Lower Chanceford Township

Peach Bottom Township

**State of Maryland**

**Cecil County**

**Harford County**

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## **2.2 Exercise Objectives, Capabilities and Activities**

The objective of the Peach Bottom Atomic Power Station 2016 Plume Exercise was 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, emergency management agencies used a variety of resources including radios, telephones, the Internet, the media, the Emergency Alert System (EAS), and the utility Alert and Notification System sirens (ANS). All of these communications resources were employed and evaluated. The EAS and ANS was 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 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**

NOTE: All information below is scenario simulated. The times for the events are approximate as the NRC licensees operations crew on the reactor training simulator will be provided opportunity for free play.

An Alert is declared by 1625 due to a potential loss of the reactor coolant barrier.

At 1700, a wind shift occurs with a wind direction from 85 degrees. A Site Area Emergency is declared by 1736 due to the potential or loss of two barriers.

At 1810, a wind shift occurs with a wind direction from 65 degrees. Drywell radiation monitors ramp to 980 R/hour due to fuel failure from the uncovered reactor fuel.

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A General Emergency is declared by 1830 for the potential or loss of the third barrier. The Commonwealth of Pennsylvania and the State of Maryland will make protective action decisions based Protective Action Recommendations (PARs) from the Licensee and State officials.

At 1915, a wind shift occurs with a wind direction from 30 degrees. The updated PAR adds the South downwind sector for evacuation out to five miles.

At 2030, the exercise is terminated.

## **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 April 27, 2016, biennial Plume Exposure Pathway EPZ Radiological Emergency Preparedness (REP) Exercise, and the Out of Sequence Exercise evaluations conducted in March 2, 7, 8, 9, 16, 24, 29, 30, 31 2016; and Medical Services Drills conducted March 24 & 31, 2016. 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 Peach Bottom Atomic Power Station.

Each jurisdiction and functional entity was evaluated on the basis of 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 by the use of 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.

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(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 in the vicinity of 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 of organizational 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: status of a REP exercise Evaluation Area Criterion indicating that the participating ORO demonstrated all demonstration criteria for the Evaluation Area Criterion to the level required in the extent of-of-play agreement with no Findings assessed in the current exercise and no unresolved prior Findings.

**Tables 3.2 - Summary of Exercise Evaluation**

**Table 3.2a - Exercise Evaluation by Classification**

Date: 4/27/2016 Site: Peach Bottom Atomic Power Station			
Location	Criteria Title	Criteria	Classification
Chester County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1	L2

**Table 3.1c – Exercise Evaluation – Criteria Met**

Date: 4/27/2016 Site: Peach Bottom Atomic Power Station		
Location	Criteria Title	Criteria
Chester County Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Chester County Emergency Operations Center	Activation of the Back-up ANS	5a3
Chester County Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Chester County Emergency Operations Center	Equipment and Supplies to Support Operations	1e1

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Chester County Emergency Operations Center	Implementation of PADs for Schools	3c2
Chester County Emergency Operations Center	Impediments to Evacuation	3d2
Chester County Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Chester County Emergency Operations Center	Communications Equipment	1d1
Chester County Emergency Operations Center	Direction and Control	1c1
Chester County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Chester County Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Chester County Emergency Operations Center	Mobilization	1a1
Chester County Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Cecil County Back up Route Alerting	Communications Equipment	1d1
Cecil County Back up Route Alerting	Equipment and Supplies to Support Operations	1e1
Cecil County Back up Route Alerting	Activation of the Back-up ANS	5a3
Cecil County Back up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Cecil County Emergency Operation Center	Communications Equipment	1d1
Cecil County Emergency Operations Center	Mobilization	1a1
Cecil County Emergency Operations Center	Implementation of PADs for Schools	3c2
Cecil County Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Cecil County Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Cecil County Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Cecil County Emergency Operations Center	Direction and Control	1c1
Cecil County Emergency Operations Center	Activation of the Back-up ANS	5a3
Cecil County Emergency Operations Center	Implementation of Traffic & Access Control	3d1

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Cecil County Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Cecil County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Emergency Operations Center	PADs for disabilities & access/functional needs people	2c1
Cecil County Emergency Operations Center	Emergency Worker Exposure Control Decisions	2a1
Cecil County Emergency Operations Center	Impediments to Evacuation	3d2
Cecil County Emergency Worker Monitoring & Decontamination Station Perryville High School	Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1
Cecil County Emergency Worker Monitoring & Decontamination Station Perryville High School	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Emergency Worker Monitoring & Decontamination Station Perryville High School	Equipment and Supplies to Support Operations	1e1
Cecil County Mass Care Center Rising Sun High School	Temporary Care of Evacuees	6c1
Cecil County Mass Care Center Rising Sun High School	Equipment and Supplies to Support Operations	1e1
Cecil County Public School District	Implementation of PADs for Schools	3c2
Cecil County Public School District Conowingo Elementary School	Implementation of PADs for Schools	3c2
Cecil County Reception Center Rising Sun High School	Monitoring, Decontamination, & Registration of Evacuees	6a1
Cecil County Reception Center Rising Sun High School	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Reception Center Rising Sun High School	Equipment and Supplies to Support Operations	1e1
Cecil County Reception Center Rising Sun High School	Communications Equipment	1d1
Cecil County Rising Sun Emergency Medical Service Ambulance	Transportation/Treatment of Contaminated Injured Individuals	6d1
Cecil County Rising Sun Emergency Medical Service Ambulance	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Rising Sun Emergency Medical Service Ambulance	Equipment and Supplies to Support Operations	1e1
Cecil County Traffic & Access Control Point	Impediments to Evacuation	3d2
Cecil County Traffic & Access Control Point	Implementation of Traffic & Access Control	3d1
Cecil County Traffic & Access Control Point	Implementation of Emergency Worker Exposure Control	3a1

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Cecil County Traffic & Access Control Point	Equipment and Supplies to Support Operations	1e1
Cecil County Traffic & Access Control Point	Communications Equipment	1d1
Cecil County Union Hospital	Equipment and Supplies to Support Operations	1e1
Cecil County Union Hospital	Transportation/Treatment of Contaminated Injured Individuals	6d1
Cecil County Union Hospital	Equipment and Supplies to Support Operations	1e1
Chester County Oxford Area School District	Implementation of PADs for Schools	3c2
Chester County area School District Oxford Area High School	Implementation of PADs for Schools	3c2
Chester County West Nottingham Township back-Up Route Alerting	Activation of the Back-up ANS	5a3
Chester County West Nottingham Township back-Up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Chester County West Nottingham Township back-Up Route Alerting	Equipment and Supplies to Support Operations	1e1
Chester County West Nottingham Township back-Up Route Alerting	Communications Equipment	1d1
Chester County West Nottingham Township Emergency Operations Center	Mobilization	1a1
Chester County West Nottingham Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Chester County West Nottingham Township Emergency Operations Center	Activation of the Back-up ANS	5a3
Chester County West Nottingham Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Chester County Emergency Operation Center	Impediments to Evacuation	3d2
Chester County West Nottingham Township Emergency Operations Center	Direction and Control	1c1
Chester County West Nottingham Township Emergency Operations Center	Communications Equipment	1d1
Chester County West Nottingham Township Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1



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Chester County West Nottingham Township Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Chester County West Nottingham Township Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Exelon Joint Information Center	Emergency Information & Instructions for the Public/Media	5b1
Exelon Joint Information Center	Communications Equipment	1d1
Harford County Back Up Route Alerting	Activation of the Back-up ANS	5a3
Harford County Back Up Route Alerting	Equipment and Supplies to Support Operations	1e1
Harford County Back Up Route Alerting	Communications Equipment	1d1
Harford County Back Up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Harford County Congregate Care Center Patterson Mill High School	Temporary Care of Evacuees	6c1
Harford County Congregate Care Center Patterson Mill High School	Equipment and Supplies to Support Operations	1e1
Harford County Darlington Emergency Medical Services	Transportation/Treatment of Contaminated Injured Individuals	6d1
Harford County Congregate Care Center Patterson Mill High School	Implementation of Emergency Worker Exposure Control	3a1
Harford County Darlington Emergency Medical Services	Equipment and Supplies to Support Operations	1e1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Implementation of Emergency Worker Exposure Control	3a1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Equipment and Supplies to Support Operations	1e1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Communications Equipment	1d1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Direction and Control	1c1
Harford County Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1

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Harford County Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Harford County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Harford County Emergency Operations Center	Activation of the Back-up ANS	5a3
Harford County Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Harford County Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Harford County Emergency Operations Center	Impediments to Evacuation	3d2
Harford County Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Harford County Emergency Operations Center	Accident Assessment and PARs for the Emergency Event	2b1
Harford County Emergency Operations Center	Communications Equipment	1d1
Harford County Emergency Operations Center	Command and Control	1c1
Harford County Emergency Operations Center	Mobilization	1a1
Harford County Emergency Operations Center	Implementation of PADs for Schools	3c2
Harford County Emergency Operations Center	Emergency Worker Exposure Control Decisions	2a1
Harford County Emergency Operations Center	Facilities	1b1
Harford County Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Harford County Public School District	Implementation of PADs for Schools	3c2
Harford County Public School North Harford Elementary School	Implementation of PADs for Schools	3c2
Harford County Access & Control Point	Implementation of Traffic & Access Control	3d1
Harford County Access & Control Point	Implementation of Emergency Worker Exposure Control	3a1
Harford County Access & Control Point	Equipment and Supplies to Support Operations	1e1
Harford County Access & Control Point	Communications Equipment	1d1
Harford County Access & Control Point	Impediments to Evacuation	3d2
Harford County Emergency Operations Center	Implementation of PADs for Schools	3c2

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Harford County Public School District	Implementation of PADs for Schools	3c2
Harford County Public School District North Harford Elementary School	Implementation of PADs for Schools	3c2
Harford County Public School District North Harford High School	Implementation of PADs for Schools	3c2
Harford County Public School District North Harford Middle School	Implementation of PADs for Schools	3c2
Harford County Union Medical Center	Transportation/Treatment of Contaminated Injured Individuals	6d1
Harford County Union Medical Center	Implementation of Emergency Worker Exposure Control	3a1
Harford County Union Medical Center	Equipment and Supplies to Support Operations	1e1
Lancaster County Martic Township Back-Up Route Alerting	Communications Equipment	1d1
Lancaster County Martic Township Back-Up Route Alerting	Equipment and Supplies to Support Operations	1e1
Lancaster County Martic Township Back-Up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Martic Township Back-Up Route Alerting	Activation of the Back-up ANS	5a3
Lancaster County Martic Township Emergency Operations Center	Mobilization	1a1
Lancaster County Martic Township Emergency Operations Center	Command and Control	1c1
Lancaster County Martic Township Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Martic Township Emergency Operations Center	Communications Equipment	1d1
Lancaster County Martic Township Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Martic Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Martic Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Lancaster County Martic Township Emergency Operations Center	Impediments to Evacuation	3d2
Lancaster County Providence Township Emergency Operations Center	Command & Control	1c1
Lancaster County Providence Township Emergency Operations Center	Communications Equipment	1d1

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Lancaster County Providence Township Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Lancaster County Providence Township Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Providence Township Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Providence Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Providence Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Lancaster County Providence Township Emergency Operations Center	Impediments to Evacuation	3d2
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Communications Equipment	1d1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Equipment and Supplies to Support Operations	1e1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Command & Control	1c1
Lancaster County Emergency Operation Center	Communications Equipment	1d1
Lancaster County Emergency Operation Center	Command & Control	1c1
Lancaster County Emergency Operation Center	Activation of the Prompt Alert & Notification System	5a1
Lancaster County Emergency Operation Center	Mobilization	1a1
Lancaster County Emergency Operation Center	Activation of the Back-up ANS	5a3
Lancaster County Emergency Operation Center	Emergency Information & Instructions for the Public/Media	5b1

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Lancaster County Emergency Operation Center	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Emergency Operation Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Emergency Operation Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Emergency Operation Center	Implementation of PADs for Schools	3c2
Lancaster County Emergency Operation Center	Impediments to Evacuation	3d2
Lancaster County Emergency Operation Center	Implementation of Traffic & Access Control	3d1
Lancaster County Emergency Operation Center	Equipment and Supplies to Support Operations	1e1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Equipment and Supplies to Support Operations	1e1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Communications Equipment	1d1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Monitoring, Decontamination, & Registration of Evacuees	6a1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Temporary Care of Evacuees	6c1
Lancaster County Monitoring & Decontamination Center Lampeter Strasberg School Complex C	Equipment and Supplies to Support Operations	1e1
Lancaster County Monitoring & Decontamination Center Lampeter Strasberg School Complex C	Equipment and Supplies to Support Operations	3a1
Lancaster County Monitoring & Decontamination Center Lampeter Strasberg School Complex C	Temporary Care of Evacuees	6c1
Lancaster County Martic Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Martic Township Emergency Operations Center	Impediments to Evacuation	3d2
Lancaster County Martic Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Lancaster County Solanco School District Claremont Elementary School	Implementation of PADs for Schools	3c2

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Lancaster County Solanco School District Solanco High School	Implementation of PADs for Schools	3c2
Lancaster County Solanco School District Providence Elementary School	Implementation of PADs for Schools	3c2
Lancaster County Solanco School District	Implementation of PADs for Schools	3c2
Lancaster County Penn Manor School District	Implementation of PADs for Schools	3c2
Lancaster County Penn Manor School District Marticville Middle School	Implementation of PADs for Schools	3c2
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Mobilization	1a1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Direction and Control	1c1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Communications Equipment	1d1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Equipment and Supplies to Support Operations	1e1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Emergency Worker Exposure Control Decisions	2a1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Accident Assessment and PARs for the Emergency Event	2b1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	PAD decision-making process and coordination for the General Public	2b2
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Accident Assessment and PARs for the Emergency Event	4a2
Maryland Emergency Operations Center	Communications Equipment	1d1



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Maryland Emergency Operations Center	Mobilization	1a1
Maryland Emergency Operations Center	PADs for disabilities & access/functional needs people	2c1
Maryland Emergency Operations Center	Facilities	1b1
Maryland Emergency Operations Center	Direction and Control	1c1
Maryland Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Maryland Emergency Operations Center	PAD decision-making process and coordination for the General Public	2b2
Maryland Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Maryland Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Maryland Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Maryland Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Maryland Emergency Operations Center	Implementation of PADs for Schools	3c2
Maryland Emergency Operations Center	Implementation of Traffic & Access Control	3d2
Maryland Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Maryland State Field Monitoring Team A	Plume Phase Field Measurement, Handling, & Analyses	4a3
Maryland State Field Monitoring Team A	Mobilization	1a1
Maryland State Field Monitoring Team A	Implementation of Emergency Worker Exposure Control	3a1
Maryland State Field Monitoring Team A	Equipment and Supplies to Support Operations	1e1
Maryland State Field Monitoring Team A	Communications Equipment	1d1
Maryland State Field Monitoring Team B	Plume Phase Field Measurement, Handling, & Analyses	4a3
Maryland State Field Monitoring Team B	Mobilization	1a1
Maryland State Field Monitoring Team B	Implementation of Emergency Worker Exposure Control	3a1
Maryland State Field Monitoring Team B	Equipment and Supplies to Support Operations	1e1



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Maryland State Field Monitoring Team B	Communications Equipment	1d1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Accident Assessment and PARs for the Emergency Event	2b1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Emergency Worker Exposure Control Decisions	2a1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Communications Equipment	1d1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Equipment and Supplies to Support Operations	1e1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Direction and Control	1c1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Mobilization	1a1
Commonwealth of Pennsylvania State Emergency Operation Center	Communications Equipment	1d1
Commonwealth of Pennsylvania State Emergency Operation Center	Mobilization	1a1
Commonwealth of Pennsylvania State Emergency Operation Center	PADs for disabilities & access/functional needs people	2c1
Commonwealth of Pennsylvania State Emergency Operation Center	Direction and Control	1c1
Commonwealth of Pennsylvania State Emergency Operation Center	Equipment and Supplies to Support Operations	1e1
Commonwealth of Pennsylvania State Emergency Operation Center	PAD decision-making process and coordination for the General Public	2b2
Commonwealth of Pennsylvania State Emergency Operation Center	Emergency Worker Exposure Control Decisions	2a1
Commonwealth of Pennsylvania State Emergency Operation Center	Activation of the Prompt Alert & Notification System	5a1
Commonwealth of Pennsylvania State Emergency Operation Center	Implementation of Traffic & Access Control	3d1
Commonwealth of Pennsylvania State Emergency Operation Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1

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PA JIC/Rumor Control	Communications Equipment	1d1
PA JIC/Rumor Control	Emergency Information & Instructions for the Public/Media	5b1
PA TACP State Police Barracks Lancaster	Impediments to Evacuation	3d2
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Implementation of Traffic & Access Control	3d1
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Communications Equipment	1d1
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Implementation of Emergency Worker Exposure Control	3a1
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Equipment and Supplies to Support Operations	1e1
York County Emergency Operations Center	Direction and Control	1c1
York County Red Lion Area School District	Implementation of PADs for Schools	3c2
York County Red Lion Area School District	Implementation of PADs for Schools	3c2

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**3.3 Criteria Evaluation Summaries**

**3.3.1 State Jurisdictions**

**3.3.1.1 Maryland Accident Center, Maryland Department of the Environment**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 4.a.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

**3.3.1.2 Maryland Emergency Operations Center**

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

- a. MET: 1.a.1, 1.b1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 2.c.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 5.a.1, 5.b.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

**3.3.1.3 State Field Monitoring Team A**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.3
- b. LEVEL 1 FINDINGS: NONE

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- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.1.4 Maryland State Field Monitoring Team B**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

**3.3.1.5 Pennsylvania Accident Assessment Center, Bureau of Radiation Protection**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.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

**3.3.1.6 Pennsylvania Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 3.b.1, 3.d.1, 5.a.1

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

**3.3.1.7 Pennsylvania Joint Information Center/Rumor Control**

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

- a. MET: 1.d.1, 5.b.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

**3.3.1.8 Pennsylvania State Traffic and Access Control Points, State Police Barrack Lancaster**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 3.d.3.5.2, 5.b.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

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**3.3.2 Risk Jurisdictions**

**3.3.2.1 Cecil County Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.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

**3.3.2.2 Cecil County Emergency Operations Center**

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

- a. MET: 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: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.3 Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination Station**

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

- a. MET: 1.e.1, 3.a.1, 6.b.1
- b. LEVEL 1 FINDINGS: NONE

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- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.4 Cecil County Mass Care Center, Rising Sun High School**

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

- a. MET: 1.e.1, 6.c.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

**3.3.2.5 Cecil County Public School District**

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

- 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

**3.3.2.6 Cecil County Public School District, Conowingo Elementary School**

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



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- 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

**3.3.2.7 Cecil County Reception Center, Rising Sun High School**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 6.a.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 Cecil County Traffic and Access Control Point**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 3.d.1, 3.d.2, 6.c.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

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**3.3.2.9 Chester County, Oxford Area School District**

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

- 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

**3.3.2.10 Chester County, Oxford Area School District, Oxford Area High School**

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

- 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

**3.3.2.11 Chester County, West Nottingham Township Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a.3
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE

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- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.12 Chester County, West Nottingham Township Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2, 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

**3.3.2.13 Chester County Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.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: 3.a.1
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE

**ISSUE FOR CRITERION: 3.a.1**

**CONDITION:** During the required Emergency Worker (EW) radiological briefing the Chester County Radiological Officer (RO) did not adequately deliver the briefing to two Chester County Sheriff's Office deputies serving as emergency workers.

**POSSIBLE CAUSE:** The RO did not adhere to the recommended procedures and provided disparate information to the emergency workers.

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**REFERENCE:** NUREG-0654/FEMA-REP-1, K.3.a, b; K.4

**EFFECT:** The information briefed by the RO could have resulted in a misunderstanding of exposure control and dosimetry.

**CORRECTIVE ACTION DEMONSTRATED:** The briefing was successfully re-demonstrated by an alternate RO.

**3.3.2.14 Harford County Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a3
- 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 Harford County Congregate Care Center, Patterson Mill High School**

- a. MET: 1.e.1, 6.c.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 Harford County Emergency Operations Center**

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

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- a. MET: 1.a.1, 1.b1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.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: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.17 Harford County Emergency Worker Monitoring and Decontamination Station, Fallston**

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

- a. MET: 1.d.1, 1.c.1, 1.e.1, 3.a.1, 6.b.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 Harford County Public School District**

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

- a. MET: 3.c.21
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE

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- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.19 Harford County Public School District, North Harford Elementary School**

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

- 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

**3.3.2.20 Harford County Public School District, North Harford High School**

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

- 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

**3.3.2.21 Harford County Public School District, North Harford Middle School**

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

- a. MET: 3.c.2
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE

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e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.22 Harford County Traffic and Access Control Point**

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

a. MET: 1.d.1, 1.e.1, 3.d.1, 3.d.2, 6.b.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 Lancaster County, Martic Township Backup Route Alerting**

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a3

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 Lancaster County, Martic Township Emergency Operations Center**

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

a. MET: 1.a1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.d.1, 3.d.2

b. LEVEL 1 FINDINGS: NONE



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- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.25 Lancaster County, Penn Manor School District**

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

- 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

**3.3.2.26 Lancaster County, Penn Manor School District, Marticville Middle School**

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

- 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

**3.3.2.27 Lancaster County, Providence Township Emergency Operations Center**

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

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- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 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

**3.3.2.28 Lancaster County, Solanco School District**

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

- 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 Lancaster County, Solanco School District, Clermont Elementary School**

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

- 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

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**3.3.2.30 Lancaster County Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.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: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.31 Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter**

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

- a. MET: 1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

**3.3.2.32 Lancaster County Mass Care Center, Lampeter/Strasburg School Complex**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 3.b.1, 6.a.1, 6.c.1
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE

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- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.33 Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School**

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

- a. MET: 1.e.1, 3.a.1, 6.a.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

**3.3.2.34 York County, Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.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: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.35 York County, Lower Chanceford Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a.3

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

**3.3.2.36 York County, Lower Chanceford Township Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 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

**3.3.2.37 York County, Red Lion Area School District**

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

- 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

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**3.3.2.38 York County, Red Lion Area School District, Windsor Manor Elementary School**

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

- 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

**3.3.2.39 York County, Red Lion School District, Red Lion Senior High School**

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

- 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 Jurisdictions**

**3.3.3.1 Cecil County, Rising Sun Emergency Medical Services**

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

- a. MET: 1.e.1, 3.a.1, 6.d.1
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE

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- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.3.2 Cecil County, Union Hospital**

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

- a. MET: 1.e.1, 3.a.1, 6.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

**3.3.3.3 Exelon Joint Information Center**

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

- a. MET: 1.d.1, 5.d.1, 3.a.1, 3.b.1, 3.c.1, 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

**3.3.3.4 Harford County, Darlington Volunteer Fire Company**

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

- a. MET: 1.e.1, 3.a.1, 6.d.1



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

**3.3.3.5 Harford County, Upper Chesapeake Medical Center**

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

- a. MET: 1.e.1, 3.a.1, 6.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

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## **SECTION 4: CONCLUSION**

The Commonwealth of Pennsylvania and the State of Maryland and local jurisdictions, except where noted in this report demonstrated knowledge of their Radiological Emergency Response Plans (RERP) and procedures were adequately implemented during the Peach Bottom Atomic Power Station Plume exercise evaluated on April 27, 2016.

Federal Emergency Management Agency (FEMA) evaluators provided analyses of six evaluation criteria. These analyses resulted in a determination of no Level 1 Findings, (1) One Level 2 Finding (successfully re-demonstrated), and no 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 III 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.

The Rising Sun Emergency Medical Services (EMS) and the Darlington Volunteer Fire Company successfully demonstrated that necessary equipment and supplies were available to support the treatment of an injured/contaminated victim. EMS personnel prioritized life-saving medical practices over contamination concerns, implemented protective measures through the use of Personal Protective Equipment (PPE), regular glove changes, and control of cross contamination. Appropriate patient assessments were demonstrated as well as regular and ongoing communications with Upper Chesapeake and Union Hospital.

The Upper Chesapeake and Union Hospital successfully demonstrated the mobilization of staff, staffing assignments, issue of dosimetry and monitoring equipment, and effective use of Personal Protective Equipment (PPE) during the exercise. The hospital staff effectively responded to communications from the Ambulance, initiated the set-up and management of a Radiation Emergency Area (REA), and accepted and successfully treated an injured/contaminated victim while administering life-threatening medical attention over contamination concerns. In addition, the medical facility provided security control of the facility including the drop off bay for the patient and overall protective measures for contamination control and prevention of cross contamination.

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

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## 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.

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location			
		State of Maryland EOC	AA MD (MDE)	Cecil County EOC	Harford County EOC
<b>Unusual Event</b>					
Alert	1614	1628	1630	1630	1630
Site Area Emergency	1730	1740	1744	1743	1743
General Emergency	1819	1841	1841	1841	1841
Simulated Radiation Release Started	N/A	1807	1823	1807	1807
Simulated Radiation Release Terminated	N/A	On-going	On-going	On-going	On-going
Facility Declared Operational		1700	1725	1700	1700
Governor's Declaration of State of Emergency		1900	1850	1900	1900
Exercise Terminated		2003	2045	2007	2007
First Precautionary/Protective Actions: Describe school activities cancelled		1756	1805	1756	1756
Parks closed		1757	1805	1757	1757
Animals placed on stored feed, water &		1800	1805	1805	1805
Rail, feed & water, Air restriction 10m restrictions 5mi/5,000		1800	1805	1805	1805
Decision		1805	1805	1815	1815
Siren Sounding		1815	1815	1815	1815
EAS Broadcast time		1818	1818	1818	1818
Second Precautionary/ Protective Actions: Describe 0-10 mi, Evacuation		1846	1850	1850	1850
Air Restrictions 10 miles 10,000 feet		1850	1850	1850	1850
Decision		1850	1850	1850	1850
Siren Sounding		1900	1900	1900	1900
EAS Message Broadcast		1903	1903	1903	1903
Decision to take KI: EWs		1814	1805	1814	1814

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Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location								
		Commonwealth PA EOC	PA JIC	PA/AA (BRP)	Exelon JIC	Chester County EOC	West Nottingham Township EOC	Lancaster County EOC	Martic Township EOC	Providence Township EOC
Unusual Event										
Alert	1614	1635	1635	1624	1650	1622	1640	1622	1634	1724
Site Area Emergency	1730	1745	1745	1739	1800	1739	1750	1801	1805	1808
General Emergency	1819	1841	1841	1832	1845	1841	1841	1841	1847	1847
Simulated Radiation Release Started	1804	1807	1807	1820	1808	1808	1841	1841	1848	1847
Simulated Radiation Release Terminated	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going
Facility Declared Operational		1635	1635	1605	1730	1637	1705	1713	1652	1730
Governor's Declaration of State of Emergency		1814	1814	1814	1822	1823	1827	1814	1814	1900
Exercise Terminated		2014	2014	2010	1945	1959	2015	2000	2000	1941
First Precautionary/Protective Actions: Describe Livestock on stored feed and Water		1805	1805	1800	1800	1805	1846	1805	1805	1805
		1805	1805	1800	1800	1805	1846	1805	1805	1805
10 mile waterway restriction;		1805	1805	1800	1800	1805	1846	1805	1805	1805
Air 5 mile 5000/ TCP		1805	1805	1800	1835	1805	1846	1805	1805	1805
ACP 10 mile rail		1805	1805	1800	1835	1805	1846	1805	1805	1805
Siren Sounding		1815	1815	1815	1822	1815	1815	1815	1815	1805
EAS Broadcast time		1818	1818	1818	1822	1818	1818	1818	1818	1808
Second Precautionary/ Protective Actions: Describe		1850	1850	1844	1900	1850	1852	1850	1850	1907
Expand air 10 mile 10,000		1850	1850	1844	1900	1850	1852	1850	1850	1907
360 10 mile, KI for all		1850	1850	1844	1900	1850	1852	1850	1850	1907
Received Evac farms		1850	1850	1849	1900	1850	1852	1850	1850	1907
Siren Sounding		1900	1900	1900	1900	1900	1900	1900	1900	1903
EAS Message Broadcast		1903	1903	1903	1900	1903	1903	1903	1903	1907
Decision to take KI: EWs		1903	1903	1903	1900	1903	1903	1903	1903	1903
Decision to take KI: Public		1903	1903	1903	1900	1903	1901	1903	1910	1910

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## APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

LOCATION	TEAM LEADER	AGENCY
Cecil County Back-up Route Alerting	John Rice	FEMA Region 1
Cecil County Emergency Operations Center	John Rice	FEMA Region 1
Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination St	Martin Vyeniolo	FEMA Region 3
Cecil County Mass Care Center, Rising Sun High School	Michael Shuler	FEMA Region #
Cecil County Public School District	Martin Vyeniolo	FEMA Region 3
Cecil County Public School District, Conowingo Elementary School	Michael Shuler	FEMA Region 3
Cecil County Reception Center, Rising Sun High School	Martin Vyeniolo	FEMA Region 3
Cecil County Traffic and Access Control Point	John Rice	FEMA Region 1
Cecil County, Rising Sun Emergency Medical Services	Barton Freeman	FMA Region 3
Cecil County, Union Hospital	John Price	FEMA Region 3
Chester County Emergency Operations Center	Lee Torres	FEMA Region 3
Chester County, Oxford Area School District	Michael Shuler	FEMA Region 3
Chester County, Oxford Area School District, Oxford Area High School	Michael Shuler	FEMA Region 3
Chester County, West Nottingham Township Back-up Route Alerting	Lee Torres	FEMA Region 3
Chester County, West Nottingham Township Emergency Operations Center	Lee Torres	FEMA Region 3
Exelon Joint Information Center	Joseph Suders	FEMA Region 3
Harford County Back-up Route Alerting	Barton Freeman	FEMA Region 3
Harford County Congregate Care Center, Patterson Mill High School	John Price	FEMA Region 3
Harford County Emergency Operations Center	Barton Freeman	FEMA Region 3
Harford County Emergency Worker Monitoring and Decontamination Station, Fallston	Martin Vyeniolo	FEMA Region 3
Harford County Public School District	Barton Freeman	FEMA Region 3
Harford County Public School District, North Harford Elementary School	Barton Freeman	FEMA Region 3
Harford County Public School District, North Harford High School	Barton Freeman	FEMA Region 3
Harford County Public School District, North Harford Middle School	Barton Freeman	FEMA Region 3
Harford County Reception Center, Fallston High School	Michael Shuler	FEMA Region 3
Harford County Traffic and Access Control Point	Barton Freeman	FEMA Region 3

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Harford County, Darlington Emergency Medical Services	Martin Vyeniello	FEMA Region 3
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA Region 3
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Tina Lai-Thomas	FEMA Region 3
Lancaster County Mass Care Center, Lampeter/Strasburg School Complex	Tina Lai-Thomas	FEMA Region 3
Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School	Tina Lai-Thomas	FEMA Region 3
Lancaster County Reception Center, Lancaster County Career and Technology Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Martic Township Backup Route Alerting	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Martic Township Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Penn Manor School District	Michael Shuler	FEMA Region 3
Lancaster County, Penn Manor School District, Marticville Middle School	Robert Neff	FEMA Region 3
Lancaster County, Providence Township Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Solanco School District	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Clermont Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Providence Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Solanco High School	Michael Shuler	FEMA Region 3
Maryland Accident Assessment Center, Maryland Department of the Environment	Martin Vyeniello	FEMA Region 3
Maryland Emergency News Center	John Price	FEMA Region 3
Maryland Emergency Operations Center	John Price	FEMA Region 3
Maryland State Field Monitoring Team A	Martin Vyeniello	FEMA Region 3
Maryland State Field Monitoring Team B	Martin Vyeniello	FEMA Region 3
Pennsylvania Accident Assessment Center, St Emergency Ops Center-Bureau of Radiation Protection	Martin Vyeniello	FEMA Region 3
Pennsylvania Emergency Operations Center	Joseph Suders	FEMA Region 3
Pennsylvania Joint Information Center/Rumor Control	Joseph Suders	FEMA Region 3
Pennsylvania State Traffic and Access Control Points, State Pol Barrack Lancaster	Michael Shuler	FEMA Region 3
York County Reception Center Red Lion High School	Michael Shuler	FEMA Region 3
York County, Emergency Operations Center	Thomas Murray	FEMA Region 3
York County, Lower Chanceford Back-up Route Alerting	Thomas Murray	FEMA Region 3

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York County, Lower Chanceford Township Emergency Operations Center	Thomas Murray	FEMA Region 3
York County, Red Lion Area School District	Joseph Suders	FEMA Region 3
York County, Red Lion School District, Red Lion Senior High School	Joseph Suders	FEMA Region 3
York County, South Eastern School District	Michael Shuler	FEMA Region 3
York County, South Eastern School District, Fawn Elementary	Michael Shuler	FEMA Region 3
York County, South Eastern School District, South East Middle School - East	Michael Shuler	FEMA Region 3
Cecil County Back-up Route Alerting	Brenda Rembert	ICF
Cecil County Emergency Operations Center	Timothy Pflieger	DHS - FEMA
Cecil County Emergency Operations Center	Kenneth Wierman	FEMA HQ
Cecil County Emergency Operations Center	John Rice	FEMA Region 1
Cecil County Emergency Operations Center	Brian Clark	ICF
Cecil County Emergency Operations Center	William McDougall	FEMA Region 3
Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination St	Martin Vyeniolo	FEMA Region 3
Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination St	Michael Shuler	FEMA Region 3
Cecil County Mass Care Center, Rising Sun High School	Michael Shuler	FEMA Region 3
Cecil County Public School District	Martin Vyeniolo	FEMA Region 3
Cecil County Public School District, Conowingo Elementary School	Martin Vyeniolo	FEMA Region 3
Cecil County Reception Center, Rising Sun High School	Martin Vyeniolo	FEMA Region 3
Cecil County Traffic and Access Control Point	Bruce Swiren	ICF
Cecil County, Rising Sun Emergency Medical Services	Barton Freeman	FEMA Region 3
Cecil County, Union Hospital	John Price	FEMA Region 3
Chester County Emergency Operations Center	Dennis Branson	FEMA R7
Chester County Emergency Operations Center	Barbara Thomas	FEMA Region 1
Chester County Emergency Operations Center	Lee Torres	FEMA Region 3
Chester County Emergency Operations Center	Jon Christiansen	ICF
Chester County, Oxford Area School District	Michael Shuler	FEMA Region 3
Chester County, Oxford Area School District, Oxford Area High School	Michael Shuler	FEMA Region 3
Chester County, West Nottingham Township Back-up Route Alerting	Frank Cordaro	ICF
Chester County, West Nottingham Township Emergency Operations Center	Miriam Weston	FEMA Region 2
Chester County, West Nottingham Township Emergency Operations Center	Michael Burriss	ICF
Exelon Joint Information Center	Roger Kowieski	ICF



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Harford County Back-up Route Alerting	Rosemary Samsel	ICF
Harford County Congregate Care Center, Patterson Mill High School	John Price	FEMA Region 3
Harford County Emergency Operations Center	Andrew Chancellor	FEMA R7
Harford County Emergency Operations Center	Barton Freeman	FEMA Region 3
Harford County Emergency Operations Center	Rebecca Thomson	ICF
Harford County Emergency Operations Center	Ronald Bonner	ICF
Harford County Emergency Worker Monitoring and Decontamination Station, Fallston	Martin Vyeniolo	FEMA Region 3
Harford County Public School District	Ronald Bonner	ICF
Harford County Public School District, North Harford Elementary School	Roger Winkelmann	ICF
Harford County Public School District, North Harford High School	Rosemary Samsel	ICF
Harford County Public School District, North Harford Middle School	Brian Clark	ICF
Harford County Reception Center, Fallston High School	Michael Shuler	FEMA Region 3
Harford County Traffic and Access Control Point	Gary Goldberg	ICF
Harford County, Darlington Emergency Medical Services	Martin Vyeniolo	FEMA Region 3
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA Region 3
Lancaster County Emergency Operations Center	Judy Dodgen	FEMA R7
Lancaster County Emergency Operations Center	Brad DeKorte	FEMA Region 6
Lancaster County Emergency Operations Center	David Petta	ICF
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Robert Neff	FEMA Region 3
Lancaster County Mass Care Center, Lampeter/Strasburg School Complex	Robert Neff	FEMA Region 3
Lancaster County Mass Care Center, Lampeter/Strasburg School Complex	William McDougall	FEMA Region 3
Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School	Robert Neff	FEMA Region 3
Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School	William McDougall	FEMA Region 3
Lancaster County, Martic Township Backup Route Alerting	Mark Dalton	ICF
Lancaster County, Martic Township Emergency Operations Center	Kathy Duran	FEMA Region 3
Lancaster County, Martic Township Emergency Operations Center	Kerry Holmes	FEMA Region 3
Lancaster County, Penn Manor School District	Robert Neff	FEMA Region 3
Lancaster County, Penn Manor School District, Marticville Middle School	Robert Neff	FEMA Region 3

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Lancaster County, Providence Township Emergency Operations Center	Robert Swartz	FEMA Region 1
Lancaster County, Providence Township Emergency Operations Center	Laurel Ryan	FEMA Region 9
Lancaster County, Solanco School District	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Clermont Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Providence Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Solanco High School	Michael Shuler	FEMA Region 3
Maryland Accident Assessment Center, Maryland Department of the Environment	Kent Tosch	ICF
Maryland Accident Assessment Center, Maryland Department of the Environment	Roger Winkelmann	ICF
Maryland Emergency Operations Center	Paul Anderson	FEMA Region 10
Maryland Emergency Operations Center	Dulcie Allen	FEMA Region 10
Maryland Emergency Operations Center	John Price	FEMA Region 3
Maryland Emergency Operations Center	Roy Smith	ICF
Maryland Emergency Operations Center	Ryan Jones	ICF
Maryland State Field Monitoring Team A	Deborah Blunt	ICF
Maryland State Field Monitoring Team B	John Wiecejorek	ICF
Pennsylvania Accident Assessment Center, State Emergency Ops Center-Bureau of Radiation Protection	Martin Vyeniolo	FEMA Region 3
Pennsylvania Emergency Operations Center	Craig Fiore	FEMA HQ
Pennsylvania Emergency Operations Center	Joseph Suders	FEMA Region 3
Pennsylvania Emergency Operations Center	Jill Leatherman	ICF
Pennsylvania Emergency Operations Center	Rufus Mobley	FEMA HQ
Pennsylvania Emergency Operations Center	Steve Ward	FEMA Region 3
Pennsylvania Joint Information Center/Rumor Control	Paul Nied	ICF
Pennsylvania State Traffic and Access Control Points, State Pol Barrack Lancaster	Robert Neff	FEMA Region 3
York County, Emergency Operations Center	Taneeka Hollins	FEMA Region 1
York County, Emergency Operations Center	Cristina Schulingkamp	EPA Region 3
York County, Emergency Operations Center	Linda Gee	
York County, Emergency Operations Center	Thomas Murray	FEMA Region 3
York County, Lower Chanceford Back-up Route Alerting	Kevin Reed	ICF
York County, Lower Chanceford Township Emergency Operations Center	Helen LaForge	FEMA Region 1
York County, Lower Chanceford Township Emergency Operations Center	Lisa Rink	FEMA HQ
York County, Red Lion Area School District	Joseph Suders	FEMA Region 3

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York County, Red Lion Area School District, Windsor Manor Elementary School	Joseph Suders	FEMA Region 3
York County, Red Lion School District, Red Lion Senior High School	Joseph Suders	FEMA Region 3
York County, South Eastern School District	Joseph Suders	FEMA Region 3
York County, South Eastern School District, Fawn Elementary	Joseph Suders	FEMA Region 3
York County, South Eastern School District, South East Middle School - East	Joseph Suders	FEMA Region 3

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## **APPENDIX C: ACRONYMS AND ABBREVIATIONS**

<b>Acronym</b>	<b>Meaning</b>
AAC	Accident Assessment Center
ACP	Access Control Points
ALARA	As Low As Reasonably Achievable
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARD	Automatic Ring Down
ARES	Amateur Radio Emergency Services
CCC	Congregate Care Center
CFC	Community Fire Company
CFD	Community Fire Department
CMARC	Central Maryland Area Radio Communications
CO	Communications Operator
CP	Command Post
DFTR	Dedicated Field Team Response
DRD	Direct Reading Dosimeters
DS	District Superintendent
EAS	Emergency Alert System
ECC	Emergency Communications Center
ECL	Emergency Classification Level
EMA	Emergency Management Agency
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMS	Emergency Medical Services
ENF	Emergency Notification Form
ENR	Emergency Notification Report
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPD	Electronic Personal Dosimeter
EPI	Emergency Public Information
EPLO	Emergency Preparedness Liaison Officer
EPZ	Emergency Planning Zone
ERC	Emergency Response Coordinator

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ERO	Emergency Response Organization
ERT	Emergency Response Teams
ESF	Emergency Support Functions
EW	Emergency Workers
FD	Fire Department
FEMA	Federal Emergency Management Agency
FTC	Field Team Coordinator
FTEOC	Fulton Township Emergency Operation Center
FTL	Field Team Leader
GE	General Emergency
GIS	Geographical Information System
GM	Geiger Muller
GPS	Global Positioning System
HAB	Hostile Action Based
HCC	Hartford Community College
HCEMA	Hartford County Emergency Management Agency
HCEOC	Harford County Emergency Operations Center
HCHD	Harford County Health Department
HCHT	Harford County Hazmat Team
HCS	Hartford Christian School
HCSO	Harford County Sheriff's Office
HCTHS	Hartford County Technical High School
HM	Hazardous Materials
HO	Health Officer
HR	Human Resources
HS	High School
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
JIC	Joint Information Center
LBTEOC	Little Britain Township Emergency Operations Center
LCEOC	Lancaster County Emergency Operations Center
LCRO	Lancaster County Radiological Officer
LEMA	Lancaster Emergency Management Agency
LEOC	Lancaster Emergency Operations Center
LGIA	Large Group Instructional Area

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MCC	Mass Care Center
MDT	Mobile Data Terminal
MEMA	Maryland Emergency Management Agency
MJOC	Maryland Joint Operations Center
MNRP	Maryland Natural Resources Police
MS	Middle School
MSEL	Master Scenario Events List
MSP	Maryland State Police
NARS	Nuclear Accident Reporting System
OASD	Oxford Area School District
ORO	Offsite Response Organization
OSL	Optically Stimulated Luminescent
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PBAPS	Peach Bottom Atomic Power Station
PBNPS	Peach Bottom Nuclear Power Station
PEMA	Pennsylvania Emergency Management Agency
PIC	Public Information Center
PIO	Public Information Officer
PM	Portal Monitor
PMHS	Penn Manor High School
PMSD	Penn Manor School District
PPE	Personal Protection Equipment
PRD	Permanent Record Dosimeters
PSP	Pennsylvania State Police
PVES	Pleasant View Elementary School
RACES	Radio Amateur Civil Emergency Service
RAD	Radiological Assessment Director
RC	Reception Center
REA	Radiation Emergency Area
REP	Radiological Emergency Preparedness
REPE	Radiological Emergency Preparedness Exercise
RERP	Radiological Emergency Response Plan
RHP	Radiation Health Protection
RLAJHS	Red Lion Area Junior High School
RLASD	Red Lion Area School District

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RLASHS	Red Lion Area Senior High School
RO	Radiological Officer
RSEMS	Rising Sun Emergency Medical Services
RSO	Radiation Safety Officer
SAE	Site Area Emergency
SCO	State Coordinating Officer
SEMSW	South Eastern Middle School West
SEOC	State Emergency Operations Center
SESD	South Eastern School District
SESDO	South Eastern School District Office
SEVAN	State Emergency Voice Activation Network
SFMT	State Field Monitoring Team
SFP	Spent Fuel Pool
SHA	State Highway Administration
SME	Subject Matter Expert
SNB	Special News Bulletins
SOP	Standard Operating Procedures
SSO	Senior State Official
TCP	Traffic Control Points
TEDE	Total Effective Dose Equivalent
TLD	Thermo Luminescent Dosimeter
URI	Unified RASCAL Interface
VP	Vice Principal
WNT	West Nottingham Township
YCEOC	York County Emergency Operations Center



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## **APPENDIX D: EXTENTS OF PLAY**

The 2016 Peach Bottom Atomic Power Station, Extents of Play Radiological Emergency Preparedness Exercise was negotiated and agreed upon by FEMA Region III, PEMA, MEMA, and the emergency management agencies of the Risk and Support Counties.

# **Commonwealth of Pennsylvania Extent of Play**

## **2016 RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE**

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## **METHOD OF OPERATION**

### **I. Peach Bottom Atomic Power Station (PBAPS)**

The facility normally uses off-watch 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 will be used. PBAPS will notify the State Emergency Operations Center (SEOC), the Bureau of Radiation Protection (BRP) and Risk Counties of emergency classifications.

### **II. Bureau of Radiation Protection (BRP)**

Personnel from the Pennsylvania Bureau of Radiation Protection (BRP) will be present and participate in the following aspects of the exercise during the Plume Exercise:

State EOC  
Exelon Emergency Operations Facility (EOF)  
Field Sampling Teams & Command Vehicle

BRP personnel field teams and R3V will NOT be evaluated during this exercise but BRP assessment will be evaluated as part of the PEMA SEOC evaluation. In the event the scenario has no radiological release, a report of Background Radiation by the Field Monitoring Team would be considered a successful demonstration of the criterion.

### **III. PEMA Operations at SEOC**

This “Method of Operation” Document includes activities for the Full-Scale Plume Exercise (April 27, 2016), and the “Out-of-Sequence” Activities (Various).

#### **A. Plume Exercise – April 27, 2016**

PEMA Staff and Emergency Preparedness Liaison Officers (EPLOs) from designated state departments / agencies will comprise initial operations at the SEOC. The SEOC will be evaluated during this exercise.

#### **B. Plume Exercise – “Out-of-Sequence” Activities – March 7-9, 2016**

The PEMA staff will disseminate exercise related messages to the participating Counties for dissemination to the participating School Districts during the demonstration windows on March 7-9, 2016. The State EOC and County EOCs will participate, but will not be

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evaluated during the “Out of Sequence” component. PEMA personnel will serve as “observers” at the identified School Districts.

C. Plume Exercise – “Out-of-Sequence” Activities – March 16, 2016

The Pennsylvania State Police (PSP) demonstration will take place at PSP York Barracks, located at 110 Trooper Court, York, Pennsylvania. The PSP briefing will be performed out-of-sequence in a demonstration window of 9:30 a.m. to 11:30 a.m. on March 16, 2016.

PEMA personnel will serve as “Observers” at the field exercise locations during the evening “out-of-sequence” component at 7:00 p.m. – 9:30 p.m. on March 7, 2016. The SEOC and Counties will not be evaluated during the evening “out-of-sequence” component.

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. Selected staff of the Area Offices will serve as Liaison Officers to Risk Counties as assigned. Liaison Officers are exercise participants.

V. Counties Designated to Participate

The three risk counties (Chester, Lancaster and York), in coordination with PEMA, will demonstrate the capability to mobilize appropriate staff, activate their respective Emergency Operations Centers and implement emergency response operations to include sheltering and/or evacuation. County government will provide direction and coordination to risk municipalities. Actual sheltering or evacuation of the general public will be simulated.

VI. Local Emergency Management

All affected local municipalities, along with supporting agencies, will participate in the plume exercise. On a rotating basis, local municipalities will be federally evaluated as coordinated by PEMA and their associated county (once per 8 year cycle). They will demonstrate mobilization of staff, activation of their Emergency Operation Center, and implementation of emergency response operations. Some municipalities may be evaluated on Back-up Route Alerting or TCP / ACP operations. See Attachment A Sections 1.A.2, 1.A.3, and 1.A.4 for those locations being federally evaluated.

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VII. PEMA Liaison Officers

Liaison officers will be present at the participating risk county EOCs, the Exelon EOF, and Exelon JIC to provide assistance, guidance, and support. These liaison officers will participate as players in the exercise.

VIII. Controllers

Controllers are not players. Controllers will provide pre-approved injects and information to the players, as appropriate, regarding radiological readings during the monitoring of personnel.

A lead controller will be present in the State EOC during the Plume Phase Exercise (April 27, 2016) and not for the out of sequence School exercises (March 7-9, 2016).

A controller will be present at each of the emergency worker monitoring / decontaminating stations and public monitoring and decontamination centers that are scheduled for evaluation on the evening of March 7, 2016 at 7:00 p.m. – 9:30 p.m. The controller for these locations is provided by the Utility.

Live radioactive sources will not be used. **Exception:** individuals tasked with the setup of portal monitoring equipment (if used) will use a standard 1 micro curie Cesium 137 source for the purpose of conducting operational tests. Additionally, appropriate test sources will be available and used to verify the operation of the monitoring / survey instruments per manufacturers' recommendations.

IX. PEMA Observers

PEMA staff, qualified county emergency management personnel, and/or nuclear power plant personnel will be assigned, if required, to key locations for the purpose of observing, noting response actions and conditions, and recording observations for future use. Observers will not take an active part in the proceedings, but will interact with staff members to the extent necessary to fulfill their observer responsibilities. Coaching of players by observers is not permitted except to provide training to participants awaiting a re-demonstration. (Refer to paragraph XIV)

X. FEMA Evaluators

Federal evaluators will be present at the risk and support county EOCs, identified risk municipal EOCs, and at appropriate field locations to evaluate player response to the actual and simulated events in the exercise scenario. FEMA will evaluate about one-

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third of the risk municipalities in Chester, Lancaster and York Counties as identified in this document. The exercise will follow REP Program Manual (July 2015)

**Plume Phase Exercise (April 27, 2016):** Federal evaluators will be present at the SEOC and identified risk and support county EOC's to evaluate player response to the actual and simulated events in the exercise scenario. Additionally, one-fourth of the risk municipalities will be federally evaluated. As required, a "floating-evaluator" will be made available for the purpose of evaluating any ORO locations not scheduled to have a federal evaluator, but having a prior issue (Attachment A, Section I.A.1 and I.A.2).

**Out-of-Sequence - Schools (March 7-9, 2016):** Federal evaluators will be present at the identified "out-of-sequence" demonstration sites per Attachment A, Section I.B.1. These include the identified Public School Districts.

**Out-of-Sequence – Pennsylvania State Police (March 16, 2016):** PSP demonstration will take place at PSP Lancaster Barracks, located at 2099 Lincoln Highway East, Lancaster, Pennsylvania. The PSP briefing will be performed "out-of-sequence" in a demonstration window of 9:30 a.m. to 11:30 a.m.

**Out-of-Sequence – Reception Center, Public and Emergency Worker Monitoring and Decontamination Stations, Mass Care Locations (March 7, 2016):** Federal evaluators will be present for demonstrations conducted at Reception Centers, Mass Care Centers, and Monitoring / Decontamination Centers (for the public) and Stations (for Emergency Workers) as identified in Attachment A, Sections I.B.3, I.B.4 and I.B.5 .

**XI. Demonstration Windows**

In order to provide for more effective demonstrations, as well as, to permit the release of volunteers from exercise play at a reasonable hour, periods of time (Demonstration Windows) have been designated during which specified actions will be accomplished / demonstrated.

The "demonstration windows" for this exercise are:

**A. Plume Phase Exercise**

The following out-of-sequence MS-1 hospital demonstrations were federally evaluated: Ephrata Community Hospital on April 23, 2015, York Hospital on May 28, 2015, and Brandywine Hospital on August 11, 2015

There will not be an evaluation of BRP field teams and R3V for this exercise.

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County and municipal EOC operations will be conducted on the evening of April 27, 2016. (Please refer to the Extent of Play Demonstration Tables, Attachment A, Sections I.A.1 and I.A.2).

The out-of-sequence exercise window for school demonstrations will follow the schedule found in the Demonstration Tables, Attachment A, Section I.B.1

The out-of-sequence interview of PSP traffic control / access control points will be from 9:30 a.m. – 11:30 a.m. on March 16, 2016.

The out-of-sequence demonstrations for Reception Centers, Mass Care Centers, and Monitoring / Decontamination Centers (for the public) and Stations (for Emergency Workers) will be conducted from 7:00 p.m. – 9:30 p.m. on March 7, 2016 per Attachment A, Sections I.B.3, I.B.4 and I.B.5.

All demonstrations will commence promptly and, barring any complications, not continue beyond the time of the designated demonstration window.

**B. Post Plume Exercise**

A post-plume phase exercise is not scheduled during this evaluation.

**XII. Stand-Down**

All jurisdictions will request approval on a jurisdiction by jurisdiction basis prior to stand-down.

- A.** Upon completion of all requirements and confirming with the federal evaluator that all evaluation areas have been demonstrated and/or completed, the risk municipality EOCs may request approval from their county EOC to “stand-down”.
- B.** Support counties may likewise request approval from the State EOC to terminate the exercise upon completion of all evaluated objectives.

The risk county EOCs will remain operational until the exercise is officially terminated by the State in consultation with the federal evaluator. The SEOC will issue an Exercise Termination Message. If county exercise components are demonstrated and completed, portions of the EOC may be able to stand down.

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**XIII. 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 corrected.

**XIV. Re-demonstrations**

Any activity that is not satisfactorily demonstrated may be re-demonstrated by the participants during the exercise, provided it does not negatively interfere with the exercise. 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. PEMA may advise the Regional Assistance Committee (RAC) Chair prior to initiating any re-demonstrations. It is permissible to extend the demonstration window, within reason, to accommodate the re-demonstration. Activities corrected from a re-demonstration will be so noted.

## **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.

**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.



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**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.

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**PEMA Negotiated Extent-of-Play:**

- In all instances, the demonstration of a shift change is **NOT** required. Twenty-four hour staffing will be demonstrated by means of a roster or staffing chart.
- All out-of-sequence players and equipment will be pre-positioned (School District personnel, PSP, TCP/ACP, Reception Centers, Emergency Worker Monitoring and Decontamination Stations, and Monitoring and Decontamination Centers).
- Individuals working in state facilities and county EOCs may be pre-positioned for the plume phase.
- Pre-positioning of state emergency personnel (Liaison Officers) at the EOF, the Utility JIC and at Risk Counties is appropriate due to the commuting distance from the individual's duty location or residence.
- Other locations including municipal EOCs will NOT pre-stage for the Plume Phase exercise but will wait for actual notification per plans and procedures before staffing their duty locations.
- BRP Field Teams and R3V are NOT evaluated for this exercise.

**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

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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.

**PEMA Negotiated Extent-of-Play:**

Municipalities will demonstrate this criteria during each federal evaluation they receive (generally once per 8 year cycle) and counties will demonstrate this criteria once in each 8 year cycle unless new or substantial improvements occur.

**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.

**PEMA Negotiated Extent-of-Play:**

None

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**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.

OROs 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.

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**PEMA Negotiated Extent-of-Play:**

The plant will communicate to the risk counties and SEOC utilizing the Dedicated Automatic Ring Down Telephone System (ARD) (Primary) and the commercial telephone system (Secondary). If the plant cannot contact the SEOC, the Power Plant will contact the York County EOC and York County EOC will fulfill the role of primary contact until such time as communications with the SEOC can be made.

Risk counties will communicate with the SEOC via the commercial telephone system (Primary), email (Secondary) and other systems.

Risk counties will communicate with their risk municipalities via public safety radio frequencies (EMA Radio), commercial telephone, fax, email, or Amateur Radio Communications (ACS / ARES / RACES) or other available means.

BRP Field Teams will demonstrate two or more forms of communications (Field Teams and R3V NOT evaluated for this exercise).

**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.

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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.

ORO quantities of dosimetry and KI available and storage locations(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) (0-200 mR), 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.

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**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.

**PEMA Negotiated Extent-of-Play:**

Radiological Survey Instruments are calibrated per manufactures' recommendations. Neither CDV-700 nor CDV-138 instruments are in use in the area.

Evaluation of DRD and KI quantities will be verified using inventory sheets. DRDs or KI will not be removed from storage locations and boxes / packages will not be opened, however, lot numbers and expiration dates should be visible for inspection. KI questions will be addressed through interviews.



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Annual Direct Reading Dosimeter leakage testing verification or KI extension letters (as appropriate) will be available to the evaluator.

Pennsylvania Support Counties do not have DRDs or KI but those responsible for reception centers, and / or monitoring and decontamination centers will have PRDs.

All DRDs “read” in units of Roentgens. The Commonwealth counties and municipalities do not use DRDs which read in milli-Roentgens.

Reception Centers shall be evaluated on their ability to use maps or other documentation to direct evacuating persons to the correct Monitoring / Decontamination Centers and/or Mass Care Centers (as Applicable). If Reception Centers are co-located with Monitoring / Decontamination Centers and Mass Care Centers the use of maps or documents to provide direction does not apply.

BRP Field Teams and R3V will NOT be evaluated for this exercise.

ASSESSMENT AREA 2; Precautionary and / or Protective Action Decision Making

**Sub-element 2.a - Emergency Worker Exposure Control**

**INTENT**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO’s plans / procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration total effective dose equivalent (TEDE) or organ-specific limits) identified in the ORO’s plans / procedures.

**Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654 / FEMA-REP-1, C.6; f; K.3.a; K.4)**

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**Assessment / Extent-of-Play**

Assessment of this Demonstration Criterion must be assessed concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise.

OROs authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to comply with emergency worker exposure limits based on their emergency plans / procedures.

Participating OROs must also demonstrate the capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of emergency workers receiving radiation doses above pre-authorized levels. This would include providing KI and dosimetry in a timely manner to emergency workers dispatched onsite to support plant incident assessment and mitigating actions, in accordance with respective plans / procedures.

As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers, based on their plans/ procedures or projected thyroid dose compared with the established PAGs for KI administration.

**PEMA Negotiated Extent-of-Play:**

Radiological briefings (which may be supported by video) will be provided to address exposure limits, procedures to replace those personnel approaching exposure limits and how permission to exceed limits is obtained from the municipality and county. Emergency workers will also be briefed on when to take KI and on whose authority. Distribution of KI to emergency workers will be simulated. The Commonwealth, under direction of the Department of Health, will authorize use of KI when radiological conditions warrant its use. If the scenario has no potential for a radiological release, the decision on the distribution and administration of KI as a protective measure for emergency workers and the authorization process for emergency workers to exceed pre-authorized levels can be addressed through an interview.

The completion of a “Dosimetry-KI Report Form” will be demonstrated.

**Sub-element 2.b. - Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency**

**INTENT**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs.

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OROs must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency. OROs base these choices on PAGs from their plans / procedures or EPA's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and other criteria, such as plant conditions, licensee PARs, coordination of PADs with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific hostile action, the affiliated response, and the effect of an evacuation on the threat response effort, that create higher than normal risk from general population evacuation.

**Criterion 2.b.1: Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as, knowledge of onsite and offsite environmental conditions. (NUREG-0654 / FEMA-REP-1, I.10 and Supplement 3)**

**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.

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO must demonstrate the capability to use appropriate means, described in the plans / procedures, to develop PARs for decision-makers based on available information and recommendations provided by the licensee, as well as, field monitoring data, if available. The ORO must also consider any release and meteorological data provided by the licensee.

The ORO must demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PARs must be appropriate to the scenario. In all cases, calculation of projected dose must be demonstrated. Projected doses must be related to quantities and units of the PAG to which they will be compared. PARs must be promptly transmitted to decision-makers in a pre-arranged format.

When the licensee and ORO projected doses differ by more than a factor of 10, the ORO and licensee must determine the source of the difference by discussing input data and assumptions, using different models, or exploring possible reasons. Resolution of these differences must be incorporated into the PARs if timely and appropriate. The ORO must demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

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**PEMA Negotiated Extent-of-Play:**

BRP will validate plant dose projections and coordinate resolution of differences if more than a factor of 10. If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make PADs can be addressed through an interview (Note: BRP not evaluated for this exercise).

**Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and / or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654 / FEMA-REP-1, A.3; C.4, 6; D.4; J.9; J.10.e, f, m)**

**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.

OROs must have the capability to make both initial and subsequent precautionary and / or protective action decisions. OROs must demonstrate the capability to make initial precautionary and / or protective action decisions in a timely manner appropriate to the incident, based on information from the licensee, assessment of plant status and potential or actual releases, other available information related to the incident, input from appropriate ORO authorities (e.g., incident command), and PARs from the utility and ORO staff. In addition, a subsequent or alternate precautionary and / or protective action decision may be appropriate if various conditions (e.g., an HAB incident, weather, release timing and magnitude) pose undue risk to an evacuation, or if evacuation may disrupt the efforts to respond to a hostile action.

OROs must demonstrate the ability to obtain supplemental resources (e.g., mutual aid) necessary to implement a PAD if local law enforcement, fire service, HAZMAT, and emergency medical resources are utilized to augment response to the NPP site or other key infrastructure. Dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. In addition, incident command must provide input regarding considerations for subsequent PARs based on the magnitude of the ongoing threat, the response, and/or site conditions. The decision-makers must demonstrate the capability to change protective actions based on the combination of all these factors.

If the ORO has determined that KI will be used as a protective measure for the general public under offsite plans / procedures, then it must demonstrate the capability to make decisions on the distribution and administration of KI to supplement sheltering and evacuation. This decision must be based on the ORO's plans / procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process must involve close coordination with appropriate assessment and decision-making staff.

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If more than one ORO is involved in decision making, all appropriate OROs must communicate and coordinate PADs with each other. In addition, decisions must be coordinated/communicated with Incident Command. OROs must demonstrate the capability to communicate the results of decisions to all the affected locations.

**PEMA Negotiated Extent-of-Play:**

The Commonwealth, in developing a PAD, will base the decision upon plant recommendation and condition, confirmation and advice of BRP, environmental data, impediments, and other factors that may impact the decision. If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make PADs can be addressed through an interview.

The Commonwealth will include Maryland and it's affected counties in the decision making process but they may make a decision independent of ours.

**Sub-element 2.c – Precautionary and / or Protective Action Decisions 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 daycare centers, 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: 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

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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 Emergency Classification Level (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.

**PEMA Negotiated Extent-of-Play:**

If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make protective action recommendations can be addressed through an interview.

**Sub-element 2.d. – Radiological Assessment and Decision-Making for the Ingestion Exposure Pathway**

**INTENT**

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate

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them to the appropriate PAGs, and make timely, appropriate PADs to mitigate exposure from the pathway.

During an incident at the NPP, a release of radioactive material may contaminate water supplies and agricultural products in the surrounding areas. Any such contamination would likely occur during the plume phase of the incident and, depending on the nature of the release, could impact the ingestion pathway for weeks to years.

**Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are based on the ORO's planning criteria.**  
(NUREG0654/FMEA-REP-1, A.3; C.1, 4; D.4; J.9, 11)

**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 condition transmitted from the licensee.

OROs are expected to take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans / procedures. Often OROs initiate such actions based on criteria related to the facility's ECLs. Such actions may include recommendations to place milk animals on stored feed and use protected water supplies.

The ORO must use its procedures to assess the radiological consequences of a release on the food and water supplies, such as the development of a sampling plan. The ORO's assessment must include evaluation of the radiological analysis of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas; characterization of the releases from the facility; and the extent of areas potentially impacted by the release. During this assessment, OROs must consider use of agricultural and watershed data within the 30-mile EPZ. The radiological impacts on the food and water must then be compared to the appropriate ingestion PAGs contained in the ORO's plans / procedures. The plans / procedures contain PAGs based on specific dose commitment criteria or on criteria as recommended by current Food and Drug Administration (FDA) guidance. Timely and appropriate recommendations must be provided to the ORO decision-makers group for implementation decisions. OROs may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO must demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information. Any such decisions must be communicated and, to the extent practical, coordinated with neighboring OROs. These decisions include tracking agricultural products entering and leaving the EPZ. Demonstration of



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plans and procedures which use traffic access control points to track agricultural products entering and leaving the EPZ may be conducted through interview.

ORO will use Federal resources, as identified in the Nuclear / Radiological Incident Annexes of the National Response Plan and other resources (e.g., compacts or nuclear insurers), as necessary.

Evaluation of this criterion will take into consideration the level of Federal and other participating resources.

**PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.

**Sub-element 2.e. – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return**

**Intent**

This sub-element is derived from NUREG0654 / FEMA-REP-1, which requires that OROs have the capability to make decisions on post-plume phase relocation, reentry, and return of the general public. These decisions are essential for protection of the public from direct long-term exposure to deposited radioactive materials from a severe incident at an NPP.

**Criterion 2.e.1; Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and / or procedures. (NUREG0654 / FEMA-REP-1. I-10; J.9; K.3; M.1)**

**Assessment / Extent of Play**

Assessment of the Demonstrated 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.

**Relocation;** OROs must demonstrate the capability to estimate integrated dose in contaminated areas and compare these estimates with PAGs; apply decision criteria for relocation of those individuals in the general public who have not been evacuated, but where actual or projected doses are in excess of relocation PAGs; and control access to evacuated and restricted areas. OROs will make decisions for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs. Determination of areas to be

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restricted must be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates versus the PAGs, and analyses of vegetation and soil field samples.

**Reentry:** Decisions must be made on location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to temporarily enter the evacuated area to perform specific tasks or missions.

Examples of control procedures are the assignment of , or checking for, direct reading and permanent record dosimetry for emergency workers; questions regarding an individual's objectives, location expected to be visited, and associated timeframes; availability of maps and plots of radiation exposure rates; and advice on areas to avoid. Control procedures also include monitoring of individuals, vehicles, and equipment; the implementation of decision criteria regarding decontamination; and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records. Responsible OROs must demonstrate the capability to develop a strategy for authorized reentry of individuals into the restricted zone(s), based on established decision criteria. OROs must demonstrate the capability to modify those policies for security purposes (e.g., Police patrols), maintenance of essential services (e.g., fire protection and utilities), and other critical functions. They must demonstrate the capability to use decision-making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for farm animals or secure machinery for storage) or retrieve important possessions. Coordinated policies for access and exposure control must be developed among all agencies with roles to perform in the restricted zone(s). OROs must demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed to reenter the restricted zone(s). The extent to which OROs need to develop policies on reentry will be determined by scenario events.

**Return:** OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase (i.e., permitting populating that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis). OROs must base decisions on environmental data and political boundaries or physical / geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area(s) that is based on the relocation PAG.

Other factors that the ORO must consider in decision-making include conditions that permit cancellation of the ECL and relaxation of associated restrictive measures. OROs must base return recommendations on measurements of radiation from ground deposition. OROs must have the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate-term housing for relocated persons.

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This sub-element will not be evaluated during this exercise.

**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.

ORO's 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.

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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.

ORO's 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.

ORO's 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

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using KI whether or not the scenario drives the implementation of KI use. This can be accomplished by an interview with the evaluator.

**PEMA Negotiated Extent-of-Play:**

Radiological briefings will be provided to address exposure limits, procedures to replace personnel approaching limits, and how permission to exceed limits is obtained from the municipality and county. Emergency workers will also be briefed on when to take KI and on whose authority. Distribution of KI will be simulated. OROs should also demonstrate the use of all applicable dosimetry forms. The completion of a “Dosimetry-KI Report Form” will be demonstrated.

At any time, players may ask other players or supervisors to clarify radiological information.

Evaluation of emergency worker KI quantities will be verified using inventory sheets. KI will not be removed from storage locations and boxes will not be opened. KI questions will be addressed through interviews. Personnel assigned to operate Monitoring / Decontamination centers and stations are not issued DRDs or KI since the centers / stations are located outside the EPZ. Simulated PRDs with mock serial numbers may be used to simulate issue.

Emergency workers who are assigned to low exposure rate areas, e.g., at counting laboratories, emergency operations centers, and communications centers, may have individual permanent record dosimeters or they may be monitored by dosimeters strategically placed in the work area. In Pennsylvania this will be accomplished through the use of an area kit. The area kit process is explained in State, County and Municipal Plans.

Standard issue of dosimetry and KI 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 (Area Kit includes 2 DRDs)

Category C: 1 PRD

In Pennsylvania, emergency workers outside of the EPZ do not have turn-back values.

All locations that have dosimetry equipment indicated within their Radiological Emergency Response Plan (RERP), will make the dosimetry equipment (and KI) available for inspection by the Federal Evaluator. In order to demonstrate an understanding of the use of the dosimetry equipment, KI and associated forms; the location need only remove and distribute / issue a maximum of six (6) units of dosimetry from their inventory. Simulation PRDs with mock serial numbers and simulated KI may be issued. The location will demonstrate filling out a minimum of two (2) Dosimetry / KI Report Form.

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BRP Field Teams and R3V will not be evaluated during this exercise.

**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.

OROs 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.

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**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. Pennsylvania does not distribute KI at reception centers.

Evaluation of emergency worker KI quantities will be verified using inventory sheets. KI will not be removed from storage locations and boxes will not be opened. KI questions will be addressed through interviews.

Personnel assigned to operate Monitoring / Decontamination centers and stations are not issued PRDs or KI since the centers / stations are located outside the EPZ. Simulated PRDs with mock serial numbers may be used to simulate issue (Maximum of 6 issued). KI may be simulated for issue.

**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 areas 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



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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.

**PEMA Negotiated Extent-of-Play:**

The names, locations and contact information of identified individuals with identified disabilities and access / functional needs are maintained on a list at their respective municipal EOC (based upon residential jurisdiction). Copies of these lists will not be provided to the evaluators; however, evaluators will be allowed to inspect the lists during the exercise.

Evaluators may ask, by interview, about the transportation plans concerning transportation staging, source of vehicles, radiological protection of the drivers / emergency workers, and routes or assignments of vehicles for transportation of persons with disabilities and access / functional needs. No buses or drivers will be mobilized.

Initial contact with special populations and reception facilities will be actual (hospitals, nursing homes and correctional facilities). All subsequent calls will be simulated. Actual contacts (up to two per Risk County) will be made with transportation providers as per plan. All actual and simulated contacts should be logged.

**Criterion 3.c.2: OROs / School officials implement 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, 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 /

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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; and 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.

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:**

School Students will not be involved during the exercise. Actions and activities associated with the demonstration of Criterion 3.c.2 will be limited to the School District Administration key personnel and the County. Evacuation of students will be conducted through an interview process with School District personnel or the building principal.

The role of the bus driver may be conducted through an interview with school or transportation officials (or designee) if a bus driver is not available. Actual demonstration of the bus route is not required and will not be demonstrated. Maps or route descriptions will be available for illustration purposes.

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Risk County school plans do not require communications between the school and vehicles. Bus drivers are not considered emergency workers and therefore do not require dosimetry.

Private schools, private kindergartens, and day care centers do not participate in REP exercises. However, OROs will be prepared to show evaluators lists of these facilities that they will contact in the event of an emergency in accordance with plans and procedures. Any simulated contacts will be logged.

**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.

ORO 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.

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**PEMA Negotiated Extent-of-Play:**

Municipal Traffic and Access control will be demonstrated by interview at the applicable EOC of jurisdiction. 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 will be provided to the assigned individuals. Reception Centers shall provide a traffic control plan for the location being evaluated.

**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, 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.

**PEMA Negotiated Extent-of-Play:**

County EOCs will demonstrate the ability to identify and take appropriate actions concerning impediments to evacuation by inject or interview. Actual dispatch of resources to deal with impediments, such as tow trucks, need not be demonstrated; however, simulated contacts will be logged. If the scenario does not lead to evacuation the criteria shall be deemed complete if the ORO can describe to the evaluator 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 Counties only)

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**Sub-element 3.e – Implementation of Ingestion Pathway Decisions**

**Intent**

This Sub-element is derived from NUREG0654 / FEMA-REP-1, which requires that OROs have the capability to implement protective actions, based on criteria recommended by current FDA guidance, for the ingestion exposure pathway EPZ (i.e., the area within an approximate 50-mile radius of the NPP). This Sub-element focuses on those actions required for implementation of protective actions.

**Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. (NUREG0654 / FEMA-REP-1, A.3; C.1, 4; J.11)**

**Assessment / Extent of Play**

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

Applicable OROs must demonstrate the capability to secure and use current information on the location of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the EPZ. OROs use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex, and other resources (e.g., compacts, nuclear insurers), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

**PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise

**Criterion 3.e.2; Appropriate measures, strategies, and preprinted instructional materials are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG0654 / FEMA-REP-1, G.1, J.9, 11)**

**Assessment / Extent of Play**

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

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OROs must demonstrate the development of measures and strategies for implementation of ingestion exposure pathway EPZ protective actions by formulating protective action information for the general public and food producers and processors. Demonstration of this criterion includes either pre-distributed public information material in the ingestion exposure pathway EPZ or the capability for rapid reproduction and distribution of appropriate reproduction-ready information and instruction to pre-determined individuals and businesses.

OROs must also demonstrate the capability to control, restrict, or prevent distribution of contaminated food by commercial sectors. Exercise play must include demonstration of communication and coordination among organizations to implement protective actions. Field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the ingestion exposure pathway EPZ must be demonstrated, but actual communications with food producers and processors may be simulated.

**PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise

**Sub-element 3.f – Implementation of Post-Plume Phase Relocation, Re-entry, and Return Decisions**

**Intent**

This Sub-element is derived from NUREG0654 / FEMA-REP-1, which requires that OROs have the capability to implement plans, procedures, and decisions for post-plume phase relocation, reentry, and return. Implementation of these decisions is essential for protecting the public from direct long-term exposure to deposited radioactive materials from a severe incident at a commercial NPP.

**Criterion 3.f.1: Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG0654 / FEMA-REP-1, E.7; J.10j; J.12; K.5.b; M.1, 3)**

**Assessment / Extent of Play**

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

**Relocation;** OROs must demonstrate the capability to coordinate and implement decisions concerning relocation of individuals located in radiologically contaminated areas who were not previously evacuated. Such individuals must be relocated to an area(s) where radiological

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contamination will not expose the general public to doses that exceed the relocation PAGs. OROs must also demonstrate the capability to provide for short- or long-term relocation of evacuees who lived in an area(s) that has residual radiation levels above the (first-, second-, and 50-year) PAGs.

Areas of consideration must include the capability of OROs to communicate with other OROs regarding timing of actions, notification of the population of procedures for relocation, and notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their home due to high levels of contamination. OROs must also demonstrate the capability to communicate instructions to the public regarding relocation decisions and intermediate-term housing for relocated persons.

**Reentry; OROs** must demonstrate the capability to control reentry and exit of individuals who are authorized by the ORO to temporarily reenter the restricted area during the post-plume (i.e., intermediate or late) phase to protect them from unnecessary radiation exposure. OROs must also demonstrate the capability to control exit of vehicles and other equipment to control the spread of contamination outside the restricted area(s). Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must reenter the evacuated area during the post-emergency phase must be limited to the lowest radiological exposure commensurate with completing their missions. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedures are: (1) assignment of, or checking for, direct-reading and permanent record dosimetry for emergency workers; (2) questions regarding the individuals' objective(s), location(s) expected to be visited, and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; (5) procedures for exit, including monitoring of individuals, vehicles, and equipment; (6) decision criteria regarding contamination; (7) proper disposition of emergency worker dosimetry; and (8) maintenance of emergency worker radiation exposure records.

**Return:** OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs must demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, and schools.

Communication among OROs for relocation, reentry, and return may be simulated. All simulated or actual contacts must be documented. These discussions may be accomplished in a group setting.

ORO will use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex, and other resources (e.g., compacts or nuclear insurers), as necessary, if available.



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Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

**PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise

**EVALUATION AREA 4**

**Field Measurement and Analysis**

**Sub-element 4.a – Plume Phase Field Measurements and Analyses**

**Intent**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 / FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at a NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

**Criterion 4.a.1: [RESERVED]**

**Criterion 4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654 / FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)**

**Assessment / Extent-of-Play**

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

Responsible OROs must demonstrate the capability to brief FMTs on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment. During an HAB incident, the Field Team management must keep the Incident Command informed of

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FMTs' activities and location. Coordination with FMTs and field monitoring may be demonstrated as out-of-sequence demonstrations, as negotiated in the Extent-of-Play Agreement.

Field measurements are needed to help characterize the release and support the adequacy of implemented protective actions, or to be a factor in modifying protective actions. Teams must be directed to take measurements at such locations and times as necessary to provide sufficient information to characterize the plume and its impacts.

If the responsibility for obtaining peak measurements in the plume has been accepted by licensee FMTs, with concurrence from OROs, there is no requirement for these measurements to be repeated by ORO monitoring teams. If the licensee FMTs do not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all FMTs (licensee, Federal, and ORO) is essential.

OROs will use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex and other resources (e.g., compacts or the licensee), as necessary. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

**PEMA Negotiated Extent-of-Play:**

Field Team Control will be performed near the 10 mile EPZ using the DEP Radiological Rapid Response Vehicle (R3V). Field Team control is expected to initially be out-of-sequence with the plume timeline. During the exercise the field teams will be directed to take measurements in locations to provide information sufficient to characterize the plume and impacts. In addition to field team measurements, remote detectors will be deployed by the field teams near the expected plume pathway. These detectors will automatically transmit data to the R3V. These detectors will be used to keep field teams dose ALARA. BRP Field Teams and R3V will NOT be evaluated for this exercise.

In the event the scenario has no radiological release, a report of background radiation by the FMT will signify successful demonstration of the criterion.

**Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654 / FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)**

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**Assessment / Extent-of-Play**

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

Two or more FMTs must demonstrate the capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority. FMTs must also demonstrate the capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement. If samples have radioactivity significantly above background, the authority must consider the need for expedited laboratory analyses of these samples. Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory(ies) must be demonstrated.

ORO's must share data in a timely manner with all other appropriate ORO's. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans / procedures.

ORO's must use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

**PEMA Negotiated Extent-of-Play:**

Measurements will be made by Department of Environmental Protection (DEP) Bureau of Radiological Protection (BRP), in accordance with State Radiological Annex E, Appendix 6 and the BRP Standard Implementing Procedures (IPs). Two mobile monitoring teams from BRP will demonstrate ambient radiation monitoring and radioiodine and particulate sampling. Field Teams will be equipped with appropriate dosimetry and KI. Both teams will participate but not be evaluated by FEMA. Each team will be directed to monitoring location and perform actual radiation measurements at each location. Measurements may consist of truck installed radiation monitor or hand-held radiation instruments. The team will explain by interview the procedures they follow for air sampling. Teams will take air samples as directed at various locations, if conditions are appropriate for radioiodine sampling and relay information to the R3V. In place of silver zeolite cartridges, charcoal cartridges will be used for the exercise. All measurements will be forwarded to the R3V immediately upon obtaining data. BRP Field Teams and R3V will NOT be evaluated for this exercise.

**Sub-element 4.b – Post Plume Phase Field Measurements and Sampling**

This sub-element will not be evaluated during this exercise.

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**Sub-element 4.c - Laboratory Operations**

This sub-element will not be evaluated during this exercise.

**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 derived from the Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants, FEMA-REP-10 (November 1985).

**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 full-scale or functional 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 plume 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

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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;
- 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 8 years. All alert and notification activities along the route(s) must be simulated (that is, 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.

**PEMA Negotiated Extent-of-Play:**

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 (September 23, 2010 and revised on November 2, 2011). The SEOC (PEMA) is the initiating point for the activation of the EAS. Risk Counties have the control equipment for activation of sirens. Coordination will occur between the SEOC and the affected counties with respect to the Alert and Notification System (ANS) process as to when the sirens and EAS messages will occur. Sirens will be coordinated and the sounding simulated at the appropriate time with the simulated activation of EAS taking place approximately 3 minutes following the simulated activation of the sirens. Regular Broadcasting will not be interrupted on the EAS Stations. All

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subsequent actions to broadcast stations will be simulated. Broadcast of the message(s) or test message(s) is not required and not requested. Counties may elect to provide Subsequent News Bulletins or County-Specific EAS messages to their EAS stations.

Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, ANS activation should be accomplished in a timely manner for primary alerting / notification. This action will not be subject to specific time requirements.

All actions to broadcast stations will be simulated. Systems that use automatic sending technology may be demonstrated by explanation during an interview.

Each evaluated municipality per Risk County will demonstrate, by interview, route alerting of the hearing impaired residents within their jurisdiction. Hearing impaired notification teams will not be deployed.

**Criterion 5.a.2: [RESERVED]**

**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,

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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.

If 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 (that is, 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.

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

**PEMA Negotiated Extent-of-Play:**

Plans specify that route alerting is used as a back up to the sirens. County Liaisons will provide an inject to the risk counties that a siren has failed. The county will demonstrate contacting one municipal EOC in regards to the failed siren in that municipality. The municipal EOC will then dispatch a route alert team to cover one route alert sector affected by the failed siren. All other routes will be simulated. Route Alert Teams should finish their route in about 45 minutes from time of siren failure.

OROs may utilize IPAWs or other public alerting systems in accordance with their plans but use of such systems will not negate the need to provide for demonstration of route alerting by the ORO.

**Sub-element 5.b – Emergency Information and Instructions for the Public and the Media**

**INTENT**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to disseminate appropriate emergency information and instructions, including any recommended protective actions, to the public. In addition, NUREG-0654 / FEMA-REP-1 requires OROs to ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 / FEMA-REP-1 also provides that a system must be available for dealing with rumors. This system will hereafter be known as the “public inquiry hotline”.

**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)**



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**Assessment / Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional 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. 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 pre-determined 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

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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 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.

**PEMA Negotiated Extent-of-Play:**

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 calls from the State Exercise Cell assigned this responsibility. Counties will be expected to receive and log the calls, identify any trends and take appropriate actions to include follow-up message development, distributions and/or briefings.

**EVALUATION AREA 6**

**Support Operation / Facilities**

**Sub-element 6.a – Monitoring, Decontamination, and Registration of Evacuees**

**INTENT**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees,

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while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

**Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654 / FEMA-REP-1, A.3; C.4; J.10.h; J.12)**

**Assessment / Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

Radiological monitoring, decontamination, and registration facilities for evacuees must be set up and demonstrated as they would be in an actual emergency or as indicated in the Extent-of-Play Agreement. OROs conducting this demonstration must have one-third of the resources (e.g., monitoring teams / instrumentation / portal monitors) available at the facility(ies) as necessary to monitor 20 percent of the population within a 12-hour period. This would include adequate space for evacuees' vehicles. Availability of resources can be demonstrated with valid documentation (e.g., MOU / LOA, etc.) reflecting how necessary equipment would be procured for the location. Plans / procedures must indicate provisions for service animals.

Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. Staff responsible for the radiological monitoring of evacuees must demonstrate the capability to attain and sustain, within about 12 hours, a monitoring productivity rate per hour needed to monitor the 20 percent EPZ population planning base. The monitoring productivity rate per hour is the number of evacuees that can be monitored, per hour, by the total complement of monitors using an appropriate procedure. For demonstration of monitoring, decontamination, and registration capabilities, a minimum of six evacuees must be monitored per station using equipment and procedures specified in the plans / procedures. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators to determine whether the 12-hour requirement can be met.

ORO must demonstrate the capability to register evacuees upon completion of the monitoring and decontamination activities. The activities for recording radiological monitoring and, if necessary, decontamination must include establishing a registration record consisting of the evacuee's name, address, results of monitoring, and time of decontamination (if any), or as otherwise designated in the plan and/or procedures. Audio recorders, camcorders, or written records are all acceptable means for registration.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger / action levels for determining the need for decontamination. They must also explain the

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procedures for referring any evacuees who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans / procedures.

Decontamination of evacuees may be simulated and conducted by interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated evacuees, provide changes of clothing for those with contaminated clothing, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any evacuee found to be contaminated, procedures must be discussed concerning handling of potential contamination of vehicles and personal belongings. Waste water from decontamination operations does not need to be collected.

Individuals who have completed monitoring (and decontamination, if needed) must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger / action level or have been placed in a secure area until they can be monitored and decontaminated, if necessary.

In accordance with plans / procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles held in a secure area or monitored and decontaminated (if applicable) and do require confirmation that their vehicle is being held in a secure area or free from contamination prior to entering the congregate care areas.

**PEMA Negotiated Extent-of-Play:**

Radiological monitoring demonstration sites should possess a roster of the monitoring personnel, as well as, providing a means by which mass care or others could verify that the person has been monitored and has been deemed uncontaminated. The Radiological Monitoring station(s) should be prepared to monitor 20 percent of the risk population within a 12-hour period as allocated to that location. In some cases Reception Centers, Monitoring and Decontaminations Centers, and/or Mass Care centers may be collocated.

At each reception center, a minimum of three volunteer evacuees will be processed, briefed, issued the appropriate strip map or directions, and instructed to proceed to a mass care center designated for demonstration of monitoring, decontamination, and registration. A sample of the

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appropriate strip maps or directions will be made available for the demonstration unless collocated with mass care and monitoring / decontamination. As negotiated with FEMA, this criterion will be demonstrated but not be evaluated because registration is not done at the reception center.

One mass care center and one mass care monitoring / decontamination center will be demonstrated per support county during the out-of-sequence window. The support counties will provide space at designated mass care centers or reception centers for operation of monitoring / decontamination centers. Schematics of these monitoring / decontamination centers will be available to show the organization within the facility and space management for monitoring and decontamination. Procedures will be demonstrated to evidence the separation of contaminated and non-contaminated (clean) individuals.

At the evacuee monitoring / decontamination center, a minimum of six (6) volunteer evacuees will be monitored (or one volunteer evacuee may be monitored six times). Suitable radiological monitoring instruments will be issued to and demonstrated by the initial monitoring team(s). A monitoring team consists of one monitor and one recorder equipped with one survey instrument. Those individuals found to be free of “contamination”, based upon scenario injects, will be directed to the mass care registration point for further processing. Note: Actual radiological sources will not be attached to or hidden upon the volunteer evacuees but sources may be used by operators to verify proper equipment calibration. Note: If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.

One of the simulated evacuees, based upon controller injects, will not be able to be decontaminated. Discussions concerning the processing of contaminated personnel will include capabilities and written procedures for showering females separate from males. Showering will be simulated, water will not be used. Note: If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.

Monitoring / decontamination centers are not issued DRDs or KI since the centers and stations are outside the EPZ. Category “C” Dosimetry applies. Permanent Record Dosimeters (PRD’s) may be simulated.

Radiation readings / contamination data for the evacuees and vehicle will be provided by the controller as appropriate based upon information contained in the scenario package. Set-up of the facility will be performed the same as for an actual emergency with all route markings and contamination control measures in place including step-off pads. Long runs of plastic covered with paper will not be demonstrated, but the materials shall be available and explained. Positioning of a fire apparatus on-site may be simulated if otherwise required.

Participants should be able to describe how vehicles are identified for radiological screening and plans or layouts should show the locations and movements of vehicles.

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Water from decontamination activities may go directly to a storm drain or other sewer or drain system or area normally designated for wastewater that has been used for bathing or washing of vehicles and or equipment.

Portal Monitor Use: Risk and Support counties may, during this exercise, utilize portal monitors to monitor simulated evacuees and/or emergency workers. The monitoring / decontamination team requirements will be based on the portal monitor capabilities as applicable based on the procedure / guidelines, and the recommendations of the manufacturer.

PEMA guidance shall apply. Note that most Portal Monitors are verified to be calibrated by an operator passing through the Portal Monitor with a radioactive source at head, mid, and ankle heights. For locations utilizing multiple portal monitors only one working portal monitor needs to be demonstrated.

**Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles**

**INTENT**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of emergency workers and their equipment, inclusive of vehicles.

**Criterion 6.b.1: The facility / ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654 / FEMA-REP-1, K.5.a, b)**

**Assessment / Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

The monitoring staff must demonstrate the capability to monitor emergency worker personnel and their equipment and vehicles for contamination in accordance with the ORO's plans / procedures.

Specific attention must be given to equipment, including any vehicles that were in contact with contamination. The monitoring staff must demonstrate the capability to make decisions on the need for decontamination of personnel, equipment, and vehicles based on trigger / action levels and procedures stated in the ORO plans / procedures. Monitoring of emergency workers does not have to meet the 12-hour requirement. However, appropriate monitoring procedures must be



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demonstrated for a minimum of two emergency workers and their equipment and vehicles. Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation.

The area to be used for monitoring and decontamination must be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping, and contamination control measures in place. Monitoring procedures must be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as radiator grills, bumpers, wheel wells, tires, and door handles must be demonstrated. Interior surfaces of vehicles that were in contact with contaminated individuals must also be checked.

Decontamination of emergency workers may be simulated and conducted via interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated individuals where applicable; provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of emergency workers or facilities.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger / action levels for determining the need for decontamination. They must also explain the procedures for referring any emergency workers who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans / procedures.

Decontamination capabilities and provisions for vehicles and equipment that cannot be successfully decontaminated may be simulated and conducted by interview. Waste water from decontamination operations does not need to be collected.

**PEMA Negotiated Extent-of-Play:**

At the emergency worker monitoring / decontamination stations schematics of these monitoring / decontamination stations will be available to show organization and space management. One emergency worker will be monitored. Discussions concerning processing of contaminated personnel will include capabilities and written procedures for showering females separate from males. Showering will be simulated, water will not be used. Suitable radiological monitoring instruments will be issued to the initial monitoring team. If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.

Emergency worker station personnel will consist of a minimum of one monitor and one recorder and sufficient personnel to demonstrate monitoring of at least one vehicle. The evaluator will



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request that vehicle decontamination procedures be explained after the vehicle (with simulated contamination) has been monitored. One radiological survey meter, will be issued to each vehicle monitoring / decontamination team. One vehicle and/or piece of equipment will not be able to be decontaminated. Simulated radiation contamination data will be included in the scenario package, and injected by a controller. Set-up of the facility will be performed as closely as possible to that for an actual emergency with all route markings in place.

Decontamination capabilities and provisions for vehicles and/or equipment that cannot be decontaminated will be simulated and conducted by interview. Water will NOT be used.

Radiation readings / contamination data for the emergency worker and vehicle will be provided by the controller as appropriate based upon information contained in the scenario package. Set-up of the facility will be performed the same as for an actual emergency with all route markings and contamination control measures in place including step-off pads. Long runs of plastic covered with paper will not be demonstrated, but the materials shall be available and explained. Positioning of a fire apparatus on-site may be simulated if otherwise required.

Portal Monitor Use: Risk and Support counties may, during this exercise, utilize portal monitors to monitor simulated emergency workers. The monitoring / decontamination team requirements will be based on the portal monitor capabilities as applicable based on the procedure / guidelines, and the recommendations of the manufacturer. Note: PEMA guidance shall apply. Note that most Portal Monitors are verified to be calibrated by an operator passing through the Portal Monitor with a radioactive source at head, mid, and ankle heights. For locations utilizing multiple portal monitors only one working portal monitor needs to be demonstrated.

Emergency Worker monitoring and decontamination station personnel are not issued DRDs or KI since the centers and stations are outside the EPZ. Category "C" Dosimetry applies. Permanent Record Dosimeters (PRD's) may be simulated. Water from decontamination activities may go directly to a storm drain or other sewer or drain system or area normally designated for wastewater that has been used for bathing or washing of vehicles and or equipment.

**Sub-element 6.c - Temporary Care of Evacuees**

**INTENT**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires OROs to have the capability to establish relocation centers in host / support jurisdictions. The American Red Cross normally provides congregate care in support of OROs under existing letters of agreement.

**Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross**

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**planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654 / FEMA-REP-1, J.10.h, J.12)**

**Assessment / Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

The evaluator must conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with applicable guidance.

For planning purposes, OROs must plan for a sufficient number of congregate care centers in host / support jurisdictions based on their all-hazard sheltering experience and what is historically relevant for that particular area. In this simulation, it is not necessary to set up operations as they would be in an actual emergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this criterion, exercise demonstration expectations must be clearly specified in Extent-of-Play Agreements.

Congregate care staff must also demonstrate the capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before entering the facility.

Individuals arriving at congregate care facilities must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger / action level.

In accordance with plans / procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not need confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles monitored and decontaminated (if applicable) and does need confirmation that their vehicle is free from contamination prior to entering the congregate care areas. This capability may be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically

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available at the facility(ies). However, availability of such items must be verified by providing the evaluator a list of sources with locations and estimates of quantities.

**PEMA Negotiated Extent-of-Play:**

Each of the risk or support counties with mass care centers will demonstrate the operation of one mass care center during the out-of-sequence window. Floor plans with flow diagrams of the mass care centers will be available to show organization within the facility and space management during a real emergency. Mass care center locations are listed in the demonstration tables “Demonstration of Mass Care Centers (Attachment A, Section I.B.4)”.

Personnel, at a minimum, will consist of one manager and one assistant for each mass care center opened during the out-of-sequence window. The evaluator will expect to see sources and quantities of equipment and supplies, as well as, a staffing chart by job title for 24-hour staffing. Schematics of these mass care centers will be available, during the demonstration window, to show organization within the facility and space allocation for the registration and sheltering the evacuating public. Necessary signs, directional arrows and forms will be available and used to demonstrate registration, at a minimum, of three evacuees requiring emergency housing. Evacuees will be shown the location where they would be housed in an actual situation. Bedding, cots, food, etc. normally associated with mass care will not be moved to the site, but the sources of those items should be explained to FEMA evaluators.

## **AMERICAN RED CROSS SUPPORT COUNTY CHAPTERS**

**For Lancaster and York Counties:**

American Red Cross of Central Pennsylvania  
1804 North Sixth Street  
Harrisburg, Pennsylvania 17102  
Chris Weidenhammer, Regional Disaster Program Officer, 717-234-3101  
Chris.Weidenhammer@redcross.org

**For Chester County:**

American Red Cross of Southeastern Pennsylvania  
23rd & Chestnut Streets  
Philadelphia, Pennsylvania 19103  
Leo Pratte, Regional Disaster Program Officer, 215-299-4822  
Leo.Pratte@redcross.org

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**Sub-element 6.d - Transportation and Treatment of Contaminated Injured Individuals**

**INTENT**

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

**Criterion 6.d.1: The facility / ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654 / FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)**

**Assessment / Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or drills. FEMA has determined that these capabilities have been enhanced and consistently demonstrated as adequate; therefore, offsite medical services drills need only be evaluated biennially. FEMA will, at the request of the involved ORO, continue to evaluate the drills on an annual basis. If more than two medical facilities and transportation providers are designated as primary or backup, they are also evaluated biennially.

Monitoring, decontamination, and contamination control efforts must not delay urgent medical care for the victim.

ORO must demonstrate the capability to transport contaminated injured individuals to medical facilities.

An ambulance must be used for response to the victim. However, to avoid taking an ambulance out of service for an extended time, OROs may use any vehicle (e.g., car, truck, or van) to transport the victim to the medical facility. It is allowable for an ambulance to demonstrate up to the point of departure for the medical facility and then have a non-specialized vehicle transport the "victim(s)" to the medical facility. This option is used in areas where removing an ambulance from service to drive a great distance (over an hour) for a drill would not be in the best interests of the community.

Normal communications between the ambulance / dispatcher and the receiving medical facility must be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur before releasing the ambulance from the drill. This communication would include reporting radiation monitoring results, if available. In addition, the ambulance crew must demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

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Monitoring of the victim may be performed before transport or en route, or may be deferred to the medical facility. Contaminated injured individuals transported to medical facilities are monitored as soon as possible to assure that everyone (ambulance and medical facility) is aware of the medical and radiological status of the individual(s). However, if an ambulance defers monitoring to the medical facility, then the ambulance crew presumes that the patient(s) is contaminated and demonstrate appropriate contamination controls until the patient(s) is monitored. Before using monitoring instruments, the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities must be completed as they would be in an actual emergency. Appropriate contamination control measures must be demonstrated before and during transport and at the receiving medical facility.

The medical facility must demonstrate the capability to activate and set up a radiological emergency area for treatment. Medical facilities are expected to have at least one trained physician and one trained nurse to perform and supervise treatment of contaminated injured individuals. Equipment and supplies must be available for treatment of contaminated injured individuals.

The medical facility must demonstrate the capability to make decisions on the need for decontamination of the individual, follow appropriate decontamination procedures, and maintain records of all survey measurements and samples taken. All procedures for collection and analysis of samples and decontamination of the individual must be demonstrated or described to the evaluator. Waste water from decontamination operations must be handled according to facility 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:**

This sub-element evaluated at Ephrata Community Hospital on April 23, 2015, York Hospital on May 28, 2015, and at Brandywine Hospital on August 11, 2015

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**ATTACHMENT A – DEMONSTRATION TABLES**

**Peach Bottom Atomic Power Station 2016  
Extent-of-Play Demonstration Tables**

**I. Plume Phase Exercise**

**A. Activities – April 27, 2016 beginning after 4 p.m.**

**1. County EOCs**

Time: Per Exercise Scenario

<b>DEMONSTRATION FOR EOC MOBILIZATION FOR COUNTIES</b>	
	Chester
	Lancaster
	York

**2. Municipal EOCs**

Time: Per Exercise Scenario

<b>DEMONSTRATION FOR EOC MOBILIZATION FOR MUNICIPALITIES</b>	
<b>RISK COUNTY</b>	<b>MUNICIPALITY</b>
<b>Chester</b>	<b>West Nottingham Township</b>
<b>Lancaster</b>	Drumore Township
	East Drumore Twp / <b>Providence Twp</b> / Quarryville Borough
	Fulton Township
	Little Britain Township
	<b>Martic Township</b>
<b>York</b>	<b>*Delta / Peach Bottom Townships❶</b>
	*Fawn Grove Twp / Fawn Borough
	<b>Lower Chanceford Township</b>

\* Joint EOC

❶ - Location requires Base Line Evaluation

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**3. Back-up Route Alerting**

One back-up route alerting demonstration by one municipality in each risk county (During scenario Exercise)

<b>Back-up Route Alerting</b>	
<b>COUNTY</b>	<b>MUNICIPALITY</b>
Chester	<b>West Nottingham Township</b>
Lancaster	<b>Martic Township</b>
York	<b>Lower Chanceford Township</b>

**4. Municipal / Region Police Forces**

- a. Each municipal / regional police force with a TCP assigned in its plan will demonstrate all preparation duties including TCP responsibilities and radiological briefing. Dispatch of persons to the TCP site will not occur during the exercise.
- b. Municipal and county staffs will be prepared to brief the FEMA evaluator on actions to be taken should there be an impediment to evacuation on a designated route. This will be demonstrated as part of the municipal or county demonstrations.

These municipal / regional police forces are (by county): N/A

<b>Chester</b>	<b>Lancaster</b>	<b>York</b>
N/A	N/A	N/A

**B. Out-of-Sequence Activities**

**1. School Districts**

Risk Public School Districts with schools located within the EPZ and those districts situated outside the EPZ, but with students living within the EPZ, will participate and be evaluated by FEMA. Each identified District Administration Office will be evaluated. When a school system is comprised of multiple buildings (High School, Middle School, Elementary School), the affected buildings (those with students from the EPZ) will be evaluated on a rotational basis to coincide with the eight-year exercise cycle.

Time: Out-of-Sequence



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County	School District	Date / Time
Lancaster	Penn Manor	March 7 - 9 AM
Lancaster	Solanco	March 7 - 1 PM
Chester	Oxford	March 8 – 9 AM
York	Red Lion	March 9 – 9 AM
York	South Eastern	March 9 – 1 PM

Schools and School Districts			
COUNTY	SCHOOL DISTRICT	SCHOOLS (approx. 1/3 <sup>rd</sup> evaluated)	Evaluated
Chester	Oxford Area (5)	1. Jordan Bank / Elementary School * 2. Nottingham Elementary School * 3. Elk Ridge School * 4. Penn's Grove Middle School * 5. <b>Oxford Area HS *</b>	2008/14 2008/14 2002/10 2006/12 2010/16
Lancaster	Penn Manor (3)	1. Martic Elementary 2. Penn Manor High School * 3. <b>Marticville Middle School *</b>	2006/12 2008/14 2010/16
	Solanco (6)	1. <b>Solanco High School</b> 2. Swift Middle School 3. Smith Middle School 4. Quarryville Elementary School 5. <b>Clermont Elementary School</b> 6. <b>Providence Elementary School *</b>	2010/16 2008/14 2006/12 2008/14 2010/16 2010/16
York	South Eastern SD (5)	1. <b>Fawn Elementary</b> 2. Delta / Peach Bottom Elementary 3. <b>SE Middle School (was East)</b> 4. SE Intermediate School (was Middle West) 5. Kennard Dale High School	2010/16 2006/12 2010/16 2008/14 2008/14
	Red Lion (4)	1. <b>Red Lion Sr High *</b> 2. Red Lion Jr High * 3. Clearview Elementary * 4. Larry J. Macaluso Elementary * 5. Pleasant View Elementary* 6. <b>Windsor Manor Elementary*</b>	2010/16 2008/14 2006/12 NEW/2012 NEW/14 NEW/16

Asterisks (\*) items indicate buildings not in EPZ – students may live in the EPZ

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**2. Traffic and Access Control Points**

- a. PSP from all three county troop locations will be briefed at the PSP Lancaster Barracks, 2099 Lincoln Highway East Lancaster, Pennsylvania. Members attending the briefing will not actually deploy to the TCP / ACPs.
- b. The PSP briefing will be performed out-of-sequence in a demonstration window of 9:30 a.m. – 12:00 noon on March 16, 2016.

**3. Reception Centers**

<b>Reception Centers Locations</b>		
<b>None</b>		
<b>COUNTY</b>	<b>LOCATION</b>	<b>EVALUATED</b>
Chester (1) *	Octorara Middle School	2006/10
Lancaster	Lancaster County Career & Technology Center	2006/12
York (2)	Red Lion Sr. High School	2006/12
	Southern School Complex MS	2011 (TMI)

**NOTE: All counties have requested exemption from demonstration for the 2016 exercise.**

The asterisks (\*) indicate monitoring / decontamination center activities at the respective reception centers.

**4. Mass Care Centers**

<b>Mass Care Center Locations</b>		
<b>March 7, 2016 – 7:00 p.m. to 9:30 p.m.</b>		
<b>COUNTY</b>	<b>LOCATION</b>	<b>EVALUATED</b>
Chester (1)	Octorara High School	2010
Lancaster (3)	*Penn Manor High School	2006/12
	* <u>Manheim Township School Complex:</u> Manheim Township MS Manheim Township HS	2007/11 (TMI)
	* <u>Lampeter Strasburg School Complex:</u> Lampeter Strasburg High School Lampeter Strasburg Martin Mylin Middle School Lampeter Strasburg Hans Herr Elementary School	2010/16
	Mass Care overflow capacity facilities include:	

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<b>Mass Care Center Locations March 7, 2016 – 7:00 p.m. to 9:30 p.m.</b>		
<b>COUNTY</b>	<b>LOCATION</b>	<b>EVALUATED</b>
	Hempfield Sr. High School Franklin & Marshall College Manor Middle School Conestoga Valley HS Conestoga Valley MS Garden Spot High & Middle School Complex Warwick HS Warwick MS Cocalico HS Cocalico MS	2013 (TMI) Walk-Down -3/18 Walk-Down -3/18 2011 (TMI) 2011 (TMI) Walk-Down -3/18 2011 (TMI) 2011 (TMI) 2011 (TMI) 2011 (TMI)
York (2)	*Red Lion School Complex: Red Lion Sr High School Red Lion Jr High School  * <u>Southern School Complex</u> : Southern Middle School Susquehannock High School  Mass Care overflow capacity facilities: Spring Grove High & Intermediate School Complex Spring Grove Middle School York County 4-H (people w/pets) Dallastown High & Middle School Complex  Additional Mass Care overflow capacity facilities: Southwestern High & Markle Intermediate School Complex Red Lion Fire Company	2006/12          2005/11 (TMI)          Walk-Down -2012 Walk-Down -2012 Walk-Down -2012 Walk-Down -2012    Walk-Down -2012 Walk-Down -2012

**NOTE: Chester and York counties have asked for exemption for the 2016 exercise**

The asterisks (\*) indicate monitoring / decontamination center activities at their mass care centers.

**5. Emergency Worker Monitoring / Decontamination Station**

<b>Emergency Worker Monitoring / Decontamination Station March 7, 2016 – 7:00 p.m. to 9:30 p.m.</b>		
<b>COUNTY</b>	<b>LOCATION</b>	<b>EVALUATED</b>

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Chester (1)	Penns Grove Middle School	2006/12
Lancaster (1)	<b>Lampeter Strasburg Field House</b>	2012/16
York (1)	Brogue Ambulance Company	2006/12

Emergency worker monitoring / decontamination station(s) for the risk county.

**NOTE: Chester and York counties have asked for exemption for the 2016 exercise**

# STATE OF MARYLAND

## METHOD OF OPERATION AND EXTENT OF PLAY

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

### ASSESSMENT 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 this Demonstration Criterion may be accomplished during a full-scale or functional exercise, an actual event, 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.

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The REP program does not evaluate Incident Command System tactical operations, only coordination among the incident command, the utility, and all appropriate OROs, pursuant to plans/procedures.

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.

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.

***State Negotiated Extent of Play:***

During the plume phase exercise activities on April 27, 2016 the emergency workers will pre-stage at various locations to reduce the amount of travel time. MEMA will mobilize only key State agencies at the Maryland EOC. All other facilities will activate according to plans. Key State Agencies are: MEMA, Maryland Military Department/National Guard, Maryland Department of the Environment, Maryland Department of Health and Mental Hygiene, Maryland Department of Natural Resources, Maryland Department of Agriculture, Maryland Department of Transportation, Maryland State Police, Maryland Department of Education and the Maryland Institute for Emergency Medical Services Systems. The Maryland Department of the Environment field monitoring teams will pre-stage.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

The County Agencies involved are Harford County Department of Emergency Services and Cecil County Department of Emergency Services. In all instances, the demonstration of a shift change is not required. Twenty-four hour staffing will be demonstrated by means of a roster or staffing chart.

All out-of-sequence players and equipment will be pre-positioned (Congregate Care, Reception Centers, Emergency Worker Monitoring and Decontamination Stations and Monitoring and Decontamination Centers). Cecil County MS-1 Union Hospital in Cecil County will not pre-

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stage its players. However, the Rising Sun EMS staff will pre-stage at the location that will begin the MS-1 portion of the exercise. Harford County MS-1 Upper Chesapeake Medical Center will not pre-stage its players. However, the Darlington Volunteer Fire Company will pre-stage at the location that will begin the MS-1 portion of the exercise.

***Outstanding Issues:***

None

**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, H.3). Play Facilities will only be specifically evaluated for this criterion if they are new or have substantial changes in structure or mission. Responsible OROs should demonstrate the availability of facilities that support the accomplishment of emergency operations. Some of the areas to be considered are: adequate space, furnishings, lighting, restrooms, ventilation, backup power and/or alternate facility (if required to support operations).

***State Negotiated Extent of Play:***

All State locations have been evaluated for the current 8-year cycle.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Cecil County EOC evaluations have been completed for their 8-year cycle. Harford County has a new EOC which will be evaluated on April 27th during the drill. The following locations will be evaluated during the out of sequence demonstrations. Harford County Fallston High School (Reception Center / E-Worker Monitoring) Patterson Mill High School (Congregate Care) Cecil County Rising Sun High School (Reception Center / Congregate Care) Perryville High School (E-Worker Monitoring)

***Outstanding Issues:***

None



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**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 full scale, functional, 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.

***State Negotiated Extent of Play:***

All activities will be in accordance with plans and procedures.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

All activities will be in accordance with plans and procedures.

***Outstanding Issues:***

None

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**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 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 full scale, functional and 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.

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***State Negotiated Extent of Play:***

This element will be demonstrated during the April 27, 2016 exercise in accordance with plans. Failure of communications equipment will not be provided in the scenario but may be discussed with appropriate personnel

***Risk and Support Jurisdictions Negotiated Extent of Play:***

This element will be demonstrated during the April 27, 2016 exercise in accordance with plans. Failure of communications equipment will not be provided in the scenario but may be discussed with appropriate personnel.

***Outstanding Issues:***

None

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

**Intent**

This Sub-element is derived 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, e; 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:

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**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 locations(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) (0-200 mR), 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.

**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

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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.

**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.

***State Negotiated Extent of Play:***

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Electrical leakage information is included with the Annual Letter of certification. Electronic dosimetry, used at most locations, does not require electrical leakage testing. Actual self-reading dosimetry will be issued however permanent dosimetry may be simulated. Quantities of dosimetry and KI available at storage locations(s) have been confirmed by documentation of current inventory submitted the Annual Letter of Certification submission. KI tablets for emergency workers will be simulated. Actual distribution of KI will not be demonstrated.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

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All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Electrical leakage information is included with the Annual Letter of certification. Electronic dosimetry, used at most locations, does not require electrical leakage testing. Actual self-reading dosimetry will be issued however permanent dosimetry may be simulated. Quantities of dosimetry and KI available at storage locations(s) have been confirmed by documentation of current inventory submitted the Annual Letter of Certification submission. KI tablets for emergency workers will be simulated. Actual distribution of KI will not be demonstrated.

***Outstanding Issues:***

None

**ASSESSMENT AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION  
DECISION-MAKING**

**Sub-element 2.a – Emergency Worker Exposure Control**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plans/procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration TEDE or organ-specific limits) identified in the ORO's plans/procedures.

***Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654/FEMA-REP-1, C.6; J.10. e, f; K.3.a; K.4)***

**Assessment/Extent of Play**

Assessment of this Demonstration Criterion must be assessed concurrently with a licensee exercise and may be demonstrated in a full scale, functional or tabletop exercise.

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OROs authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to comply with emergency worker exposure limits based on their emergency plans/procedures.

Participating OROs must also demonstrate the capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of emergency workers receiving radiation doses above pre-authorized levels. This would include providing KI and dosimetry in a timely manner to emergency workers dispatched onsite to support plant incident assessment and mitigating actions, in accordance with respective plans/procedures.

As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers, based on their plans/procedures or projected thyroid dose compared with the established PAGs for KI administration.

***State Negotiated Extent of Play:***

All activities will be conducted in accordance with plans

***Risk and Support Jurisdictions Negotiated Extent of Play:***

All activities will be conducted in accordance with plans

***Outstanding Issues:***

None

**Sub-element 2.b. – Radiological Assessment and Precautionary and/or Protective Action Recommendations and Decisions for the Plume Phase of the Emergency**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs. OROs must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency. OROs base these choices on PAGs from their plans/procedures or EPA's *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* and other criteria, such as plant conditions, licensee PARs, coordination of Precautionary and/or Protective Action Decisions with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific



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hostile action, the affiliated response, and the effect of an evacuation on the threat response effort, that create higher than normal risk from general population evacuation.

***Criterion 2.b.1: Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3)***

**Assessment/Extent of Play**

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO must demonstrate the capability to use appropriate means, described in the plans/procedures, to develop PARs for decision-makers based on available information and recommendations provided by the licensee as well as field monitoring data, if available. The ORO must also consider any release and meteorological data provided by the licensee.

The ORO must demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PARs must be appropriate to the scenario. In all cases, calculation of projected dose must be demonstrated. Projected doses must be related to quantities and units of the PAG to which they will be compared. PARs must be promptly transmitted to decision-makers in a pre-arranged format.

When the licensee and ORO projected doses differ by more than a factor of 10, the ORO and licensee must determine the source of the difference by discussing input data and assumptions, using different models, or exploring possible reasons. Resolution of these differences must be incorporated into the PARs if timely and appropriate. The ORO must demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

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.

***State Negotiated Extent of Play:***

All activities will be conducted in accordance with MDE plans and procedures. The MDE Decision Maker does not travel to the Exelon Nuclear Coatesville EOF. He/She will remain local to the MDE or MEMA facility.

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***Risk and Support Jurisdictions Negotiated Extent of Play:***

All activities will be conducted in accordance with respective plans and procedures.

***Outstanding Issues:***

None

***Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1,A.3; C.4, 6; D.4; J.9; J.10.f, m)***

**Assessment/Extent of Play**

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.

OROs must have the capability to make both initial and subsequent Precautionary and/or Protective Action Decisions. OROs must demonstrate the capability to make initial Precautionary and/or Protective Action Decision in a timely manner appropriate to the incident, based on information from the licensee, assessment of plant status and potential or actual releases, other available information related to the incident, input from appropriate ORO authorities (e.g., incident command), and PARs from the utility and ORO staff. In addition, a subsequent or alternate Precautionary and/or Protective Action Decision may be appropriate if various conditions (e.g., an HAB incident, weather, release timing and magnitude) pose undue risk to an evacuation, or if evacuation may disrupt the efforts to respond to a hostile action.

OROs must demonstrate the ability to obtain supplemental resources (e.g., mutual aid) necessary to implement a Precautionary and/or Protective Action Decision if local law enforcement, fire service, HAZMAT, and emergency medical resources are used to augment response to the NPP site or other key infrastructure.

Dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. In addition, incident command must provide input regarding considerations for subsequent PARs based on the magnitude of the ongoing threat, the response, and/or site conditions. The decision-makers must demonstrate the capability to change protective actions based on the combination of all these factors.

If the ORO has determined that KI will be used as a protective measure for the general public under offsite plans/procedures, then it must demonstrate the capability to make decisions on the

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distribution and administration of KI to supplement sheltering and evacuation. This decision must be based on the ORO's plans/procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process must involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision making, all appropriate OROs must communicate and coordinate PADs with each other. In addition, decisions must be coordinated/communicated with incident command. OROs must demonstrate the capability to communicate the results of decisions to all the affected locations.

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.

***State Negotiated Extent of Play:***

This activity will be conducted in accordance with plans. Maryland counties have the authority to initiate or expand a PAD. If a recommendation is made for the general public to take KI, appropriate information will be provided to the public by the means of notification specified in the plan and/or procedures. The Maryland Department of Health and Mental Hygiene with input from MDE will decide whether or not to issue KI to the public based on plant conditions or a calculation to determine if protective thyroid dose (CDE Thyroid) exceeds projected dose during a General Emergency. This decision is coordinated my MEMA through the MDE Accident Assessment Center.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Same as State

***Outstanding Issues:***

None

**Sub-element 2.c – Precautionary and/or Protective Action Decisions 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

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daycare centers, 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 full-scale, functional 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.

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).

***State Negotiated Extent of Play:***

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. List of any special populations will be available for review. School protective actions will be demonstrated as an out-of-sequence activity. Private schools, private kindergartens and day care centers will not

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participate in the exercise however; OROs will have lists of any facilities located within the jurisdiction available for review.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. List of any special populations will be available for review. School protective actions will be demonstrated as an out-of-sequence activity. Private schools, private kindergartens and day care centers will not participate in the exercise however; OROs will have lists of any facilities located within the jurisdiction available for review.

***Outstanding Issues:***

None

**Sub-element 2.d. – Radiological Assessment and Decision Making for the Ingestion Exposure Pathway**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate PAGs, and make timely, appropriate PADs to mitigate exposure from the pathway.

During an incident at an NPP, a release of radioactive material may contaminate water supplies and agricultural products in the surrounding areas. Any such contamination would likely occur during the plume phase of the incident and, depending on the nature of the release, could impact the ingestion pathway for weeks or years.

***Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria. (NUREG-0654/FEMA-REP-1, A.3; C.1, 4; D.4; J.9,11)***

**Assessment/Extent of Play**

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

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OROs are expected to take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans/procedures. Often OROs initiate such actions based on criteria related to the facility's ECLs. Such actions may include recommendations to place milk animals on stored feed and use protected water supplies. The ORO must use its procedures to assess the radiological consequences of a release on the food and water supplies, such as the development of a sampling plan. The ORO's assessment must include evaluation of the radiological analyses of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas; characterization of the releases from the facility; and the extent of areas potentially impacted by the release. During this assessment, OROs must consider use of agricultural and watershed data within the 50-mile EPZ. The radiological impacts on the food and water must then be compared to the appropriate ingestion PAGs contained in the ORO's plans/procedures. The plans/procedures contain PAGs based on specific dose commitment criteria or on criteria as recommended by current Food and Drug Administration (FDA) guidance. Timely and appropriate recommendations must be provided to the ORO decision-makers group for implementation decisions. OROs may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO must demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information. Any such decisions must be communicated and, to the extent practical, coordinated with neighboring OROs. These decisions include tracking agricultural products entering and leaving the EPZ. Demonstration of plans and procedures which use traffic access control points to track agricultural products entering and leaving the EPZ may be conducted through interview.

OROs must use Federal resources, as identified in the Nuclear/Radiological Incident Annex of the NRF and other resources (e.g., compacts or nuclear insurers). Evaluation of this criterion will take into consideration the level of Federal and other participating resources.

***State Negotiated Extent of Play:***

Not demonstrated

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Not demonstrated

***Outstanding Issues:***

N/A

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**Sub-element 2.e. – Radiological Assessment and Decision Making Concerning Post-Plume Phase Relocation, Reentry, and Return**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to make decisions on post-plume phase relocation, reentry, and return of the general public. These decisions are essential for protection of the public from direct long-term exposure to deposited radioactive materials from a severe incident at an NPP.

***Criterion 2.e.1: Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures. (NUREG-0654/FEMA-REP-1, I.10; J.9; K.3.a; M.1)***

**Assessment/Extent of Play**

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

**Relocation:** OROs must demonstrate the capability to estimate integrated dose in contaminated areas and compare these estimates with PAGs; apply decision criteria for relocation of those individuals in the general public who have not been evacuated, but where actual or projected doses are in excess of relocation PAGs; and control access to evacuated and restricted areas. OROs will make decisions for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs. Determination of areas to be restricted must be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates versus the PAGs, and analyses of vegetation and soil field samples.

**Reentry:** Decisions must be made on location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to temporarily enter the evacuated area to perform specific tasks or missions.

Examples of control procedures are the assignment of, or checking for, direct-reading and permanent record dosimetry for emergency workers; questions regarding an individual's objectives, locations expected to be visited, and associated timeframes; availability of maps and plots of radiation exposure rates; and advice on areas to avoid. Control procedures also include monitoring of individuals, vehicles, and equipment; the implementation of decision criteria regarding decontamination; and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.



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Responsible OROs must demonstrate the capability to develop a strategy for authorized reentry of individuals into the restricted zone(s), based on established decision criteria. OROs must demonstrate the capability to modify those policies for security purposes (e.g., police patrols), maintenance of essential services (e.g., fire protection and utilities), and other critical functions. They must demonstrate the capability to use decision-making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for farm animals or secure machinery for storage) or retrieve important possessions. Coordinated policies for access and exposure control must be developed among all agencies with roles to perform in the restricted zone(s). OROs must demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed to reenter the restricted zone(s). The extent to which OROs need to develop policies on reentry will be determined by scenario events.

**Return:** OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase (i.e., permitting populations that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis). OROs must base decisions on environmental data and political boundaries or physical/ geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area(s) that is based on the relocation PAG.

Other factors that the ORO must consider in decision-making include conditions that permit cancellation of the ECL and relaxation of associated restrictive measures. OROs must base return recommendations on measurements of radiation from ground deposition. OROs must have the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate-term housing for relocated persons.

***State Negotiated Extent of Play:***

Not demonstrated

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Not demonstrated

***Outstanding Issues:***

N/A

**ASSESSMENT AREA 3: PROTECTIVE ACTION IMPLEMENTATION**

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**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 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, J.10.e; K.3.a, b; K.4)***

**Assessment/Extent of Play**

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

ORO 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.

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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.

***State Negotiated Extent of Play:***

At the MDE Accident Assessment Center, dosimetry will be used by the Field Team workers.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

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At Cecil and Harford Counties, personnel performing route alerting will receive radiological briefings, dosimetry, simulated KI and forms at the County EOC during the April 27, 2016 plume phase activities. Radiological briefings will be provided to address exposure limits and procedures to replace those 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. Distribution of KI will be simulated. Forms should also be demonstrated to emergency workers. Forms used by emergency workers to track dosimetry and KI should be filled out completely and, when appropriate, serial numbers should be entered on forms for dosimetry.

In Harford County and Cecil County, personnel working at evacuee or emergency worker monitoring and decontamination facility will receive dosimetry and forms from their officer in charge while on site. A minimum of six (6) dosimetry kits will be demonstrated for each county. This will be demonstrated out of sequence on March 29, 2016 from 19:00- 21:00. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area.

Cecil County will conduct radiological briefings and distribute KI, dosimeters, and forms at Rising Sun EMS. A radiological officer will be at Rising Sun EMS to carry out these duties and a second officer will be at the EOC to conduct briefings and distribute equipment as necessary as well. At Union Hospital in Cecil County, personnel working at the hospital will follow procedural guidance regarding use of dosimetry and KI. The Rising Sun EMS will receive their player briefing and dosimetry at the Cecil County staging area, Rising Sun EMS.

At any time, players may ask other players or supervisors to clarify radiological information. All locations that have dosimetry equipment indicated within their Radiological Emergency Response Plan (RERP), will make the dosimetry equipment (and KI) available for inspection by the Federal Evaluator. Simulation PRDs with mock serial numbers may be used.

***Outstanding Issues:***

None

**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

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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 full-scale, functional 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.

***State Negotiated Extent of Play:***

This activity will be conducted in accordance with plans and procedures. KI has been pre-distributed to the general public. However, availability and dissemination of KI for the general population will be demonstrated for the evaluator during this exercise up to the point of actual distribution at the Reception/Monitoring & Decontamination Centers/Congregate Care Centers.

KI for the Emergency Workers will be evaluated through inventory sheets and/or inspection. KI will not be removed from the storage locations. KI questions will be addressed through interviews or submitted in the Annual Letter of Certification. Simulated KI may be used. The quantity of KI available for Emergency Workers will be made known to evaluators through inspection or inventory sheets.

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***Risk and Support Jurisdictions Negotiated Extent of Play:***

Same as State

***Outstanding Issues:***

None

**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 PADs, 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 areas 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 full-scale or functional 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, 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 actual, as negotiated in the extent of play. All actual and simulated contacts must be logged.



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***State Negotiated Extent of Play:***

N/A

***Risk and Support Jurisdictions Negotiated Extent of Play:***

All activities will be conducted in accordance with plans and procedures. The names, locations and contact information of identified individuals with identified special needs are maintained at each County EOC. Copies of these lists will not be provided to the evaluators; however, evaluators will be allowed to inspect the lists during the exercise.

Contact with special populations and reception facilities will be simulated (hospitals, nursing homes and correctional facilities). Actual contacts (up to two per Risk County) will be made with transportation providers as per plan. All actual and simulated contacts should be logged. AN interview will be conducted at each EOC with the organization that provides transportation on the April 27th Drill.

***Outstanding Issues:***

None

***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 full-scale, functional, or tabletop exercise, an actual event, or by means of drills conducted at any time.

Public school systems/districts must demonstrate the ability to implement PADs 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



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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.

The provisions of this criterion also apply to any private schools, private kindergartens, and licensed daycare centers that participate in REP exercises pursuant to the ORO's plans/procedures as negotiated in the Extent-of-Play Agreement.

***State Negotiated Extent of Play:***

N/A

***Risk and Support Jurisdictions Negotiated Extent of Play:***

This activity will be conducted in accordance with plans and procedures on March 2, 2016 in Cecil County and April 27, 2016 in Harford County. In Harford and Cecil Counties, the interview of the School Principal will be done at each school. In Harford, School District personnel will be at the District office.

School Students will not be involved during the exercise. Actions and activities associated with the demonstration of Criterion 3.c.2 will be limited to the School District Administration key personnel and the County. Evacuation of students will be conducted through an interview process with School District personnel or the building principal.

The role of the bus driver may be conducted through an interview with school or transportation officials (or designee). Buses and drivers will not participate. Maps or route descriptions will be available for illustration purposes. Risk County school plans do not require communications between the school and vehicles. Bus drivers are not considered emergency workers and therefore do not require dosimetry. Potassium Iodide may be available at the school (pre-distributed) for the bus driver.

The School Services Officer is staged at the County EOC and will be coordinating activities with the Principal, including notifications. Private schools and kindergartens will not participate. Lists of these facilities will be provided and procedures for contacting them will be described. Licensed Day Care Facilities will be listed in the County EOC and the following information will be available for each:

- Name of Facility or Operator Name
- Facility Contact Name (if different from Operator Name)

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- Facility Address
  - Contact Phone Number

These Day Care Facilities will not be contacted.

***Outstanding Issues:***

**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 full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

ORO 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.

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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.

***State Negotiated Extent of Play:***

This activity will be conducted in accordance with plans and procedures. Rail, water or air traffic will be coordinated through PEMA and implemented by the State. Actual contact with federal agencies (where required) will be simulated

***Risk and Support Jurisdictions Negotiated Extent of Play:***

This activity will be conducted in accordance with plans and procedures. This element will also be evaluated during the April 27, 2016 plume phase activities in Harford and Cecil Counties.

Traffic and Access control will be demonstrated by interview at the County EOC. 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 will be provided to the assigned individuals.

***Outstanding Issues:***

None

***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 full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

OROs must demonstrate the capability to identify and take appropriate actions concerning impediments to evacuations. 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 contacts, actual or simulated, must be logged.

***State Negotiated Extent of Play:***

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N/A

***Risk and Support Jurisdictions Negotiated Extent of Play:***

This activity will be demonstrated in accordance with plans and procedures. This element will also be evaluated during the April 27, 2016 plume phase activities in Harford and Cecil Counties.

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.

***Outstanding Issues:***

None

**Sub-element 3.e – Implementation of Ingestion Pathway Decisions**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement protective actions, based on criteria recommended by current FDA guidance, for the ingestion exposure pathway EPZ (i.e., the area within an approximate 50-mile radius of the NPP). This Sub-element focuses on those actions required for implementation of protective actions.

***Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. NUREG-0654/FEMA-REP-1, A.3; C.1, 4; J.11)***

**Assessment/Extent of Play**

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

Applicable OROs must demonstrate the capability to secure and use current information on the locations of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the EPZ. OROs use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex, and other resources (e.g., compacts, nuclear insurers), if

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available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

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.

***State Negotiated Extent of Play:***

Not evaluated during this exercise

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Not evaluated during this exercise

***Outstanding Issues:***

N/A

***Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654/FEMA-REP-1, G.1, J.9, 11)***

**Assessment/Extent of Play**

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

OROs must demonstrate the development of measures and strategies for implementation of ingestion exposure pathway EPZ protective actions by formulating protective action information for the general public and food producers and processors. Demonstration of this criterion includes either pre-distributed public information material in the ingestion exposure pathway EPZ or the capability for rapid reproduction and distribution of appropriate reproduction-ready information and instructions to pre-determined individuals and businesses.

OROs must also demonstrate the capability to control, restrict, or prevent distribution of contaminated food by commercial sectors. Exercise play must include demonstration of communications and coordination among organizations to implement protective actions. Field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the ingestion exposure pathway EPZ must be demonstrated, but actual communications with food producers and processors may be simulated.

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***State Negotiated Extent of Play:***

Not evaluated during this exercise

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Not evaluated during this exercise

***Outstanding Issues:***

N/A

**Sub-element 3.f – Implementation of Post-Plume Phase Relocation, Reentry, and Return Decisions**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement plans, procedures, and decisions for post-plume phase relocation, reentry, and return. Implementation of these decisions is essential for protecting the public from direct long-term exposure to deposited radioactive materials from a severe incident at a commercial NPP.

***Criterion 3.f.1: Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10.j; J.12; K.5.b; M.1, 3)***

**Assessment/Extent of Play**

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

**Relocation:** OROs must demonstrate the capability to coordinate and implement decisions concerning relocation of individuals located in radiologically contaminated areas who were not previously evacuated. Such individuals must be relocated to an area(s) where radiological contamination will not expose the general public to doses that exceed the relocation PAGs. OROs must also demonstrate the capability to provide for short- or long-term relocation of evacuees who lived in an area(s) that has residual radiation levels above the (first-, second-, and 50-year) PAGs.

Areas of consideration must include the capability of OROs to communicate with other OROs regarding timing of actions, notification of the population of procedures for relocation, and

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notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their homes due to high levels of contamination. OROs must also demonstrate the capability to communicate instructions to the public regarding relocation decisions and intermediate-term housing for relocated persons.

**Reentry:** OROs must demonstrate the capability to control reentry and exit of individuals who are authorized by the ORO to temporarily reenter the restricted area during the post-plume (i.e., intermediate or late) phase to protect them from unnecessary radiation exposure. OROs must also demonstrate the capability to control exit of vehicles and other equipment to control the spread of contamination outside the restricted area(s). Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must reenter an evacuated area during the post-emergency phase must be limited to the lowest radiological exposure commensurate with completing their missions. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedures are: (1) assignment of, or checking for, direct-reading and permanent record dosimetry for emergency workers; (2) questions regarding the individuals' objective(s), location(s) expected to be visited, and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; (5) procedures for exit, including monitoring of individuals, vehicles, and equipment; (6) decision criteria regarding contamination; (7) proper disposition of emergency worker dosimetry, and (8) maintenance of emergency worker radiation exposure records.

**Return:** OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs must demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, and schools.

Communication among OROs for relocation, reentry, and return may be simulated. All simulated or actual contacts must be documented. These discussions may be accomplished in a group setting.

ORO must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex, and other resources (e.g., compacts or nuclear insurers), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

***State Negotiated Extent of Play:***

Not evaluated during this exercise



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***Risk and Support Jurisdictions Negotiated Extent of Play:***

Not evaluated during this exercise

***Outstanding Issues:***

N/A

**ASSESSMENT AREA 4: FIELD MEASUREMENTS AND ANALYSIS**

**Sub-element 4.a – Plume Phase Field Measurements and Analyses**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654/FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at an NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

***Criterion 4.a.1: [RESERVED]***

***Criterion 4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654/FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)***

**Assessment/Extent of Play**

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

Responsible OROs must demonstrate the capability to brief FMTs on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment. During an HAB incident, the Field Team management must keep the incident command informed of field monitoring teams' activities and location. Coordination with FMTs and field monitoring

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may be demonstrated as out-of-sequence demonstrations, as negotiated in the Extent-of-Play Agreement.

Field measurements are needed to help characterize the release and support the adequacy of implemented protective actions, or to be a factor in modifying protective actions. Teams must be directed to take measurements at such locations and times as necessary to provide sufficient information to characterize the plume and its impacts.

If the responsibility for obtaining peak measurements in the plume has been accepted by licensee field monitoring teams, with concurrence from OROs, there is no requirement for these measurements to be repeated by ORO monitoring teams. If the licensee FMTs do not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all FMTs (licensee, Federal, and ORO) is essential.

ORO's must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

***State Negotiated Extent of Play:***

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least six readings will be obtained by each team at a survey point location. IAW agreements with Exelon State and Local organizations, State and local teams will not measure plume centerline radiation levels. Airborne radioactivity samples will be counted in the field. Chain of custody procedures to deliver samples for additional analysis will be described to the evaluator. Federal participation is not scheduled for this exercise. Contact with Federal resources will be simulated.

***Risk and Support Jurisdictions Negotiated Extent of Play:***

County field teams do not perform survey, air sampling or air sampling analysis. Harford and Cecil Counties do not dispatch field teams.

***Outstanding Issues:***

None

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***Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654/FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)***

**Assessment/Extent of Play**

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

Two or more FMTs must demonstrate the capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority. FMTs must also demonstrate the capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement. If samples have radioactivity significantly above background, the authority must consider the need for expedited laboratory analyses of these samples. Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory(ies) must be demonstrated. OROs must share data in a timely manner with all other appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans/procedures.

ORO must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

***State Negotiated Extent of Play:***

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least six readings will be obtained by each team at a survey point location. IAW agreements with Exelon State and Local organizations, State and local teams will not measure plume centerline radiation levels. Airborne radioactivity samples will be counted in the field. Chain of custody procedures to deliver samples for additional analysis will be described to the evaluator. Federal participation is not scheduled for this exercise. Contact with Federal resources will be simulated

***Risk and Support Jurisdictions Negotiated Extent of Play:***

County field teams do not perform survey, air sampling or air sampling analysis. Harford and Cecil counties do not dispatch field teams.

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***Outstanding Issues:***

None

**Sub-element 4.b – Post-Plume Phase Field Measurements and Sampling**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess the actual or potential magnitude and locations of radiological hazards to determine the ingestion exposure pathway EPZ and to support relocation, reentry, and return decisions. This Sub-element focuses on collecting environmental samples for laboratory analyses that are essential for decisions on protecting the public from contaminated food and water and direct radiation from deposited materials.

***Criterion 4.b.1: The field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision making. (NUREG-0654/FEMA-REP-1, C.1; I.8; J.11)***

**Assessment/Extent of Play**

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

The ORO's FMTs must demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support reentry, relocation, and return decisions. When resources are available, use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans/procedures.

The FMTs and/or other sampling personnel must secure ingestion pathway samples from agricultural products and water. Samples in support of relocation and return must be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.

ORO's must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts, the licensee, or nuclear insurers). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

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***State Negotiated Extent of Play:***

Not evaluated during this exercise

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Not evaluated during this exercise

***Outstanding Issues:***

N/A

**Sub-element 4.c – Laboratory Operations**

**Intent**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to perform laboratory analyses of radioactivity in air, liquid, and environmental samples to support protective action decision making.

***Criterion 4.c.1: The laboratory is capable of performing required radiological analyses to support protective action decisions. (NUREG-0654/FEMA-REP-1, C.1, 3; J.11)***

**Assessment/Extent of Play**

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

The laboratory staff must demonstrate the capability to follow appropriate procedures for receiving samples, including logging information, preventing contamination of the laboratory(ies), preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil (e.g., milk), and keeping track of sample identity. In addition, the laboratory staff must demonstrate the capability to prepare samples for conducting measurements. The laboratory(ies) must be appropriately equipped to provide, upon request, timely analyses of media of sufficient quality and sensitivity to support assessments and decisions anticipated in the ORO's plans/procedures. The laboratory instrument calibrations must be traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides released in a reactor incident must be as described in the plans/procedures. New or revised methods may be used to analyze atypical radionuclide releases (e.g., transuranics or as a result of a terrorist incident) or if warranted by incident circumstances. Analysis may require resources beyond those of the ORO.

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The laboratory staff must be qualified in radio-analytical techniques and contamination control procedures.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts, the licensee, or nuclear insurers). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

***State Negotiated Extent of Play:***

Not evaluated during this exercise

***Risk and Support Jurisdictions Negotiated Extent of Play:***

Not evaluated during this exercise

***Outstanding Issues:***

N/A

**ASSESSMENT 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 derived from the Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants, FEMA-REP-10 (November 1985).

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## ATTACHMENT B – FEDERAL EVALUATION PROCESS MATRIX

<b>Evaluation Area</b>	<b>Consolidate</b>	<b>Frequency</b>	<b>Out-of-Sequence of Exercise Scenario</b>	<b>Credit</b>	<b>Staff Assistance Visit</b>
<b>1. Emergency Operations Management</b>	1, 2, 3, 4, 5, 14, 17, 30				
Mobilization		Every Exercise	NO	YES	NO
Facilities		Once if new <sup>1</sup>	NO	YES	YES
Direction and Control		Every Exercise	NO	NO	NO
Communications Equipment		Article I. Once per 8 yr. cycle	YES	YES	YES
Equipment and Supplies to Support Operations		Every Exercise	YES	YES	YES
<b>2. Protective Action Decision-Making</b>	5, 7, 9, 14, 15, 16, 17, 26, 28				
Emergency Worker Exposure Control		Every Exercise	YES	YES	YES
Radiological Assessment & Protective Action Recommendations & Decisions for the Plume Phase of the Emergency		Every Exercise	NO	NO	NO
Protective Action Decisions for the Protection of Special Populations		Every Exercise	NO	NO	NO
Radiological Assessment & Decision-making for the Ingestion Exposure Pathway <sup>2</sup>		Once in 6 yrs.	NO	NO	NO
Radiological Assessment & Decision-making Concerning Relocation, Re-entry, and Return <sup>2</sup>		Once in 6 yrs.	NO	NO	NO
<b>3. Protective Action Implementation</b>	5, 14, 15, 16, 17, 27, 29				
Implementation of Emergency Worker Exposure Control		Every Exercise	YES	YES	NO
Implementation of KI Decision		Once in 8 yrs.	YES	NO	NO



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<b>Evaluation Area</b>	<b>Consolidate</b>	<b>Frequency</b>	<b>Out-of-Sequence of Exercise Scenario</b>	<b>Credit</b>	<b>Staff Assistance Visit</b>
Implementation of Protective Actions for Special Populations		Once in 8 yrs. <sup>3</sup>	YES	YES	YES
Implementation of Traffic and Access Control <sup>4</sup>		1 per Organization per exercise	YES	YES	YES
Implementation of Ingestion Pathway Decisions		Once in 8 yrs.	NO	NO	NO
Implementation of Relocation, Re-entry, and Return decisions		Once in 8 yrs.	NO	NO	NO

<b>4. Field Measurement and Analysis</b>	6, 8, 24, 25				
Plume Phase Field Measurements & Analysis		Every Full Participation Exercise	YES	YES	NO
Post Plume Phase Field Measurements and Sampling		Once in 8 yrs.	YES	YES	NO
Laboratory Operations		Once in 8 yrs.	YES	YES	NO
<b>5. Emergency Notification and Public Information</b>	10, 11, 12, 13				
Activation of the Prompt Alert and Notification System	10	Every exercise	NO	NO	NO
Activation of the Prompt Alert and Notification System (Fast Breaking)	10	Separate Drill once in 8 yrs.	NO	NO	NO
Emergency Information & Instructions for the Public and the Media		Every exercise	NO	NO	NO
<b>6. Support Operations / Facilities</b>	18, 19, 20, 21, 22				
Monitoring & Decontamination of Evacuees and Emergency Workers <sup>3</sup> & Registration of Evacuees		Once in 8 yrs.	YES	NO	NO
Monitoring & Decontamination		Once in 8 yrs.	YES	NO	NO

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<b>Evaluation Area</b>	<b>Consolidate</b>	<b>Frequency</b>	<b>Out-of-Sequence of Exercise Scenario</b>	<b>Credit</b>	<b>Staff Assistance Visit</b>
of Emergency Worker Equipment <sup>3</sup>					
Temporary Care of Evacuees <sup>6</sup>		Once in 8 yrs.	YES	YES	YES
Transportation and Treatment of Contaminated Injured Individuals		Every 2 years	YES	YES	NO

- 1 Will be evaluated if new or changed substantially.
- 2 The plume phase and the post-plume phase (ingestion, relocation, re-entry and return) can be demonstrated separately.
- 3 All facilities must be evaluated once during the eight-year exercise cycle.
- 4 Physical deployment of resources is not necessary.
- 5 Facilities managed by the American Red Cross (ARC), under the ARC / FEMA MOU, will be evaluated once when designated or when substantial changes occur; all other facilities not managed by the ARC must be evaluated once in the eight-year exercise cycle.
- 6 Each State within the 10-mile EPZ of a commercial nuclear power site shall fully participate in an exercise jointly with the licensee and appropriate local governments at least every two years. Each State with multiple sites within its boundaries shall fully participate in a joint exercise at some site on a rotational basis at least every two years. When not fully participating in an exercise at a site, the State shall partially participate at that site to support the full participation of the local governments.



# PEACH BOTTOM ATOMIC POWER STATION

## After Action Report/ Improvement Plan

Exercise Date – April 17, 2018

Radiological Emergency Preparedness (REP) Program



**FEMA**

*Published July 12, 2018*

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## EXECUTIVE SUMMARY

On April 17, 2018, a full-scale Plume Exposure Pathway exercise was demonstrated and evaluated for the 10 Mile Emergency Planning Zone (EPZ) around the Peach Bottom Atomic Power Station (PBAPS) by the Federal Emergency Management Agency (FEMA), Region III. The previous full-scale exercise at this site was evaluated on April 27, 2016.

Out-of-Sequence demonstrations were conducted during March and April, 2018. 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) to protect the property and lives of residents and transients in the event of an emergency at PBAPS. The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region III 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, two Level 2 Findings (one successfully re-demonstrated), and no Planning Issue. All prior Performance and Planning Issues were resolved during the previous 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 Planning 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 many individuals in the Commonwealth of Pennsylvania and the risk jurisdictions; Chester, Lancaster, and York Counties. FEMA also wishes to acknowledge the State of Maryland and the risk jurisdictions of Harford and Cecil Counties. 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 were evident during the exercise.

## SECTION 1: EXERCISE OVERVIEW

### 1.1 Exercise Details

**Exercise Name**

Peach Bottom Plume Exercise

**Type of Exercise**

Plume

**Exercise Date**

April 17, 2018

**Program**

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

**Scenario Type**

Plume Exposure Pathway

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### 1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Peach Bottom Atomic Power Station exercise:

#### State Jurisdictions

##### State of Maryland

- Governor's Office of Homeland Security
- Maryland Army National Guard
- Maryland Association of Soil Conservation Districts
- Maryland Attorney General's Office
- Maryland Department of Agriculture
- Maryland Department of Disabilities
- Maryland Department of Environment
- Maryland Department of General Services
- Maryland Department of Health
- Maryland Department of Human Services
- Maryland Department of Information Technologies
- Maryland Department of Transportation

- Maryland Emergency Management Agency
- Maryland Institute for Emergency Services System
- Maryland Joint Operations Center
- Maryland Natural Resources Police
- Maryland Public Service Commission
- Maryland State Highway Administration
- Maryland State Police
- Maryland Technology Assistance Program

### **Risk Jurisdictions**

#### **Cecil County**

- Cecil County, Agriculture Division
- Cecil County Department of Emergency Services
- Cecil County Department of Social Services
- County Public Information Officer
- Cecil County Emergency Management
- Cecil County, Hazmat Team
- Cecil County Health Department
- Cecil County, Social Services
- Cecil County Public Schools
- Cecil County Public Schools – Transportation
- Cecil County Sheriff's Office
- Cecil County Soil Conservation District
- County Executive/ Administration
- Cecil County Community Fire Company of Perryville
- Cecil County Radio Amateur Civil Emergency Services
- Rising Sun Volunteer Fire Company
- Turumo Division
- 

#### **Harford County**

- City of Havre de Grace Police Department
- Delmarva Power
- Exelon Corporation
- Harford County 911 Center
- Harford County Administrative Offices
- Harford County Agriculture Division
- Harford Community Services
- Harford County Chaplain Services
- Harford County Department of Emergency Services
- Harford County Department of Health
- Harford County Department of Public Works
- Harford County Emergency Services
- Harford County Fire and EMS Association

- Harford County Hazmat/Rad Officer
- Harford County Hospitals
- Harford County Human Resources
- Harford County Office of Mental Health
- Harford County Office of Community and Economic Development
- Harford County Public Information Officer
- Harford County Public Schools – Transportation
- Harford Radio Amateur Civil Emergency Services
- Harford County Sheriff's Office
- Harford County Social Services
- Harford County Transit
- Howard County (observer)
- Maryland Emergency Management Agency
- Maryland Department of Health
- Town of Bel Air Police Department
- Whiteford Volunteer Fire Company

**Commonwealth of Pennsylvania,**

- Commonwealth Response Coordination Center Staff
- Nuclear Regulatory Commission
- Pennsylvania Criminal Intelligence Center
- Pennsylvania Department of Aging
- Pennsylvania Department of Agriculture
- Pennsylvania Department of Corrections
- Pennsylvania Department of Drug and Alcohol
- Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection
- Pennsylvania Department of Health
- Pennsylvania Department of Human Services
- Pennsylvania Department of Labor and Industry
- Pennsylvania Department of Military and Veterans Affairs
- Pennsylvania Department of Revenue
- Pennsylvania Department of Transportation
- Pennsylvania Fish and Boat Commission
- Pennsylvania Game Commission
- Pennsylvania Public Utilities Commission
- Pennsylvania State Police
- Pennsylvania Department of Environmental Protection
- Pennsylvania Department of Military and Veterans Affairs
- Pennsylvania Department of Transportation
- Pennsylvania Insurance Department
- Pennsylvania State Police

## **Risk Jurisdictions**

### **Chester County EOC**

- Chester County Amateur Radio Emergency Services (ARES)
- Chester County Department of Emergency Services
- Chester County Department of Emergency Services, 911 Center
- Chester County Department of Emergency Services, Facilities Department
- Chester County Department of Emergency Services, Technical Division
- Chester County FIRST/Private Sector
- Chester County Sheriff's Office
- Chester County Amateur Radio Emergency Service/Radio Amateur Civil Emergency Service
- Pennsylvania Emergency Management Agency Office of the State Fire Commissioner
- Chester County HazMat
- Chester County, Cochranville Station 27 Fire Company
- Chester County, Union Fire Company Emergency Medical Services
- West Nottingham Police Department
- West Nottingham Township Emergency Management Agency
- West Nottingham Township Public Works
- West Nottingham Township Supervisor
- Chester County Hazmat Team
- Union Fire Company

### **Lancaster County**

- Amateur Radio Emergency Services Group (ARES)
- Exelon Corporation
- Lancaster County Office of Emergency Management
- Lancaster County Clerk
- Lancaster County Commissioner Office
- Lancaster County Emergency Management
- Lancaster County Hazmat 2
- Lancaster County HazMat Station #2
- Lancaster Countywide Communications
- Lancaster Sheriff's Office
- Lancaster County Wide Communications (911 Center)
- Lancaster County, Penn Manor School District
- Lancaster County, Martic Elementary School
- Pennsylvania Emergency Management Agency
- Pennsylvania National Guard
- Pennsylvania State Police
- Drumore Constables Office
- Drumore Emergency Management
- Drumore Road Crew

- Elizabethtown Emergency Management Agency
- Rawlinsville Volunteer Fire Department

**York County**

- Dover Township Emergency Management Agency
- Delta-Peach Bottom Emergency Management Agency
- Delta-Cardiff Volunteer Fire Company
- Citizens Volunteer Fire company of Fawn Grove
- Fairview Township Emergency Management Agency
- Pennsylvania Department of Transportation
- Pennsylvania Emergency Management Agency
- Pennsylvania State Police Loganville Barracks
- Radio Amateur Civil Emergency Service (RACES)
- Red Lion Emergency Management Agency
- Red Lion School District
- South Central Task Force (Amateur Radio)
- United States Department of Agriculture
- York ARES/RACES SkyWarn Organization
- York County Office of Emergency services
- York County 9-1-1
- York County Sheriff's Office
- York County Planning Commission
- York County American Red Cross
- York County, Southeastern School District
- Fawn Township Emergency Management Agency
- Lower Chanceford Township Emergency Management Agency
- Lower Chanceford Township Supervisor (elected)
- Emergency Worker M/D Brogue Ambulance Company
- York County Hazardous Materials Team
- York County Department of Emergency Services
- Airville Volunteer Fire Department
- New Bridgeville Memorial Fire Department
- Southern York EMS (aka Brogue Ambulance Company)
- Union Volunteer Fire Department (Felton)
- Penn State University
- Millersville University
- Solanco School District
- George A. Smith Middle School
- Rabbit Transit

**Private Organizations**

- American Red Cross serving the Central Pennsylvania Chapter of Lancaster County
- Exelon Corporation

- Union Hospital of Cecil County
- Upper Chesapeake Hospital
- American Red Cross
- Delmarva Power



**Federal Agencies**

- Federal Emergency Management Agency
- Nuclear Regulatory Commission
- United State Department of Agriculture

## 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 Program (REPP) Program that was established following the Three Mile Island Nuclear 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 on the basis of 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, and
  - U.S. Food and Drug Administration

Representatives of these agencies serve on the Region III Regional Assistance Committee (RAC), which is chaired by FEMA. A REP Plume Exposure Pathway Exercise was evaluated April 17, 2018, and Medical Services drills were conducted April 10, 2018 & April 11, 2018 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 Peach Bottom Atomic Power Station. The purpose of this exercise report is to present the 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 evaluator team, with final determinations made by the FEMA Region III Regional Assistance Committee (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;

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

## **Emergency Planning Zone Description:**

The coordinates of the plant site are 39°45'32" north (latitude) by 76°16'9" west (longitude). The site consists of 620 acres located on the west shore of Conowingo Pond, a reservoir formed by the backwater of the Conowingo Dam on the Susquehanna River. The site is primarily in Peach Bottom Township, York County, Pennsylvania; a small portion of the property lies in Lancaster County in southeastern Pennsylvania near the mouth of Rock Run Creek. The minimum exclusion distance (distance from the center point of the reactor vessel to the site area boundary) specified for the PBAPS is 2,700 feet. Exelon Nuclear owns all the land within the exclusion area; there are no private residences on site.

The plant is located about 38 miles north-northeast of Baltimore, Maryland; 45 miles southeast of Harrisburg, Pennsylvania; and 20 miles south-southeast of Lancaster, Pennsylvania. The nearest communities are Delta, Pennsylvania, and Cardiff, Maryland, which are located approximately four and five miles west-southwest of the site, respectively. There are 97 sirens providing coverage for the 10-mile EPZ; 65 are in Pennsylvania. Soils of the Manor-Glenelg Association predominate in the site area. These soils, which are generally underlain by schist or phyllite, are shallow to moderately deep and are found on moderate to very steep slopes. The general topography of the site is hilly, with elevations ranging from 110 feet to over 460 feet above mean sea level (MSL); the plant is 116 feet above MSL.

The site is characterized by broad ridge tops and steep hillsides along the river. The climate in this area of York County is mild but humid. Prevailing winds are from the west. The average rainfall is approximately 40.5 inches, and the average annual temperature is 52.8° Fahrenheit. The area in the immediate vicinity of the plant is mostly agricultural. There are no commercial airports within a 10-mile radius. The closest major airport is in Harrisburg, about 50 miles northwest of the site. A smaller airport servicing commuter and private aircraft is located in Lancaster, about 25 miles north of the site. No public highways pass through the plant, and no major arterial highways pass near it. Access to the plant is by two roads: one, from the nearby town of Delta, leads to the decommissioned Unit 1 area and Information Center; the other passes north of Delta and enters the plant area near Units 2 and 3.

## **2.2 Exercise Objectives, Capabilities and Activities**

The objective of the 2018 Peach Bottom Atomic Power Station (PBAPS) Plume Exercise was 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 of 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

At 1635, a fire occurs and is extinguished. At 1650, an **Alert** is declared due to a hazardous event affecting a safety system. State and Risk Jurisdictions are notified by the Control Room Operators.

At 1755, a steam line leak occurs outside primary containment and the main stack radiation monitors rise. A monitored radiological release is in progress. The reactor is shut down. At 1810, a **Site Area Emergency** is declared due to the loss of reactor coolant system and containment. State and Risk Jurisdictions respond according to plans and procedures.

At 1901, a **General Emergency** is declared due to the potential loss of fuel cladding, loss of reactor coolant system, and loss of containment. The licensee Protective Action Recommendation (PAR) is to evacuate the two-mile radius, and sectors F, G, H, J, and K from two to five miles downwind. State officials analyze field data and take appropriate protective actions.

At 1925, an unmonitored unfiltered radiological release begins. At 1940, a wind shift occurs, changing wind direction from 340 degrees to 285 degrees in a counterclockwise direction over a 15-minute time interval. At 1955, sector E is added to the PAR due to the wind shift. State officials make appropriate protective action decision based on new data.

At approximately 2030, the exercise is terminated after all objectives are completed.

## 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 April 17, 2018, biennial Plume Exposure Pathway EPZ Radiological Emergency Preparedness (REP) Exercise, and the Out of Sequence Exercise evaluations conducted during March and April. 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 Peach Bottom Atomic Power Station.

Each jurisdiction and functional entity was evaluated on the basis of 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 by the use of 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 in the vicinity of 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.

### Tables 3.2 - Summary of Exercise Evaluation

**Table 3.2a - Exercise Evaluation by Classification**

Date: April 17, 2018 Site: Peach Bottom Atomic Power Station			
Location	Criteria Title	Criteria	Classification
Chester County EOC	Emergency Information & Instructions for the Public/Media	5b1	L2
Lancaster County Reception Center (Re-demonstrated)	Implementation of Emergency Worker Exposure Control	3a1	L2

**Table 3.2.b – Exercise Evaluation – Criteria Not Demonstrated**

Date: April 17, 2018 Site: Peach Bottom Atomic Power Station		
Location	Criteria Title	Criteria
York County EOC	Implementation of Emergency Worker Exposure Control	3a1
York County EOC	Implementation of KI PAD for Institutionalized Individuals/Public	3b1

**Table 3.2.c – Exercise Evaluation – Criteria**

LOCATION	TEAM LEADER	AGENCY
Cecil County Back-up Route Alerting	William McDougall	FEMA RIII
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Mass Care Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	William McDougall	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Michael Shuler	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Traffic and Access Control Point	William McDougall	FEMA RIII
Union Hospital of Cecil County,	Michael Shuler	FEMA RIII
Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penn Gr	Lee Torres	FEMA RIII
Chester County Mass Care Center, Octorara High School	Lee Torres	FEMA RIII
Chester County Reception Center, Octorara Middle School	Lee Torres	FEMA RIII
Chester County, Oxford Area School District	Michael Shuler	FEMA RIII



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Chester County, Oxford Area School District, Penn Grove Middle School	Michael Shuler	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Lee Torres	FEMA RIII
Chester County, West Nottingham Township Emergency Operations Center	Lee Torres	FEMA RIII
Emergency Worker Monitoring and Decontamination Center Harford County Community College	Paul Anderson	FEMA RIX
Exelon Joint Information Center	Joseph Suders	FEMA RIII
Harford County Back-up Route Alerting	Paul Anderson	FEMA RIX
Harford County Congregate Care Center, Harford Technical High School	Paul Anderson	FEMA RIX
Harford County Emergency Operations Center	Paul Anderson	FEMA RIX
Harford County Public School District	Michael Shuler	FEMA RIII
Harford County Public School District, Darlington Elementary School	Michael Shuler	FEMA RIII
Harford County Public School District, Dublin Elementary School	Michael Shuler	FEMA RIII
Harford County Reception Center, Harford County Community College	Paul Anderson	FEMA RIX
Harford County Traffic and Access Control Point	Paul Anderson	FEMA RIX
Harford County, Harford Christian School	Michael Shuler	FEMA RIII
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA RIII
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Tina Lai-Thomas	FEMA RIII
Lancaster County Mass Care Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Monitoring and Decontamination Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Reception Center, Lancaster County Career and Technology Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township, Back Up Route Alerting	Tina Lai-Thomas	FEMA RIII
Lancaster County, Penn Manor School District	Michael Shuler	FEMA RIII
Lancaster County, Penn Manor School District, Martic Elementary School	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Michael Shuler	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Jill Leatherman	ICFI
Maryland Emergency News Center	Larry Broockerd	FEMA HQ
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII

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Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Jill Leatherman	ICFI
PA State Field Monitoring Team A, South Central Region	Kenneth Wierman	FEMA HQ
PA State Field Monitoring Team B, South Central Region	Kenneth Wierman	FEMA HQ
Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Marcy Campbell	ICFI
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Joint Information Center/Rumor Control	Joseph Suders	FEMA RIII
Pennsylvania State Traffic and Access Control Point, State Police Barracks York	Joseph Suders	FEMA RIII
Pennsylvania State Traffic and Access Control Points, State Pol Barrack Lancaster	Joseph Suders	FEMA RIII
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	Christopher Nemcheck	FEMA RIII
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Lower Chanceford Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Red Lion Area School District	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Michael Shuler	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Michael Shuler	FEMA RIII
Cecil County Back-up Route Alerting	Michael Meshenberg	ICFI
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	Kerry Holmes	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Emergency Operations Center	Clayton Spangenberg	ICFI
Cecil County Emergency Operations Center	Robert Lemeshka	ICFI
Cecil County Mass Care Center, Rising Sun High School	Thomas Scardino	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Christopher Nemcheck	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Michael Shuler	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Patricia Gardner	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII

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Cecil County Traffic and Access Control Point	Danny Loomis	ICFI
Cecil County, Union Hospital	Joseph Suders	FEMA RIII
Chester County Emergency Operations Center	Michael DeBonis	FEMA RII
Chester County Emergency Operations Center	Andrew Chancellor	FEMA RVII
Chester County Emergency Operations Center	Linda Gee	FEMA RVI
Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penns Grove	Kent Tosch	ICFI
Chester County Mass Care Center, Octorara High School	Thomas Reynolds	ICFI
Chester County Reception Center, Octorara Middle School	Robert Walker	ICFI
Chester County, Oxford Area School District	Patricia Gardner	FEMA RIII
Chester County, Oxford Area School District, Penns Grove Middle School	Tina Lai-Thomas	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Richard Smith	ICFI
Chester County, West Nottingham Township Emergency Operations Center	David Ortman	FEMA RV
Chester County, West Nottingham Township Emergency Operations Center	Michael Burriss	ICFI
Emergency Worker Monitoring and Decontamination Center Harford County Community College	David Stuenkel	ICFI
Exelon Joint Information Center	Roger Kowieski	ICFI
Harford County Back-up Route Alerting	Kevin Reed	ICFI
Harford County Congregate Care Center, Harford Technical High School	Brenda Rembert	ICFI
Harford County Emergency Operations Center	Kimberly Alahmadi	FEMA RV
Harford County Emergency Operations Center	Paul Anderson	ICFI
Harford County Emergency Operations Center	Kathy Duran	FEMA RIII
Harford County Emergency Operations Center	Michael Petullo	ICFI
Harford County Public School District, Darlington Elementary School	William McDougall	FEMA RIII
Harford County Public School District, Dublin Elementary School	David Stuenkel	ICFI
Harford County Reception Center, Harford County Community College	Richard Watts	ICFI
Harford County Traffic and Access Control Point	Robert Princic	ICFI
Harford County, Harford Christian School	Richard Watts	ICFI
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA RIII
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	John Rice	FEMA RI
Lancaster County Emergency Operations Center	Taneeka Hollins	FEMA RI
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Operations Center	Brian Clark	ICFI
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Ronald Bonner	ICFI
Lancaster County Mass Care Center, Penn Manor High School	Meg Swearingen	ICFI

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Lancaster County Reception Center, Lancaster County Career and Technology Center	Carol D. Shepard	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Frank Cordaro	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Lenora Borchardt	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Mark Dalton	ICFI
Lancaster County, Drumore Township, Back Up Route Alerting	Robert Duggleby	ICFI
Lancaster County, Penn Manor School District	Joseph Suders	FEMA RIII
Lancaster County, Penn Manor School District, Martic Elementary School	Nicholas Buls	FEMA RIII
Lancaster County, Solanco School District	Christopher Nemcheck	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Kathy Duran	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Reggie Rodgers	ICFI
Maryland Emergency News Center	Larry Broockerd	FEMA HQ
Maryland Emergency Operations Center	Elsa Lopez	FEMA RVI
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII
Maryland Emergency Operations Center	James Greer	ICFI
Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Roger Winkelmann	ICFI
PA State Field Monitoring Team A, South Central Region	Marcy Campbell	ICFI
PA State Field Monitoring Team B, South Central Region	Michael Henry	ICFI
Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Deborah Blunt	ICFI
Pennsylvania Commonwealth Response Coordination Center	Lisa Rink	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Commonwealth Response Coordination Center	Timothy Pflieger	FEMA RVI
Pennsylvania Commonwealth Response Coordination Center	Alonzo McSwain	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Gary Bolender	ICFI
Pennsylvania Joint Information Center/Rumor Control	Paul Nied	ICFI
Pennsylvania State Traffic and Access Control Point, State Police Barracks York	David Kayen	ICFI
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	John Wills	ICFI
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Michael Shuler	FEMA RIII
York County, Emergency Operations Center	Miriam Weston	FEMA RII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Rufus Mobley	FEMA HQ

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York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Patrick Cusick	FEMA RII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Gary Goldberg	ICFI
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Lynn Steffensen	ICFI
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Thomas Gahan	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Brian Hasemann	FEMA RII
York County, Lower Chanceford Township Emergency Operations Center	Roy Smith	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Thomas Reynolds	ICFI
York County, Red Lion Area School District	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Christopher Nemcheck	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Nicholas Buls	FEMA RIII

### 3.3 Criteria Evaluation Summaries

#### 3.3.1 State Jurisdictions

##### **3.3.1.1 Maryland Accident Assessment Center, Maryland Department of the Environment**

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

- a. MET: 1.a.1, 1c1, 1.d.1, 1.e.1, 2a1, 2.b1, 2b2, 4.a.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

##### **3.3.1.2 Maryland Emergency News Center**

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

- a. MET: 1.a1, 1c1, 1.d.1, 5.b.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

##### **3.3.1.3 Maryland State Field Monitoring Team A**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

#### **3.3.1.4 Maryland State Field Monitoring Team B**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

#### **3.3.1.5 PA State Field Monitoring Team A, South Central Region**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

#### **3.3.1.6 PA State Field Monitoring Team B, South Central Region**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

#### **3.3.1.7 Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.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

#### **3.3.1.8 Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 4.a.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

#### **3.3.1.9 Pennsylvania Commonwealth Response Coordination Center**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 5.a.1, 5.b.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

### **3.3.1.10 Pennsylvania Joint Information Center/Rumor Control**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.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 Risk Jurisdictions**

### **3.3.2.1 Cecil County Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.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

### **3.3.2.2 Cecil County Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.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 Cecil County Mass Care Center, Rising Sun High School**

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

- a. MET: 1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.c.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

#### **3.3.2.4 Cecil County Monitoring and Decontamination Center, Perryville High School**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 6.b.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

#### **3.3.2.5 Cecil County Public School District, Conowingo Elementary School**

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

- 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

### **3.3.2.6 Cecil County Reception Center, Rising Sun High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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 Cecil County Traffic and Access Control Point**

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

- a. MET: 1.e.1, 3.a.1, 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 Chester County, Oxford Area School District**

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

- 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

### **3.3.2.9 Chester County, Oxford Area School District, Penns Grove Middle School**

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

- 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

### **3.3.2.10 Chester County, West Nottingham Township Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.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

### **3.3.2.11 Chester County, West Nottingham Township Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 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

### **3.3.2.12 Chester County Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.d.1, 3.c.1, 3.d.2, 5.a.1, 5.a.3,
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: 5.b.1
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**ISSUE FOR CRITERION: 5.b.1-** ORO's provide accurate emergency information and instructions to the public and news media in a timely manner.

**CONDITION:** Chester County's Special News Broadcast (SNB) #1 and News Release #3 were not consistent with the Alert Emergency Classification Level (ECL) and the Site Area Emergency ECL. The SNL #1 issued at 1709 during an Alert ECL and News Release #3 issued at 1807 during the Site Area Emergency ECL both referenced "The conditions at the Peach Bottom Atomic Power Station have upgraded the Event Classification to General Emergency".

**POSSIBLE CAUSE:** News Releases and Special News Broadcasts were not adequately reviewed prior to release to the public.

**REFERENCE:** NUREG-0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c

**EFFECT:** The public would receive conflicting information.

**RECOMMENDATION:** Establish a process and/or procedure to ensure message content is reviewed for accuracy by a designated official prior to dissemination.

### **3.3.2.13 Chester County Emergency Worker Monitoring and Decontamination Station, Penns Grove**

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

- a. MET: 1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

#### **3.3.2.14 Chester County Mass Care Center, Octorara High School**

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

a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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 Chester County Reception Center, Octorara Middle School**

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

a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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 Emergency Worker Monitoring and Decontamination Center Harford County Community College**

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

a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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 Harford County, Harford Christian School**

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

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

#### **3.3.2.18 Harford County Back-up Route Alerting**

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

a. MET, 1.d.1, 1.e.1, 3.a.1, 2, 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

#### **3.3.2.19 Harford County Congregate Care Center, Harford Technical High School**

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

a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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 Harford County Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 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: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

#### **3.3.2.21 Harford County Public School District, Darlington Elementary School**

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

- 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

#### **3.3.2.22 Harford County Public School District, Dublin Elementary School**

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

- 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

**3.3.2.23 Harford County Reception Center, Harford County Community College**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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 Harford County Traffic and Access Control Point**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 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

**3.3.2.25 Lancaster County, Drumore Township, Back Up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.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

**3.3.2.26 Lancaster County, Drumore Township Emergency Operations Center**

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

- a. MET: 1.b.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 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

**3.3.2.27 Lancaster County, Penns Manor School District**

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

- 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 Lancaster County, Penns Manor School District, Martic Elementary School**

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

- 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 Lancaster County, Solanco School District**

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

- 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

**3.3.2.30 Lancaster County, Solanco School District, Smith Middle School**

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

- 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

**3.3.2.31 Lancaster County Emergency Operations Center**

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

- 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: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

### **3.3.2.32 Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

### **3.3.2.33 Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

### **3.3.2.34 Lancaster County Mass Care Center, Penn Manor High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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

### **3.3.2.35 Lancaster County Reception Center, Lancaster County Career and Technology Center**

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

- a. MET: 1.e.1, 3.a.1, 6.a.1
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: 3.a.1 (Re-demonstrated)
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

#### **ISSUE FOR CRITERION: 3.a.1**

**CONDITION:** Responders did not receive a radiological briefing or PRDs

**POSSIBLE CAUSE:** Training Issue

**REFERENCE:** NUREG 0654 Rev. 1 K.3.a,b; K4, Lancaster County Radiological Emergency Response Procedures Basic Plan, Section G.3.1 Procedures Section, Section I.C, D, Section II.A.I, Section G, H, Section V, p.23-Dosimetry-KI instructions for Emergency Workers

**EFFECT:** Inability to determine radiation doses to any emergency worker who may be potentially exposed to ionizing radiation as a result of an incident.

**RECOMMENDATION:** Mandate training for this group of responders in the PEMA training program and include them in the Countywide Training Database maintained at Lancaster Emergency Management Agency.

### **3.3.2.36 Pennsylvania State Traffic and Access Control Point, State Police Barracks York**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 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

### **3.3.2.37 York County, Emergency Operations Center**

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

a. MET: 1.a.1, 1.b.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: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

### **3.3.2.38 York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting**

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

a. MET: 1.d.1, 1.e.1, 3.a.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

### **3.3.2.39 York County, Fawn Grove Borough/Fawn Township Emergency Operations Center**

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

a. MET: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 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

**3.3.2.40 York County, Red Lion Area School District**

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

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

**3.3.2.41 York County, Red Lion Area School District, Clearview Elementary School**

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

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

**3.3.2.42 York County, Red Lion Area School District, L. J. Macaluso Elementary School**

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

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

#### **3.3.2.43 York County, South Eastern School District**

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

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

#### **3.3.2.44 York County, South Eastern School District, Delta/Peach Bottom Elementary School**

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

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

#### **3.3.2.45 York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance**

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

a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

#### **3.3.2.46 York County Monitoring and Decontamination Center, Red Lion High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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

#### **3.3.2.47 York County Mass Care Center, Red Lion High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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

### **3.3.3 Private Jurisdictions**

#### **3.3.3.1, Union Hospital of Cecil County**

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

- a. MET: 1.e.1, 3.a.1, 6.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

### **3.3.3.2 Cecil County Community Fire Company of Rising Sun**

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

a. MET: 1.e.1, 3.a.1, 6.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

### **3.3.3.3 Exelon Joint Information Center**

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

a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.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

### **3.3.3.4 Harford County, Upper Chesapeake Medical Center**

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

a. MET: 1.e.1, 3.a.1, 6.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

**3.3.3.5 Harford County, Whiteford Volunteer Fire Company**

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

- a. MET: 1.e.1, 3.a.1, 6.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

## **SECTION 4: DEMONSTRATED STRENGTHS**

### **1.1 State of Maryland EOC**

#### **1.1.1 SEOC JIC**

The State of Maryland's Joint Information Center team exhibited great coordination and collaboration during the Peach Bottom exercise. When confusion over a declared time occurred the team worked to find the correct answer and insure the correct time was in the subsequent press release.

#### **1.1.2 State Field Monitoring Team A**

The Maryland Department of Environment Field Monitoring Team "A" checked the air sampler head for the presence of three sealing gaskets to ensure that the sampler head would have an adequate seal before being deployed into the field. This is a practice the Evaluator had not observed in other field team evaluations.

#### **1.1.3 Route Alerting**

The patrol vehicle used for route alerting has a newly-installed Fujitsu tablet with an Air Card that enables broadband two-way data transmission which allows the deputy to record the brief message on the tablet (or his phone) at the outset of the route and replay it as needed. This enabled him to concentrate on driving safely and follow the detailed directions.

In addition, the deputy suggested that all the routes keyed to the sirens could be programmed into the vehicle's computer and mapped so drivers could more readily follow the turn-by-turn instructions rather than having to read and drive.

### **2.0 Cecil County and Harford County EOC**

Cecil Harford Counties Information Hotlines (formerly Rumor Control) report to the EOC as part of the initial activation with the PIO. Allowing a few members of this group to sit with the PIO ensure up to date information and smoother coordination with staff that are located in a different portion of the EOC.

Cecil and Harford Counties uses "Blackboard Connect" which is similar to a reverse 911, allowing the EOC to reach out to all County residents with text messages located within the 10 mile EPZ. The information sent via this platform is also posted on the County's Facebook, and Twitter accounts in a matter of minutes.

Cecil and Harford Counties Emergency Operations Centers has created a comprehensive route alerting binder. Each route takes 45 minutes to



run, indicates how many each primary officers are needed to reach every address, and which addresses do and do not need to have an alternate officer drive to the house in order for the message to be heard.

The EOC should be commended for their thorough documentation and detail to this task. The binder is comprehensive, yet simple enough to use that anyone can pick a route sheet and know exactly where and what to do.

### **3.0 Commonwealth of Pennsylvania**

#### **3.1 Commonwealth Response Coordination Center (CRCC)**

The Deputy Incident Support Manager (DISM) located in the Commonwealth Response Coordination Center (CRCC) Command Room was instrumental in establishing and maintaining the PEMA bridgeline throughout the exercise and demonstrated the validating and relaying of accurate Emergency Classification Level (ECL) escalations, protective action information, and timely updates concerning the Peach Bottom Atomic Power Station plant status between the Commonwealth of Pennsylvania risk counties, Maryland Emergency Management Agency (MEMA), and the Maryland risk counties. The DISM's efforts in managing emergency information via the bridgeline contributed immensely to the timely implementation of protective actions for the Offsite Response Organizations (OROs).

#### **3.2 State JIC/Rumor Control**

The Pennsylvania Emergency Management Agency CRCC Press Secretary (State Public Information Officer) and staff were proactive in information gathering, news release development and authorization, and talking point development used by the Senior State Official during media briefings. The calm yet rapid information development and distribution was indicative of a team committed to training and job performance excellence.

#### **3.3 BRP Radiation Rapid Response Vehicle**

Field Team coordination was demonstrated from the backup location at the Bureau of Radiation Protection Headquarters facility until the R3V2 was delivered to the staging area and operational. The backup location was fully equipped with communications and computer equipment to support the Field Teams.

#### **3.4 State Field Monitoring Team A & B**

The two PA FMTs used a sample counting jig to ensure an accurate reproducible geometry when counting air sample filters. This methodology aides in more accurate dose projections from field measurements.

### **3.5 Chester County EOC**

The Chester County radio operators need to be commended. They demonstrated a very efficient way to transfer emergency information (data), and send it via radio communication, to their network of radio operators in the field. This is a great benefit to the community in the event conventional communications fail.

During the PBAPS Exercise, the Chester County HazMat team was called upon to support a real world event when a Propane Tanker Truck overturned blocking two highways in Delaware County. They seamlessly continued to support the exercise as well as the real world emergency.

#### **3.5.1 Emergency Worker Monitoring/ Decontamination Center**

The Chester County HazMat Deputy Chief provided strong direction and control of the Emergency Worker Monitoring and Decontamination Center. He ensured that all staff were aware of their duties and provided guidance through comprehensive briefings.

### **3.6 Lancaster County EOC**

The Lancaster County communications person kept all the incoming messages organized numerically and insured all the message were available via the content table cover sheet.

#### **3.6.1 Mass Care**

The Central Pennsylvania Chapter of Lancaster County American Red Cross participants were engaging and eagerly assumed their responsibilities. The Center Managers were familiar with all the position responsibilities and were committed to providing immediate comfort and care to the evacuees.

### **3.7 York County EOC**

York County Office of Emergency Management went above and beyond by exercising the counties alternate Emergency Operations Center. York County alternate Emergency Operations Center was able to complete the mission seamlessly as if they were in their normal Emergency Operation Center. Having the knowledge to know if the need arises they can use the alternate seamlessly is a great confidence for York County.

#### **3.7.1 Fawn Grove Township/ Fawn Borough. EOC**

Delta Peach and Fawn Area Emergency Operation Centers (EOCs) projected strength by being able to maintain the exercise play while many volunteers responded to a real world structure fire. The Emergency Management Directors (EMD) at both EOCs were able to

maintain their EOC exercise play and coordinate the mission for the structure fire.

**3.7.2      Emergency Worker Monitoring and Decontamination Brogue Ambulance Company**

The Chief of the York County Hazardous Materials Team supervised monitoring and decontamination operations at the Brogue Ambulance Company building and served as a mentor to several new personnel as they performed their functions. He not only provided information on how to satisfactorily perform each function, but why each function was essential to succeed. Other veteran members of the team assisted new personnel in the completion of their assigned tasks.

## SECTION 5: CONCLUSION

The Commonwealth of Pennsylvania, State of Maryland, and local jurisdictions, except where noted in this report demonstrated knowledge of their Radiological Emergency Response Plans (RERP) and procedures were adequately implemented during the Peach Bottom Atomic Power Station Plume exercise evaluated on April 17, 2018.

Federal Emergency Management Agency (FEMA) evaluators assessed 326 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 planning issues, two Level 2 Finding, (one successfully re-demonstrated on April 17, 2018). Based on the results of the exercise and a review of the offsite radiological emergency response plans and procedures submitted, FEMA Region III 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.

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location									Lower Chanceford Township
		PA CRCC	PA AAC	Exelon JIC	Chester County EOC	West Nottingham Township	Lancaster County EOC	Drumore Township	York County EOC	Fawn Grove Township Fawn Borough	
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1644	1718	1712	1746	1704	1724	1705	1713	1711	1721	1722
SAE	1807	1825	1825	1849	1815	1821	1814	1823	1820	1833	1831
GE	1904	1919	1919	1940	1913	1919	1911	1920	1917	1927	1926
Start of Simulated Radiation Release	1807	1825	1810	1820	1815	1821	1814	1823	1834	1930	1831
Termination of Simulated Radiation Release	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going
Facility Declared Operational		1810	1810	1800	1726	1759	1744	1733	Prepositioned	1748	1752
Governor's Declaration of State of Emergency		1846	1846	1903	1911	1915	1907	1905	1904	1907	1913
Exercise Terminated		2033	2033	2017	2035	2020	2032	2004	2033	1955	2020
First Precautionary/Protective Actions:  Airspace Restrictions, Boating, fishing restriction Air, Rail Restrictions, Shelter and place livestock or stored feed and water		1831	1831	1843 1854 1848	1849	1903	1849 1855 1858	1928	1805	1845	1845

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Siren Sounding	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
EAS Broadcast time	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844
Second Precautionary/ Protective Actions:  Recommend General Population to Evacuate or Shelter. Special Population Shelter in Place, KI for General Public and Emergency Workers, Air Restriction, 10 miles, 10K feet	1932	1932	1942	1930	1936	1936	1958	1834 1930	1940	1926
Siren Sounding	1942	1942	1942	1942	1942	1942	1942	1942	1942	1942
EAS Message Broadcast	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
KI Decision (YES) EWs	1928	1928	1942	1930	1936	1952	1927	1930	1955	1926
KI Decision (YES) General Public	1928	1928	1942	1930	1936	1952	1927	1930	1955	1926
KI Decision (YES) Persons with Disabilities or Access Functional Needs	1928	1928	1942	1930	1936	1952	1927	1930	1955	1926

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Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location					
		MD SEOC	MD MDE	Exelon JIC	MD JIC	Cecil County EOC	Harford County EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1644	1704	1714	1746	1704	1704	1704
SAE	1807	1814	1826	1849	1814	1817	1822
GE	1904	1911	1912	1940	1911	1915	1918
Start of Radiation Release	1807	1911	1826	1820	1911	1817	1822
Termination of Radiation Release	Ongoing		Ongoing	N/A		N/A	N/A
Facility Declared Operational		1745	1811	1800	1800	1743	1735
Governor's Declaration of State of Emergency		1920	1923	1903	1903	1923	1930
Exercise Terminated		2033	2038	2017	2017	2034	2031
First Precautionary/Protective Actions: Airspace Restrictions, Boating, fishing restriction Air, Rail Restrictions, Shelter and place livestock or stored feed and water		1848	1848	1843 1854 1848	1843 1854 1848	1835	1859
Siren Sounding		1841	1841	1841	1841	1841	1841
EAS Broadcast Time		1844	1844	1844	1844	1844	1844



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Second Precautionary/Protective Actions: Recommend General Population to Evacuate. Special Population Shelter in Place, KI for General Public and Emergency Workers, Air Restriction, 10 miles, 10K feet	1935	1935	1942	1942	1930	1932
Siren Sounding	1942	1942	1942	1942	1942	1942
EAS Message Broadcast	1945	1945	1945	1945	1945	1945
KI Decision (YES) EWs	1844	1848	1942	1942	1835	1850
KI Decision (YES) General Public	1932	1935	1942	1942	1930	1945
KI Decision (YES) Persons with Disabilities or Access Functional Needs	N/A	1935	1942	N/A	1930	N/A

## APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators and Team Leaders for the Peach Bottom Atomic Power Station 2018 Radiological Emergency Preparedness Plume Exercise evaluated on April 17, 2018. The following constitutes the managing staff for the Exercise Evaluation:

- Thomas Scardino, DHS/FEMA, Regional Assistance Committee (RAC) Chairman
- Michael E. Shuler, Sr., DHS/FEMA, Project Officer and Site Specialist
- Roger Koweski, Regional Coordinator

DATE: 4/17/2018

SITE: Peach Bottom Atomic Power Station

LOCATION	TEAM LEADER	AGENCY
Cecil County Back-up Route Alerting	William McDougall	FEMA RIII
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Mass Care Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	William McDougall	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Michael Shuler	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Traffic and Access Control Point	William McDougall	FEMA RIII
Union Hospital of Cecil County,	Michael Shuler	FEMA RIII
Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penn Gr	Lee Torres	FEMA RIII
Chester County Mass Care Center, Octorara High School	Lee Torres	FEMA RIII
Chester County Reception Center, Octorara Middle School	Lee Torres	FEMA RIII
Chester County, Oxford Area School District	Michael Shuler	FEMA RIII
Chester County, Oxford Area School District, Penn Grove Middle School	Michael Shuler	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Lee Torres	FEMA RIII
Chester County, West Nottingham Township Emergency Operations Center	Lee Torres	FEMA RIII
Emergency Worker Monitoring and Decontamination Center Harford County Community College	Paul Anderson	FEMA RIX
Exelon Joint Information Center	Joseph Suders	FEMA RIII
Harford County Back-up Route Alerting	Paul Anderson	FEMA RIX

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Harford County Congregate Care Center, Harford Technical High School	Paul Anderson	FEMA RIX
Harford County Emergency Operations Center	Paul Anderson	FEMA RIX
Harford County Public School District	Michael Shuler	FEMA RIII
Harford County Public School District, Darlington Elementary School	Michael Shuler	FEMA RIII
Harford County Public School District, Dublin Elementary School	Michael Shuler	FEMA RIII
Harford County Reception Center, Harford County Community College	Paul Anderson	FEMA RIX
Harford County Traffic and Access Control Point	Paul Anderson	FEMA RIX
Harford County, Harford Christian School	Michael Shuler	FEMA RIII
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA III
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Tina Lai-Thomas	FEMA RIII
Lancaster County Mass Care Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Monitoring and Decontamination Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Reception Center, Lancaster County Career and Technology Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township, Back Up Route Alerting	Tina Lai-Thomas	FEMA RIII
Lancaster County, Penn's Manor School District	Michael Shuler	FEMA RIII
Lancaster County, Penn's Manor School District, Martic Elementary School	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Michael Shuler	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Jill Leatherman	ICFI
Maryland Emergency News Center	Larry Broockerd	FEMA HQ
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII
Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Jill Leatherman	ICFI
PA State Field Monitoring Team A, South Central Region	Kenneth Wierman	FEMA HQ
PA State Field Monitoring Team B, South Central Region	Kenneth Wierman	FEMA HQ
Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Marcy Campbell	ICFI
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Joint Information Center/Rumor Control	Joseph Suders	FEMA RIII

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Pennsylvania State Traffic and Access Control Point, State Police Barracks York	Joseph Suders	FEMA RIII
Pennsylvania State Traffic and Access Control Points, State Police Barracks Lancaster	Joseph Suders	FEMA RIII
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	Christopher Nemcheck	FEMA RIII
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Lower Chanceford Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Red Lion Area School District	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Michael Shuler	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Michael Shuler	FEMA RIII

LOCATION	EVALUATOR	AGENCY
Cecil County Back-up Route Alerting	Michael Meshenberg	ICFI
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	Kerry Holmes	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Emergency Operations Center	Clayton Spangenberg	ICFI
Cecil County Emergency Operations Center	Robert Lemeshka	ICFI
Cecil County Mass Care Center, Rising Sun High School	Thomas Scardino	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Christopher Nemcheck	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Michael Shuler	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Patricia Gardner	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Traffic and Access Control Point	Danny Loomis	
Cecil County, Union Hospital	Joseph Suders	FEMA RIII
Chester County Emergency Operations Center	Michael DeBonis	FEMA RII
Chester County Emergency Operations Center	Andrew Chancellor	FEMA R7
Chester County Emergency Operations Center	Linda Gee	FEMA RVI

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Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penn's Grove	Kent Tosch	ICFI
Chester County Mass Care Center, Octorara High School	Thomas Reynolds	ICFI
Chester County Reception Center, Octorara Middle School	Robert Walker	ICFI
Chester County, Oxford Area School District	Patricia Gardner	FEMA RIII
Chester County, Oxford Area School District, Penn's Grove Middle School	Tina Lai-Thomas	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Richard Smith	ICFI
Chester County, West Nottingham Township Emergency Operations Center	David Ortman	DHS/FEMA Region 5
Chester County, West Nottingham Township Emergency Operations Center	Michael Burriss	
Emergency Worker Monitoring and Decontamination Center Harford County Community College	David Stuenkel	Trinity Engineering Associates
Exelon Joint Information Center	Roger Kowieski	ICFI
Harford County Back-up Route Alerting	Kevin Reed	ICFI
Harford County Congregate Care Center, Harford Technical High School	Brenda Rembert	ICFI
Harford County Emergency Operations Center	Kimberly Alahmadi	FEMA RV
Harford County Emergency Operations Center	Paul Anderson	FEMA RIX
Harford County Emergency Operations Center	Kathy Duran	FEMA RIII
Harford County Emergency Operations Center	Michael Petullo	
Harford County Public School District, Darlington Elementary School	William McDougall	FEMA RIII
Harford County Public School District, Dublin Elementary School	David Stuenkel	ICFI
Harford County Reception Center, Harford County Community College	Richard Watts	ICFI
Harford County Traffic and Access Control Point	Robert Princic	ICFI
Harford County, Harford Christian School	Richard Watts	ICFI
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA RIII
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	John Rice	FEMA R1
Lancaster County Emergency Operations Center	Taneeka Hollins	FEMA R1
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Operations Center	Brian Clark	ICFI
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Ronald Bonner	ICFI
Lancaster County Mass Care Center, Penn's Manor High School	Meg Swearingen	ICFI
Lancaster County Reception Center, Lancaster County Career and Technology Center	Carol D. Shepard	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Frank Cordaro	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Lenora Borchardt	ICFI

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Lancaster County, Drumore Township Emergency Operations Center	Mark Dalton	ICFI
Lancaster County, Drumore Township, Back Up Route Alerting	Robert Duggleby	ICFI
Lancaster County, Penn's Manor School District	Joseph Suders	FEMA RIII
Lancaster County, Penn's Manor School District, Martic Elementary School	Nicholas Buls	FEMA RIII
Lancaster County, Solanco School District	Christopher Nemcheck	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Kathy Duran	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Reggie Rodgers	ICFI
Maryland Emergency News Center	Larry Broockerd	FMA HQ
Maryland Emergency Operations Center	Elsa Lopez	FEMA Region VI
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII
Maryland Emergency Operations Center	James Greer	ICFI
Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Roger Winkelmann	ICFI
PA State Field Monitoring Team A, South Central Region	Marcy Campbell	ICFI
PA State Field Monitoring Team B, South Central Region	Michael Henry	ICFI
Pennsylvania Accident Assessment Center, CRCC-Bureau of Radiation Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Deborah Blunt	ICFI
Pennsylvania Commonwealth Response Coordination Center	Lisa Rink	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Commonwealth Response Coordination Center	Timothy Pflieger	FEMA Region VI
Pennsylvania Commonwealth Response Coordination Center	Alonzo McSwain	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Gary Bolender	ICFI
Pennsylvania Joint Information Center/Rumor Control	Paul Nied	ICFI
Pennsylvania State Traffic and Access Control Point, State Police Barracks York	David Kayen	ICFI
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	John Wills	ICFI
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Michael Shuler	FEMA RIII
York County, Emergency Operations Center	Miriam Weston	FEMA RII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Rufus Mobley	FEMA HQ
York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Patrick Cusick	FEMA RII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Gary Goldberg	ICFI
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Lynn Steffensen	ICFI

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York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Thomas Gahan	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Brian Hasemann	FEMA RII
York County, Lower Chanceford Township Emergency Operations Center	Roy Smith	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Thomas Reynolds	ICFI
York County, Red Lion Area School District	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Christopher Nemcheck	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Nicholas Buls	FEMA RIII



## APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Description
AAC	Accident Assessment Center
AAM	After Action Meeting
AAR	After Action Report
ACP	Access Control Point
ALARA	As Low As Reasonably Achievable
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
BURA	Back Up Route Alerting
CAD	Computer Aided Display
CCHD	Cecil County Health Department
CCNP	Cisco Certified Network Professional
CCPS	Cecil County Public School
CDE	Committed Dose Equivalent
C/E	Controller/Evaluator
CERC	Corporate Emergency Response Center
CERT	Community Emergency Response Team
CO	Communication Officer
CFCRS	Community Company of Rising Sun
CFR	Code of Federal Regulations
CPM	Counts Per Minute
CST	Civil Support Team
DAC	Dose Assessment Coordinator
DAD	Digital Alarming Dosimetry
DAS	Director of Auxiliary Services
DDHS	Department of Health and Human Services
DOE	Department of Emergency
DOT	Department of Transportation
DRF	Dosimetry Record Form
EAL	Emergency Action Level
EARA	Exception Area Route Alerting
EAS	Emergency Alert System
EC	Emergency Coordinator
ECL	Emergency Classification Level
ECO	Exposure Control Officer
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMnet	Emergency Management Network
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Extent of Play
EPA	Environmental Protection Agency
EPT	Exercise Planning Team

EPZ	Emergency Planning Zone
ER	Emergency Room
ERM	Emergency Response Manager
ERV	Emergency Response Vehicle
ESC	Emergency Services Coordinator
ESF	Emergency Support Function
ETA	Estimated Time of Arrival
EW	Emergency Workers
FD	Fire Department
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FRMAC	Federal Radiological Monitoring Assessment Center
FSE	Full Scale Exercise
FTC	Field Team Coordinator
GE	General Emergency
GIS	Geographic Information Systems
GPS	Global Positioning System
HAN	Health Alert Network
HazMat	Hazardous Materials
HF	High Frequency
HSEEP	Homeland Security Exercise and Evaluation Program
IPZ	Ingestion Pathway Zone
IWP	Initial Warning Point
JIC	Joint Information Center
KI	Potassium Iodide
LCD	Liquid Crystal Display
LEOF	Local Emergency Operations Facility
LHD	Local Health Department
MDDT	Mobile Data Display Terminal
MDA	Maryland Department of Agriculture
MDE	Maryland Department of the Environment
MDP	Maryland Department of Planning
MDOT	Maryland Department of Transportation
MEMA	Maryland Emergency Management Agency
MSP	Maryland State Police
MMD	Maryland Military Department
MDT	Mobile Data Terminals
MHz	Megahertz
MIDAS	Meteorological Information Dose Assessment System
MS-1	Medical Services Hospital
MSEL	Master Scenario Events List
OCCDFEMS	Orange County Department of Fire/Emergency Medical Services

ORH	Office of Radiological Health
OSD	Optically Stimulated Dosimeter
PA	Public Affairs
PAD	Protective Action Decision
PAG	Protective Action Guidelines
PAR	Protective Action Recommendation
PARA	Primary Area Route Alerting
PAZ	Protective Action Zone
PD	Police Department
PDAFN	Persons with Disabilities/Access and Funtional Needs
PED	Personal Electronic Dosimeter
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRA	Primary Route Alerting
PRD	Permanent Record Dosimeter
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
RAO	Radiation Assessment Officer
RDO	Radiation Defense Officer
REA	Radiation Emergency Area
REC	Radiation Exposure Control
REPP	Radiological Emergency Preparedness Program
REP	Radiological Emergency Plan
RERP	Radiological Emergency Response Plan
RHP	Radiological Health Program
RML	Radiological Mobile Laboratory
RO	Radiological Officer
ROO	Radiological Operations Officer
RTF	Radiological Task Force
SA	Staging Area
SAC	Staging Area Coordinator
SAE	Site Area Emergency
SAIC	Science Applications International Corporation
SAM	Staging Area Manager
SCBA	Self-Contained Breathing Apparatus
SEOC	State Emergency Operations Center
SERS	State Emergency Radio System
SFMT	State Field Monitoring Team
SIRS	Statewide Interoperability Radio System
SO	State Official
SOP	Standard Operating Procedure
SRO	School Resources Officer
SSO	Social Services Officer
STARS	Statewide Area Radio System

**Unclassified**  
Radiological Emergency Preparedness Program (REP)

**After Action Report/Improvement Plan**

**Peach Bottom Atomic Power Station**

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SWAN	State Warning Alert Notification
TCP	Traffic Control Point
TEDE	Total Effective Dose Equivalent
TO	Transportation Officer
UEM	Utility Emergency Manager
VHF	Very High Frequency

## **APPENDIX D: EXTENT OF PLAY AGREEMENT State of Maryland Method of Operation**

The 2018 Peach Bottom Atomic Power Station Plume Exercise Extent-of-Play was negotiated and agreed upon by FEMA Region III, Maryland Emergency Management Agency, Commonwealth of Pennsylvania, and the Emergency Management Agencies of the Risk Counties.

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.

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

**Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG0654/FEMA-REP-1, H.7, 10; I.7, 8, 9; J.10.a.b.e; J.11, 12; K.3.a; K.5.b)**

#### **INTENT**

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

#### **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 locations(s) will be confirmed by physical inspection at the storage locations(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 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) (0-200 mR), 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 Field Monitoring Teams (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 a 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 confirm 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 arriving 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.

### **State of Maryland Extent of Play**

Cecil and Harford County emergency workers may substitute electronic personnel dosimetry for the self-reading dosimeters. KI will not be issued to emergency workers for a contaminated injured response. Calibration and electrical leakage testing of dosimetry will be evaluated with the State of Maryland Annual Letter of Certification

#### **Locations evaluated**

Cecil County Health Department

Harford County Health Department

Union Hospital of Cecil County

University of Maryland Upper Chesapeake Medical Center

#### **Outstanding Issues**

None



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

**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)**

#### **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 Protective Action Guides (PAGs), and the capability to provide KI for emergency workers, always applying the “as low as is reasonably achievable” principle as appropriate.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional 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.

### **State of Maryland Extent of Play**

Certain portions of the FEMA extent of play will not be evaluated in the medical drill scenario.

### **Locations evaluated**

Cecil County Health Department

Harford County Health Department

Union Hospital of Cecil County

University of Maryland Upper Chesapeake Medical Center

## Outstanding Issues

None

### Sub-element 6.d – Transportation and Treatment of Contaminated Injured Individuals

**Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654/FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)**

#### **INTENT**

This Sub-element is derived from NUREG-065/FEMA-REP-1, which requires that OROs have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or drills. FEMA has determined that these capabilities have been enhanced and consistently demonstrated as adequate; therefore, offsite medical services drills need only be evaluated biennially.** FEMA will, at the request of the ORO, continue to evaluate the drills on an annual basis. All hospitals listed in the plan as medical services hospitals must be evaluated, with a transportation provider, every 2 years.

Additional transportation providers will be rotated through the drills in the 8-year exercise cycle. For ambulance providers who do not participate in an evaluated drill during the two year cycle, training will be provided. This training will be documented in the ALC.

Monitoring, decontamination, and contamination control efforts must not delay urgent medical care for the victim.

ORO must demonstrate the capability to monitor/ decontaminate and transport contaminated, injured individuals to medical facilities.

An ambulance must be used for response to the victim. However, to avoid taking an ambulance out of service for an extended time, OROs may use any vehicle (e.g., car, truck, or van) to transport the victim to the medical facility. It is allowable for an ambulance to demonstrate up to the point of the departure for the medical facility and then have a non-specialized vehicle transport the “victim(s)” to the medical facility. This option is used in areas where removing an ambulance from service to drive a great distance (over an hour) for a drill would not be in the best of interests of the community.

Normal communications between the ambulance/ dispatcher and the receiving medical facility must be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur before releasing the ambulance from the drills. This communication would include reporting radiation monitoring results, if available. In

addition, the ambulance crew must demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the victim may be performed before transport or en route, or may be deferred to the medical facility. Contaminated injured individuals transported to medical facilities are monitored as soon as possible to assure that everyone (ambulance and medical facility) is aware of the medical and radiological status of the individual(s). However, if an ambulance defers monitoring to the medical facility, then the ambulance crew presumes that the patient(s) is contaminated and demonstrate appropriate contamination controls until the patient(s) is monitored. Before using monitoring instruments, the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities must be completed as they would be in an actual emergency. Appropriate contamination control measures must be demonstrated before and during transport and at the receiving medical facility.

The medical facility must demonstrate the capability to activate and set up a radiological emergency area for treatment. Medical facilities are expected to have at least one trained physician and one trained nurse to perform and supervise treatment of contaminated injured individuals. Equipment and supplies must be available for treatment of contaminated injured individuals.

The medical facility must demonstrate the capability to make decisions on the need for decontamination of the individual, follow appropriate decontamination procedures, and maintain records of all survey measurements and samples taken. All procedures for collection and analysis of samples and decontamination of the individual must be demonstrated or described to the evaluator. Waste water from decontamination operations must be handled according to facility plans/procedures.

### **State of Maryland Extent of Play**

Radiological monitoring of the victim will not be the responsibility of the responding rescue squad.

### **Locations evaluated**

Cecil County Health Department

Harford County Health Department

Union Hospital of Elkton

University of Maryland Upper Chesapeake Medical Center

## Outstanding Issues

None

## Exercise Schedule

Time	Personnel	Activity	Location
<b>April 10, 2018</b>			
0900	SIMCELL, Cecil County DES	Initiate injury scenario, First aid team response. Call to 911	SIMCELL, Cecil County DES
0930	CFCRS, Union Hospital of Cecil County	Fire rescue response/ transportation to Union Hospital of Cecil County	Community Fire Company of Rising Sun/Union Hospital of Cecil County
1000	Union Hospital of Cecil County	Monitoring and decontamination of patient, fire rescue squad, ambulance	Union Hospital of Cecil County
<b>April 11, 2018</b>			
0900	SIMCELL, Harford County DES	Initiate injury scenario, First aid team response. Call to 911	SIMCELL, Harford County DES
0930	WVFC, Univ. of MD Upper Chesapeake Med Ctr.	Fire rescue response/ transportation to Union Hospital of Cecil County	Whiteford VFC, University of MD Upper Chesapeake Medical Center
1000	Univ. of MD Upper Chesapeake Med Ctr.	Monitoring and decontamination of patient, fire rescue squad, ambulance	University of MD Upper Chesapeake Medical Center

## Participating Organizations

Participating Organizations
<b>State</b>
Maryland Emergency Management Agency
<b>Local</b>
Cecil County Department of Emergency Services
Cecil County Health Department
Community Fire Company of Rising Sun, Inc.
Harford County Department of Emergency Services

Harford County Health Department
Whiteford Volunteer Fire Company
<b>Federal</b>
Federal Emergency Management Agency
<b>Private</b>
Exelon Corporation
Union Hospital of Cecil County
University of Maryland Upper Chesapeake Medical Center

Sub-element 1.a. – Mobilization

**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; G.3.a; H.3, 4)**

**INTENT**

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

**EXTENT OF PLAY**

Responsible ORO's must demonstrate the capability to receive notification of an incident from the licensee; verify the notification, contact, alert, and mobilize key emergency personnel in a timely manner, and demonstrate the ability to maintain and staff 24-hour operations. 24-hour operations can be demonstrated during the exercise via rosters or shift changes or otherwise in an actual activation. Local and/or Tribal 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 ORO's 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 ICS, 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 Nuclear Power Plant (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

form 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 Post (ICP) 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 a hostile action-based (HAB) scenario at an NPP may also be within the auspices of the Federal government (e.g., Federal Bureau of Investigation (FBI), NRC, or DHS). Protocols for requesting Federal, State, local, and Tribal law enforcement support must be demonstrated, as appropriate. Any resources must be on the ORO's mobilization list so they can be contacted during an incident when needed.

#### **State of Maryland/Local Jurisdiction Extent of Play:**

During the plume phase exercise activities on April 17, 2018, responders will pre-stage at various locations to reduce the amount of travel time. Pre-staging within the facility is permitted but centers should not initiate activation until notification to mobilize and respond has been received. Upon receipt of notification messages, pre-staged SEOC staff will report to the SEOC from their staging area(s). Some SEOC Representatives may be asked to delay their arrival into the SEOC for 10-15 minutes at the discretion of exercise controllers on site, in order to simulate travel time to MEMA Headquarters that might be expected during a real event. MEMA will mobilize only key State agencies at the Maryland EOC. Key State Agencies are: MEMA, Maryland Military Department/National Guard, Maryland Department of the Environment, Maryland Department of Health, Maryland Department of Natural Resources, Maryland Department of Agriculture, Maryland Department of Transportation, Maryland State Police, Maryland Department of Education and the Maryland Institute for Emergency Medical Services Systems (MIEMSS).

The Maryland Department of the Environment field monitoring teams (FMT) will pre-stage. Twenty-four-hour rosters will be available for key players at each EOC. Out of sequence locations for Reception Center Monitoring and Decontamination and Emergency Worker monitoring are pre-staged and set up prior to the evaluation.

#### **Locations evaluated;**

- State EOC
- State AAC (MDE)
- JIC (At SEOC)
- Cecil County
  - EOC



- Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)
- State Field Monitoring Teams

**Outstanding Issues:**

None

Sub-element 1.c – Direction and Control

**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)**

**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.

**EXTENT OF PLAY**

**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 Memorandum of Understanding's (MOU) 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, when 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.

**State of Maryland/Local Jurisdiction Extent of Play:**

None

**Locations evaluated;**

- State EOC
- State AAC (MDE)
- JIC (At SEOC)

- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

### Outstanding Issues:

None

### Sub-element 1.d – Communications Equipment

**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, F.1., 2.)**

#### **INTENT**

This sub-element is derived from NUREG-0654, which provides that OROs should establish reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as the following: appropriate contiguous governments within the emergency planning zone (EPZ), Federal emergency response organizations, the licensee and its facilities, emergency operations centers (EOC), and field teams.

#### **EXTENT OF PLAY**

**ORO will demonstrate that a primary and at least one backup system are fully functional at the beginning of an exercise.** 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 should be used as needed for the transmission and receipt of exercise messages. All facilities and field teams should have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs should demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations. OROs should ensure that a coordinated communication link for fixed and mobile medical support facilities exists.

The specific communications capabilities of OROs should be commensurate with that specified in the response plan and/or procedures. Exercise scenarios could require the failure of a communications system and the use of an alternate system.

### **State of Maryland/Local Jurisdiction Extent of Play:**

Communication into the EOC to demonstrate exercise play for the April activities will be done from the Maryland SEOC.

### **Locations evaluated;**

- State EOC
- State AAC (MDE)
- State Field Monitoring Teams
- JIC (At SEOC)
- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

### **Outstanding Issues**

None

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

**Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG0654/FEMA-REP-1, H.7, 10; I.7, 8, 9;, J.10.a.b.e;J.11, 12; K.3.a; K.5.b)**

### **INTENT**

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

### **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 locations(s) will be confirmed by physical inspection at the storage locations(s) or through documentation of current inventory submitted during the exercise, provided in the ALC submission, and/or verified during an site visit. 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 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) (0-200 mR), 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 a high-range instruments when available. Should a source not be 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 confirm 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:** Should 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. Should an agency have a defined role in the REP Plan, they are subject to the planning process and standards, as well as the guidance of this Manual.

### **State of Maryland/Local Jurisdiction Extent of Play:**

#### **Locations evaluated;**

- State EOC (Maps and Displays)
- State AAC (MDE)
- State Field Monitoring Teams
- JIC (At SEOC)

- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
    - Harford County
      - EOC
      - Harford Technical School (Congregate Care)
      - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

### Outstanding Issues

None

#### Sub-element 2.a – Emergency Worker Exposure Control

**Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654/FEMA-REP-1, C.6; f; K.3.a; K.4)**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plans/procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration total effective dose equivalent (TEDE) or organ-specific limits) identified in the ORO's plans/procedures.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be assessed concurrently with a licensee exercise and may be demonstrated in a full scale, functional or tabletop exercise.**

ORO's authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to comply with emergency worker exposure limits based on their emergency plans/procedures.

Participating OROs must also demonstrate the capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of

emergency workers receiving radiation doses above pre-authorized levels. This would include providing KI and dosimetry in a timely manner to emergency workers dispatched onsite to support plant incident assessment and mitigating actions, in accordance with respective plans/procedures.

As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers, based on their plans/procedures or projected thyroid dose compared with the established Protective Action Guide's (PAG) for KI administration.

**State of Maryland/Local Jurisdiction Extent of Play:**

KI tablets for emergency workers will be simulated. Distribution of simulated KI will be demonstrated. Actual distribution of KI will not be demonstrated. Actual self-reading dosimeters and permanent recording dosimeters will be issued.

**Locations evaluated;**

- Harford County EOC
- Cecil County EOC

**Outstanding Issues**

None

Sub-element 2.b – Radiological Assessment, Protective Action Recommendations, and Precautionary and/or Protective Action Decisions for the Plume Phase of the Emergency

**Criterion 2.b.1: Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3)**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs.

ORO must have the capability to choose among a range of protective actions those most appropriate in a given emergency. OROs base these choices on PAGs from their plans/procedures or EPA's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and other criteria, such as plant conditions, licensee PARs, coordination of precautionary and/or protective action decisions with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific hostile action, the affiliated response, and the effect of an evacuation on the threat response effort that create higher than normal risk from general population evacuation.



## **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.**

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO must demonstrate the capability to use appropriate means, described in the plans/procedures, to develop Protective Action Decisions (PADs) based on available information and Protective Action Recommendations (PARs) provided by the licensee as well as field monitoring data, when available. The ORO must also consider any release and meteorological data provided by the licensee.

The ORO must demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PADs must be appropriate to the scenario. In all cases, calculation of projected dose must be demonstrated. Projected doses must be related to quantities and units of the PAG to which they will be compared.

When the licensee and ORO projected doses differ by more than a factor of 10, the ORO and licensee must determine the source of the difference by discussing input data and assumptions, using different models, or exploring possible reasons. Resolution of these differences must be incorporated into the PADs when timely and appropriate. The ORO must demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs..

### **State of Maryland Negotiated Extent of Play:**

NO release scenarios may require assessment of “what if” conditions or controller inject after the exercise to demonstrate dose projection capabilities.

### **Locations evaluated;**

- State AAC (MDE)

### **Outstanding Issues:**

None

**Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1, A.3; C.4, 6; D.4; J.9; J.10.e, f; m)**

## **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.**

OROs must have the capability to make both initial and subsequent PADs. OROs must demonstrate the capability to make initial PADs in a timely manner appropriate to the incident, based on information from the licensee, assessment of plant status and potential or actual releases, other available information related to the incident, input from appropriate ORO authorities (e.g., incident command), and PARs from the utility and ORO staff. In addition, a subsequent or alternate PAD may be appropriate should various conditions (e.g., an HAB incident, weather, release timing and magnitude) pose undue risk to an evacuation, or should evacuation disrupt the efforts to respond to a hostile action.

OROs must demonstrate the ability to obtain supplemental resources (e.g., mutual aid) necessary to implement a PAD when local law enforcement, fire service, HAZMAT, and emergency medical resources are utilized to augment response to the NPP site or other key infrastructure.

Dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. In addition, incident command must provide input regarding considerations for subsequent PADs based on the magnitude of the ongoing threat, the response, and/or site conditions. The decision-makers must demonstrate the capability to change protective actions based on the combination of all these factors.

Should the ORO determine that KI will be used as a protective measure for the general public under offsite plans/procedures, then it must demonstrate the capability to make decisions on the distribution and administration of KI to supplement sheltering and evacuation. This decision must be based on the ORO's plans/procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process must involve close coordination with appropriate assessment and decision-making staff.

Should more than one ORO be involved in decision making, all appropriate OROs must communicate and coordinate PADs with each other. In addition, decisions must be coordinated/communicated with incident command. OROs must demonstrate the capability to communicate the results of decisions to all the affected locations.

#### **State of Maryland Negotiated Extent of Play:**

Actual KI will not be transported. KI will be available for inspection at the respective storage location. (Note – this may be demonstrated during the out-of-sequence evaluations)

#### **Locations evaluated;**

#### **KI Storage Locations;**

<b>Locations Evaluated</b>	<b>KI Storage Locations</b>
Cecil County	Cecil County Health Department (CCHD), Cecil County DES
Harford County	Harford County Health Department (HCHD), Harford County DES
State AAC	MDE
MEMA SEOC (Decision-making discussion)	N/A

## Outstanding Issues

None

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

**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)**

#### **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, when 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 a NPP.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional 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 and 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.

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).

### **State of Maryland Negotiated Extent of Play:**

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups are based on the ORO's plans and procedures and completed, as they would be in an actual emergency. List of any special populations are available for review from the county EOCs. School officials responsible for contacting individual facilities are present in the county EOCs. Private schools, private kindergartens and day care centers will not participate in the exercise with the exception of Harford Christian School, however; OROs will have lists of any facilities located within the jurisdiction available for review.

### **Locations evaluated;**

- Cecil County
- Harford County

### **Outstanding Issues:**

None

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

**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)**

### **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" principle as appropriate.

### **EXTENT OF PLAY**

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

ORO 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. When 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. Should exercise play 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.

ORO may have administrative limits lower than EPA-400/R-17/001 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.

ORO 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.

**State of Maryland Negotiated Extent of Play:** Dosimetry electrical leakage checks will be submitted with the ALC. Electronic dosimetry may be substituted for SRD's at some state or local jurisdictions.

**Locations evaluated;**

- State Field Monitoring Team
- Route Alerting (Cecil and Harford Counties)
- TCP/ACP (All Risk Counties)
- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

**Outstanding Issues:**

None

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

**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 is maintained (NUREG-0654/FEMA-REP-1, J.10.e, and f)**

**INTENT**

The Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide KI for institutionalized individuals, and, when 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.

### **EXTENT OF PLAY**

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

OROs 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.

Should a recommendation be 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.

#### **State of Maryland Negotiated Extent of Play:**

##### **Locations evaluated;**

- Cecil County
- Harford County

##### **Outstanding Issues:**

None

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

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

#### **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.

### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional 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 PADs and emergency information and instructions to) persons with disabilities and access/functional needs, including hospitals/medical facilities, 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 real or simulated, as agreed to in the extent of play. Some contacts with transportation providers must be real, as negotiated in the extent of play. All actual and simulated contacts 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.

#### **State of Maryland Negotiated Extent of Play:**

Lists of any special populations are verified at the EOC but not provided to the evaluator. Lists of all special facilities are provided at evaluation. Contact with any special facility will be simulated or discussed at the EOC. Some facilities (~ 10%) may be contacted.

#### **Locations evaluated:**

- Cecil County
- Harford County

#### **Outstanding Issues:**

None

**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)**

## **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise, an actual event, or by means of drills conducted at any time.**

Public school systems/districts must demonstrate the ability to implement PADs 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. When 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.

Should the objectives be 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, when 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, when 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.

The provisions of this criterion also apply to any private schools, private kindergartens, and licensed daycare centers that participate in REP exercises 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.

### **State of Maryland Negotiated Extent of Play:**

Cecil and Harford Counties will demonstrate protective actions for schools during pre-arranged out-of-sequence (OOS) demonstrations. Protective actions for school children that live inside the 10-mile EPZ but attend school outside the 10-mile EPZ will be demonstrated by actions taken in the EOC during the actual exercise. OROs will have lists of any facilities located within the jurisdiction available for review.

### **Locations evaluated:**

#### April 17, 2018

- Cecil and Harford EOCs

#### April 9 (Cecil) and April 17 (Harford), 2018

- Conowingo Elementary School (Cecil)
- Darlington Elementary School (Harford)
- Dublin Elementary School (Harford)
- Harford Christian School (Harford)

### **Outstanding Issues:**

None

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

**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)**

#### **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.

#### **EXTENT OF PLAY**

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

ORO 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.

**State of Maryland Negotiated Extent of Play:**

Traffic and Access control points will be established administratively in the EOC based on scenario conditions. All exercise access control points will be evaluated by interview at the EOCs and not at an actual field location. Communications with the TCP/ACP (police officer in the field) will occur as they would in an actual emergency. Air and water controls will be coordinated (simulated) from the SEOC. Railway traffic coordination will be simulated in the SEOC.

**Locations evaluated:**

- Cecil County
- Harford County
- SEOC (Air / Water)

**Outstanding Issues:**

None

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

**EXTENT OF PLAY**

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

ORO's must 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 wreckers, need not be demonstrated; however, all contacts, actual or simulated, must be logged. The impediment must occur during the evacuation and be on an evacuation route such that re-routing of traffic is required, triggering decision-making and coordination with the JIC to communicate the alternate route to evacuees leaving the area.

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.

### **State of Maryland Negotiated Extent of Play:**

Actual equipment will not be dispatched. Should evacuation not be included as one of the protective action then actions to resolve impediments (should an evacuation order be given) will be described to the evaluator including the conduct of a radiological briefing.

### **Locations evaluated;**

- Cecil County
- Harford County

### **Outstanding Issues:**

None

### Sub-element 4.a – Plume Phase Field Measurements and Analyses

**Criterion 4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654/FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate disposition on the ground from an airborne plume. In addition, NUREG-0654/FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at an NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

#### **EXTENT OF PLAY**

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

Responsible OROs must demonstrate the capability to brief FMTs on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment. During an HAB incident, the Field Team management must keep the incident command informed of field monitoring teams' activities and location. Coordination with

FMTs and field monitoring may be demonstrated as out-of-sequence demonstrations, as negotiated in the Extent-of-Play Agreement.

Field measurements are needed to help characterize the release and support the adequacy of implemented protective actions, or to be a factor in modifying protective actions. Teams must be directed to take measurements at such locations and times as necessary to provide sufficient information to characterize the plume and its impacts.

Should the responsibility for obtaining peak measurements in the plume be accepted by licensee field monitoring teams, with concurrence from OROs, there is no requirement for these measurements to be repeated by ORO monitoring teams. Should the licensee FMTs not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all FMTs (licensee, Federal, and ORO) is essential. Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory(ies) must be demonstrated.

ORO must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

**State of Maryland Negotiated Extent of Play:**

These activities are based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least six readings will be obtained by each team at a one survey point at different times in the scenario or at different survey point locations location. In accordance with, (IAW) agreements with Exelon Generation and State and Local organizations, State teams will not measure plume centerline radiation levels. Airborne radioactivity samples will be counted in the field. Chain of custody procedures to deliver samples for additional analysis will be described to the evaluator.

**Locations evaluated;**

- State MDE AAC

**Outstanding Issues:**

None

**Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654/FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)**

## **EXTENT OF PLAY**

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

Two or more FMTs must demonstrate the capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority. FMTs must also demonstrate the capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement. Should samples have radioactivity significantly above background, the authority must consider the need for expedited laboratory analyses of these samples.

ORO's must share data in a timely manner with all other appropriate ORO's. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form(s) for transfer to a laboratory(ies), are in accordance with the ORO's plans/procedures.

ORO's must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

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.

### **State of Maryland Negotiated Extent of Play:**

Only the State teams will demonstrate this objective. One sample will be obtained in an area that exhibits above ambient background radiation levels (plume edge) when applicable. Scenario data / location may not result in access to plume dose. Delivery of samples for additional analysis will not be demonstrated. Chain of custody procedures will be described to the evaluator.

### **Locations evaluated;**

- (2) State MDE Field Monitoring Teams

### **Outstanding Issues:**

None



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

**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)**

#### **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.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional 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 plume 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. Should message dissemination be 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 Emergency Alert System (EAS) broadcast stations may also be accomplished through Site Assistance Visits.

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.

Should route alerting be 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 8 years. All alert and notification activities along the route(s) must be simulated (that is, 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 may demonstrate any means of primary alert and notification included in their plans/procedures as negotiated in the Extent-of-Play Agreement.

**State of Maryland Negotiated Extent of Play:**

Contact with one EAS station will be simulated using EMnet. Actual siren sounding and EAS demonstration will be simulated.

Note

Harford County will initiate EAS messaging for the respective local Maryland jurisdictions and will describe the process of using EMnet to the evaluator. The method of sending the message will be verified by a FEMA evaluator however, the actual message will not be broadcasted.

**Locations evaluated;**

- Harford County (Lead)
- Cecil County
- SEOC

**Outstanding Issues:**

None

**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)**

**EXTENT OF PLAY**

Offsite Response Organizations (ORO) with FEMA-approved exception areas (identified in the approved Alert and Notification System Design Report) 5–10 miles from the nuclear power plant should demonstrate the capability to accomplish primary alerting and notification of the exception area(s) within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The 45-minute clock will begin when the OROs make the decision to activate the alert and notification system for the first time for a specific emergency. The initial message should, at a minimum, include: a statement that an emergency exists at the plant and where to obtain additional information.

For exception area alerting, at least one route needs to be demonstrated and evaluated. The selected route(s) should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed-upon location.

Backup alert and notification of the public should be completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. Backup route alerting only needs to be demonstrated and evaluated, in accordance with the ORO's plan and/or procedures and the extent of play agreement, should the exercise scenario call for failure of any portion of the primary system(s), or should any portion of the primary system(s) actually fail to function. Only one route needs to be selected and demonstrated, when applicable. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed-upon location.

#### **State of Maryland Negotiated Extent of Play:**

Siren activation (simulated) is coordinated so that one county activates sirens for the other two risk jurisdictions.

Cecil County/Harford County

The designated route alerting players will be located at the staging areas (Cecil County: Community Fire Company of Rising Sun, Inc.; Harford County: Harford County EOC). Timing of the back-up routes should only begin after the designated participants receive notification of the failed sirens from the County EOC. One back-up route alerting route will be demonstrated in Cecil County and another in Harford County.

#### **Locations evaluated;**

- Cecil County (Staging area at Community Fire Company of Rising Sun, Inc.)
- Harford County (Staging area at Harford County EOC)

## Outstanding Issues:

None

### Sub-element 5.b – Subsequent Emergency Information and Instructions for the Public and the Media

**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)**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to disseminate appropriate emergency information and instructions, including any recommended protective actions, to the public. In addition, NUREG-0654/FEMA-REP-1 requires OROs to ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654/FEMA-REP-1 also provides that a system must be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

#### **EXTENT OF PLAY**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional 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. Should message dissemination be 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. 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.

Should ingestion pathway measures be exercised, OROs must demonstrate that a system exists for rapid dissemination of ingestion pathway information to pre-determined 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 and communicated with appropriate security authorities, e.g., law enforcement and NPP security agencies, in accordance with ORO plans/procedures.

### **State of Maryland Negotiated Extent of Play:**

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least one media briefing will be conducted by the MEMA PIO representative at the Coatesville JIC. Public inquiry calls will be initiated at a Site Area Emergency classification. Each location will receive at least six calls. Special News Broadcasts/Press releases will be developed at appropriate centers but actual broadcast of these messages will not take place.

#### **Locations evaluated:**

Public Inquiry Control: This will be demonstrated during the exercise for the State and risk jurisdictions.

- SEOC
- Cecil County
- Harford County

Special News Broadcasts/Press Releases: This will be demonstrated during the exercise at the MEMA JIC (MEMA SEOC).

- MEMA JIC – Reisterstown, MD

Media Briefing: This will be demonstrated during the exercise at the JIC (Coatesville, PA).

- JIC – Coatesville, PA

### **Outstanding Issues:**

None

### **Sub-element 6.a – Monitoring, Decontamination, and Registration of Evacuees**

**Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA-REP-1, A.3; C.4; J.10.h; J.12)**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees, while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.**

Radiological monitoring, decontamination, and registration facilities for evacuees must be set up and demonstrated as they would be in an actual emergency or as indicated in the



Extent-of-Play Agreement. OROs conducting this demonstration must have one-third of the resources (e.g., monitoring teams/instrumentation/portal monitors) available at the facility(ies) as necessary to monitor 20 percent of the population within a 12-hour period. This would include adequate space for evacuees' vehicles. Availability of resources can be demonstrated with valid documentation (e.g., MOU/LOA, etc.) reflecting how necessary equipment would be procured for the location. Plans/procedures must indicate provisions for service animals.

Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. Staff responsible for the radiological monitoring of evacuees must demonstrate the capability to attain and sustain, within about 12 hours, a monitoring productivity rate per hour needed to monitor the 20 percent EPZ population planning base. The monitoring productivity rate per hour is the number of evacuees that can be monitored, per hour, by the total complement of monitors using an appropriate procedure. For demonstration of monitoring, decontamination, and registration capabilities, a minimum of six evacuees must be monitored per station using equipment and procedures specified in the plans/procedures. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators to determine whether the 12-hour requirement can be met.

OROs must demonstrate the capability to register evacuees upon completion of the monitoring and decontamination activities. The activities for recording radiological monitoring and, when necessary, decontamination must include establishing a registration record consisting of the evacuee's name, address, results of monitoring, and time of decontamination, or as otherwise designated in the plan and/or procedures. Audio recorders, camcorders, or written records are all acceptable means for registration.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any evacuees who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans/procedures. Contamination of the evacuee(s) will be determined by controller inject and not simulated with any low-level radiation source. 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.

Decontamination of evacuees may be simulated and conducted by interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated evacuees, provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any evacuee found to be contaminated, procedures must be discussed concerning handling of potential



contamination of vehicles and personal belongings. Waste water from decontamination operations does not need to be collected.

Individuals who have completed monitoring (and decontamination, when needed) must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger/action level.

In accordance with plans/procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles monitored and decontaminated (when applicable) and do require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

### State of Maryland Negotiated Extent of Play:

#### This element will be evaluated as an out-of-sequence activity

At least 6 evacuees will be monitored with one simulated contaminated. One vehicle will be monitored. Estimated monitoring rates and teams required for demonstration are listed below. The number of teams is based on 10% of the population arriving at the reception center with some contamination.

- Portal monitors can process (4 persons/min) 240 persons/hr.
- Hand-held monitors process 12 persons/hr.

Cecil County	
Total Population Est.	102,000
Est. Population Within EPZ	7,400
Est. @ Reception (~20% of Risk Population)	~1,500
Time to monitor population (no contaminations) using 1 portal monitor	>10 minutes
Time to monitor population (10% contaminations) using hand-held instruments	30 minutes / team
Teams required for hand-held monitoring in 24 hours	1
Teams required for exercise demonstration (1/3)	1

Harford County	
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Total Population Est.	250,000
Est. Population Within EPZ	~12,000
Est. @ Reception	~2,400
Time to monitor population (no contaminations) using 1 portal monitor	>10 minutes
Time to monitor population (10% contaminations) using hand-held instruments	30 minutes / team
Teams required for hand-held monitoring in 24 hours	1
Teams required for exercise demonstration (1/3)	1

**Locations evaluated;**

- Cecil County – Rising Sun High School
- Harford County – Harford Community College Susquehanna Center (co-located with emergency worker)
- Facilities will be staffed and set up and operational prior to the evaluation.

**Outstanding Issues:**

None

Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles

**Criterion 6.b.1: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment vehicles. (NUREG-0654/FEMA-REP-1, K.5.a, b)**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of emergency workers and their equipment, inclusive of vehicles.

**EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.**

The monitoring staff must demonstrate the capability to monitor emergency worker personnel and their equipment and vehicles for contamination in accordance with the ORO's plans/procedures.

Specific attention must be given to equipment, including any vehicles that were in contact with contamination. The monitoring staff must demonstrate the capability to make decisions on the need for decontamination of personnel, equipment, and vehicles based on

trigger/action levels and procedures stated in the ORO plans/procedures. Monitoring of emergency workers does not have to meet the 12-hour requirement. However, appropriate monitoring procedures must be demonstrated for a minimum of two emergency workers and their equipment and vehicles. Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation.

The area to be used for monitoring and decontamination must be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping, and contamination control measures in place. Monitoring procedures must be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as radiator grills, bumpers, wheel wells, tires, and door handles must be demonstrated. Interior surfaces of vehicles that were in contact with contaminated individuals must also be checked.

Decontamination of emergency workers may be simulated and conducted via interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated individuals where applicable; provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of emergency workers or facilities.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any emergency workers who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans/procedures. Contamination of the individual(s) will be determined by controller inject and not simulated with any low-level radiation source.

Decontamination capabilities and provisions for vehicles and equipment that cannot be successfully decontaminated will be discussed via interview. No water will be flowed during this demonstration.

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.

#### **State of Maryland Negotiated Extent of Play:**

##### **This element will be evaluated as an out-of-sequence activity**

Facilities will be staffed set up and operational prior to the evaluation.

**Locations evaluated;**

- Cecil County – Perryville High School (See Map in Appendix C)
- Harford County – Harford Community College Susquehanna Center, and Harford Technical High School Amoss Center (co-located with evacuees) (See Map in Appendix C)

**Outstanding Issues:**

None

Sub-element 6.c – Temporary Care of Evacuees

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires OROs to have the capability to establish relocation centers in host/support jurisdictions. The American Red Cross normally provides congregate care in support of OROs under existing letters of agreement.

**ASSESSMENT/EXTENT OF PLAY**

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, drills, an actual event, or SAV.

The evaluator must conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with applicable guidance.

For planning purposes, OROs must plan for a sufficient number of congregate care centers in host/support jurisdictions based on their all-hazard sheltering experience and what is historically relevant for that particular area. In this simulation, it is not necessary to set up operations as they would be in an actual emergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this criterion, exercise demonstration expectations must be clearly specified in Extent-of-Play Agreements.

Congregate care staff must also demonstrate the capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before entering the facility.

Individuals arriving at congregate care facilities must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been placed in a secured area or monitored, cleared, and found to have no contamination or contamination below the trigger/action level.

In accordance with plans/procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not need confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles held in a secure area until they can be monitored and decontaminated (if applicable) and do need confirmation that their vehicle is being held in a secure area or free from

contamination prior to entering the congregate care areas. This capability may be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility(ies). However, availability of such items must be verified by providing the evaluator a list of sources with locations and estimates of quantities.

**State of Maryland Negotiated Extent of Play:**

**This element will be evaluated as an out-of-sequence activity**

These activities are based on the ORO's plans and procedures and will be demonstrated through an interview process. Facilities will not be set up and operational for the evaluation.

**Locations evaluated;**

- Cecil County – Rising Sun High School
- Harford County - Harford Technical High School

**Outstanding Issues:**

None

## EXTENT OF PLAY AGREEMENT Commonwealth of Pennsylvania Method of Operation

### I. Peach Bottom Atomic Power Station (PBAPS)

The facility normally uses off-watch 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 will be used. PBAPS will notify the Commonwealth Resource Coordination Center (CRCC), the Bureau of Radiation Protection (BRP) and Risk Counties of emergency classifications.

### II. Bureau of Radiation Protection (BRP)

Personnel from the Pennsylvania Bureau of Radiation Protection (BRP) will be present and participate in the following aspects of the exercise during the Plume Exercise:

State EOC  
Exelon Emergency Operations Facility (EOF)  
Field Sampling Teams & Command Vehicle

BRP personnel field teams and R3V will be evaluated during this exercise along with BRP assessment as part of the PEMA CRCC evaluation. BRP field teams will perform air sampling out-of-sequence, preferably before they deploy to the plume area.

In the event the scenario has no radiological release, a report of Background Radiation by the Field Monitoring Team would be considered a successful demonstration of the criterion.

### III. PEMA Operations at the CRCC

This “Method of Operation” Document includes activities for the Full-Scale Plume Exercise (April 17, 2018), and the “Out-of-Sequence” Activities (Various).

#### A. **Plume Exercise – April 17, 2018**

PEMA Staff and Agency Representatives (AREPSs) from designated state departments / agencies will comprise initial operations at the CRCC. The CRCC will be evaluated during this exercise.

#### B. **Plume Exercise – “Out-of-Sequence” Activities – March 7, 2018**

The PEMA staff will disseminate exercise related messages to the participating Counties for dissemination to the participating School Districts during the demonstration window of **0900 to 1100 on March 7, 2018**. The CRCC and

County EOCs will participate, but will NOT be evaluated during the “Out of Sequence” component. PEMA personnel will serve as “observers” at the identified School Districts.

**C. Plume Exercise – “Out-of-Sequence” Activities – April 18, 2018**

The Pennsylvania State Police (PSP) demonstration will take place at PSP York Barracks, located at 110 Trooper Court, York, Pennsylvania. The PSP briefing will be performed out-of-sequence in a demonstration window of **9:30 a.m. – 11:30 a.m. on April 18, 2018**. PEMA personnel will be on location to serve as observer/controller (There are no anticipated injects). PSP will demonstrate a briefing in which troopers are assigned to ACP/TCP locations. FEMA evaluator may conduct an interview for follow up questions and view equipment/supplies. Personnel will not deploy to the field locations.

PEMA personnel will serve as “Observers” at the field exercise locations during the evening “out-of-sequence” component **at 7:00 p.m. – 9:30 p.m. on April 18, 2018**. The CRCC and Counties will NOT be evaluated during the evening “out-of-sequence” component. The utility will provide controllers to provide exercise injects at each exercise location and the lead controller will be located in the State CRCC to respond to any problems at the various exercise locations.

**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. Selected staff of the Area Offices will serve as Liaison Officers to Risk Counties as assigned. Liaison Officers are exercise participants.

**V. Counties Designated to Participate**

The three risk counties (Chester, Lancaster and York), in coordination with PEMA, will demonstrate the capability to mobilize appropriate staff, activate their respective Emergency Operations Centers and implement emergency response operations to include sheltering and/or evacuation. County government will provide direction and coordination to risk municipalities. Actual sheltering or evacuation of the general public will be simulated.

York County EOC will be exempt from FEMA evaluation but will be FEMA observed at their alternate EOC location. Any actions taken by York County that result in an issue for a municipality will be assessed to York County as appropriate.

**VI. Local Emergency Management**

All affected local municipalities, along with supporting agencies, will participate in the plume exercise. On a rotating basis, local municipalities will be federally evaluated as coordinated by PEMA and their associated county (once per 8-year cycle). They will



demonstrate mobilization of staff, activation of their Emergency Operation Center, and implementation of emergency response operations. Some municipalities may be evaluated on Back-up Route Alerting or TCP/ACP operations. See Attachment A Sections 1.A.2, 1.A.3, and 1.A.4 for those locations being federally evaluated.

VII. PEMA Liaison Officers

Liaison officers will be present at the participating risk county EOCs, the Exelon EOF, and Exelon Joint Information Center (JIC) to provide assistance, guidance, and support. These liaison officers will participate as players in the exercise.

VIII. Controllers

Controllers are not players. Controllers will provide pre-approved injects and information to the players, as appropriate, regarding radiological readings during the monitoring of personnel and provide guidance and direction for keeping the exercise on track.

A lead controller will be present in the State CRCC during the Plume Phase Exercise (April 17, 2018) and will coordinate the out of sequence exercises.

A controller will be present at each of the emergency worker monitoring/decontaminating stations and public monitoring and decontamination centers that are scheduled for evaluation on the evening of **April 18, 2018 at 7:00 p.m. – 9:30 p.m.** The controller for these locations is provided by the Utility.

A controller will provide the exercise injects for the school exercises.

Live radioactive sources will not be used. **Exception:** individuals tasked with the setup of portal monitoring equipment (if used) will use a standard 1 micro curie Cesium 137 source for the purpose of conducting operational tests. Additionally, appropriate test sources will be available and used to verify the operation of the monitoring/survey instruments per manufacturers' recommendations.

IX. PEMA Observers

PEMA staff, qualified county emergency management personnel, and/or nuclear power plant personnel will be assigned, if required, to key locations for observing, noting response actions and conditions, and recording observations for future use. Observers will not take an active part in the proceedings, but will interact with staff members to the extent necessary to fulfill their observer responsibilities. Coaching of players by observers is not permitted except to provide training to participants awaiting a re-demonstration. (Refer to paragraph XIV)

X. FEMA Evaluators

Federal evaluators will be present at the risk and support county EOCs, identified risk municipal EOCs, and at appropriate field locations to evaluate player response to the actual and simulated events in the exercise scenario. FEMA will evaluate about one-fourth of the risk municipalities in Chester, Lancaster and York Counties as identified in this document. The exercise will follow REP Program Manual (January 2016)

**Plume Phase Exercise (April 17, 2018):** Federal evaluators will be present at the CRCC and identified risk and support county EOC's to evaluate player response to the actual and simulated events in the exercise scenario. Additionally, one-fourth of the risk municipalities will be federally evaluated. As required, a "floating-evaluator" will be made available to evaluate any ORO locations not scheduled to have a federal evaluator, but having a prior issue (Attachment A, Section I.A.1 and I.A.2). Federal Evaluators may also provide spot checking of municipal locations not having dedicated evaluators.

**Out-of-Sequence - Schools (March 7, 2018):** Federal evaluators will be present at the identified "out-of-sequence" demonstration sites per Attachment A, Section I.B.1. These include the identified Public School Districts.

**Out-of-Sequence – Pennsylvania State Police (April 18, 2018):** PSP demonstration will take place at PSP York Barracks, located at 110 Trooper Court, York, Pennsylvania. The PSP briefing will be performed "out-of-sequence" in a demonstration window of 9:30 a.m. to 11:30 a.m.

**Out-of-Sequence – Reception Center, Public and Emergency Worker Monitoring and Decontamination Stations, Mass Care Locations (April 18, 2018):** Federal evaluators will be present for demonstrations conducted at Reception Centers, Mass Care Centers, and Monitoring/Decontamination Centers (for the public) and Stations (for Emergency Workers) as identified in Attachment A, Sections I.B.3, I.B.4 and I.B.5.

XI. Demonstration Windows

In order to provide for more effective demonstrations, as well as, to permit the release of volunteers from exercise play at a reasonable hour, periods of time (Demonstration Windows) have been designated during which specified actions will be accomplished/demonstrated.

The "demonstration windows" for this exercise are:

A. **Plume Phase Exercise**

The following out-of-sequence MS-1 hospital demonstrations were federally evaluated: Ephrata Community Hospital on October 18, 2017, York Hospital on May 26, 2017, and Brandywine Hospital on September 28, 2017.

There will be an evaluation of BRP field teams and R3V for this exercise.

County and municipal EOC operations will be conducted on the evening of April 17, 2018. (Please refer to the Extent of Play Demonstration Tables, Attachment A, Sections I.A.1 and I.A.2).

At the request of York County, their Reception Center, Public Monitoring and Decontamination, and Mass Care demonstration will be held on March 6, 2018 per Attachment A, I.B.3, I.B.4 and I.B.5.

The out-of-sequence exercise window for school demonstrations will be conducted on the morning of March 7, 2018. (Please refer to the Extent of Play Demonstration Tables, Attachment A, Section I.B.1)

The out-of-sequence interview of PSP traffic control/access control points will be from 9:30 a.m. – 11:30 a.m. on April 18, 2018.

The out-of-sequence demonstrations for Reception Centers, Mass Care Centers, and Monitoring/Decontamination Centers (for the public) and Stations (for Emergency Workers) will be conducted from 7:00 p.m. – 9:30 p.m. on April 18, 2018 per Attachment A, Sections I.B.3, I.B.4 and I.B.5.

All demonstrations will commence promptly and, barring any complications, not continue beyond the time of the designated demonstration window.

**B. Post Plume Exercise**

A post-plume phase exercise is not scheduled during this evaluation.

**XII. Stand-Down**

All jurisdictions will request approval on a jurisdiction by jurisdiction basis prior to stand-down.

- A.** Risk Municipalities, upon completion of all requirements and confirming with the federal evaluator that all evaluation areas have been demonstrated and/or completed, may request approval from their county EOC to “stand-down”.
- B.** Support counties may likewise request approval from the State EOC to terminate the exercise upon completion of all evaluated objectives.
- C.** The risk county EOCs will remain operational until the exercise is officially terminated by the State in consultation with the federal evaluator. The CRCC will issue an Exercise Termination Message. If risk county exercise components are demonstrated and completed, portions of the EOC may be able to stand down.

XIII. 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 corrected.

XIV. Re-demonstrations

During the exercise, any activity that is not satisfactorily demonstrated may be re-demonstrated by the participants during the exercise, provided it does not negatively interfere with the exercise. 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. PEMA may advise the Regional Assistance Committee (RAC) Chair prior to initiating any re-demonstrations. It is permissible to extend the demonstration window, within reason, to accommodate the re-demonstration. Activities corrected from a re-demonstration will be so noted.

## 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:

- In all instances, the demonstration of a shift change is **NOT** required. Twenty-four-hour staffing will be demonstrated by means of a roster or staffing chart.

- All out-of-sequence players and equipment will be pre-positioned (School District personnel, PSP, TCP/ACP, Reception Centers, Emergency Worker Monitoring and Decontamination Stations, and Monitoring and Decontamination Centers).
- Actual calls (or pager notifications) will be made to the county/municipal EOC personnel for the Plume Phase exercise per plans and procedures.
- Individuals working in state facilities and county EOCs may be pre-positioned for the plume phase.
- Pre-positioning of state emergency personnel (Liaison Officers) at the EOF, the Utility JIC and at Risk Counties is appropriate due to the commuting distance from the individual's duty location or residence.
- Other locations including municipal EOCs will NOT pre-stage for the Plume Phase exercise but will wait for actual notification per plans and procedures before staffing their duty locations.
- BRP Field Teams and R3V are evaluated for this exercise.

### **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.

## **PEMA Negotiated Extent-of-Play:**

None

### **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.

## **PEMA Negotiated Extent-of-Play:**

None

### **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.

OROs 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.

### **PEMA Negotiated Extent-of-Play:**

The plant will communicate to the risk counties and CRCC utilizing the Dedicated Automatic Ring Down Telephone System (ARD) (Primary) and the commercial telephone system (Secondary). If the plant cannot contact the CRCC, the Power Plant will contact the York County EOC and York County EOC will fulfill the role of primary contact until such time as communications with the CRCC can be made. Risk counties will communicate with the CRCC via the commercial telephone system (Primary), email (Secondary) and other systems.

Risk counties will communicate with their risk municipalities via public safety radio frequencies (EMA Radio), commercial telephone, fax, email, or Amateur Radio Communications (ACS/ARES/RACES) or other available means.

BRP Field Teams will demonstrate two or more forms of communications (Field Teams and R3V).

### **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 locations(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.

### **PEMA Negotiated Extent-of-Play:**

Radiological Survey Instruments are calibrated per manufactures' recommendations. Neither CDV-700 nor CDV-138 instruments are in use in the area.

Evaluation of DRD and KI quantities will be verified using inventory sheets. DRDs or KI will not be removed from storage locations and boxes/packages will not be opened, however, lot numbers and expiration dates should be visible for inspection. KI questions will be addressed through interviews.

Annual Direct Reading Dosimeter leakage testing verification or KI extension letters (as appropriate) will be available to the evaluator.

Pennsylvania Support Counties do not have DRDs or KI but those responsible for reception centers, and/or monitoring and decontamination centers will have PRDs.

All DRDs "read" in units of Roentgens. The Commonwealth counties and municipalities do not use DRDs which read in milli-Roentgens.

BRP Field Teams and R3V will be evaluated for this exercise.

## EVALUATION AREA 2

### **Precautionary and/or Protective Action Decision Making**

#### **Sub-element 2.a – Emergency Worker Exposure Control**

##### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plans/procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into

consideration total effective dose equivalent (TEDE) or organ-specific limits) identified in the ORO's plans/procedures.

**Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.  
(NUREG-0654/FEMA-REP-1, C.6; f; K.3.a; K.4)**

#### **Assessment/Extent-of-Play**

Assessment of this Demonstration Criterion must be assessed concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise.

ORO's authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to comply with emergency worker exposure limits based on their emergency plans/procedures.

Participating OROs must also demonstrate the capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of emergency workers receiving radiation doses above pre-authorized levels. This would include providing KI and dosimetry in a timely manner to emergency workers dispatched onsite to support plant incident assessment and mitigating actions, in accordance with respective plans/procedures.

As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers, based on their plans/procedures or projected thyroid dose compared with the established PAGs for KI administration.

#### **PEMA Negotiated Extent-of-Play:**

Radiological briefings (which may be supported by video) will be provided to address exposure limits, procedures to replace those personnel approaching exposure limits and how permission to exceed limits is obtained from the municipality and county. Emergency workers will also be briefed on when to take KI and on whose authority. Distribution of KI to emergency workers will be simulated. The Commonwealth, under direction of the Department of Health, will authorize use of KI when radiological conditions warrant its use. If the scenario has no potential for a radiological release, the decision on the distribution and administration of KI as a protective measure for emergency workers and the authorization process for emergency workers to exceed pre-authorized levels can be addressed through an interview.

The completion of a "Dosimetry-KI Report Form" will be demonstrated.

## **Sub-element 2.b. – Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency**

### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs.

ORO must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency. OROs base these choices on PAGs from their plans/procedures or *EPA's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* and other criteria, such as plant conditions, licensee PARs, coordination of PADs with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific hostile action, the affiliated response, and the effect of an evacuation on the threat response effort, that create higher than normal risk from general population evacuation.

**Criterion 2.b.1: Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as, knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3)**

### **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.

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO must demonstrate the capability to use appropriate means, described in the plans/procedures, to develop PARs for decision-makers based on available information and recommendations provided by the licensee, as well as, field monitoring data, if available. The ORO must also consider any release and meteorological data provided by the licensee.

The ORO must demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PARs must be appropriate to the scenario. In all cases, calculation of projected dose must be demonstrated. Projected doses must be related to quantities and units of the PAG to which they will be compared. PARs must be promptly transmitted to decision-makers in a pre-arranged format.

When the licensee and ORO projected doses differ by more than a factor of 10, the ORO and licensee must determine the source of the difference by discussing input data and assumptions, using different models, or exploring possible reasons. Resolution of these differences must be incorporated into the PARs if timely and appropriate. The ORO must demonstrate the capability



to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

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:**

BRP will validate plant dose projections and coordinate resolution of differences if more than a factor of 10. If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make PADs can be addressed through an interview (Note: BRP is evaluated for this exercise).

**Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1, A.3; C.4, 6; D.4; J.9; J.10.e, f, m)**

### **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.

OROs must have the capability to make both initial and subsequent precautionary and/or protective action decisions. OROs must demonstrate the capability to make initial precautionary and/or protective action decisions in a timely manner appropriate to the incident, based on information from the licensee, assessment of plant status and potential or actual releases, other available information related to the incident, input from appropriate ORO authorities (e.g., incident command), and PARs from the utility and ORO staff. In addition, a subsequent or alternate precautionary and/or protective action decision may be appropriate if various conditions (e.g., an HAB incident, weather, release timing and magnitude) pose undue risk to an evacuation, or if evacuation may disrupt the efforts to respond to a hostile action.

OROs must demonstrate the ability to obtain supplemental resources (e.g., mutual aid) necessary to implement a PAD if local law enforcement, fire service, HAZMAT, and emergency medical resources are utilized to augment response to the NPP site or other key infrastructure.

Dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. In addition, incident command must provide input regarding considerations for subsequent PARs based on the magnitude of the ongoing threat, the response, and/or site conditions. The decision-makers must demonstrate the capability to change protective actions based on the combination of all these factors.

If the ORO has determined that KI will be used as a protective measure for the general public under offsite plans/procedures, then it must demonstrate the capability to make decisions on the distribution and administration of KI to supplement sheltering and evacuation. This decision



must be based on the ORO's plans/procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process must involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision making, all appropriate OROs must communicate and coordinate PADs with each other. In addition, decisions must be coordinated/communicated with Incident Command. OROs must demonstrate the capability to communicate the results of decisions to all the affected locations.

#### **PEMA Negotiated Extent-of-Play:**

The Commonwealth, in developing a PAD, will base the decision upon plant recommendation and condition, confirmation and advice of BRP, environmental data, impediments, and other factors that may impact the decision. If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make PADs can be addressed through an interview.

The Commonwealth will include Maryland and its affected counties in the decision-making process but they may make a decision independent of ours.

#### **Sub-element 2.c – Precautionary and/or Protective Action Decisions 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 daycare centers, 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: 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 Emergency Classification Level (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.

#### **PEMA Negotiated Extent-of-Play:**

If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make protective action recommendations can be addressed through an interview.

#### **Sub-element 2.d. – Radiological Assessment and Decision-Making for the Ingestion Exposure Pathway**

##### **INTENT**

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate PAGs, and make timely, appropriate PADs to mitigate exposure from the pathway.

During an incident at the NPP, a release of radioactive material may contaminate water supplies and agricultural products in the surrounding areas. Any such contamination would likely occur during the plume phase of the incident and, depending on the nature of the release, could impact the ingestion pathway for weeks to years.

**Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are based on the ORO's planning criteria. (NUREG0654/FMEA-REP-1, A.3; C.1, 4; D.4; J.9, 11)**

**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 condition transmitted from the licensee.

OROs are expected to take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans/procedures. Often OROs initiate such actions based on criteria related to the facility's ECLs. Such actions may include recommendations to place milk animals on stored feed and use protected water supplies.

The ORO must use its procedures to assess the radiological consequences of a release on the food and water supplies, such as the development of a sampling plan. The ORO's assessment must include evaluation of the radiological analysis of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas; characterization of the releases from the facility; and the extent of areas potentially impacted by the release. During this assessment, OROs must consider use of agricultural and watershed data within the 30-mile EPZ. The radiological impacts on the food and water must then be compared to the appropriate ingestion PAGs contained in the ORO's plans/procedures. The plans/procedures contain PAGs based on specific dose commitment criteria or on criteria as recommended by current Food and Drug Administration (FDA) guidance. Timely and appropriate recommendations must be provided to the OFO decision-makers group for implementation decisions. OROs may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO must demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information. Any such decisions must be communicated and, to the extent practical, coordinated with neighboring OROs. These decisions include tracking agricultural products entering and leaving the EPZ. Demonstration of plans and procedures which use traffic access control points to track agricultural products entering and leaving the EPZ may be conducted through interview.

ORO will use Federal resources, as identified in the Nuclear/Radiological Incident Annex of the NRF and other resources (e.g., compacts or nuclear insurers), as necessary.

Evaluation of this criterion will take into consideration the level of Federal and other participating resources.

**PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.

## **Sub-element 2.e. – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return**

### **INTENT**

This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to make decisions on post-plume phase relocation, reentry, and return of the general public. These decisions are essential for protection of the public from direct long-term exposure to deposited radioactive materials from a severe incident at an NPP.

**Criterion 2.e.1: Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures.**  
(NUREG-0654/FEMA-REP-1. I-10; J.9; K.3; M.1)

### **Assessment/Extent of Play**

Assessment of the Demonstrated 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.

**Relocation:** OROs must demonstrate the capability to estimate integrated dose in contaminated areas and compare these estimates with PAGs; apply decision criteria for relocation of those individuals in the general public who have not been evacuated, but where actual or projected doses are in excess of relocation PAGs; and control access to evacuated and restricted areas. OROs will make decisions for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs. Determination of areas to be restricted must be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates versus the PAGs, and analyses of vegetation and soil field samples.

**Reentry:** Decisions must be made on location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to temporarily enter the evacuated area to perform specific tasks or missions.

Examples of control procedures are the assignment of, or checking for, direct reading and permanent record dosimetry for emergency workers; questions regarding an individual's objectives, location expected to be visited, and associated timeframes; availability of maps and plots of radiation exposure rates; and advice on areas to avoid. Control procedures also include monitoring of individuals, vehicles, and equipment; the implementation of decision criteria regarding decontamination; and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.

Responsible OROs must demonstrate the capability to develop a strategy for authorized reentry of individuals into the restricted zone(s), based on established decision criteria. OROs must demonstrate the capability to modify those policies for security purposes (e.g., Police patrols), maintenance of essential services (e.g., fire protection and utilities), and other critical functions. They must demonstrate the capability to use decision-making criteria in allowing access to the

restricted zone by the public for various reasons, such as to maintain property (e.g., to care for farm animals or secure machinery for storage) or retrieve important possessions. Coordinated policies for access and exposure control must be developed among all agencies with roles to perform in the restricted zone(s). OROs must demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed to reenter the restricted zone(s). The extent to which OROs need to develop policies on reentry will be determined by scenario events.

**Return:** OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase (i.e., permitting populating that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis). OROs must base decisions on environmental data and political boundaries or physical/geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area(s) that is based on the relocation PAG.

Other factors that the ORO must consider in decision-making include conditions that permit cancellation of the ECL and relaxation of associated restrictive measures. OROs must base return recommendations on measurements of radiation from ground deposition. OROs must have the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate-term housing for relocated persons.

#### **PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.

### **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 or 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.

#### **PEMA Negotiated Extent-of-Play:**

Radiological briefings will be provided to address exposure limits, procedures to replace personnel approaching limits, and how permission to exceed limits is obtained from the municipality and county. Emergency workers will also be briefed on when to take KI and on whose authority. Distribution of KI will be simulated. OROs should also demonstrate the use of all applicable dosimetry forms. The completion of a "Dosimetry-KI Report Form" will be demonstrated (Maximum of six (6) forms).

At any time, players may ask other players or supervisors to clarify radiological information.

Evaluation of emergency worker KI quantities will be verified using inventory sheets. KI will not be removed from storage locations and boxes will not be opened. KI questions will be addressed through interviews.

Personnel assigned to operate monitoring/decontamination centers and stations are not issued DRDs or KI since the centers/stations are located outside the EPZ. Simulated PRDs with mock serial numbers may be used to simulate issue.

Emergency workers who are assigned to low exposure rate areas, e.g., at counting laboratories, emergency operations centers, and communications centers, may have individual permanent record dosimeters or they may be monitored by dosimeters strategically placed in the work area. In Pennsylvania this will be accomplished through the use of an area kit. The area kit process is explained in State, County and Municipal Plans.

Standard issue of dosimetry and KI 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 (Area Kit includes 2 DRDs)

Category C: 1 PRD



In Pennsylvania, emergency workers outside of the EPZ do not have turn-back values.

All locations that have dosimetry equipment indicated within their Radiological Emergency Response Plan (RERP), will make the dosimetry equipment (and KI) available for inspection by the Federal Evaluator. In order to demonstrate an understanding of the use of the dosimetry equipment, KI and associated forms; the location need only remove and distribute/issue a maximum of six (6) units of dosimetry from their inventory. Simulation PRDs with mock serial numbers and simulated KI may be issued. The location will demonstrate filling out a minimum of two (2) Dosimetry / KI Report Form.

### **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.

### **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. Pennsylvania does not distribute KI at reception centers.

Evaluation of emergency worker KI quantities will be verified using inventory sheets. KI will not be removed from storage locations and boxes will not be opened. KI questions will be addressed through interviews.

Personnel assigned to operate monitoring/decontamination centers and stations are not issued PRDs or KI since the centers/stations are located outside the EPZ. Simulated PRDs with mock serial numbers may be used to simulate issue (Maximum of 6 issued). KI may be simulated for issue.

If the scenario has no radiological release, or potential of a radiological release, the decision-making process on the need to recommend KI can be addressed through an interview if required.

### **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 areas 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.

### **PEMA Negotiated Extent-of-Play:**

The names, locations and contact information of identified individuals with identified disabilities and access/functional needs are maintained on a list at their respective municipal EOC (based upon residential jurisdiction). Copies of these lists will not be provided to the evaluators; however, evaluators will be allowed to inspect the lists during the exercise.

**Evaluators may ask, by interview, about the transportation plans concerning transportation staging, source of vehicles, radiological protection of the drivers/emergency workers, and routes or assignments of vehicles for transportation of persons with disabilities and access/functional needs. No buses or drivers will be mobilized.**

Initial contact, by the county, with special populations and reception facilities will be actual (One actual call required for each type - hospitals, nursing homes and correctional facilities). All subsequent calls will be simulated. Actual contacts (up to two per Risk County) will be made with transportation providers as per plan. All actual and simulated contacts should be logged.

**Criterion 3.c.2: OROs/School officials implement 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, 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; and 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.

#### **PEMA Negotiated Extent-of-Play:**

School Students will not be involved during the exercise. Actions and activities associated with the demonstration of Criterion 3.c.2 will be limited to the School District Administration key personnel and the County. Evacuation of students will be conducted through an interview process with School District personnel or the building principal.

The role of the bus driver may be conducted through an interview with school or transportation officials (or designee) if a bus driver is not available. Actual demonstration of the bus route is not required and will not be demonstrated. Maps or route descriptions will be available for illustration purposes.

Risk County school plans do not require communications between the school and vehicles. Bus drivers are not considered emergency workers and therefore do not require dosimetry.

Private schools, private kindergartens, and day care centers do not participate in REP exercises. However, OROs will be prepared to show evaluators lists of these facilities that they will contact in the event of an emergency in accordance with plans and procedures. Any simulated contacts will be logged.

#### **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.

#### **PEMA Negotiated Extent-of-Play:**

Municipal traffic and access control will be demonstrated by interview at the applicable EOC of jurisdiction. 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 will be provided to the assigned individuals.

Reception Centers shall provide a traffic control plan for the location being evaluated.

An impediment to evacuation will occur by exercise inject to each risk county. The impediment will be a long duration impediment affecting an evacuation route which will require rerouting of traffic and will evaluate the effectiveness of the Risk County to advise affected partners and coordination with the PIO/JIC to communicate alternate routing to evacuees. The evaluation can occur by interview if there is no evacuation.

**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, 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.

**PEMA Negotiated Extent-of-Play:**

County EOCs will demonstrate the ability to identify and take appropriate actions concerning impediments to evacuation by inject or interview. Actual dispatch of resources to deal with impediments, such as tow trucks, need not be demonstrated; however, simulated contacts will be logged. If the scenario does not lead to evacuation the criteria shall be deemed complete if the ORO can describe to the evaluator 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 counties only)

**Sub-element 3.e – Implementation of Ingestion Pathway Decisions**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement protective actions, based on criteria recommended by current FDA guidance, for the ingestion exposure pathway EPZ (i.e., the area within an approximate 50-mile radius of the NPP). This Sub-element focuses on those actions required for implementation of protective actions.

**Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. (NUREG-0654/FEMA-REP-1, A.3; C.1, 4; J.11)**



### Assessment/Extent of Play

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

Applicable OROs must demonstrate the capability to secure and use current information on the location of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the EPZ. OROs use Federal resources as identified in the NRF

Nuclear/Radiological Incident Annex, and other resources (e.g., compacts, nuclear insurers), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

#### **PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.

**Criterion 3.e.2: Appropriate measures, strategies, and preprinted instructional materials are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654/FEMA-REP-1, G.1, J.9, 11)**

### Assessment/Extent of Play

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

OROs must demonstrate the development of measures and strategies for implementation of ingestion exposure pathway EPZ protective actions by formulating protective action information for the general public and food producers and processors. Demonstration of this criterion includes either pre-distributed public information material in the ingestion exposure pathway EPZ or the capability for rapid reproduction and distribution of appropriate reproduction-ready information and instruction to pre-determined individuals and businesses.

OROs must also demonstrate the capability to control, restrict, or prevent distribution of contaminated food by commercial sectors. Exercise play must include demonstration of communication and coordination among organizations to implement protective actions. Field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the ingestion exposure pathway EPZ must be demonstrated, but actual communications with food producers and processors may be simulated.

#### **PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.



## **Sub-element 3.f – Implementation of Post-Plume Phase Relocation, Re-entry, and Return Decisions**

### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement plans, procedures, and decisions for post-plume phase relocation, reentry, and return. Implementation of these decisions is essential for protecting the public from direct long-term exposure to deposited radioactive materials from a severe incident at a commercial NPP.

**Criterion 3.f.1: Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented.** (NUREG-0654/FEMA-REP-1, E.7; J.10j; J.12; K.5.b; M.1, 3)

### **Assessment/Extent of Play**

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

**Relocation:** OROs must demonstrate the capability to coordinate and implement decisions concerning relocation of individuals located in radiologically contaminated areas who were not previously evacuated. Such individuals must be relocated to an area(s) where radiological contamination will not expose the general public to doses that exceed the relocation PAGs. OROs must also demonstrate the capability to provide for short- or long-term relocation of evacuees who lived in an area(s) that has residual radiation levels above the (first-, second-, and 50-year) PAGs.

Areas of consideration must include the capability of OROs to communicate with other OROs regarding timing of actions, notification of the population of procedures for relocation, and notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their home due to high levels of contamination. OROs must also demonstrate the capability to communicate instructions to the public regarding relocation decisions and intermediate-term housing for relocated persons.

**Reentry:** OROs must demonstrate the capability to control reentry and exit of individuals who are authorized by the ORO to temporarily reenter the restricted area during the post-plume (i.e., intermediate or late) phase to protect them from unnecessary radiation exposure. OROs must also demonstrate the capability to control exit of vehicles and other equipment to control the spread of contamination outside the restricted area(s). Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must reenter the evacuated area during the post-emergency phase must be limited to the lowest radiological exposure commensurate with completing their missions. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedures are: (1) assignment of, or checking for, direct-reading and permanent record dosimetry for emergency workers; (2) questions regarding the individuals'

objective(s), location(s) expected to be visited, and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; (5) procedures for exit, including monitoring of individuals, vehicles, and equipment; (6) decision criteria regarding contamination; (7) proper disposition of emergency worker dosimetry; and (8) maintenance of emergency worker radiation exposure records.

**Return:** OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs must demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, and schools.

Communication among OROs for relocation, reentry, and return may be simulated. All simulated or actual contacts must be documented. These discussions may be accomplished in a group setting.

ORO will use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex, and other resources (e.g., compacts or nuclear insurers), as necessary, if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

#### **PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.

### EVALUATION AREA 4

#### **Field Measurement and Analysis**

##### **Sub-element 4.a – Plume Phase Field Measurements and Analyses**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654/FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at a NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

#### **Criterion 4.a.1: [RESERVED]**

**Criterion 4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure.**  
(NUREG-0654/FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)

#### **Assessment/Extent-of-Play**

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

Responsible OROs must demonstrate the capability to brief FMTs on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment. During an HAB incident, the Field Team management must keep the Incident Command informed of FMTs' activities and location. Coordination with FMTs and field monitoring may be demonstrated as out-of-sequence demonstrations, as negotiated in the Extent-of-Play Agreement.

Field measurements are needed to help characterize the release and support the adequacy of implemented protective actions, or to be a factor in modifying protective actions.

Teams must be directed to take measurements at such locations and times as necessary to provide sufficient information to characterize the plume and its impacts.

If the responsibility for obtaining peak measurements in the plume has been accepted by licensee FMTs, with concurrence from OROs, there is no requirement for these measurements to be repeated by ORO monitoring teams. If the licensee FMTs do not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all FMTs (licensee, Federal, and ORO) is essential.

ORO will use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee), as necessary. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

#### **PEMA Negotiated Extent-of-Play:**

Field Team Control will be performed near the 10-mile EPZ using the DEP Radiological Rapid Response Vehicle (R3V). Field Team control is expected to initially be out-of-sequence with the plume timeline. During the exercise, the field teams will be directed to take measurements in locations to provide information sufficient to characterize the plume and impacts. In addition to field team measurements, remote detectors will be deployed by the field teams near the expected plume pathway. These detectors will automatically transmit data to the R3V. These detectors will be used to keep field teams dose ALARA.

BRP Field Teams and R3V will be evaluated for this exercise.

FEMA evaluators will meet the field teams at the Department of Environmental Protection's South Central Office located at 909 Elmerton Avenue, Harrisburg, PA on April 17, 2018 at 1:00 p.m. to observe instrumentation checks and equipment inventory verification. The FEMA evaluators can meet the R3V and field teams for the plume exercise at the R3V staging location at Rutter's Farm Store – 2600 Delta Road, Brogue, PA.

In the event the scenario has no radiological release, a report of background radiation by the FMT will signify successful demonstration of the criterion.

**Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654/FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)**

#### **Assessment/Extent-of-Play**

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

Two or more FMTs must demonstrate the capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority. FMTs must also demonstrate the capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement. If samples have radioactivity significantly above background, the authority must consider the need for expedited laboratory analyses of these samples. Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory(ies) must be demonstrated.

OROs must share data in a timely manner with all other appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans/procedures.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

#### **PEMA Negotiated Extent-of-Play:**

Measurements will be made by Department of Environmental Protection (DEP) Bureau of Radiological Protection (BRP), in accordance with State Radiological Annex E, Appendix 6 and the BRP Standard Implementing Procedures (IPs). Two mobile monitoring teams from BRP will demonstrate ambient radiation monitoring and radioiodine and particulate sampling. Field Teams will be equipped with appropriate dosimetry and KI. Both teams will participate. Each team will be directed to monitoring location and perform actual radiation measurements at each location. Measurements may consist of truck installed radiation monitor or hand-held radiation

instruments. An actual air sample will be taken at the R3V staging area prior to field team departure to PBAPS. Field teams will discuss air sample counting procedures via an interview process. Teams will then take additional simulated air samples, as directed, at additional locations, if conditions are appropriate for radioiodine sampling and relay information to the Radiological Rapid Response Vehicle (R3V). In place of silver zeolite cartridges, charcoal cartridges will be used for the exercise. All measurements will be forwarded to the R3V immediately upon obtaining data.

BRP Field Teams and R3V will be evaluated for this exercise.

### **Sub-element 4.b – Post Plume Phase Field Measurements and Sampling**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess the actual or potential magnitude and locations of radiological hazards to determine the ingestion exposure pathway EPZ and to support relocation, reentry, and return decisions. This Sub-element focuses on collecting environmental samples for laboratory analyses that are essential for decisions on protecting the public from contaminated food and water and direct radiation from deposited materials.

**Criterion 4.b.1: The field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision making.**

**(NUREG-0654/FEMA-REP-1, C.1; I.8; J.11)**

#### **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.

The ORO's FMTs must demonstrate the capability to take measurements and samples at such times and locations as directed to enable an adequate assessment of the ingestion pathway and to support reentry, relocation, and return decisions. When resources are available, use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans/procedures.

The FMTs and/or other sampling personnel must secure ingestion pathway samples from agricultural products and water. Samples in support of relocation and return must be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.

ORO's will use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts, the licensee, or nuclear insurers) as needed. Evaluation of

this criterion will take into consideration the level of Federal and other resources participating in the exercise.

### **PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.

### **Sub-element 4.c - Laboratory Operations**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to perform laboratory analyses of radioactivity in air, liquid, and environmental samples to support protective action decision making.

**Criterion 4.c.1: The laboratory is capable of performing required radiological analyses to support protective action decisions. (NUREG-0654/FEMA-REP-1, C.1, 3; J.11)**

#### **Assessment/Extent-of-Play**

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

The laboratory staff must demonstrate the capability to follow appropriate procedures for receiving samples, including logging information, preventing contamination of the laboratory(ies), preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil (e.g., milk), and keeping track of sample identity. In addition, the laboratory staff must demonstrate the capability to prepare samples for conducting measurements.

The laboratory (ies) must be appropriately equipped to provide, upon request, timely analyses of media of sufficient quality and sensitivity to support assessments and decisions anticipated in the ORO's plans/procedures. The laboratory instrument calibrations must be traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides released in a reactor incident must be as described in the plans/procedures. New or revised methods may be used to analyze atypical radionuclide releases (e.g., transuranics or as a result of a terrorist incident) or if warranted by incident circumstances. Analysis may require resources beyond those of the ORO. The laboratory staff must be qualified in radioanalytical techniques and contamination control procedures.

ORO's will use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts, the licensee, or nuclear insurers) as needed. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.



## **PEMA Negotiated Extent-of-Play:**

This sub-element will not be evaluated during this exercise.

### 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 derived from the *Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants*, FEMA-REP-10 (November 1985).

**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 full-scale or functional 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 plume 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;
- 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 8 years. All alert and notification activities along the route(s) must be simulated (that is, 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.

#### **PEMA Negotiated Extent-of-Play:**

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 (September 23, 2010 and revised on 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 will occur between the CRCC and the affected counties with respect to the Alert and Notification System (ANS) process as to when the sirens and EAS messages will occur. Sirens will be coordinated and the sounding simulated at the appropriate time with the simulated activation of EAS taking place approximately 3 minutes following the simulated activation of the sirens. Regular Broadcasting will not be interrupted on the EAS Stations. All subsequent actions to broadcast stations will be simulated. Broadcast of the message(s) or test message(s) is **NOT** required and **NOT** requested. Counties may elect to provide Subsequent News Bulletins or County-Specific EAS messages to their EAS stations.

Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, ANS activation should be accomplished in a timely manner for primary

alerting/notification. This action will be performed “with a sense of urgency and without undue delay” (REP Manual-January 2016).

All actions to broadcast stations will be simulated. Systems that use automatic sending technology may be demonstrated by explanation during an interview.

Each evaluated municipality per Risk County will demonstrate, by interview, route alerting of the hearing impaired residents within their jurisdiction. Hearing impaired notification teams will not be deployed.

**Criterion 5.a.2: [RESERVED]**

**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.

If 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 (that is, 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.

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

#### **PEMA Negotiated Extent-of-Play:**

Plans specify that route alerting is used as a back up to the sirens. County Liaisons will provide an inject to the risk counties that a siren has failed. The county will demonstrate contacting one municipal EOC in regard to the failed siren in that municipality. The municipal EOC will then dispatch a route alert team to cover one route alert sector affected by the failed siren. All other routes will be simulated. Route Alert Teams should finish their route in about 45 minutes from time of siren failure.

OROs may utilize IPAWs or other public alerting systems in accordance with their plans but use of such systems will not negate the need to provide for route alerting by the ORO. Counties utilizing electronic notification systems will provide evaluators evidence of system operations by conducting a test message (no public notification) or documentation of real world notification results. For this exercise Chester County will be using IPAWS with a test message and the affected municipality will demonstrate providing a radiological briefing and issuing of dosimetry to the backup route alert teams but teams will **not** run the route.

**Criterion 5.a.4: Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. (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.

OROs with FEMA-approved exception areas (identified in the approved *Alert and Notification System Design Report*), 5 to 10 miles from the NPP, must demonstrate the capability to accomplish primary alerting and notification of the exception area(s). FEMA and the NRC recommend that OROs and operators establish means that will reach those in approved exception areas within 45 minutes once the initial decision is made by authorized offsite emergency officials to notify the public of an incident. The exception area 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.

For exception area alerting, at least one route must 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 broadcasted) as negotiated in the Extent-of-Play. Actual testing of the mobile public address system will be conducted at an agreed-upon location. For exception areas alerted by air/water craft, actual routes will be negotiated in the Extent-of-Play, but must be demonstrated no less than once every eight years.

## **PEMA Negotiated Extent-of-Play:**

This sub-element will not be demonstrated or evaluated during this exercise. Pennsylvania has no exception areas.

## **Sub-element 5.b – Emergency Information and Instructions for the Public and the Media**

### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to disseminate appropriate emergency information and instructions, including any recommended protective actions, to the public. In addition, NUREG-0654/FEMA-REP-1 requires OROs to ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654/FEMA-REP-1 also provides that a system must be available for dealing with rumors. This system will hereafter be known as the “public inquiry hotline”.

**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 full-scale or functional 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. 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 pre-determined 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 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.

#### **PEMA Negotiated Extent-of-Play:**

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 calls from the State Exercise Cell assigned this responsibility. Counties will be expected to receive and log the calls, identify any trends and take appropriate actions to include follow-up message development, distributions and/or briefings.

## EVALUATION AREA 6

### **Support Operation/Facilities**

#### **Sub-element 6.a – Monitoring, Decontamination, and Registration of Evacuees**

##### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees, while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

**Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA-REP-1, A.3; C.4; J.10.h; J.12)**

##### **Assessment/Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

Radiological monitoring, decontamination, and registration facilities for evacuees must be set up and demonstrated as they would be in an actual emergency or as indicated in the Extent-of-Play Agreement. OROs conducting this demonstration must have one-third of the resources (e.g., monitoring teams/instrumentation/portal monitors) available at the facility(ies) as necessary to monitor 20 percent of the population within a 12-hour period. This would include adequate space for evacuees' vehicles. Availability of resources can be demonstrated with valid documentation (e.g., MOU/LOA, etc.) reflecting how necessary equipment would be procured for the location. Plans/procedures must indicate provisions for service animals.

Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. Staff responsible for the radiological monitoring of evacuees must demonstrate the capability to attain and sustain, within about 12 hours, a monitoring productivity rate per hour needed to monitor the 20 percent EPZ population planning base. The monitoring productivity rate per hour is the number of evacuees that can be monitored, per hour, by the total complement of monitors using an appropriate procedure. For demonstration of monitoring, decontamination, and registration capabilities, a minimum of six evacuees must be monitored per station using equipment and procedures specified in the plans/procedures. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators to determine whether the 12-hour requirement can be met.

ORO must demonstrate the capability to register evacuees upon completion of the monitoring and decontamination activities. The activities for recording radiological monitoring and, if necessary, decontamination must include establishing a registration record consisting of the evacuee's name, address, results of monitoring, and time of decontamination (if any), or as



otherwise designated in the plan and/or procedures. Audio recorders, camcorders, or written records are all acceptable means for registration.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any evacuees who cannot be adequately decontaminated for assessment and follow-up in accordance with 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.

Decontamination of evacuees may be simulated and conducted by interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated evacuees, provide changes of clothing for those with contaminated clothing, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any evacuee found to be contaminated, procedures must be discussed concerning handling of potential contamination of vehicles and personal belongings. Waste water from decontamination operations does not need to be collected.

Individuals who have completed monitoring (and decontamination, if needed) must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger/action level or have been placed in a secure area until they can be monitored and decontaminated, if necessary.

In accordance with plans/procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles held in a secure area or monitored and decontaminated (if applicable) and do require confirmation that their vehicle is being held in a secure area or free from contamination prior to entering the congregate care areas.

#### **PEMA Negotiated Extent-of-Play:**

Radiological monitoring demonstration sites should possess a roster of the monitored personnel/population, as well as, providing a means by which mass care or others could verify that the person has been monitored and has been deemed free of contamination. The Radiological Monitoring station(s) should be prepared to monitor 20 percent of the risk population within a 12-hour period as allocated to that location. Reception Centers, Monitoring and Decontaminations Centers, and/or Mass Care centers may or may not be collocated.



**At each reception center**, a minimum of three volunteer evacuees will be processed, briefed, issued the appropriate strip map or directions, and instructed to proceed to a mass care center designated for demonstration of monitoring, decontamination, and registration. A sample of the appropriate strip maps or directions will be made available for the demonstration unless collocated with mass care and monitoring/decontamination. **As negotiated with FEMA, this criterion will be demonstrated but registration will not be evaluated because registration is not done at the reception center.**

One mass care center and one mass care monitoring/decontamination center will be demonstrated per risk or support county during the out-of-sequence window. These counties will provide space for operation of monitoring/decontamination centers. Schematics of these monitoring/decontamination centers will be available to show the organization within the facility and space management for monitoring and decontamination. Procedures will be demonstrated to evidence the separation of contaminated and non-contaminated (clean) individuals.

**At the evacuee monitoring/decontamination center**, a minimum of six (6) volunteer evacuees will be monitored (or one volunteer evacuee may be monitored six times). Suitable radiological monitoring instruments will be issued to and demonstrated by the initial monitoring team(s). Those individuals found to be free of “contamination”, based upon scenario injects, will be directed to the mass care registration point for further processing. **Note:** Actual radiological sources will not be attached to or hidden upon the volunteer evacuees but sources may be used by operators to verify proper equipment calibration. **Note:** If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.

One of the simulated evacuees, based upon controller injects, will not be able to be decontaminated. Discussions concerning the processing of contaminated personnel will include capabilities and written procedures for showering females separate from males (separate facilities may or may not be used). Showering will be simulated, water will not be used.

Evaluated locations will demonstrate the following areas: Staff briefing (including radiological briefing and issuing of dosimetry as appropriate), direction and control of staff and evacuees, operational check of one piece of each type of radiological detection equipment, operation of the portal monitor (if so equipped), operation of hand held radiological scanning device and recording of findings (vehicle and people), set up of signage/traffic control/personnel control devices, and having evacuees traverse the appropriate paths (clean or dirty). Other activities will be described by interview as evacuees or vehicles follow the clean or dirty paths. Evaluated locations will show supplies of personnel protective gear, contamination control materials (plastic/paper runners, etc.), modesty garments, containment devices (Trash cans, liners, etc.), items for contamination removal (tape, HEPA vacuum, wet wipes, soap, car wash brushes, etc. as required per procedures), and other equipment/supplies as required. Plans, procedures, and set up maps will be on site for evaluator review. Demonstration should include documentation of persons or vehicles and marking methods for decontaminated people or items.

Monitoring/decontamination centers are not issued DRDs or KI since the centers and stations are outside the EPZ. Category “C” Dosimetry applies. Permanent Record Dosimeters (PRD’s) may be simulated.

Radiation readings/contamination data for the evacuees and vehicle will be provided by the controller as appropriate based upon information contained in the scenario package. Set-up of the facility will be performed the same as for an actual emergency with all route markings and contamination control measures in place including step-off pads. Long runs of plastic covered with paper will not be demonstrated, but the materials shall be available and explained. Positioning of a fire apparatus on-site may be simulated if otherwise required.

Participants should be able to describe how vehicles are identified for radiological screening and plans or layouts should show the locations and movements of vehicles. Water from decontamination activities may go directly to a storm drain or other sewer or drain system or area normally designated for wastewater that has been used for bathing or washing of vehicles and or equipment.

**Portal Monitor Use:** Risk and Support counties may, during this exercise, utilize portal monitors to monitor simulated evacuees and/or emergency workers. The monitoring/decontamination team requirements will be based on the portal monitor capabilities as applicable based on the procedure/guidelines, and the recommendations of the manufacturer. **Note:** PEMA guidance shall apply. Note that most Portal Monitors are verified to be calibrated by an operator passing through the Portal Monitor with a radioactive source at head, mid, and ankle heights. For locations utilizing multiple portal monitors only one working portal monitor needs to be demonstrated.

### **Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of emergency workers and their equipment, inclusive of vehicles.

**Criterion 6.b.1: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654/FEMA-REP-1, K.5.a, b)**

#### **Assessment/Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

The monitoring staff must demonstrate the capability to monitor emergency worker personnel and their equipment and vehicles for contamination in accordance with the ORO's plans/procedures.

Specific attention must be given to equipment, including any vehicles that were in contact with contamination. The monitoring staff must demonstrate the capability to make decisions on the need for decontamination of personnel, equipment, and vehicles based on trigger/action levels

and procedures stated in the ORO plans/procedures. Monitoring of emergency workers does not have to meet the 12-hour requirement. However, appropriate monitoring procedures must be demonstrated for a minimum of two emergency workers and their equipment and vehicles. Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation.

The area to be used for monitoring and decontamination must be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping, and contamination control measures in place. Monitoring procedures must be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as radiator grills, bumpers, wheel wells, tires, and door handles must be demonstrated. Interior surfaces of vehicles that were in contact with contaminated individuals must also be checked.

Decontamination of emergency workers may be simulated and conducted via interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated individuals where applicable; provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of emergency workers or facilities.

OROs must demonstrate the capability to register emergency workers upon completion of the monitoring and decontamination activities. The activities for recording radiological monitoring and if necessary, decontamination must include establishing a registration record consisting of the emergency worker's name, address, results of monitoring, and time of decontamination (if any), or as otherwise designated in the plan/procedures. Audio recorders, camcorders, or written records are all acceptable means for registration.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any emergency workers who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans/procedures.

Decontamination capabilities and provisions for vehicles and equipment that cannot be successfully decontaminated may be simulated and conducted by interview. Waste water from decontamination operations does not need to be collected.

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:**

At the emergency worker monitoring/decontamination stations schematics of these monitoring/decontamination stations will be available to show organization and space management. One emergency worker will be monitored. Discussions concerning processing of

contaminated personnel will include capabilities and written procedures for showering females separate from males (separate facilities may or may not be used). Showering will be simulated, water will not be used. Suitable radiological monitoring instruments will be issued to the initial monitoring team. Note: If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.

Emergency worker station personnel will consist of a minimum of one monitor and one recorder and sufficient personnel to demonstrate monitoring of at least one vehicle. The evaluator will request the vehicle monitoring and decontamination procedures and that vehicle decontamination procedures be explained after the vehicle (with simulated contamination) has been monitored. One radiological survey meter, will be issued to each vehicle monitoring/decontamination team. One vehicle and/or piece of equipment will not be able to be decontaminated. Simulated radiation contamination data will be included in the scenario package, and injected by a controller. Set-up of the facility will be performed as closely as possible to that for an actual emergency with all route markings in place.

Evaluated locations will demonstrate the following areas: Staff briefing (including radiological briefing and issuing of dosimetry as appropriate), direction and control of staff and evacuees, operational check of one piece of each type of radiological detection equipment, operation of the portal monitor (if so equipped), operation of hand held radiological scanning device and recording of findings (vehicle and people), set up of signage/traffic control/personnel control devices, and having evacuees traverse the appropriate paths (clean or dirty). Other activities will be described by interview as evacuees or vehicles follow the clean or dirty paths. Evaluated locations will show supplies of personnel protective gear, contamination control materials (plastic/paper runners, etc.), modesty garments, containment devices (Trash cans, liners, etc.), items for contamination removal (tape, HEPA vacuum, wet wipes, soap, car wash brushes, etc. as required per procedures), and other equipment/supplies as required. Plans, procedures, and set up maps will be on site for evaluator review. Demonstration should include documentation of persons or vehicles and marking methods for decontaminated people or items.

Decontamination capabilities and provisions for vehicles and/or equipment that cannot be decontaminated will be simulated and conducted by interview. Water will NOT be used.

Radiation readings/contamination data for the emergency worker and vehicle will be provided by the controller as appropriate based upon information contained in the scenario package. Set-up of the facility will be performed the same as for an actual emergency with all route markings and contamination control measures in place including step-off pads. Long runs of plastic covered with paper will not be demonstrated, but the materials shall be available and explained. Positioning of a fire apparatus on-site may be simulated if otherwise required.

**Portal Monitor Use:** Risk and Support counties may, during this exercise, utilize portal monitors to monitor simulated emergency workers. The monitoring/decontamination team requirements will be based on the portal monitor capabilities as applicable based on the procedure/guidelines, and the recommendations of the manufacturer. Note: PEMA guidance shall apply. Note that most Portal Monitors are verified to be calibrated by an operator passing through the Portal Monitor with a radioactive source at head, mid, and ankle heights. For

locations utilizing multiple portal monitors only one working portal monitor needs to be demonstrated.

Emergency Worker monitoring and decontamination station personnel are not issued DRDs or KI since the centers and stations are outside the EPZ. Category “C” Dosimetry applies. Permanent Record Dosimeters (PRD’s) may be simulated.

Water from decontamination activities may go directly to a storm drain or other sewer or drain system or area normally designated for wastewater that has been used for bathing or washing of vehicles and or equipment.

### **Sub-element 6.c - Temporary Care of Evacuees**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires OROs to have the capability to establish relocation centers in host / support jurisdictions. The American Red Cross normally provides congregate care in support of OROs under existing letters of agreement.

**Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654/FEMA-REP-1, J.10.h, J.12)**

#### **Assessment/Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

The evaluator must conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with applicable guidance.

For planning purposes, OROs must plan for a sufficient number of congregate care centers in host/support jurisdictions based on their all-hazard sheltering experience and what is historically relevant for that particular area. In this simulation, it is not necessary to set up operations as they would be in an actual emergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this criterion, exercise demonstration expectations must be clearly specified in Extent-of-Play Agreements.

Congregate care staff must also demonstrate the capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before entering the facility.

Individuals arriving at congregate care facilities must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where

applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger/action level.

In accordance with plans/procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not need confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles held in a secure area until they can be monitored and decontaminated (if applicable) and do need confirmation that their vehicle is being held in a secure area or free from contamination prior to entering the congregate care areas. This capability may be determined through an interview process

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility(ies). However, availability of such items must be verified by providing the evaluator a list of sources with locations and estimates of quantities.

#### **PEMA Negotiated Extent-of-Play:**

Each county with mass care centers will demonstrate the operation of one mass care center during the out-of-sequence window. Floor plans with flow diagrams of the mass care centers will be available to show organization within the facility and space management during a real emergency. Mass care center locations are listed in the demonstration tables "Demonstration of Mass Care Centers (Attachment A, Section I.B.4)".

Personnel, at a minimum, will consist of one manager and one assistant for each mass care center opened during the out-of-sequence window. The evaluator will expect to see sources and quantities of equipment and supplies, as well as, **a staffing chart by job title for 24-hour staffing**. Necessary signs, directional arrows and forms will be available and used to demonstrate registration of least three evacuees requiring emergency housing. Evacuees will be shown the location where they would be housed in an actual situation. Bedding, cots, food, etc. normally associated with mass care will not be moved to the site, but the sources of those items should be explained to FEMA evaluators.

### **AMERICAN RED CROSS SUPPORT COUNTY CHAPTERS**

#### **Lancaster and York Counties:**

American Red Cross of Central Pennsylvania  
1804 North Sixth Street  
Harrisburg, Pennsylvania 17102  
Chris Weidenhammer, Regional Disaster Program Officer, 717-234-3101  
Chris.Weidenhammer@redcross.org

#### **Chester County:**

Tri County Chapter of the American Red Cross  
701 Centre Avenue



Reading, Pennsylvania 19601  
Erika Wolfe (215) 347-0425  
erika.wolfe3@redcross.org

## **Sub-element 6.d – Transportation and Treatment of Contaminated Injured Individuals**

### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

**Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654/FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)**

### **Assessment/Extent-of-Play**

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or drills. FEMA has determined that these capabilities have been enhanced and consistently demonstrated as adequate; therefore, offsite medical services drills need only be evaluated biennially. FEMA will, at the request of the involved ORO, continue to evaluate the drills on an annual basis. All hospitals listed in the plan as medical services hospitals must be evaluated, with a transportation provider, every 2 years. Additional transportation providers will be rotated through the drills in the 8-year exercise cycle. For ambulance providers who do not participate in an evaluated drill during the two-year cycle, training will be provided. This training will be documented in the ALC.

Monitoring, decontamination, and contamination control efforts must not delay urgent medical care for the victim.

ORO must demonstrate the capability to transport contaminated injured individuals to medical facilities.

An ambulance must be used for response to the victim. However, to avoid taking an ambulance out of service for an extended time, OROs may use any vehicle (e.g., car, truck, or van) to transport the victim to the medical facility. It is allowable for an ambulance to demonstrate up to the point of departure for the medical facility and then have a non-specialized vehicle transport the “victim(s)” to the medical facility. This option is used in areas where removing an ambulance from service to drive a great distance (over an hour) for a drill would not be in the best interests of the community.

Normal communications between the ambulance / dispatcher and the receiving medical facility must be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur before releasing the ambulance from the drill. This communication would include reporting radiation monitoring results, if available. In addition, the ambulance



crew must demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the victim may be performed before transport or enroute, or may be deferred to the medical facility. Contaminated injured individuals transported to medical facilities are monitored as soon as possible to assure that everyone (ambulance and medical facility) is aware of the medical and radiological status of the individual(s). However, if an ambulance defers monitoring to the medical facility, then the ambulance crew presumes that the patient(s) is contaminated and demonstrate appropriate contamination controls until the patient(s) is monitored. Before using monitoring instruments, the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities must be completed as they would be in an actual emergency. Appropriate contamination control measures must be demonstrated before and during transport and at the receiving medical facility.

The medical facility must demonstrate the capability to activate and set up a radiological emergency area for treatment. Medical facilities are expected to have at least one trained physician and one trained nurse to perform and supervise treatment of contaminated injured individuals. Equipment and supplies must be available for treatment of contaminated injured individuals.

The medical facility must demonstrate the capability to make decisions on the need for decontamination of the individual, follow appropriate decontamination procedures, and maintain records of all survey measurements and samples taken. All procedures for collection and analysis of samples and decontamination of the individual must be demonstrated or described to the evaluator. Waste water from decontamination operations must be handled according to facility plans/procedures.

**PEMA Negotiated Extent-of-Play:**

**NOTE: This sub-element evaluated at Ephrata Community Hospital on October 18, 2017, York Hospital on May 26, 2017, and at Brandywine Hospital on September 28, 2017.**

## DEMONSTRATION TABLES

### PEACH BOTTOM ATOMIC POWER STATION 2018 EXTENT-OF-PLAY DEMONSTRATION TABLES

I. Plume Phase Exercise

A. Activities – April 17, 2018 beginning after 4:00 p.m.

1. County EOCs

Time: Per Exercise Scenario

DEMONSTRATION FOR EOC MOBILIZATION FOR COUNTIES	
	Chester
	Lancaster
	York-Observed Only

**Note: York County will be using their Alternate EOC**

2. Municipal EOCs

Time: Per Exercise Scenario

DEMONSTRATION FOR EOC MOBILIZATION FOR MUNICIPALITIES	
RISK COUNTY	MUNICIPALITY
Chester	West Nottingham Township
Lancaster	Drumore Township
	Solenco – East Drumore Township/Providence Township/Quarryville Borough
	Fulton Township
	Little Britain Township
	Martic Township
York	*Delta/Peach Bottom Townships
	*Fawn Grove Township/Fawn Borough
	Lower Chanceford Township

\* Joint EOC

3. Back-up Route Alerting

One back-up route alerting demonstration by one municipality in each risk county (During scenario Exercise)

Back-up Route Alerting	
COUNTY	MUNICIPALITY
Chester	West Nottingham Township <sup>o</sup>
Lancaster	Drumore Township
York	Fawn Grove Township/Fawn Grove Borough

**Note: Chester County will demonstrate Back Up Alerting using IPAWS at the County, the municipality will provide a radiological briefing and issue dosimetry to a Back Up Route Alert Team but the team will not run the route.**

4. Municipal/Region Police Forces

- a. Each municipal/regional police force with a TCP assigned in its plan will demonstrate all preparation duties including TCP responsibilities and radiological briefing. Dispatch of persons to the TCP site will not occur during the exercise.
- b. Municipal and county staffs will be prepared to brief the FEMA evaluator on actions to be taken should there be an impediment to evacuation on a designated route. This will be demonstrated as part of the municipal or county demonstrations. Risk Counties will receive an impediment inject from the FEMA Liaison. In the event there is no evacuation the criteria can be evaluated by interview.
- c. These municipal/regional police forces or traffic control personnel are (by county): N/A

Chester	Lancaster	York
Union Fire Company Station 21 – West Nottingham Twp.	N/A	N/A

5. Bureau of Radiation Protection

- a. FEMA evaluators will meet the field teams at the Department of Environmental Protection's South Central Office located at 909 Elmerton Avenue, Harrisburg, PA on April 17, 2018 at 1:00 p.m. to observe instrumentation checks and equipment inventory verification.

- b. FEMA evaluators will meet the R3V vehicle and field teams for the plume exercise at Rutter's Farm Store located at 2600 Delta Road, Brogue, PA.

B. Out-of-Sequence Activities

1. School Districts

Risk Public School Districts with schools located within the EPZ and those districts situated outside the EPZ, but with students living within the EPZ, will participate and be evaluated by FEMA. Each identified District Administration Office will be evaluated. When a school system is comprised of multiple buildings (High School, Middle School, Elementary School), the affected buildings (those with students from the EPZ) will be evaluated on a rotational basis to coincide with the eight-year exercise cycle.

Time: Out-of-Sequence

County	School District	Date / Time
Lancaster	Penn Manor	March 7 – 9:00 AM
Lancaster	Solanco	March 7 – 9:00 AM
Chester	Oxford	March 7 – 9:00 AM
York	Red Lion	March 7 – 9:00 AM
York	South Eastern	March 7 – 9:00 AM

Schools and School Districts			
COUNTY	SCHOOL DISTRICT	SCHOOLS (approx. 1/3 <sup>rd</sup> evaluated)	Evaluated
Chester	Oxford Area (5)	1. Jordan Bank/Elementary School * 2. Nottingham Elementary School * 3. Elk Ridge School * 4. <b>Penn's Grove Middle School</b> * 5. Oxford Area HS *	2008/14 2008/14 2002/10 2012/18 2010/16
Lancaster	Penn Manor (3)	1. <b>Martic Elementary</b> 2. Penn Manor High School * 3. Marticville Middle School *	2012/18 2008/14 2010/16
	Solanco (6)	1. Solanco High School 2. Swift Middle School 3. <b>Smith Middle School</b> 4. Quarryville Elementary School 5. Clermont Elementary School 6. Providence Elementary School *	2010/16 2008/14 2012/18 2008/14 2010/16 2010/16

<b>Schools and School Districts</b>			
<b>COUNTY</b>	<b>SCHOOL DISTRICT</b>	<b>SCHOOLS (approx. 1/3<sup>rd</sup> evaluated)</b>	<b>Evaluated</b>
York	South Eastern SD (5)	1. Fawn Elementary 2. <b>Delta / Peach Bottom Elementary</b> 3. SE Middle School (was East) 4. SE Intermediate School (was Middle West) 5. Kennard Dale High School	2010/16 2012/18 2010/16 2008/14 2008/14
York continued	Red Lion (4)	1. Red Lion Sr High * 2. Red Lion Jr High * 3. <b>Clearview Elementary *</b> 4. <b>Larry J. Macaluso Elementary *</b> 5. Pleasant View Elementary* 6. Windsor Manor Elementary*	2010/16 2008/14 2012/18 2012/18 NEW/14 NEW/16

Asterisks (\*) items indicate buildings not in EPZ – students may live in the EPZ

2. Traffic and Access Control Points

- a. PSP from all three county troop locations will be briefed at PSP York Barracks, located at 110 Trooper Court, York, Pennsylvania. Members attending the briefing will not actually deploy to the TCP/ACPs.
- b. The PSP briefing will be performed out-of-sequence in a demonstration window of 9:30 a.m. – 12:00 p.m. on April 18, 2018.

3. Reception Centers

<b>Reception Centers Locations April 18, 2018 – 7:00 p.m. to 9:30 p.m.</b>		
<b>COUNTY</b>	<b>LOCATION</b>	<b>EVALUATED</b>
Chester (1) *	<b>Octorara Middle School</b>	2010/18
Lancaster	<b>Lancaster County Career &amp; Technology Center</b>	2012/18
York (2)	<b>Red Lion Sr. High School<sup>o</sup></b> <b>Southern School Complex MS</b>	2012/18 2017 (TMI)

<sup>o</sup>Red Lion will exercise on March 6, 2018 from 7:00 p.m. to 9:00 p.m.

The asterisks (\*) indicate monitoring/decontamination center activities at the respective reception centers.

4. Mass Care Centers

<b>Mass Care Center Locations</b> <b>April 18, 2018 – 7:00 p.m. to 9:30 p.m.</b>		
<b>COUNTY</b>	<b>LOCATION</b>	<b>EVALUATED</b>
Chester (1)	<b>Octorara High School</b>	2010/18
Lancaster (3)	<p><b>*Penn Manor High School</b></p> <p><b>*<u>Manheim Township School Complex:</u></b>  Manheim Township MS  Manheim Township HS</p> <p><b>*<u>Lampeter Strasburg School Complex:</u></b>  Lampeter Strasburg High School  Lampeter Strasburg Martin Mylin Middle School  Lampeter Strasburg Hans Herr Elementary School</p> <p>Mass Care overflow capacity facilities include:  Hempfield Sr. High School  Franklin &amp; Marshall College  Manor Middle School  Conestoga Valley HS  Conestoga Valley MS  Garden Spot High &amp; Middle School Complex  Warwick HS  Warwick MS  Cocalico HS  Cocalico MS</p>	<p>2012/18-Monitoring and Decontamination  <b>EXEMPT</b>  2007/11 (TMI)</p> <p>2010/16</p> <p>2013 (TMI)  Walk-Down -2012  Walk-Down -2012  2011 (TMI)  2011 (TMI)  Walk-Down -2012  2011 (TMI)  2011 (TMI)  2011 (TMI)  2011 (TMI)</p>
York (2)	<p><b>*Red Lion School Complex:</b>  <b>Red Lion Sr High School</b>  <b>Red Lion Jr High School</b></p> <p><b>*<u>Southern School Complex:</u></b>  Southern Middle School  Susquehannock High School</p> <p>Mass Care overflow capacity facilities:  Spring Grove High &amp; Intermediate School Complex  Spring Grove Middle School  York County 4-H (people w/pets)  Dallastown High &amp; Middle School Complex</p> <p>Additional Mass Care overflow capacity facilities:  Southwestern High &amp; Markle Intermediate School Complex  Red Lion Fire Company</p>	<p>2012/18</p> <p>2005/11 (TMI)</p> <p>Walk-Down -2012  Walk-Down -2012  Walk-Down -2012  Walk-Down -2012</p> <p>Walk-Down -2012  Walk-Down -2012</p>

The asterisks (\*) indicate monitoring/decontamination center activities at their mass care centers.

°Red Lion will be demonstrating on March 6, 2018 from 7:00 p.m. to 9:00 p.m.

5. Emergency Worker Monitoring/Decontamination Station

Emergency Worker Monitoring/decontamination Station April 18, 2018 – 7:00 p.m. to 9:30 p.m.		
COUNTY	LOCATION	EVALUATED
Chester (1)	Penn's Grove Middle School	2012/18
Lancaster (1)	Lampeter Strasburg Field House	2016/18-Exempt
York (1)	Brogue Ambulance Company	2012/18

Emergency worker monitoring/decontamination station(s) for the risk county.



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To: Cecil County Department of Emergency Services, Director Richard Brooks

From: Mike McCardell/RSO/Sterilization Chief

Date: 8/8/2019

Subject: Emergency Drill "Radiation Exposure/Contamination Victim"

For the purpose of enhancing personnel through maximum preparedness, the Sterilization Department at Terumo Medical Corporation would like to schedule the annual emergency drill that will be conducted with the Cecil County Department of Emergency Services and Union Hospital. As part of our licensing agreement the Licensed Operators are required to participate in a yearly drill that would simulate an actual emergency event.

**Terumo's Responsibilities and Scenario:**

- Sterilization licensed operators are preparing to perform the annual pool cleaning.(ST035)(Operator did not follow procedure and tie off)
- With the pool cover open operator loses his footing and falls head first into the pool.
- The depth reached while under water is undetermined. He is able to reach the surface and with help is pulled from the water.
- Victim is assessed for injuries and surveyed for contamination with hand held survey meter with pancake probe. ( A <10micro curie check source will be utilized)
- DRD is removed and read but is off scale. Personnel dosimetry badge will be immediately sent to Mirion for evaluation.
- RSO Calls 911 informs the dispatcher that TMC is initiating the drill and describe the situation and expected exposure victim. A Terumo internal notification is sent to Facility Manager (Don Notigan) at 908-642-0192.
- RSO calls Union Hospital 443-406-1370 (Emergency Department Core Area) then; 410-620-3465 (Emergency Department Charge Nurse). RSO informs the operator that Terumo Medical is initiating the drill and describes the situation and the suspected exposure victim.
- RSO may contact RHP 410-537-3300 to let them know we are initiating the drill. Note: RHP will be notified prior to drill in the event they want to attend.
- RSO will follow SA013 Injury Response Procedure and notify appropriate supervisory personnel.
- EMS arrives and assesses situation.
- EMS personnel are given badges & DRD'S and logged in.
- Patient is prepared for transport and then transported to Union Hospital.
- An assigned associate from Terumo will go with the patient and stay until victims family members arrive.

**Union Hospitals Responsibilities:**

- Union hospital will provide medical assistance to patient per their procedures.



Exposure Drill -911 call initiated at 0900 hrs on 11/19/2019 with notifications to TMC Corporate Facility Manager, Charge and Core Nurses at Union Hospital, and MDE.

Mike McCardell  
RSO  
Terumo Medical Corporation

University of Maryland Upper Chesapeake Health  
Covid-19 Screening Program

**Mobile Testing**

**UM Upper Chesapeake Health is providing mobile testing for COVID-19 by appointment only.**

**Hours of operation:**

- Monday 10am - 2pm
- Wednesday 10am - 2pm
- Thursday 10am - 2pm
- Friday 10am - 2pm

**Testing rate: 75-100/day**

**Location:**

Forest Hill Vehicle Emissions Inspection Site  
1631 Robin Cir #3068  
Forest Hill, MD 21050

[Directions to VEIP](#)

**(Please note that mobile testing is dependent on the availability of testing supplies.)**

**Patient Criteria: Patients must meet criteria for testing in order for your doctor to order a COVID test. Here are the guidelines: <https://www.umms.org/coronavirus/test>**

*Prior to a testing appointment:*

- Patients **must** be screened by your primary care physician (PCP)
- If the patient does not have a PCP, he/she can be screened at a ChoiceOne Urgent Care Center in Aberdeen, Forest Hill or Fallston
- If it is determined that the patient should be tested for COVID-19, the PCP or health care provider will give enter an electronic lab order and call us to schedule the mobile testing/collection
- Patients are not able to self-schedule at this time

*On the day of testing appointment:*

- Patients should arrive at the testing location 15 minutes before your appointment time
- Patients should remain in the vehicle and keep all windows closed; our health care providers will direct patients to roll down windows when they are ready

- Our testing team will verify the patient's identity and confirm that the appointment as well as a lab order
- After the testing process, patients will be given information on how to isolate and limit exposure to others
- Test results will be sent to the ordering provider, likely the PCP (or ChoiceOne); UM UCH will not have access to your results; testing results generally take 3-7 days

If symptoms worsen and immediate care is required, patients should call the UMUCH Emergency Department team **before** coming to the hospital

UM Upper Chesapeake Medical Center Emergency Department: [443-643-2000](tel:443-643-2000)

UM Harford Memorial Hospital Emergency Department: [443-843-5500](tel:443-843-5500)

#### Site Map/ Lay Out:



**Forest Hill Emissions Testing Station**  
**1631 Robin Circle**  
**Forest Hill, MD 21050**

#### Data:

The UM UCH Covid Collection site can accommodate approximately 100 sample collections each day. This includes 80 scheduled collections and 20 same day "add on" cases for priority patients such as healthcare providers, EMS and Law Enforcement. At the conclusion of each operation, data is reported to the state health department using the smart sheet:

: <https://app.smartsheet.com/b/form/84d7bb15750c4e40ac8f5612dc977d9a>

## **PPE Supplies (COVID-19)**

- All PPE supplies for the Buddy and Patient Care Provider are located on unit
  - Additional supplies should be requested through Materials Management or Equipment Distribution
  - PAPRS and Hoods will be located outside of the patient's room.
  - An IV Pole is placed outside the patient's room hang PAPR motor and tubing on after use.
-

## **Prior to Donning PPE**

- Engage your Buddy
  - Plan your work to minimize in and out trips. Gather any needed supplies.
-

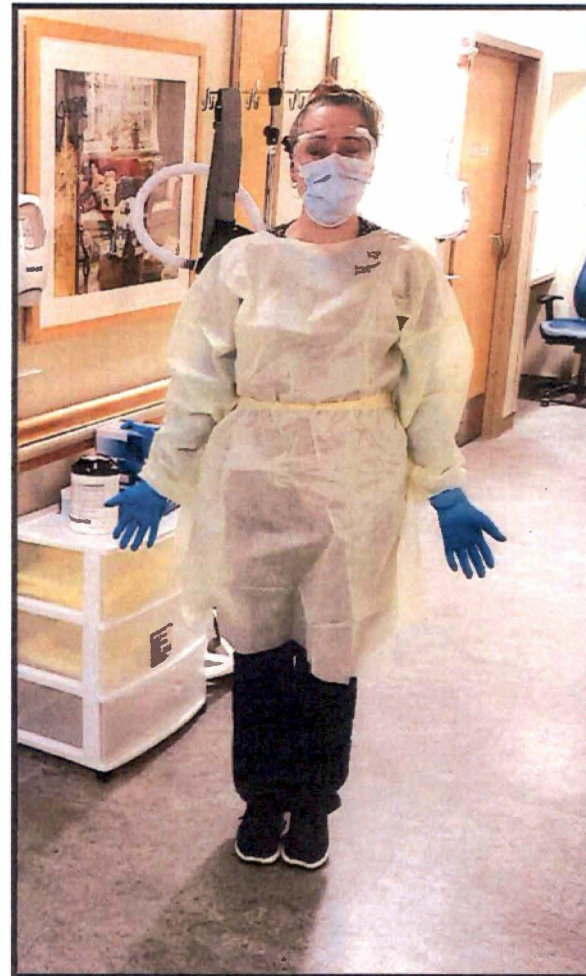


# **Buddy**

- PPE will include a mask, goggles, isolation gown and gloves.
  - Confirm that all PPE is serviceable and ready for use by the patient care provider.
  - Will not enter the patient room
  - Will be in the PPE removal area to observe and assist with removal of PPE
  - Does not participate in any patient care activities
-

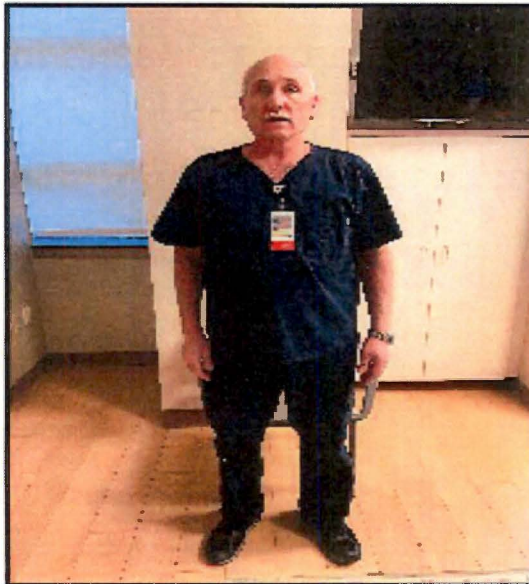
# **Buddy PPE**

- Isolation Gown
- Gloves
- Goggles
- Facemask



# **Donning PPE**

1. Remove all jewelry including watches, rings, and any other items that may tear gloves.



# **Donning PPE**

## 2. PPE Inspection / Process Review

- Ensure required PPE is available
- Visually inspect PPE to ensure that it is in serviceable condition
- Ensure correct sizes are selected for the Patient Care Provider
- Buddy reviews the sequence for putting on PPE with the Patient Care Provider
- Buddy assists Patient Care Provider to ensure proper donning.



# **Donning PPE**

## 4. Perform Hand Hygiene

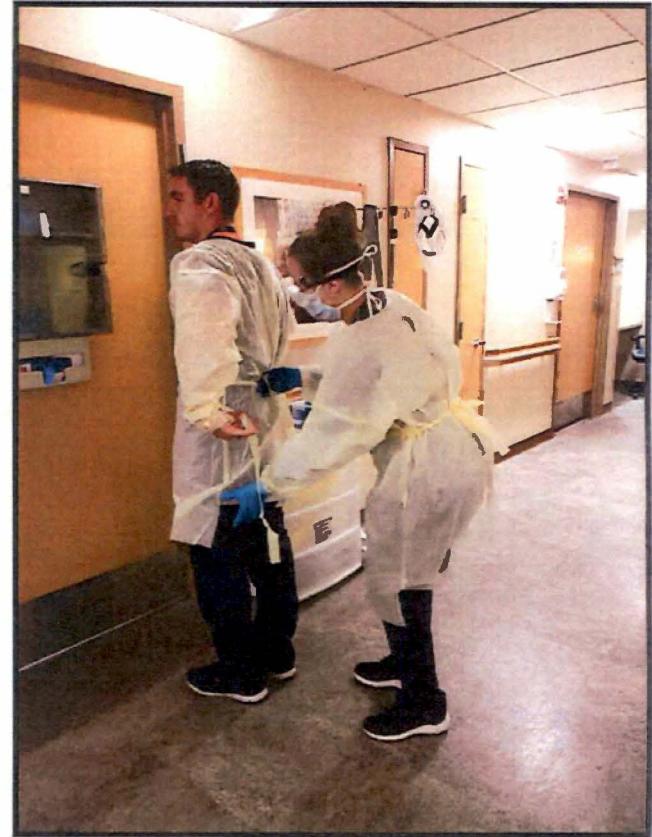




# **Donning PPE**

## 4. Put on Isolation Gown

- Put on Yellow Isolation Gown
- Place thumbs through the thumb holes
- Buddy will close the back and tie the gown



# **Donning PPE**

## 5. Put on Gloves

- Ensure cuffs of gloves are pulled over sleeves of gown
- Buddy will verify that the gloves are covering the cuff of the gown





# **Donning PPE**

## **6. PAPR Instructions:**

- If a new hood is used, peel off plastic film on the inside and outside of the hood.
  - Buddy will place the PAPR on the small of the back.
  - Patient Care Provider will secure external belt-mounted blower unit around waist and tighten to comfort
  - Buddy will tuck any loose belt away
  - Buddy attach PAPR hood air supply hose to PAPR motor
  - Turn on PAPR motor
  - Buddy confirms unit is on and air is on and flowing
  - Patient Care Provider places hood over head
-

# **Donning PPE**

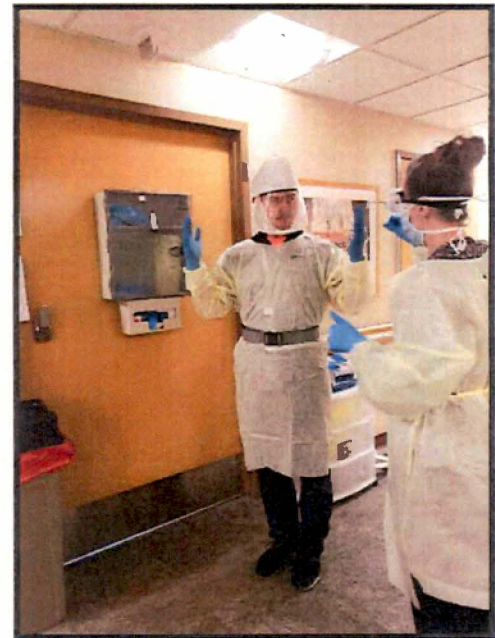
## 6. PAPR Instructions:



Patient Care Provider clips PAPR



Buddy will secure straps



Buddy will perform final inspection

# **Donning PPE**

## **7. Inspection**

- Verify the integrity of all PPE
- Ensure Patient Care Provider is comfortable and able to extend arms, bend at the waist, and move sufficiently so that appropriate areas of the body remain covered

# **Doffing PPE**

1. Notify your buddy that you are ready to exit the room.

- Patient Care Provider will open the patient's room door and enter the Warm Zone (Door way).
- Buddy will disinfect the PAPR hood.
- Buddy will visually inspect for any soiled areas and will have the patient care provider face the patient's room.



# **Doffing PPE**

## **2. Doffing Isolation Gown**

- Buddy will secure the PAPR and instruct the buddy to unclip the PAPR belt.
  - Patient Care Provider will now doff the gown by crossing their arms and pulling at the shoulders to break the neck portion of the gown and the buddy will pull the tie.
  - Roll the gown inside out using the inside of the gown to remove the gloves and place into a red trash bag in the patient room.
-



# **Doffing PPE**

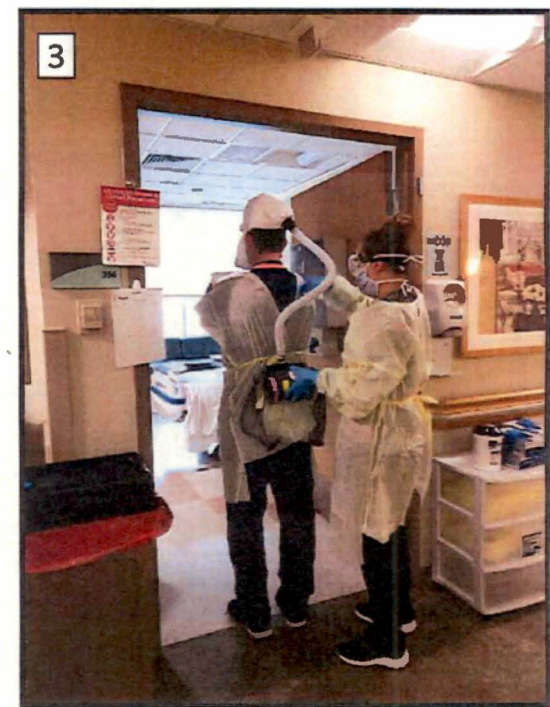
## 2.Doffing isolation gown



Patient Care Provider unclips PAPR



Patient Care Provider crosses arm



Patient Care Provider breaks neck portion

# **Doffing PPE**

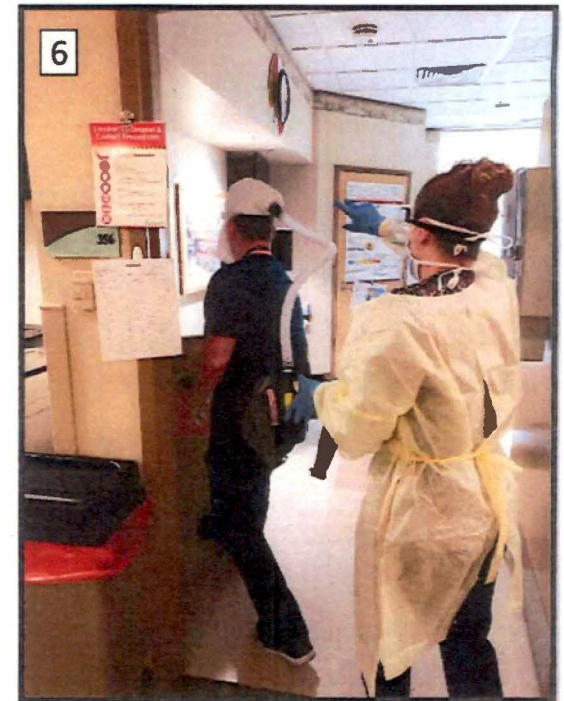
## 2. Doffing isolation gown



Patient Care Provider rolls gown inside out



Removing gloves with the inside of the gown



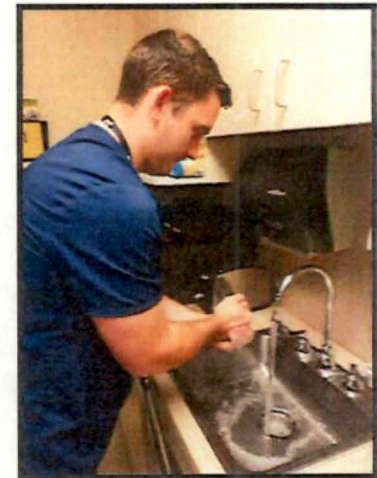
Places waste in a red bag inside the room



# **Doffing PPE**

## **3. PAPR removal**

- Buddy will have the Patient Care provider enter the cold zone and close the patient's door instructing the Patient Care Provider to conduct hand Hygiene.
- Buddy will secure the hood where the hose connects and remove the hood pulling it forward with one hand.
- Buddy will instruct the patient care provider to wash hands with soap and water.



# **Doffing PPE**

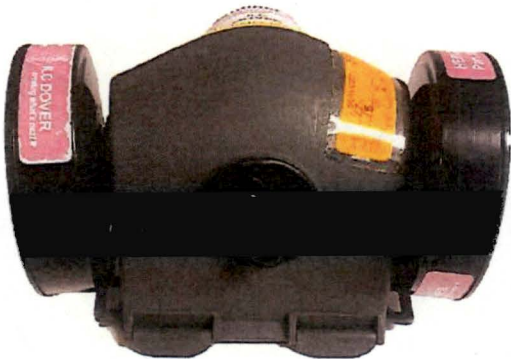
## 2. PAPR Disinfection

- Buddy will disinfect PAPR motor and tubing
- PAPR hood is disinfected with Purple Top wipes and can be reused

# Sentinel **XL** PAPR

## Ok to use

- Bottom plug must be present to ensure proper air flow and filtration.



## Not ok to use

- Do not use if plug is not present



**The PAPR Must be inspected before each use to include the bottom plug**

DATE: 5/23/19COURSE/MEETING: PBAPS Medical Drill  
TrainingLOCATION: Harford Memorial

NAME (Please Print)	ORGANIZATION	EMAIL ADDRESS
Annie Coccia	UCMC ER	acoccia@mail.ucts.org
Branca Mose	HMM ER	BMOSEK@mail.ucts.org
Tyler Cookley	HMM ER	tcookley1@mail.uchs.org
Christine Desser	HMM ED	S213cb@yahoo.com
Frederick Graham	H.M.H Security	fgraham@uchs.org
ERIK EATON	HMM/UCMC EDUCATION	eeaton1@uchs.org
Jennifer Thomas	UCMC FBP	JThomas@uchs.org
Dennis Campbell	UCMC ED	DCampbell3@uchs.org

DATE: 6/19/19

COURSE/MEETING: Peach Bottom Medical Drill

LOCATION: HMH

NAME (Please Print)	ORGANIZATION	EMAIL ADDRESS
Stephen Johnson	U of Md Harford Memorial ED	rankbull22@gmail.com
Bianca Moser	U of Md Harford Memorial Hospital	Bianca M @ Bellsouth.com
Robby Clarguette	Exelon - Radiation Protection	Robby.Clarguette@Exeloncorp.com
Paul Snodgrass	Exelon Radiation Protection	Paul.Snodgrass@exeloncorp.com
Ricky Workinger	EXELON RADIATION PROTECTION	RICKY.WORKINGER@EXELONCORP.COM
CAITLIN JACOBUS	EXELON RADIATION PROTECTION	CAITLIN.JACOBUS@EXELONCORP.COM
Dennis Campbell	Harford Memorial ED	EMCDMC@MSN.COM
Doug Striebig	Peach Bottom EP	doug.striebig@exelon.com
Julie McDonald	Peach Bottom EP	julie.mihm@exeloncorp.com

COURSE/MEETING: Perch Bottom Medical Drill LOCATION: HMH

COURSE/MEETING: Perch Bottom Medical Drill

LOCATION: H or H

[illegible]

DATE: 6/19/19

COURSE/MEETING: Perch Bottom Medical Dr. LOCATION: HMH

EMAIL ADDRESS

[illegible]



**Exhibit 2**

Letter from PEMA to Exelon Regarding Participation in the  
Peach Bottom 2020, Exercise, dated August 26, 2020



August 26, 2020

Mr. Nicholas Alexakos  
Exelon Mid-Atlantic EP Manager  
Exelon Corporation  
200 Exelon Way  
Kennett Square, Pennsylvania 19348

Dear Mr. Alexakos:

The Pennsylvania Emergency Management Agency (PEMA) has received letters from the Peach Bottom Atomic Power Station (PBAPS) risk and support counties regarding their federally-evaluated Plume Exercise scheduled for Tuesday, December 8, 2020. Their letters express concerns on conducting an exercise during the COVID-19 pandemic. PEMA would like to request a waiver from the Nuclear Regulatory Commission (NRC), on behalf of the risk and support counties and offsite response organizations from the PBAPS Plume Exercise in accordance with 10 CFR 50, Appendix E, Paragraph F.2.c, *"offsite plans for each site shall be exercised biennially with full participation by each offsite authority having a role under the radiological response plan. Where the offsite authority has a role under a radiological response plan for more than one site, it shall fully participate in one exercise every two years and shall at least, partially participate in other offsite plan exercises in this period. If two different licensees each have licensed facilities located either on the same site or on adjacent, contiguous sites, and share most of the elements defining co-located licensees, then each licensee shall..."*

Plant	Date Scheduled	Last Plume Exercise
Peach Bottom Atomic Power Station	12/08/2020*	04/17/2018

\*Rescheduled from 04/21/2020

We offer the following specific points in support of our waiver request:

- Ongoing Pandemic** - The COVID-19 pandemic remains a significant threat and the nation remains under a Public Health Emergency which was originally declared by the US Secretary of Health and Human Services on January 31 and renewed on April 21 and again on July 25. In the Commonwealth, as of the date of this correspondence we have a total of 129,048 cases of COVID-19 since the crisis began. Pennsylvania currently ranks #12 in the nation in case counts, and we continue to add hundreds of new cases each day despite the mitigation attempts that remain in place and continued public emphasis on universal use of face coverings/masks, hygiene practices, social distancing and other limitations on gathering size and indoor occupancy limits. We are not confident exercises can be safely conducted in the remaining months of 2020 without further spreading the virus or jeopardizing the lives of those involved in response operations from the off-site response organizations (OROs). Based on current trends and the potential for a resurgence this fall along with flu season there remains a strong possibility that this pandemic will continue well into calendar year 2021.

2. **Pandemic Related Impacts Affecting the Ability to Adequately Conduct Exercises** - Exercises are designed to practice plans, demonstrate capabilities, and be beneficial for the players, observers, and evaluators alike. Currently, it is a severe hardship for most OROs to adequately demonstrate capabilities through an exercise. Government buildings and municipal emergency operation centers (EOCs) are closed or restricted to visitors, and many individuals continue to work from home which has been strongly encouraged by the Governor. Additionally, many emergency workers who support nuclear power plant exercises are volunteers who continue to commit time and resources to current response activities such as feeding programs and protective equipment distribution. Many of the volunteers who assist the REPP are retired emergency services or power plant personnel whose age group and potential pre-existing health issues leaves them more susceptible to developing severe complications if they would acquire COVID-19. Virtual capabilities are limited in many of the municipalities and in-person training has been at a standstill due to social distancing and gathering restrictions imposed by the Pennsylvania Governor's Office and Department of Health (DOH). Conducting an exercise during these current conditions would not be beneficial to anyone but would likely put people in harm's way unnecessarily. Just one person contracting COVID-19 and possibly dying due to an exercise is something Pennsylvania will not condone.
3. **Travel, Gathering and Budget Restrictions Impacting Ability to Adequately Conduct Exercises** - Various restrictions remain in place to limit the spread of COVID-19 or because of the financial impacts related to the COVID-19 crisis that would limit the ability to conduct exercises. The information below outlines some of those restrictions and impacts.
  - **Travel Restrictions** - Per the Governor's Office, Pennsylvania state employees are not permitted to travel unless it is deemed necessary. PEMA and the Department of Environmental Protection's (DEP) Bureau of Radiation Protection (BRP) does not know when this restriction will be lifted or if exercise travel requests would be approved. PEMA has concerns with sending staff to multiple locations for an exercise. Some of the exercises involve a significant amount of agency personnel and would potentially unnecessarily risk exposure to COVID-19 since they may be conducting exercises in counties with active COVID-19 outbreaks and community transmission of the virus. Additionally, any FEMA evaluators traveling from outside of the Commonwealth may be subject to a 14-day self-isolation period if travelling from a known hot-spot state. The list of hot-spot states is updated weekly by DOH, so this may adversely impact the ability for evaluators to evaluate specific exercise components on short notice.
  - **Budget/Financial Restrictions** - Commonwealth employees are not permitted to expend costs at this time unless deemed necessary and pre-approved because of state budget impacts associated with the COVID-19 crisis. Though the REPP is funded by Act 147, requests still need to be approved by the Governor's Office. Without approval, PEMA and BRP employees cannot travel, attend or conduct training, or acquire lodging.

- **Gathering Limitations/Restrictions** – Currently event or gathering size is limited to 25 individuals for indoor environments which would impact the ability to conduct in-person or hands-on training, exercises, or conduct demonstrations of specific response procedures.
4. **Previous Exercise History** – PBAPS Emergency Planning Zone (EPZ) had successful demonstrations during their last three exercises within the eight-year cycle as per their After-Action Report (AAR) written by FEMA. PBAPS has three risk counties (Chester, Lancaster, and York) who participated during the Three Mile Island (TMI) Generating Station federally-evaluated plume exercise conducted on May 7, 2019, and Limerick Generating Station (LGS) federally-evaluated plume exercise conducted on November 19, 2019.
  5. **Recent EOC Activations for Risk and Support Counties** - The EOCs for all the risk and support counties for PBAPS EPZ have been activated at some point and to some degree for multiple operational periods since March 2020 in response to one or more incidents involving the COVID-19 pandemic, civil disturbances associated protests, or demonstrations that turned violent, or severe weather. In addition to activations for COVID-19 pandemic these incidents include the following:
    - May 31 – Civil disturbance, riots and looting that impacted Philadelphia, Montgomery, Chester, Delaware and Allegheny counties.
    - June 4 – Severe storms and derecho that affected Philadelphia, Montgomery, Chester, Delaware, Berks and Bucks counties causing significant wind damage and power outages that lasted for numerous days and involved critical infrastructure/facilities.
    - August 4 - Tropical Storm Isaias which caused flash flooding, power outages and numerous road closures in the southeast counties. Chester County specifically had an evacuation route blocked by wires and trees which resulted in their EOC having to devise an alternate route and communicate that to the municipalities until it was cleared.

As you can see from the above information, all risk and support counties have demonstrated their ability to rapidly implement and adapt their all-hazards Emergency Operations Plans (EOPs), as needed, to respond and recover from multiple impacts within the last six months as well as remain ready and able to respond as needed to any incident at a nuclear power plant in their jurisdiction. Many of these real-world responses have been complicated by the COVID-19 crisis which has created a complex operating environment. Even while responding to the pandemic and other emergencies, the risk and support counties have been in constant communication with their respective REP Off-site Planner regarding their ability to respond should a real-world radiological incident occur.

In closing, the pandemic remains a dynamic, challenging and complex situation that requires early intervention and strict adherence to mitigation procedures when subtle changes are realized in key metrics. As we have seen in other states recently, it only takes a short time to have exponential growth in case counts when mitigation procedures are not strictly followed, and community transmission of the virus occurs. Any unnecessary events that could potentially expose individuals to COVID-19 or propagate further transmission of the virus should be scrutinized and heavily weighed against the need to conduct them. While we have evaluated the potential of requesting exemption for exercises up until 35 months

Mr. Nicholas Alexakos  
August 26, 2020  
Page 4

from the previous evaluated biennial exercise, we feel that approach is not addressing the issue and only serves to delay the exercise further with no guarantee that we will be able to conduct them within the specified time frame. We very well may be in the same predicament in 2021. Instead of using a wait and see approach, we strongly urge you to let us give our OROs peace of mind to focus on the real-world pandemic at hand and save our energy and resources to support them when needed.

Enclosed you will find supporting documentation received from off-site response organizations. Should you have any questions or concerns, please contact Mr. Stephen Bekanich, Deputy Director for Preparedness, at 717-651-2231 or via email at sbekanich@pa.gov.

Sincerely,



David R. Padfield  
Director, PA Emergency Management Agency

Enclosures:

PBAPS After-Action Report from FEMA  
Relief from the Frequency Requirements Letter and Framework  
PBAPS Letters

cc: Mr. Glenn Fehring, Exelon Corporation  
Mrs. Sara Reese, Exelon Corporation

**Exhibit 3**

Letter from the County of Chester to PEMA Regarding Participation in the Peach  
Bottom 2020 Exercise, dated August 10, 2020



# THE COUNTY OF CHESTER



COMMISSIONERS  
Marian D. Moskowitz  
Josh Maxwell  
Michelle Kichline

DEPARTMENT OF EMERGENCY SERVICES  
Government Services Center  
601 Westtown Road, Suite 012  
West Chester, PA 19380-0990  
(610) 344-5000 • Fax (610) 344-5050  
[www.chesco.org/des](http://www.chesco.org/des)  
Michael P. Murphy Jr., Director

10 August 2020

Director Mr. David R. Padfield  
Pennsylvania Emergency Management Agency  
1310 Elmerton Avenue  
Harrisburg, PA 17110

Dear Mr. Padfield,

This request for exercise cancellation is based on previously accomplished exercise obligations through full participation and evaluation during the Limerick Generating Station (LGS) Biennial Exercises and within the 2019/2020 biennial exercise cycle. In addition given the rapid changes to the COVID-19 event, Chester County EOC will be locked down to outside visitors and activated at various times in response to the ongoing COVID-19 event making evaluation of our RERP exercise impractical. As such, Chester County would like have the FEMA Evaluated Peach Bottom Atomic Power Plant cancelled for Chester County. The County of Chester performed successfully in last year's Limerick exercise and had demonstrated strengths. Included in those strengths is that the county maintains a copy of all municipal plans and could, when required by an emergency, cover the local municipalities if they were unable to open there EOC or were in transit to their relocation site.

Furthermore, the county has enough radiological officers to be able to dispatch to local municipalities to give radiological briefings to local responders. All of the dosimetry and KI is distributed from the county already. As such we would request the West Nottingham Township be included in this cancellation request. West Nottingham Township EOC was activated for the Freedom Fest in July 2019 and partial activation for the COVID-19 event, by supporting first responders and health care personnel in requesting equipment needed to provide emergency services to the citizens of West Nottingham.

Respectfully Submitted,

*William H. Turner*

William H. Turner  
Deputy Director for Emergency Management

*The Mission of the Department of Emergency Services is to promote and assist in providing safety and security to Chester County citizens so they can work, live, and grow in a healthy and safe community.*



**Exhibit 4**

**Letter from the County of Lancaster, Emergency Management  
Agency, to PEMA Regarding Participation in the  
Peach Bottom 2020 Exercise, dated August 10, 2020**



## Emergency Management Agency

P.O. Box 219  
Manheim, PA 17545-0219  
Phone: 717-664-1200  
800-808-5236  
Fax: 717-664-1235  
www.lancema.us

### County Commissioners

Joshua G. Parsons  
Ray D'Agostino  
Craig E. Lehman

### Director

Philip A. Colvin

Date: Monday, August 10, 2020

From: Benjamin Herskowitz  
Radiological Planner/Trainer  
Lancaster County Emergency Management Agency

To: Mr. David R. Padfield  
Director  
Pennsylvania Emergency Management Agency

*Via Electronic Mail*

Subject: PBAPS Exercise Exemption

Director Padfield,

Due to the Governor and Health Secretary's restrictions/precautions related to COVID-19 event, the Lancaster County EOC will be limited access to outside visitors making evaluation of our RERP exercise impractical. Additionally most municipal EOCs are so small that social distancing is not possible while full staffing for an exercise or event. As such, Lancaster County would like have an exemption from demonstrating all required actions for the Peach Bottom Atomic Power Station Exercise. The County of Lancaster performed successfully in last year's TMI exercise and had demonstrated strengths.

Included in those strengths is the county maintains a copy of all municipal plans and could, when required by an emergency, cover the local municipalities if they were unable to open their EOC or were in transit to their relocation site. Furthermore, the county has enough radiological officers to be able to dispatch to local municipalities to give radiological briefings to local responders. All of the dosimetry and KI is distributed from the county already. As such we would request the municipalities be included in this exemption request.

Respectfully Submitted

Benjamin Herskowitz



**Exhibit 5**

Letter from the County of York, Department of Emergency Services,  
Office of Emergency Management, to PEMA Regarding Participation in the  
Peach Bottom 2020 Exercise, dated August 13, 2020

# THE COUNTY OF YORK

BOARD OF COMMISSIONERS  
JULIE WHEELER, PRESIDENT  
DOUG HOKE, VICE PRESIDENT  
RON SMITH, COMMISSIONER



SOLICITOR  
MICHELLE POKRIFKA  
ADMINISTRATOR  
MARK DERR

**Department of Emergency Services  
Office of Emergency Management  
Michael L. Fetrow  
Director**

August 13, 2020

Mr. David Padfield, Director  
Pennsylvania Emergency Management Agency  
1310 Elmerton Avenue  
Harrisburg, PA 17110

Dear Director Padfield,

As York County continues to respond and recover from the COVID-19 public health emergency, we have shifted our focus to significant issues regarding this situation. The Federal Evaluation of the 2020 re-scheduling of the Peach Bottom Atomic Power Station exercise, should be cancelled. Our EOC, paid and volunteer staff were evaluated in May of 2019 for TMI and successfully played out the exercise and should be credited for that exercise.

Our priority is to, still assist our emergency responders, skilled nursing facilities, personal and assisted care facilities, school districts and county government as we work through this public health crisis. Our Department of Emergency Services facility that is home to 9-1-1 and the Office of Emergency Management is still and will be on so called, "Lock Down" for meetings and closed to the public. We can't risk outsiders coming in with any chance of exposing our dedicated dispatchers and staff to COVID-19.

Our staff still works with the risk municipalities in the Peach Bottom EPZ on planning and guidance, should an emergency be declared at the plant during the current public health situation. The three EOC's that would activate have seasoned staff that have been part of numerous power plant exercises. Also, being rural areas with small facilities to facilitate an EOC, social distancing could be an issue. Remember these are volunteers and their health and safety are of the utmost importance.

As you know York County OEM participates in a nuclear power plant exercise each year and I can assure that if a real world incident would actually happen at either one of the plants that York County would be able to activate and respond to the incident.

We ask for your assistance in making our concerns known with our federal partners to credit York County and waive for the 2020 Peach Bottom Federally evaluated exercise.

Regards,

Mike Fetrow  
Director

**Exhibit 6**

**Letter from Pennsylvania Emergency Management Agency  
to FEMA, Region III, Regarding Participation in Peach  
Bottom 2020 Exercise, dated August 21, 2020**



**pennsylvania**  
EMERGENCY MANAGEMENT AGENCY

August 21, 2020

Ms. Lilian Hutchinson  
Acting Regional Assistance Chair  
Federal Emergency Management Agency, Region III  
One Independence Mall, Sixth Floor  
615 Chestnut Street  
Philadelphia, Pennsylvania 19106

Dear Ms. Hutchinson:

The Pennsylvania Emergency Management Agency (PEMA) has received the Federal Emergency Management Agency's (FEMA) *Framework for Processing Relief from Frequency Requirements Radiological Emergency Preparedness Program (REPP) Exercises*, dated July 23, 2020. After reviewing the framework and available options PEMA would like to request cancellation of the three plume federally-evaluated exercises listed in the table below scheduled for 2020 due to hardships created by the current COVID-19 crisis affecting the nation. This request is based on the specific requirements and definitions contained in the framework memo under section 2.b.

Plant	Date Scheduled	Last Plume Exercise	Last Ingestion Exercise
Susquehanna Steam Electric Station	10/20/2020	10/16/2018	N/A
Beaver Valley Power Station	11/10/2020*	06/12/2018	03/12/2019
Peach Bottom Atomic Power Station	12/08/2020**	04/17/2018	N/A

\*Rescheduled from 06/09/2020

\*\*Rescheduled from 04/21/2020

We offer the following specific points in support of our request:

- Ongoing Pandemic** - The COVID-19 pandemic remains a significant threat and the nation remains under a Public Health Emergency which was originally declared by the US Secretary of Health and Human Services on January 31 and renewed on April 21 and again on July 25. In the Commonwealth, as of the date of this correspondence we have a total of 126,940 cases of COVID-19 since the crisis began. Pennsylvania currently ranks #12 in the nation in case counts, and we continue to add hundreds of new cases each day despite the mitigation attempts that remain in place and continued public emphasis on universal use of face coverings/masks, hygiene practices, social distancing and other limitations on gathering size and indoor occupancy limits. We are not confident exercises can be safely conducted in the remaining months of 2020 without further spreading the virus or jeopardizing the lives of those involved in response operations from the off-site response organizations (OROs). Based on current trends and the potential for a resurgence this fall along with flu season there remains a strong possibility that this pandemic will continue well into calendar year 2021.

2. **Pandemic Related Impacts Affecting the Ability to Adequately Conduct Exercises** - Exercises are designed to practice plans, demonstrate capabilities, and be beneficial for the players, observers, and evaluators alike. Currently, it is a severe hardship for most OROs to adequately demonstrate capabilities through an exercise. Government buildings and municipal emergency operation centers (EOCs) are closed or restricted to visitors, and many individuals continue to work from home which has been strongly encouraged by the Governor. Additionally, many emergency workers who support nuclear power plant exercises are volunteers who continue to commit time and resources to current response activities such as feeding programs and protective equipment distribution. Many of the volunteers who assist the REPP are retired emergency services or power plant personnel whose age group and potential pre-existing health issues leaves them more susceptible to developing severe complications if they would acquire COVID-19. Virtual capabilities are limited in many of the municipalities and in-person training has been at a standstill due to social distancing and gathering restrictions imposed by the Pennsylvania Governor's Office and Department of Health (DOH). Conducting an exercise during these current conditions would not be beneficial to anyone but would likely put people in harm's way unnecessarily. Just one person contracting COVID-19 and possibly dying due to an exercise is something Pennsylvania will not condone.
3. **Travel, Gathering and Budget Restrictions Impacting Ability to Adequately Conduct Exercises** - Various restrictions remain in place to limit the spread of COVID-19 or because of the financial impacts related to the COVID-19 crisis that would limit the ability to conduct exercises. The information below outlines some of those restrictions and impacts.
  - **Travel Restrictions** - Per the Governor's Office, Pennsylvania state employees are not permitted to travel unless it is deemed necessary. PEMA and the Department of Environmental Protection's (DEP) Bureau of Radiation Protection (BRP) does not know when this restriction will be lifted or if exercise travel requests would be approved. PEMA has concerns with sending staff to multiple locations for an exercise. Some of the exercises involve a significant amount of agency personnel and would potentially unnecessarily risk exposure to COVID-19 since they may be conducting exercises in counties with active COVID-19 outbreaks and community transmission of the virus. Additionally, any FEMA evaluators traveling from outside of the Commonwealth may be subject to a 14-day self-isolation period if travelling from a known hot-spot state. The list of hot-spot states is updated weekly by DOH, so this may adversely impact the ability for evaluators to evaluate specific exercise components on short notice.
  - **Budget/Financial Restrictions** - Commonwealth employees are not permitted to expend costs at this time unless deemed necessary and pre-approved because of state budget impacts associated with the COVID-19 crisis. Though the REPP is funded by Act 147, requests still need to be approved by the Governor's Office. Without approval, PEMA and BRP employees cannot travel, attend or conduct training, or acquire lodging.



- **Gathering Limitations/Restrictions** – Currently event or gathering size is limited to 25 individuals for indoor environments which would impact the ability to conduct in-person or hands-on training, exercises, or conduct demonstrations of specific response procedures.
4. **Previous Exercise History** - All three Emergency Planning Zones (EPZs) had successful demonstrations during their last three exercises within the eight-year cycle as per their After-Action Report (AAR) written by FEMA. PBAPS has three risk counties (Chester, Lancaster, and York) who participated during the Three Mile Island (TMI) Generating Station federally-evaluated plume exercise conducted on May 7, 2019, and Limerick Generating Station (LGS) federally-evaluated plume exercise conducted on November 19, 2019. BVPS EPZ, which exercises 100 percent of their risk and support counties (Allegheny, Beaver, Butler, Lawrence, and Washington) and municipalities every exercise, last conducted a plume exercise on June 12, 2018. BVPS also participated in an IPX on March 12, 2019, that included not only the risk and support counties but also a total of seven ingestion counties (Armstrong, Clarion, Fayette, Greene, Mercer, Venango, and Westmoreland) along with the state of West Virginia.
  5. **Recent EOC Activations for Risk and Support Counties** - The EOC's for all the risk and support counties for all three EPZs have been activated at some point and to some degree for multiple operational periods since March 2020 in response to one or more incidents involving the COVID-19 pandemic, civil disturbances associated protests, or demonstrations that turned violent, or severe weather. In addition to activations for COVID-19 pandemic these incidents include the following:
    - May 31 – Civil disturbance, riots and looting that impacted Philadelphia, Montgomery, Chester, Delaware and Allegheny counties.
    - June 4 – Severe storms and derecho that affected Philadelphia, Montgomery, Chester, Delaware, Berks and Bucks counties causing significant wind damage and power outages that lasted for numerous days and involved critical infrastructure/facilities.
    - June 11 - Severe storms which caused significant flooding in Schuylkill County and a tornado in Beaver County.
    - August 4 - Tropical Storm Isaias which caused flash flooding, power outages and numerous road closures in the southeast counties. Chester County specifically had an evacuation route blocked by wires and trees which resulted in their EOC having to devise an alternate route and communicate that to the municipalities until it was cleared.

As you can see from the above information, all risk and support counties have demonstrated their ability to rapidly implement and adapt their all-hazards Emergency Operations Plans (EOPs), as needed, to respond and recover from multiple impacts within the last six months as well as remain ready and able to respond as needed to any incident at a nuclear power plant in their jurisdiction. Many of these real-world responses have been complicated by the COVID-19 crisis which has created a complex operating environment. Even while responding to the pandemic and other emergencies, the risk and support counties for all five nuclear power plant emergency planning zones have been in constant communication with their respective REP Off-site Planners regarding their ability to respond should a real-world radiological incident occur.

Ms. Lilian Hutchinson  
August 21, 2020  
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In closing, the pandemic remains a dynamic, challenging and complex situation that requires early intervention and strict adherence to mitigation procedures when subtle changes are realized in key metrics. As we have seen in other states recently, it only takes a short time to have exponential growth in case counts when mitigation procedures are not strictly followed, and community transmission of the virus occurs. Any unnecessary events that could potentially expose individuals to COVID-19 or propagate further transmission of the virus should be scrutinized and heavily weighed against the need to conduct them. While we have evaluated the potential of requesting relief for exercises up until 35 months from the previous evaluated biennial exercise, we feel that approach is not addressing the issue and only serves to delay the exercises further with no guarantee that we will be able to conduct them within the specified time frame. We very well may be in the same predicament in 2021. Instead of using a wait and see approach, we strongly urge you to let us give our OROs peace of mind to focus on the real-world pandemic at hand and save our energy and resources to support them when needed.

Enclosed you will find supporting documentation received from off-site response organizations. Should you have any questions or concerns, please contact Mr. Stephen Bekanich, Deputy Director for Preparedness, at 717-651-2231 or via email at sbekanich@pa.gov.

Sincerely,



David R. Padfield  
Director, PA Emergency Management Agency

Enclosures

Relief from the Frequency Requirements Letter and Framework  
BVPS Letters  
PBAPS Letters  
SSES Letters

cc: Mr. David Allard, PA Department of Environmental Protection, Bureau of Radiation Protection  
Mr. Joseph Suders, Federal Emergency Management Agency, Region III

**ATTACHMENT 3**

Peach Bottom Atomic Power Station, Units 1, 2, and 3  
Docket Nos. 50-171, 50-277, 50-278, and 72-29

Request for Exemption  
Related to 10 CFR 50, Appendix E, Section IV.F.2.c

FEMA Evaluation Report for 2018 PBAPS EP Exercise



# PEACH BOTTOM ATOMIC POWER STATION

## After Action Report/ Improvement Plan

Exercise Date – April 17, 2018

Radiological Emergency Preparedness (REP) Program



**FEMA**

*Published July 12, 2018*

Unclassified  
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Peach Bottom Atomic Power Station

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# Peach Bottom Atomic Power Station After Action Report/Improvement Plan

*Published July 12, 2018*

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## EXECUTIVE SUMMARY

On April 17, 2018, a full-scale Plume Exposure Pathway exercise was demonstrated and evaluated for the 10 Mile Emergency Planning Zone (EPZ) around the Peach Bottom Atomic Power Station (PBAPS) by the Federal Emergency Management Agency (FEMA), Region III. The previous full-scale exercise at this site was evaluated on April 27, 2016.

Out-of-Sequence demonstrations were conducted during March and April, 2018. 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) to protect the property and lives of residents and transients in the event of an emergency at PBAPS. The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region III 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, two Level 2 Findings (one successfully re-demonstrated), and no Planning Issue. All prior Performance and Planning Issues were resolved during the previous 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 Planning 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 many individuals in the Commonwealth of Pennsylvania and the risk jurisdictions; Chester, Lancaster, and York Counties. FEMA also wishes to acknowledge the State of Maryland and the risk jurisdictions of Harford and Cecil Counties. 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 were evident during the exercise.



## SECTION 1: EXERCISE OVERVIEW

### 1.1 Exercise Details

**Exercise Name**

Peach Bottom Plume Exercise

**Type of Exercise**

Plume

**Exercise Date**

April 17, 2018

**Program**

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

**Scenario Type**

Plume Exposure Pathway

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### 1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Peach Bottom Atomic Power Station exercise:

#### State Jurisdictions

##### State of Maryland

- Governor's Office of Homeland Security
- Maryland Army National Guard
- Maryland Association of Soil Conservation Districts
- Maryland Attorney General's Office
- Maryland Department of Agriculture
- Maryland Department of Disabilities
- Maryland Department of Environment
- Maryland Department of General Services
- Maryland Department of Health
- Maryland Department of Human Services
- Maryland Department of Information Technologies
- Maryland Department of Transportation

- Maryland Emergency Management Agency
- Maryland Institute for Emergency Services System
- Maryland Joint Operations Center
- Maryland Natural Resources Police
- Maryland Public Service Commission
- Maryland State Highway Administration
- Maryland State Police
- Maryland Technology Assistance Program

### **Risk Jurisdictions**

#### **Cecil County**

- Cecil County, Agriculture Division
- Cecil County Department of Emergency Services
- Cecil County Department of Social Services
- County Public Information Officer
- Cecil County Emergency Management
- Cecil County, Hazmat Team
- Cecil County Health Department
- Cecil County, Social Services
- Cecil County Public Schools
- Cecil County Public Schools – Transportation
- Cecil County Sheriff's Office
- Cecil County Soil Conservation District
- County Executive/ Administration
- Cecil County Community Fire Company of Perryville
- Cecil County Radio Amateur Civil Emergency Services
- Rising Sun Volunteer Fire Company
- Turumo Division
- 

#### **Harford County**

- City of Havre de Grace Police Department
- Delmarva Power
- Exelon Corporation
- Harford County 911 Center
- Harford County Administrative Offices
- Harford County Agriculture Division
- Harford Community Services
- Harford County Chaplain Services
- Harford County Department of Emergency Services
- Harford County Department of Health
- Harford County Department of Public Works
- Harford County Emergency Services
- Harford County Fire and EMS Association

- Harford County Hazmat/Rad Officer
- Harford County Hospitals
- Harford County Human Resources
- Harford County Office of Mental Health
- Harford County Office of Community and Economic Development
- Harford County Public Information Officer
- Harford County Public Schools – Transportation
- Harford Radio Amateur Civil Emergency Services
- Harford County Sheriff's Office
- Harford County Social Services
- Harford County Transit
- Howard County (observer)
- Maryland Emergency Management Agency
- Maryland Department of Health
- Town of Bel Air Police Department
- Whiteford Volunteer Fire Company

**Commonwealth of Pennsylvania,**

- Commonwealth Response Coordination Center Staff
- Nuclear Regulatory Commission
- Pennsylvania Criminal Intelligence Center
- Pennsylvania Department of Aging
- Pennsylvania Department of Agriculture
- Pennsylvania Department of Corrections
- Pennsylvania Department of Drug and Alcohol
- Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection
- Pennsylvania Department of Health
- Pennsylvania Department of Human Services
- Pennsylvania Department of Labor and Industry
- Pennsylvania Department of Military and Veterans Affairs
- Pennsylvania Department of Revenue
- Pennsylvania Department of Transportation
- Pennsylvania Fish and Boat Commission
- Pennsylvania Game Commission
- Pennsylvania Public Utilities Commission
- Pennsylvania State Police
- Pennsylvania Department of Environmental Protection
- Pennsylvania Department of Military and Veterans Affairs
- Pennsylvania Department of Transportation
- Pennsylvania Insurance Department
- Pennsylvania State Police

## **Risk Jurisdictions**

### **Chester County EOC**

- Chester County Amateur Radio Emergency Services (ARES)
- Chester County Department of Emergency Services
- Chester County Department of Emergency Services, 911 Center
- Chester County Department of Emergency Services, Facilities Department
- Chester County Department of Emergency Services, Technical Division
- Chester County FIRST/Private Sector
- Chester County Sheriff's Office
- Chester County Amateur Radio Emergency Service/Radio Amateur Civil Emergency Service
- Pennsylvania Emergency Management Agency Office of the State Fire Commissioner
- Chester County HazMat
- Chester County, Cochranville Station 27 Fire Company
- Chester County, Union Fire Company Emergency Medical Services
- West Nottingham Police Department
- West Nottingham Township Emergency Management Agency
- West Nottingham Township Public Works
- West Nottingham Township Supervisor
- Chester County Hazmat Team
- Union Fire Company

### **Lancaster County**

- Amateur Radio Emergency Services Group (ARES)
- Exelon Corporation
- Lancaster County Office of Emergency Management
- Lancaster County Clerk
- Lancaster County Commissioner Office
- Lancaster County Emergency Management
- Lancaster County Hazmat 2
- Lancaster County HazMat Station #2
- Lancaster Countywide Communications
- Lancaster Sherriff Office
- Lancaster County Wide Communications (911 Center)
- Lancaster County, Penn Manor School District
- Lancaster County, Martic Elementary School
- Pennsylvania Emergency Management Agency
- Pennsylvania National Guard
- Pennsylvania State Police
- Drumore Constables Office
- Drumore Emergency Management
- Drumore Road Crew

- Elizabethtown Emergency Management Agency
- Rawlinsville Volunteer Fire Department

**York County**

- Dover Township Emergency Management Agency
- Delta-Peach Bottom Emergency Management Agency
- Delta-Cardiff Volunteer Fire Company
- Citizens Volunteer Fire company of Fawn Grove
- Fairview Township Emergency Management Agency
- Pennsylvania Department of Transportation
- Pennsylvania Emergency Management Agency
- Pennsylvania State Police Loganville Barracks
- Radio Amateur Civil Emergency Service (RACES)
- Red Lion Emergency Management Agency
- Red Lion School District
- South Central Task Force (Amateur Radio)
- United States Department of Agriculture
- York ARES/RACES SkyWarn Organization
- York County Office of Emergency services
- York County 9-1-1
- York County Sheriff's Office
- York County Planning Commission
- York County American Red Cross
- York County, Southeastern School District
- Fawn Township Emergency Management Agency
- Lower Chanceford Township Emergency Management Agency
- Lower Chanceford Township Supervisor (elected)
- Emergency Worker M/D Brogue Ambulance Company
- York County Hazardous Materials Team
- York County Department of Emergency Services
- Airville Volunteer Fire Department
- New Bridgeville Memorial Fire Department
- Southern York EMS (aka Brogue Ambulance Company)
- Union Volunteer Fire Department (Felton)
- Penn State University
- Millersville University
- Solanco School District
- George A. Smith Middle School
- Rabbit Transit

**Private Organizations**

- American Red Cross serving the Central Pennsylvania Chapter of Lancaster County
- Exelon Corporation



- Union Hospital of Cecil County
- Upper Chesapeake Hospital
- American Red Cross
- Delmarva Power

**Federal Agencies**

- Federal Emergency Management Agency
- Nuclear Regulatory Commission
- United State Department of Agriculture

## 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 Program (REPP) Program that was established following the Three Mile Island Nuclear 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 on the basis of 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, and
  - U.S. Food and Drug Administration

Representatives of these agencies serve on the Region III Regional Assistance Committee (RAC), which is chaired by FEMA. A REP Plume Exposure Pathway Exercise was evaluated April 17, 2018, and Medical Services drills were conducted April 10, 2018 & April 11, 2018 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 Peach Bottom Atomic Power Station. The purpose of this exercise report is to present the 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 evaluator team, with final determinations made by the FEMA Region III Regional Assistance Committee (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;

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**

## **Emergency Planning Zone Description:**

The coordinates of the plant site are 39°45'32" north (latitude) by 76°16'9" west (longitude). The site consists of 620 acres located on the west shore of Conowingo Pond, a reservoir formed by the backwater of the Conowingo Dam on the Susquehanna River. The site is primarily in Peach Bottom Township, York County, Pennsylvania; a small portion of the property lies in Lancaster County in southeastern Pennsylvania near the mouth of Rock Run Creek. The minimum exclusion distance (distance from the center point of the reactor vessel to the site area boundary) specified for the PBAPS is 2,700 feet. Exelon Nuclear owns all the land within the exclusion area; there are no private residences on site.

The plant is located about 38 miles north-northeast of Baltimore, Maryland; 45 miles southeast of Harrisburg, Pennsylvania; and 20 miles south-southeast of Lancaster, Pennsylvania. The nearest communities are Delta, Pennsylvania, and Cardiff, Maryland, which are located approximately four and five miles west-southwest of the site, respectively. There are 97 sirens providing coverage for the 10-mile EPZ; 65 are in Pennsylvania. Soils of the Manor-Glenelg Association predominate in the site area. These soils, which are generally underlain by schist or phyllite, are shallow to moderately deep and are found on moderate to very steep slopes. The general topography of the site is hilly, with elevations ranging from 110 feet to over 460 feet above mean sea level (MSL); the plant is 116 feet above MSL.

The site is characterized by broad ridge tops and steep hillsides along the river. The climate in this area of York County is mild but humid. Prevailing winds are from the west. The average rainfall is approximately 40.5 inches, and the average annual temperature is 52.8° Fahrenheit. The area in the immediate vicinity of the plant is mostly agricultural. There are no commercial airports within a 10-mile radius. The closest major airport is in Harrisburg, about 50 miles northwest of the site. A smaller airport servicing commuter and private aircraft is located in Lancaster, about 25 miles north of the site. No public highways pass through the plant, and no major arterial highways pass near it. Access to the plant is by two roads: one, from the nearby town of Delta, leads to the decommissioned Unit 1 area and Information Center; the other passes north of Delta and enters the plant area near Units 2 and 3.

## **2.2 Exercise Objectives, Capabilities and Activities**

The objective of the 2018 Peach Bottom Atomic Power Station (PBAPS) Plume Exercise was 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 of 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

At 1635, a fire occurs and is extinguished. At 1650, an **Alert** is declared due to a hazardous event affecting a safety system. State and Risk Jurisdictions are notified by the Control Room Operators.

At 1755, a steam line leak occurs outside primary containment and the main stack radiation monitors rise. A monitored radiological release is in progress. The reactor is shut down. At 1810, a **Site Area Emergency** is declared due to the loss of reactor coolant system and containment. State and Risk Jurisdictions respond according to plans and procedures.

At 1901, a **General Emergency** is declared due to the potential loss of fuel cladding, loss of reactor coolant system, and loss of containment. The licensee Protective Action Recommendation (PAR) is to evacuate the two-mile radius, and sectors F, G, H, J, and K from two to five miles downwind. State officials analyze field data and take appropriate protective actions.

At 1925, an unmonitored unfiltered radiological release begins. At 1940, a wind shift occurs, changing wind direction from 340 degrees to 285 degrees in a counterclockwise direction over a 15-minute time interval. At 1955, sector E is added to the PAR due to the wind shift. State officials make appropriate protective action decision based on new data.

At approximately 2030, the exercise is terminated after all objectives are completed.

## 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 April 17, 2018, biennial Plume Exposure Pathway EPZ Radiological Emergency Preparedness (REP) Exercise, and the Out of Sequence Exercise evaluations conducted during March and April. 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 Peach Bottom Atomic Power Station.

Each jurisdiction and functional entity was evaluated on the basis of 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 by the use of 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 in the vicinity of 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.

### Tables 3.2 - Summary of Exercise Evaluation

**Table 3.2a - Exercise Evaluation by Classification**

Date: April 17, 2018 Site: Peach Bottom Atomic Power Station			
Location	Criteria Title	Criteria	Classification
Chester County EOC	Emergency Information & Instructions for the Public/Media	5b1	L2
Lancaster County Reception Center (Re-demonstrated)	Implementation of Emergency Worker Exposure Control	3a1	L2

**Table 3.2.b - Exercise Evaluation - Criteria Not Demonstrated**

Date: April 17, 2018 Site: Peach Bottom Atomic Power Station		
Location	Criteria Title	Criteria
York County EOC	Implementation of Emergency Worker Exposure Control	3a1
York County EOC	Implementation of KI PAD for Institutionalized Individuals/Public	3b1

**Table 3.2.c - Exercise Evaluation - Criteria**

LOCATION	TEAM LEADER	AGENCY
Cecil County Back-up Route Alerting	William McDougall	FEMA RIII
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Mass Care Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	William McDougall	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Michael Shuler	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Traffic and Access Control Point	William McDougall	FEMA RIII
Union Hospital of Cecil County,	Michael Shuler	FEMA RIII
Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penn Gr	Lee Torres	FEMA RIII
Chester County Mass Care Center, Octorara High School	Lee Torres	FEMA RIII
Chester County Reception Center, Octorara Middle School	Lee Torres	FEMA RIII
Chester County, Oxford Area School District	Michael Shuler	FEMA RIII

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Chester County, Oxford Area School District, Penn Grove Middle School	Michael Shuler	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Lee Torres	FEMA RIII
Chester County, West Nottingham Township Emergency Operations Center	Lee Torres	FEMA RIII
Emergency Worker Monitoring and Decontamination Center Harford County Community College	Paul Anderson	FEMA RIX
Exelon Joint Information Center	Joseph Suders	FEMA RIII
Harford County Back-up Route Alerting	Paul Anderson	FEMA RIX
Harford County Congregate Care Center, Harford Technical High School	Paul Anderson	FEMA RIX
Harford County Emergency Operations Center	Paul Anderson	FEMA RIX
Harford County Public School District	Michael Shuler	FEMA RIII
Harford County Public School District, Darlington Elementary School	Michael Shuler	FEMA RIII
Harford County Public School District, Dublin Elementary School	Michael Shuler	FEMA RIII
Harford County Reception Center, Harford County Community College	Paul Anderson	FEMA RIX
Harford County Traffic and Access Control Point	Paul Anderson	FEMA RIX
Harford County, Harford Christian School	Michael Shuler	FEMA RIII
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA RIII
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Tina Lai-Thomas	FEMA RIII
Lancaster County Mass Care Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Monitoring and Decontamination Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Reception Center, Lancaster County Career and Technology Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township, Back Up Route Alerting	Tina Lai-Thomas	FEMA RIII
Lancaster County, Penn Manor School District	Michael Shuler	FEMA RIII
Lancaster County, Penn Manor School District, Martie Elementary School	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Michael Shuler	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Jill Leatherman	ICFI
Maryland Emergency News Center	Larry Broockerd	FEMA HQ
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII

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Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Jill Leatherman	ICFI
PA State Field Monitoring Team A, South Central Region	Kenneth Wierman	FEMA HQ
PA State Field Monitoring Team B, South Central Region	Kenneth Wierman	FEMA HQ
Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Marcy Campbell	ICFI
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Joint Information Center/Rumor Control	Joseph Suders	FEMA RIII
Pennsylvania State Traffic and Access Control Point, State Police Barracks York	Joseph Suders	FEMA RIII
Pennsylvania State Traffic and Access Control Points, State Pol Barrack Lancaster	Joseph Suders	FEMA RIII
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	Christopher Nemcheck	FEMA RIII
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Lower Chanceford Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Red Lion Area School District	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Michael Shuler	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Michael Shuler	FEMA RIII
Cecil County Back-up Route Alerting	Michael Meshenberg	ICFI
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	Kerry Holmes	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Emergency Operations Center	Clayton Spangenberg	ICFI
Cecil County Emergency Operations Center	Robert Lemeshka	ICFI
Cecil County Mass Care Center, Rising Sun High School	Thomas Scardino	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Christopher Nemcheck	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Michael Shuler	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Patricia Gardner	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII

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Cecil County Traffic and Access Control Point	Danny Loomis	ICFI
Cecil County, Union Hospital	Joseph Suders	FEMA RIII
Chester County Emergency Operations Center	Michael DeBonis	FEMA RII
Chester County Emergency Operations Center	Andrew Chancellor	FEMA RVII
Chester County Emergency Operations Center	Linda Gee	FEMA RVI
Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penns Grove	Kent Tosch	ICFI
Chester County Mass Care Center, Octorara High School	Thomas Reynolds	ICFI
Chester County Reception Center, Octorara Middle School	Robert Walker	ICFI
Chester County, Oxford Area School District	Patricia Gardner	FEMA RIII
Chester County, Oxford Area School District, Penns Grove Middle School	Tina Lai-Thomas	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Richard Smith	ICFI
Chester County, West Nottingham Township Emergency Operations Center	David Ortman	FEMA RV
Chester County, West Nottingham Township Emergency Operations Center	Michael Burriss	ICFI
Emergency Worker Monitoring and Decontamination Center Harford County Community College	David Stuenkel	ICFI
Exelon Joint Information Center	Roger Kowieski	ICFI
Harford County Back-up Route Alerting	Kevin Reed	ICFI
Harford County Congregate Care Center, Harford Technical High School	Brenda Rembert	ICFI
Harford County Emergency Operations Center	Kimberly Alahmadi	FEMA RV
Harford County Emergency Operations Center	Paul Anderson	ICFI
Harford County Emergency Operations Center	Kathy Duran	FEMA RIII
Harford County Emergency Operations Center	Michael Petullo	ICFI
Harford County Public School District, Darlington Elementary School	William McDougall	FEMA RIII
Harford County Public School District, Dublin Elementary School	David Stuenkel	ICFI
Harford County Reception Center, Harford County Community College	Richard Watts	ICFI
Harford County Traffic and Access Control Point	Robert Princic	ICFI
Harford County, Harford Christian School	Richard Watts	ICFI
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA RIII
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	John Rice	FEMA RI
Lancaster County Emergency Operations Center	Taneeka Hollins	FEMA RI
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Operations Center	Brian Clark	ICFI
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Ronald Bonner	ICFI
Lancaster County Mass Care Center, Penn Manor High School	Meg Swearingen	ICFI

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Lancaster County Reception Center, Lancaster County Career and Technology Center	Carol D. Shepard	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Frank Cordaro	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Lenora Borchardt	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Mark Dalton	ICFI
Lancaster County, Drumore Township, Back Up Route Alerting	Robert Duggleby	ICFI
Lancaster County, Penn Manor School District	Joseph Suders	FEMA RIII
Lancaster County, Penn Manor School District, Martic Elementary School	Nicholas Buls	FEMA RIII
Lancaster County, Solanco School District	Christopher Nemcheck	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Kathy Duran	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Reggie Rodgers	ICFI
Maryland Emergency News Center	Larry Broockerd	FEMA HQ
Maryland Emergency Operations Center	Elsa Lopez	FEMA RVI
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII
Maryland Emergency Operations Center	James Greer	ICFI
Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Roger Winkelmann	ICFI
PA State Field Monitoring Team A, South Central Region	Marcy Campbell	ICFI
PA State Field Monitoring Team B, South Central Region	Michael Henry	ICFI
Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Deborah Blunt	ICFI
Pennsylvania Commonwealth Response Coordination Center	Lisa Rink	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Commonwealth Response Coordination Center	Timothy Pflieger	FEMA RVI
Pennsylvania Commonwealth Response Coordination Center	Alonzo McSwain	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Gary Bolender	ICFI
Pennsylvania Joint Information Center/Rumor Control	Paul Nied	ICFI
Pennsylvania State Traffic and Access Control Point, State Police Barracks York	David Kayen	ICFI
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	John Wills	ICFI
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Michael Shuler	FEMA RIII
York County, Emergency Operations Center	Miriam Weston	FEMA RII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Rufus Mobley	FEMA HQ

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York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Patrick Cusick	FEMA RII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Gary Goldberg	ICFI
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Lynn Steffensen	ICFI
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Thomas Gahan	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Brian Hasemann	FEMA RII
York County, Lower Chanceford Township Emergency Operations Center	Roy Smith	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Thomas Reynolds	ICFI
York County, Red Lion Area School District	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Christopher Nemcheck	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Nicholas Buls	FEMA RIII

### **3.3 Criteria Evaluation Summaries**

#### **3.3.1 State Jurisdictions**

##### **3.3.1.1 Maryland Accident Assessment Center, Maryland Department of the Environment**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 4.a.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

##### **3.3.1.2 Maryland Emergency News Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 5.b.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

##### **3.3.1.3 Maryland State Field Monitoring Team A**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

#### **3.3.1.4 Maryland State Field Monitoring Team B**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

#### **3.3.1.5 PA State Field Monitoring Team A, South Central Region**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

#### **3.3.1.6 PA State Field Monitoring Team B, South Central Region**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.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

**3.3.1.7 Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.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

**3.3.1.8 Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 4.a.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

**3.3.1.9 Pennsylvania Commonwealth Response Coordination Center**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 5.a.1, 5.b.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

### **3.3.1.10 Pennsylvania Joint Information Center/Rumor Control**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.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 Risk Jurisdictions**

#### **3.3.2.1 Cecil County Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.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

#### **3.3.2.2 Cecil County Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.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 Cecil County Mass Care Center, Rising Sun High School**

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

- a. MET: 1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.c.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

**3.3.2.4 Cecil County Monitoring and Decontamination Center, Perryville High School**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 6.b.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

**3.3.2.5 Cecil County Public School District, Conowingo Elementary School**

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

- 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

**3.3.2.6 Cecil County Reception Center, Rising Sun High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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 Cecil County Traffic and Access Control Point**

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

- a. MET: 1.e.1, 3.a.1, 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 Chester County, Oxford Area School District**

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

- 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

**3.3.2.9 Chester County, Oxford Area School District, Penns Grove Middle School**

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

- 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

**3.3.2.10 Chester County, West Nottingham Township Back-up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.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

**3.3.2.11 Chester County, West Nottingham Township Emergency Operations Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 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

### 3.3.2.12 Chester County Emergency Operations Center

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.d.1, 3.c.1, 3.d.2, 5.a.1, 5.a.3,
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: 5.b.1
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

**ISSUE FOR CRITERION: 5.b.1-** ORO's provide accurate emergency information and instructions to the public and news media in a timely manner.

**CONDITION:** Chester County's Special News Broadcast (SNB) #1 and News Release #3 were not consistent with the Alert Emergency Classification Level (ECL) and the Site Area Emergency ECL. The SNL #1 issued at 1709 during an Alert ECL and News Release #3 issued at 1807 during the Site Area Emergency ECL both referenced "The conditions at the Peach Bottom Atomic Power Station have upgraded the Event Classification to General Emergency".

**POSSIBLE CAUSE:** News Releases and Special News Broadcasts were not adequately reviewed prior to release to the public.

**REFERENCE:** NUREG-0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c

**EFFECT:** The public would receive conflicting information.

**RECOMMENDATION:** Establish a process and/or procedure to ensure message content is reviewed for accuracy by a designated official prior to dissemination.

### 3.3.2.13 Chester County Emergency Worker Monitoring and Decontamination Station, Penns Grove

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

- a. MET: 1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

**3.3.2.14 Chester County Mass Care Center, Octorara High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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 Chester County Reception Center, Octorara Middle School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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 Emergency Worker Monitoring and Decontamination Center Harford County Community College**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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 Harford County, Harford Christian School**

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

- 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

**3.3.2.18 Harford County Back-up Route Alerting**

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

- a. MET, 1.d.1, 1.e.1, 3.a.1, 2, 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

**3.3.2.19 Harford County Congregate Care Center, Harford Technical High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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 Harford County Emergency Operations Center**

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

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 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: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.21 Harford County Public School District, Darlington Elementary School**

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

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

**3.3.2.22 Harford County Public School District, Dublin Elementary School**

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

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

**3.3.2.23 Harford County Reception Center, Harford County Community College**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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 Harford County Traffic and Access Control Point**

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 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

**3.3.2.25 Lancaster County, Drumore Township, Back Up Route Alerting**

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

- a. MET: 1.d.1, 1.e.1, 3.a.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

**3.3.2.26 Lancaster County, Drumore Township Emergency Operations Center**

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

- a. MET: 1.b.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 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

**3.3.2.27 Lancaster County, Penns Manor School District**

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

- 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 Lancaster County, Penns Manor School District, Martic Elementary School**

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

- 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 Lancaster County, Solanco School District**

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

- 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

**3.3.2.30 Lancaster County, Solanco School District, Smith Middle School**

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

- 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

**3.3.2.31 Lancaster County Emergency Operations Center**

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

- 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: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

### **3.3.2.32 Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

### **3.3.2.33 Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

### **3.3.2.34 Lancaster County Mass Care Center, Penn Manor High School**

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

- a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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



### **3.3.2.35 Lancaster County Reception Center, Lancaster County Career and Technology Center**

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

- a. MET: 1.e.1, 3.a.1, 6.a.1
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: 3.a.1 (Re-demonstrated)
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

#### **ISSUE FOR CRITERION: 3.a.1**

**CONDITION:** Responders did not receive a radiological briefing or PRDs

**POSSIBLE CAUSE:** Training Issue

**REFERENCE:** NUREG 0654 Rev. 1 K.3.a,b; K4, Lancaster County Radiological Emergency Response Procedures Basic Plan, Section G.3.1 Procedures Section, Section I.C, D, Section II.A.I, Section G, H, Section V, p.23-Dosimetry-KI instructions for Emergency Workers

**EFFECT:** Inability to determine radiation doses to any emergency worker who may be potentially exposed to ionizing radiation as a result of an incident.

**RECOMMENDATION:** Mandate training for this group of responders in the PEMA training program and include them in the Countywide Training Database maintained at Lancaster Emergency Management Agency.

### **3.3.2.36 Pennsylvania State Traffic and Access Control Point, State Police Barracks York**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 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

**3.3.2.37 York County, Emergency Operations Center**

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

a. MET: 1.a.1, 1.b.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: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

**3.3.2.38 York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting**

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

a. MET: 1.d.1, 1.e.1, 3.a.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

**3.3.2.39 York County, Fawn Grove Borough/Fawn Township Emergency Operations Center**

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

a. MET: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 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

**3.3.2.40 York County, Red Lion Area School District**

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

- 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

**3.3.2.41 York County, Red Lion Area School District, Clearview Elementary School**

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

- 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

**3.3.2.42 York County, Red Lion Area School District, L. J. Macaluso Elementary School**

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

- 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

**3.3.2.43 York County, South Eastern School District**

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

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

**3.3.2.44 York County, South Eastern School District, Delta/Peach Bottom Elementary School**

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

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

**3.3.2.45 York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance**

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

a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

**3.3.2.46 York County Monitoring and Decontamination Center, Red Lion High School**  
In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.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

**3.3.2.47 York County Mass Care Center, Red Lion High School**  
In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1c.1, 1.d.1, 1.e.1, 6.c.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

**3.3.3 Private Jurisdictions**

**3.3.3.1, Union Hospital of Cecil County**  
In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1.e.1, 3.a.1, 6.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

**3.3.3.2 Cecil County Community Fire Company of Rising Sun**

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

- a. MET: 1.e.1, 3.a.1, 6.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

**3.3.3.3 Exelon Joint Information Center**

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

- a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.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

**3.3.3.4 Harford County, Upper Chesapeake Medical Center**

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

- a. MET: 1.e.1, 3.a.1, 6.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

**3.3.3.5 Harford County, Whiteford Volunteer Fire Company**

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

- a. MET: 1.e.1, 3.a.1, 6.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



## **SECTION 4: DEMONSTRATED STRENGTHS**

### **1.1 State of Maryland EOC**

#### **1.1.1 SEOC JIC**

The State of Maryland's Joint Information Center team exhibited great coordination and collaboration during the Peach Bottom exercise. When confusion over a declared time occurred the team worked to find the correct answer and insure the correct time was in the subsequent press release.

#### **1.1.2 State Field Monitoring Team A**

The Maryland Department of Environment Field Monitoring Team "A" checked the air sampler head for the presence of three sealing gaskets to ensure that the sampler head would have an adequate seal before being deployed into the field. This is a practice the Evaluator had not observed in other field team evaluations.

#### **1.1.3 Route Alerting**

The patrol vehicle used for route alerting has a newly-installed Fujitsu tablet with an Air Card that enables broadband two-way data transmission which allows the deputy to record the brief message on the tablet (or his phone) at the outset of the route and replay it as needed. This enabled him to concentrate on driving safely and follow the detailed directions.

In addition, the deputy suggested that all the routes keyed to the sirens could be programmed into the vehicle's computer and mapped so drivers could more readily follow the turn-by-turn instructions rather than having to read and drive.

### **2.0 Cecil County and Harford County EOC**

Cecil Harford Counties Information Hotlines (formerly Rumor Control) report to the EOC as part of the initial activation with the PIO. Allowing a few members of this group to sit with the PIO ensure up to date information and smoother coordination with staff that are located in a different portion of the EOC.

Cecil and Harford Counties uses "Blackboard Connect" which is similar to a reverse 911, allowing the EOC to reach out to all County residents with text messages located within the 10 mile EPZ. The information sent via this platform is also posted on the County's Facebook, and Twitter accounts in a matter of minutes.

Cecil and Harford Counties Emergency Operations Centers has created a comprehensive route alerting binder. Each route takes 45 minutes to

run, indicates how many each primary officers are needed to reach every address, and which addresses do and do not need to have an alternate officer drive to the house in order for the message to be heard.

The EOC should be commended for their thorough documentation and detail to this task. The binder is comprehensive, yet simple enough to use that anyone can pick a route sheet and know exactly where and what to do.

### **3.0 Commonwealth of Pennsylvania**

#### **3.1 Commonwealth Response Coordination Center (CRCC)**

The Deputy Incident Support Manager (DISM) located in the Commonwealth Response Coordination Center (CRCC) Command Room was instrumental in establishing and maintaining the PEMA bridgeline throughout the exercise and demonstrated the validating and relaying of accurate Emergency Classification Level (ECL) escalations, protective action information, and timely updates concerning the Peach Bottom Atomic Power Station plant status between the Commonwealth of Pennsylvania risk counties, Maryland Emergency Management Agency (MEMA), and the Maryland risk counties. The DISM's efforts in managing emergency information via the bridgeline contributed immensely to the timely implementation of protective actions for the Offsite Response Organizations (OROs).

#### **3.2 State JIC/Rumor Control**

The Pennsylvania Emergency Management Agency CRCC Press Secretary (State Public Information Officer) and staff were proactive in information gathering, news release development and authorization, and talking point development used by the Senior State Official during media briefings. The calm yet rapid information development and distribution was indicative of a team committed to training and job performance excellence.

#### **3.3 BRP Radiation Rapid Response Vehicle**

Field Team coordination was demonstrated from the backup location at the Bureau of Radiation Protection Headquarters facility until the R3V2 was delivered to the staging area and operational. The backup location was fully equipped with communications and computer equipment to support the Field Teams.

#### **3.4 State Field Monitoring Team A & B**

The two PA FMTs used a sample counting jig to ensure an accurate reproducible geometry when counting air sample filters. This methodology aides in more accurate dose projections from field measurements.

### **3.5 Chester County EOC**

The Chester County radio operators need to be commended. They demonstrated a very efficient way to transfer emergency information (data), and send it via radio communication, to their network of radio operators in the field. This is a great benefit to the community in the event conventional communications fail.

During the PBAPS Exercise, the Chester County HazMat team was called upon to support a real world event when a Propane Tanker Truck overturned blocking two highways in Delaware County. They seamlessly continued to support the exercise as well as the real world emergency.

#### **3.5.1 Emergency Worker Monitoring/ Decontamination Center**

The Chester County HazMat Deputy Chief provided strong direction and control of the Emergency Worker Monitoring and Decontamination Center. He ensured that all staff were aware of their duties and provided guidance through comprehensive briefings.

### **3.6 Lancaster County EOC**

The Lancaster County communications person kept all the incoming messages organized numerically and insured all the message were available via the content table cover sheet.

#### **3.6.1 Mass Care**

The Central Pennsylvania Chapter of Lancaster County American Red Cross participants were engaging and eagerly assumed their responsibilities. The Center Managers were familiar with all the position responsibilities and were committed to providing immediate comfort and care to the evacuees.

### **3.7 York County EOC**

York County Office of Emergency Management went above and beyond by exercising the counties alternate Emergency Operations Center. York County alternate Emergency Operations Center was able to complete the mission seamlessly as if they were in their normal Emergency Operation Center. Having the knowledge to know if the need arises they can use the alternate seamlessly is a great confidence for York County.

#### **3.7.1 Fawn Grove Township/ Fawn Borough. EOC**

Delta Peach and Fawn Area Emergency Operation Centers (EOCs) projected strength by being able to maintain the exercise play while many volunteers responded to a real world structure fire. The Emergency Management Directors (EMD) at both EOCs were able to

maintain their EOC exercise play and coordinate the mission for the structure fire.

**3.7.2 Emergency Worker Monitoring and Decontamination Brogue Ambulance Company**

The Chief of the York County Hazardous Materials Team supervised monitoring and decontamination operations at the Brogue Ambulance Company building and served as a mentor to several new personnel as they performed their functions. He not only provided information on how to satisfactorily perform each function, but why each function was essential to succeed. Other veteran members of the team assisted new personnel in the completion of their assigned tasks.

## SECTION 5: CONCLUSION

The Commonwealth of Pennsylvania, State of Maryland, and local jurisdictions, except where noted in this report demonstrated knowledge of their Radiological Emergency Response Plans (RERP) and procedures were adequately implemented during the Peach Bottom Atomic Power Station Plume exercise evaluated on April 17, 2018.

Federal Emergency Management Agency (FEMA) evaluators assessed 326 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 planning issues, two Level 2 Finding, (one successfully re-demonstrated on April 17, 2018). Based on the results of the exercise and a review of the offsite radiological emergency response plans and procedures submitted, FEMA Region III 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.

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### 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.

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location									Lower Chanceford Township
		PA CRCC	PA AAC	Exelon JIC	Chester County EOC	West Nottingham Township	Lancaster County EOC	Drumore Township	York County EOC	Fawn Grove Township Fawn Borough	
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1644	1718	1712	1746	1704	1724	1705	1713	1711	1721	1722
SAE	1807	1825	1825	1849	1815	1821	1814	1823	1820	1833	1831
GE	1904	1919	1919	1940	1913	1919	1911	1920	1917	1927	1926
Start of Simulated Radiation Release	1807	1825	1810	1820	1815	1821	1814	1823	1834	1930	1831
Termination of Simulated Radiation Release	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going
Facility Declared Operational		1810	1810	1800	1726	1759	1744	1733	Prepositioned	1748	1752
Governor's Declaration of State of Emergency		1846	1846	1903	1911	1915	1907	1905	1904	1907	1913
Exercise Terminated		2033	2033	2017	2035	2020	2032	2004	2033	1955	2020
First Precautionary/Protective Actions:  Airspace Restrictions, Boating, fishing restriction Air, Rail Restrictions, Shelter and place livestock or stored feed and water		1831	1831	1843 1854 1848	1849	1903	1849 1855 1858	1928	1805	1845	1845

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Siren Sounding	1841	1841	1841	1841	1841	1841	1841	1841	1841	1841
EAS Broadcast time	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844
Second Precautionary/ Protective Actions:  Recommend General Population to Evacuate or Shelter. Special Population Shelter in Place, KI for General Public and Emergency Workers, Air Restriction, 10 miles, 10K feet	1932	1932	1942	1930	1936	1936	1958	1834 1930	1940	1926
Siren Sounding	1942	1942	1942	1942	1942	1942	1942	1942	1942	1942
EAS Message Broadcast	1945	1945	1945	1945	1945	1945	1945	1945	1945	1945
KI Decision (YES) EWs	1928	1928	1942	1930	1936	1952	1927	1930	1955	1926
KI Decision (YES) General Public	1928	1928	1942	1930	1936	1952	1927	1930	1955	1926
KI Decision (YES) Persons with Disabilities or Access Functional Needs	1928	1928	1942	1930	1936	1952	1927	1930	1955	1926



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Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location					
		MD SEOC	MD MDE	Exelon JIC	MD JIC	Cecil County EOC	Harford County EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1644	1704	1714	1746	1704	1704	1704
SAE	1807	1814	1826	1849	1814	1817	1822
GE	1904	1911	1912	1940	1911	1915	1918
Start of Radiation Release	1807	1911	1826	1820	1911	1817	1822
Termination of Radiation Release	Ongoing		Ongoing	N/A		N/A	N/A
Facility Declared Operational		1745	1811	1800	1800	1743	1735
Governor's Declaration of State of Emergency		1920	1923	1903	1903	1923	1930
Exercise Terminated		2033	2038	2017	2017	2034	2031
First Precautionary/Protective Actions: Airspace Restrictions, Boating, fishing restriction Air, Rail Restrictions, Shelter and place livestock or stored feed and water		1848	1848	1843 1854 1848	1843 1854 1848	1835	1859
Siren Sounding		1841	1841	1841	1841	1841	1841
EAS Broadcast Time		1844	1844	1844	1844	1844	1844

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<b>Second Precautionary/Protective Actions:</b>  Recommend General Population to Evacuate. Special Population Shelter in Place, KI for General Public and Emergency Workers, Air Restriction, 10 miles, 10K feet	1935	1935	1942	1942	1930	1932
Siren Sounding	1942	1942	1942	1942	1942	1942
EAS Message Broadcast	1945	1945	1945	1945	1945	1945
KI Decision (YES) EWs	1844	1848	1942	1942	1835	1850
KI Decision (YES) General Public	1932	1935	1942	1942	1930	1945
KI Decision (YES) Persons with Disabilities or Access Functional Needs	N/A	1935	1942	N/A	1930	N/A

## APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators and Team Leaders for the Peach Bottom Atomic Power Station 2018 Radiological Emergency Preparedness Plume Exercise evaluated on April 17, 2018. The following constitutes the managing staff for the Exercise Evaluation:

- Thomas Scardino, DHS/FEMA, Regional Assistance Committee (RAC) Chairman
- Michael E. Shuler, Sr., DHS/FEMA, Project Officer and Site Specialist
- Roger Koweski, Regional Coordinator

DATE: 4/17/2018

SITE: Peach Bottom Atomic Power Station

LOCATION	TEAM LEADER	AGENCY
Cecil County Back-up Route Alerting	William McDougall	FEMA RIII
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Mass Care Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	William McDougall	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Michael Shuler	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Traffic and Access Control Point	William McDougall	FEMA RIII
Union Hospital of Cecil County,	Michael Shuler	FEMA RIII
Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penn Gr	Lee Torres	FEMA RIII
Chester County Mass Care Center, Octorara High School	Lee Torres	FEMA RIII
Chester County Reception Center, Octorara Middle School	Lee Torres	FEMA RIII
Chester County, Oxford Area School District	Michael Shuler	FEMA RIII
Chester County, Oxford Area School District, Penn Grove Middle School	Michael Shuler	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Lee Torres	FEMA RIII
Chester County, West Nottingham Township Emergency Operations Center	Lee Torres	FEMA RIII
Emergency Worker Monitoring and Decontamination Center Harford County Community College	Paul Anderson	FEMA RIX
Exelon Joint Information Center	Joseph Suders	FEMA RIII
Harford County Back-up Route Alerting	Paul Anderson	FEMA RIX

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Harford County Congregate Care Center, Harford Technical High School	Paul Anderson	FEMA RIX
Harford County Emergency Operations Center	Paul Anderson	FEMA RIX
Harford County Public School District	Michael Shuler	FEMA RIII
Harford County Public School District, Darlington Elementary School	Michael Shuler	FEMA RIII
Harford County Public School District, Dublin Elementary School	Michael Shuler	FEMA RIII
Harford County Reception Center, Harford County Community College	Paul Anderson	FEMA RIX
Harford County Traffic and Access Control Point	Paul Anderson	FEMA RIX
Harford County, Harford Christian School	Michael Shuler	FEMA RIII
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA III
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Tina Lai-Thomas	FEMA RIII
Lancaster County Mass Care Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Monitoring and Decontamination Center, Penn Manor High School	Tina Lai-Thomas	FEMA RIII
Lancaster County Reception Center, Lancaster County Career and Technology Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County, Drumore Township, Back Up Route Alerting	Tina Lai-Thomas	FEMA RIII
Lancaster County, Penn's Manor School District	Michael Shuler	FEMA RIII
Lancaster County, Penn's Manor School District, Martic Elementary School	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District	Michael Shuler	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Michael Shuler	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Jill Leatherman	ICFI
Maryland Emergency News Center	Larry Broockerd	FEMA HQ
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII
Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Jill Leatherman	ICFI
PA State Field Monitoring Team A, South Central Region	Kenneth Wierman	FEMA HQ
PA State Field Monitoring Team B, South Central Region	Kenneth Wierman	FEMA HQ
Pennsylvania Accident Assessment Center, CRCC-Bureau Rad Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Marcy Campbell	ICFI
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Joint Information Center/Rumor Control	Joseph Suders	FEMA RIII

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Pennsylvania State Traffic and Access Control Point, State Police Barracks York	Joseph Suders	FEMA RIII
Pennsylvania State Traffic and Access Control Points, State Police Barracks Lancaster	Joseph Suders	FEMA RIII
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	Christopher Nemcheck	FEMA RIII
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Christopher Nemcheck	FEMA RIII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Lower Chanceford Township Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Red Lion Area School District	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Michael Shuler	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Michael Shuler	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Michael Shuler	FEMA RIII

LOCATION	EVALUATOR	AGENCY
Cecil County Back-up Route Alerting	Michael Meshenberg	ICFI
Cecil County Community Fire Company of Rising Sun	Michael Shuler	FEMA RIII
Cecil County Emergency Operations Center	Kerry Holmes	FEMA RIII
Cecil County Emergency Operations Center	William McDougall	FEMA RIII
Cecil County Emergency Operations Center	Clayton Spangenberg	ICFI
Cecil County Emergency Operations Center	Robert Lemeshka	ICFI
Cecil County Mass Care Center, Rising Sun High School	Thomas Scardino	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Christopher Nemcheck	FEMA RIII
Cecil County Monitoring and Decontamination Center, Perryville High School	Michael Shuler	FEMA RIII
Cecil County Public School District, Conowingo Elementary School	Patricia Gardner	FEMA RIII
Cecil County Reception Center, Rising Sun High School	William McDougall	FEMA RIII
Cecil County Traffic and Access Control Point	Danny Loomis	
Cecil County, Union Hospital	Joseph Suders	FEMA RIII
Chester County Emergency Operations Center	Michael DeBonis	FEMA RII
Chester County Emergency Operations Center	Andrew Chancellor	FEMA R7
Chester County Emergency Operations Center	Linda Gee	FEMA RVI

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Chester County Emergency Operations Center	Lee Torres	FEMA RIII
Chester County Emergency Worker Monitoring and Decontamination Station, Penn's Grove	Kent Tosch	ICFI
Chester County Mass Care Center, Octorara High School	Thomas Reynolds	ICFI
Chester County Reception Center, Octorara Middle School	Robert Walker	ICFI
Chester County, Oxford Area School District	Patricia Gardner	FEMA RIII
Chester County, Oxford Area School District, Penn's Grove Middle School	Tina Lai-Thomas	FEMA RIII
Chester County, West Nottingham Township Back-up Route Alerting	Richard Smith	ICFI
Chester County, West Nottingham Township Emergency Operations Center	David Ortman	DHS/FEMA Region 5
Chester County, West Nottingham Township Emergency Operations Center	Michael Burriss	
Emergency Worker Monitoring and Decontamination Center Harford County Community College	David Stuenkel	Trinity Engineering Associates
Exelon Joint Information Center	Roger Kowieski	ICFI
Harford County Back-up Route Alerting	Kevin Reed	ICFI
Harford County Congregate Care Center, Harford Technical High School	Brenda Rembert	ICFI
Harford County Emergency Operations Center	Kimberly Alahmadi	FEMA RV
Harford County Emergency Operations Center	Paul Anderson	FEMA RIX
Harford County Emergency Operations Center	Kathy Duran	FEMA RIII
Harford County Emergency Operations Center	Michael Petullo	
Harford County Public School District, Darlington Elementary School	William McDougall	FEMA RIII
Harford County Public School District, Dublin Elementary School	David Stuenkel	ICFI
Harford County Reception Center, Harford County Community College	Richard Watts	ICFI
Harford County Traffic and Access Control Point	Robert Princic	ICFI
Harford County, Harford Christian School	Richard Watts	ICFI
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA RIII
Harford County, Whiteford Volunteer Fire Company	Michael Shuler	FEMA RIII
Lancaster County Emergency Operations Center	John Rice	FEMA R1
Lancaster County Emergency Operations Center	Taneeka Hollins	FEMA R1
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA RIII
Lancaster County Emergency Operations Center	Brian Clark	ICFI
Lancaster County Emergency Worker Monitoring and Decontamination Mobile Trailer	Ronald Bonner	ICFI
Lancaster County Mass Care Center, Penn's Manor High School	Meg Swearingen	ICFI
Lancaster County Reception Center, Lancaster County Career and Technology Center	Carol D. Shepard	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Frank Cordaro	ICFI
Lancaster County, Drumore Township Emergency Operations Center	Lenora Borchardt	ICFI

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Lancaster County, Drumore Township Emergency Operations Center	Mark Dalton	ICFI
Lancaster County, Drumore Township, Back Up Route Alerting	Robert Duggleby	ICFI
Lancaster County, Penn's Manor School District	Joseph Suders	FEMA RIII
Lancaster County, Penn's Manor School District, Martic Elementary School	Nicholas Buls	FEMA RIII
Lancaster County, Solanco School District	Christopher Nemcheck	FEMA RIII
Lancaster County, Solanco School District, Smith Middle School	Kathy Duran	FEMA RIII
Maryland Accident Assessment Center, Maryland Department of the Environment	Reggie Rodgers	ICFI
Maryland Emergency News Center	Larry Broockerd	FMA HQ
Maryland Emergency Operations Center	Elsa Lopez	FEMA Region VI
Maryland Emergency Operations Center	Patricia Gardner	FEMA RIII
Maryland Emergency Operations Center	James Greer	ICFI
Maryland State Field Monitoring Team A	Jill Leatherman	ICFI
Maryland State Field Monitoring Team B	Roger Winkelmann	ICFI
PA State Field Monitoring Team A, South Central Region	Marcy Campbell	ICFI
PA State Field Monitoring Team B, South Central Region	Michael Henry	ICFI
Pennsylvania Accident Assessment Center, CRCC-Bureau of Radiation Protection	Kenneth Wierman	FEMA HQ
Pennsylvania Bureau of Radiation Protection, Radiological Rapid Response Vehicle	Deborah Blunt	ICFI
Pennsylvania Commonwealth Response Coordination Center	Lisa Rink	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Joseph Suders	FEMA RIII
Pennsylvania Commonwealth Response Coordination Center	Timothy Pflieger	FEMA Region VI
Pennsylvania Commonwealth Response Coordination Center	Alonzo McSwain	FEMA HQ
Pennsylvania Commonwealth Response Coordination Center	Gary Bolender	ICFI
Pennsylvania Joint Information Center/Rumor Control	Paul Nied	ICFI
Pennsylvania State Traffic and Access Control Point, State Police Barracks York	David Kayen	ICFI
York County Emergency Worker Monitoring and Decontamination Station, Brogue Ambulance	John Wills	ICFI
York County Mass Care Center, Red Lion High School	Christopher Nemcheck	FEMA RIII
York County Monitoring and Decontamination Center, Red Lion High School	Michael Shuler	FEMA RIII
York County, Emergency Operations Center	Miriam Weston	FEMA RII
York County, Emergency Operations Center	Christopher Nemcheck	FEMA RIII
York County, Emergency Operations Center	Rufus Mobley	FEMA HQ
York County, Fawn Grove Borough/Fawn Township Back-up Route Alerting	Patrick Cusick	FEMA RII
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Gary Goldberg	ICFI
York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Lynn Steffensen	ICFI



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York County, Fawn Grove Borough/Fawn Township Emergency Operations Center	Thomas Gahan	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Brian Hasemann	FEMA RII
York County, Lower Chanceford Township Emergency Operations Center	Roy Smith	ICFI
York County, Lower Chanceford Township Emergency Operations Center	Thomas Reynolds	ICFI
York County, Red Lion Area School District	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, Clearview Elementary School	Joseph Suders	FEMA RIII
York County, Red Lion Area School District, L. J. Macaluso Elementary School	Christopher Nemcheck	FEMA RIII
York County, South Eastern School District	Michael Shuler	FEMA RIII
York County, South Eastern School District, Delta/Peach Bottom Elementary School	Nicholas Buls	FEMA RIII

### APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Description
AAC	Accident Assessment Center
AAM	After Action Meeting
AAR	After Action Report
ACP	Access Control Point
ALARA	As Low As Reasonably Achievable
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
BURA	Back Up Route Alerting
CAD	Computer Aided Display
CCHD	Cecil County Health Department
CCNP	Cisco Certified Network Professional
CCPS	Cecil County Public School
CDE	Committed Dose Equivalent
C/E	Controller/Evaluator
CERC	Corporate Emergency Response Center
CERT	Community Emergency Response Team
CO	Communication Officer
CFCRS	Community Company of Rising Sun
CFR	Code of Federal Regulations
CPM	Counts Per Minute
CST	Civil Support Team
DAC	Dose Assessment Coordinator
DAD	Digital Alarming Dosimetry
DAS	Director of Auxiliary Services
DDHS	Department of Health and Human Services
DOE	Department of Emergency
DOT	Department of Transportation
DRF	Dosimetry Record Form
EAL	Emergency Action Level
EARA	Exception Area Route Alerting
EAS	Emergency Alert System
EC	Emergency Coordinator
ECL	Emergency Classification Level
ECO	Exposure Control Officer
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMnet	Emergency Management Network
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Extent of Play
EPA	Environmental Protection Agency
EPT	Exercise Planning Team

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EPZ	Emergency Planning Zone
ER	Emergency Room
ERM	Emergency Response Manager
ERV	Emergency Response Vehicle
ESC	Emergency Services Coordinator
ESF	Emergency Support Function
ETA	Estimated Time of Arrival
EW	Emergency Workers
FD	Fire Department
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FRMAC	Federal Radiological Monitoring Assessment Center
FSE	Full Scale Exercise
FTC	Field Team Coordinator
GE	General Emergency
GIS	Geographic Information Systems
GPS	Global Positioning System
HAN	Health Alert Network
HazMat	Hazardous Materials
HF	High Frequency
HSEEP	Homeland Security Exercise and Evaluation Program
IPZ	Ingestion Pathway Zone
IWP	Initial Warning Point
JIC	Joint Information Center
KI	Potassium Iodide
LCD	Liquid Crystal Display
LEOF	Local Emergency Operations Facility
LHD	Local Health Department
MDDT	Mobile Data Display Terminal
MDA	Maryland Department of Agriculture
MDE	Maryland Department of the Environment
MDP	Maryland Department of Planning
MDOT	Maryland Department of Transportation
MEMA	Maryland Emergency Management Agency
MSP	Maryland State Police
MMD	Maryland Military Department
MDT	Mobile Data Terminals
MHz	Megahertz
MIDAS	Meteorological Information Dose Assessment System
MS-1	Medical Services Hospital
MSEL	Master Scenario Events List
OCDFEMS	Orange County Department of Fire/Emergency Medical Services

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ORH	Office of Radiological Health
OSD	Optically Stimulated Dosimeter
PA	Public Affairs
PAD	Protective Action Decision
PAG	Protective Action Guidelines
PAR	Protective Action Recommendation
PARA	Primary Area Route Alerting
PAZ	Protective Action Zone
PD	Police Department
PDAFN	Persons with Disabilities/Access and Funtional Needs
PED	Personal Electronic Dosimeter
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRA	Primary Route Alerting
PRD	Permanent Record Dosimeter
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
RAO	Radiation Assessment Officer
RDO	Radiation Defense Officer
REA	Radiation Emergency Area
REC	Radiation Exposure Control
REPP	Radiological Emergency Preparedness Program
REP	Radiological Emergency Plan
RERP	Radiological Emergency Response Plan
RHP	Radiological Health Program
RML	Radiological Mobile Laboratory
RO	Radiological Officer
ROO	Radiological Operations Officer
RTF	Radiological Task Force
SA	Staging Area
SAC	Staging Area Coordinator
SAE	Site Area Emergency
SAIC	Science Applications International Corporation
SAM	Staging Area Manager
SCBA	Self-Contained Breathing Apparatus
SEOC	State Emergency Operations Center
SERS	State Emergency Radio System
SFMT	State Field Monitoring Team
SIRS	Statewide Interoperability Radio System
SO	State Official
SOP	Standard Operating Procedure
SRO	School Resources Officer
SSO	Social Services Officer
STARS	Statewide Area Radio System

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SWAN	State Warning Alert Notification
TCP	Traffic Control Point
TEDE	Total Effective Dose Equivalent
TO	Transportation Officer
UEM	Utility Emergency Manager
VHF	Very High Frequency

## **APPENDIX D: EXTENT OF PLAY AGREEMENT State of Maryland Method of Operation**

The 2018 Peach Bottom Atomic Power Station Plume Exercise Extent-of-Play was negotiated and agreed upon by FEMA Region III, Maryland Emergency Management Agency, Commonwealth of Pennsylvania, and the Emergency Management Agencies of the Risk Counties.

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.

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

**Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG0654/FEMA-REP-1, H.7, 10; I.7, 8, 9; J.10.a.b.e; J.11, 12; K.3.a; K.5.b)**

#### **INTENT**

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

#### **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 locations(s) will be confirmed by physical inspection at the storage locations(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 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) (0-200 mR), 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 Field Monitoring Teams (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 a 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 confirm 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 arriving 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.

#### **State of Maryland Extent of Play**

Cecil and Harford County emergency workers may substitute electronic personnel dosimetry for the self-reading dosimeters. KI will not be issued to emergency workers for a contaminated injured response. Calibration and electrical leakage testing of dosimetry will be evaluated with the State of Maryland Annual Letter of Certification

#### **Locations evaluated**

Cecil County Health Department  
Harford County Health Department  
Union Hospital of Cecil County  
University of Maryland Upper Chesapeake Medical Center

#### **Outstanding Issues**

None

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

**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)**

**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 Protective Action Guides (PAGs), and the capability to provide KI for emergency workers, always applying the "as low as is reasonably achievable" principle as appropriate.

**EXTENT OF PLAY**

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

ORO's 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.

#### **State of Maryland Extent of Play**

Certain portions of the FEMA extent of play will not be evaluated in the medical drill scenario.

#### **Locations evaluated**

Cecil County Health Department  
Harford County Health Department  
Union Hospital of Cecil County  
University of Maryland Upper Chesapeake Medical Center

## **Outstanding Issues**

None

### **Sub-element 6.d – Transportation and Treatment of Contaminated Injured Individuals**

**Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654/FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)**

#### **INTENT**

This Sub-element is derived from NUREG-065/FEMA-REP-1, which requires that OROs have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or drills. FEMA has determined that these capabilities have been enhanced and consistently demonstrated as adequate; therefore, offsite medical services drills need only be evaluated biennially. FEMA will, at the request of the ORO, continue to evaluate the drills on an annual basis. All hospitals listed in the plan as medical services hospitals must be evaluated, with a transportation provider, every 2 years. Additional transportation providers will be rotated through the drills in the 8-year exercise cycle. For ambulance providers who do not participate in an evaluated drill during the two year cycle, training will be provided. This training will be documented in the ALC.**

Monitoring, decontamination, and contamination control efforts must not delay urgent medical care for the victim.

ORO must demonstrate the capability to monitor/ decontaminate and transport contaminated, injured individuals to medical facilities.

An ambulance must be used for response to the victim. However, to avoid taking an ambulance out of service for an extended time, OROs may use any vehicle (e.g., car, truck, or van) to transport the victim to the medical facility. It is allowable for an ambulance to demonstrate up to the point of the departure for the medical facility and then have a non-specialized vehicle transport the "victim(s)" to the medical facility. This option is used in areas where removing an ambulance from service to drive a great distance (over an hour) for a drill would not be in the best of interests of the community.

Normal communications between the ambulance/ dispatcher and the receiving medical facility must be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur before releasing the ambulance from the drills. This communication would include reporting radiation monitoring results, if available. In

addition, the ambulance crew must demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the victim may be performed before transport or en route, or may be deferred to the medical facility. Contaminated injured individuals transported to medical facilities are monitored as soon as possible to assure that everyone (ambulance and medical facility) is aware of the medical and radiological status of the individual(s). However, if an ambulance defers monitoring to the medical facility, then the ambulance crew presumes that the patient(s) is contaminated and demonstrate appropriate contamination controls until the patient(s) is monitored. Before using monitoring instruments, the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities must be completed as they would be in an actual emergency. Appropriate contamination control measures must be demonstrated before and during transport and at the receiving medical facility.

The medical facility must demonstrate the capability to activate and set up a radiological emergency area for treatment. Medical facilities are expected to have at least one trained physician and one trained nurse to perform and supervise treatment of contaminated injured individuals. Equipment and supplies must be available for treatment of contaminated injured individuals.

The medical facility must demonstrate the capability to make decisions on the need for decontamination of the individual, follow appropriate decontamination procedures, and maintain records of all survey measurements and samples taken. All procedures for collection and analysis of samples and decontamination of the individual must be demonstrated or described to the evaluator. Waste water from decontamination operations must be handled according to facility plans/procedures.

#### **State of Maryland Extent of Play**

Radiological monitoring of the victim will not be the responsibility of the responding rescue squad.

#### **Locations evaluated**

Cecil County Health Department  
Harford County Health Department  
Union Hospital of Elkton  
University of Maryland Upper Chesapeake Medical Center

### Outstanding Issues

None

### Exercise Schedule

Time	Personnel	Activity	Location
<b>April 10, 2018</b>			
0900	SIMCELL, Cecil County DES	Initiate injury scenario, First aid team response. Call to 911	SIMCELL, Cecil County DES
0930	CFCRS, Union Hospital of Cecil County	Fire rescue response/ transportation to Union Hospital of Cecil County	Community Fire Company of Rising Sun/Union Hospital of Cecil County
1000	Union Hospital of Cecil County	Monitoring and decontamination of patient, fire rescue squad, ambulance	Union Hospital of Cecil County
<b>April 11, 2018</b>			
0900	SIMCELL, Harford County DES	Initiate injury scenario, First aid team response. Call to 911	SIMCELL, Harford County DES
0930	WVFC, Univ. of MD Upper Chesapeake Med Ctr.	Fire rescue response/ transportation to Union Hospital of Cecil County	Whiteford VFC, University of MD Upper Chesapeake Medical Center
1000	Univ. of MD Upper Chesapeake Med Ctr.	Monitoring and decontamination of patient, fire rescue squad, ambulance	University of MD Upper Chesapeake Medical Center

### Participating Organizations

Participating Organizations
<b>State</b>
Maryland Emergency Management Agency
<b>Local</b>
Cecil County Department of Emergency Services
Cecil County Health Department
Community Fire Company of Rising Sun, Inc.
Harford County Department of Emergency Services



Harford County Health Department
Whiteford Volunteer Fire Company
<b>Federal</b>
Federal Emergency Management Agency
<b>Private</b>
Exelon Corporation
Union Hospital of Cecil County
University of Maryland Upper Chesapeake Medical Center

Sub-element 1.a. – Mobilization

**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; G.3.a; H.3, 4)**

**INTENT**

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

**EXTENT OF PLAY**

Responsible ORO's must demonstrate the capability to receive notification of an incident from the licensee; verify the notification, contact, alert, and mobilize key emergency personnel in a timely manner, and demonstrate the ability to maintain and staff 24-hour operations. 24-hour operations can be demonstrated during the exercise via rosters or shift changes or otherwise in an actual activation. Local and/or Tribal 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 ORO's 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 ICS, 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 Nuclear Power Plant (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



form 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 Post (ICP) 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 a hostile action-based (HAB) scenario at an NPP may also be within the auspices of the Federal government (e.g., Federal Bureau of Investigation (FBI), NRC, or DHS). Protocols for requesting Federal, State, local, and Tribal law enforcement support must be demonstrated, as appropriate. Any resources must be on the ORO's mobilization list so they can be contacted during an incident when needed.

#### **State of Maryland/Local Jurisdiction Extent of Play:**

During the plume phase exercise activities on April 17, 2018, responders will pre-stage at various locations to reduce the amount of travel time. Pre-staging within the facility is permitted but centers should not initiate activation until notification to mobilize and respond has been received. Upon receipt of notification messages, pre-staged SEOC staff will report to the SEOC from their staging area(s). Some SEOC Representatives may be asked to delay their arrival into the SEOC for 10-15 minutes at the discretion of exercise controllers on site, in order to simulate travel time to MEMA Headquarters that might be expected during a real event. MEMA will mobilize only key State agencies at the Maryland EOC. Key State Agencies are: MEMA, Maryland Military Department/National Guard, Maryland Department of the Environment, Maryland Department of Health, Maryland Department of Natural Resources, Maryland Department of Agriculture, Maryland Department of Transportation, Maryland State Police, Maryland Department of Education and the Maryland Institute for Emergency Medical Services Systems (MIEMSS).

The Maryland Department of the Environment field monitoring teams (FMT) will pre-stage. Twenty-four-hour rosters will be available for key players at each EOC. Out of sequence locations for Reception Center Monitoring and Decontamination and Emergency Worker monitoring are pre-staged and set up prior to the evaluation.

#### **Locations evaluated;**

- State EOC
- State AAC (MDE)
- JIC (At SEOC)
- Cecil County
  - EOC

- Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
- Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)
- State Field Monitoring Teams

**Outstanding Issues:**

None

**Sub-element 1.c – Direction and Control**

**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)**

**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.

**EXTENT OF PLAY**

**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 Memorandum of Understanding's (MOU) 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, when 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.**

**State of Maryland/Local Jurisdiction Extent of Play:**

None

**Locations evaluated;**

- State EOC
- State AAC (MDE)
- JIC (At SEOC)

- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

**Outstanding Issues:**

None

**Sub-element 1.d – Communications Equipment**

**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, F.1., 2.)**

**INTENT**

This sub-element is derived from NUREG-0654, which provides that OROs should establish reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as the following: appropriate contiguous governments within the emergency planning zone (EPZ), Federal emergency response organizations, the licensee and its facilities, emergency operations centers (EOC), and field teams.

**EXTENT OF PLAY**

**ORO will demonstrate that a primary and at least one backup system are fully functional at the beginning of an exercise.** 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 should be used as needed for the transmission and receipt of exercise messages. All facilities and field teams should have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs should demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations. OROs should ensure that a coordinated communication link for fixed and mobile medical support facilities exists.

The specific communications capabilities of OROs should be commensurate with that specified in the response plan and/or procedures. Exercise scenarios could require the failure of a communications system and the use of an alternate system.

**State of Maryland/Local Jurisdiction Extent of Play:**

Communication into the EOC to demonstrate exercise play for the April activities will be done from the Maryland SEOC.

**Locations evaluated;**

- State EOC
- State AAC (MDE)
- State Field Monitoring Teams
- JIC (At SEOC)
- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

**Outstanding Issues**

None

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

**Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG0654/FEMA-REP-1, H.7, 10; I.7, 8, 9; J.10.a.b.e; J.11, 12; K.3.a; K.5.b)**

**INTENT**

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

**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 locations(s) will be confirmed by physical inspection at the storage locations(s) or through documentation of current inventory submitted during the exercise, provided in the ALC submission, and/or verified during an site visit. 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 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) (0-200 mR), 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 a high-range instruments when available. Should a source not be 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 confirm 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:** Should 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. Should an agency have a defined role in the REP Plan, they are subject to the planning process and standards, as well as the guidance of this Manual.

#### **State of Maryland/Local Jurisdiction Extent of Play:**

##### **Locations evaluated;**

- State EOC (Maps and Displays)
- State AAC (MDE)
- State Field Monitoring Teams
- JIC (At SEOC)

- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

### **Outstanding Issues**

None

#### **Sub-element 2.a – Emergency Worker Exposure Control**

**Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654/FEMA-REP-1, C.6; f; K.3.a; K.4)**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plans/procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration total effective dose equivalent (TEDE) or organ-specific limits) identified in the ORO's plans/procedures.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be assessed concurrently with a licensee exercise and may be demonstrated in a full scale, functional or tabletop exercise.**

ORO's authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to comply with emergency worker exposure limits based on their emergency plans/procedures.

Participating OROs must also demonstrate the capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of



emergency workers receiving radiation doses above pre-authorized levels. This would include providing KI and dosimetry in a timely manner to emergency workers dispatched onsite to support plant incident assessment and mitigating actions, in accordance with respective plans/procedures.

As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers, based on their plans/procedures or projected thyroid dose compared with the established Protective Action Guide's (PAG) for KI administration.

**State of Maryland/Local Jurisdiction Extent of Play:**

KI tablets for emergency workers will be simulated. Distribution of simulated KI will be demonstrated. Actual distribution of KI will not be demonstrated. Actual self-reading dosimeters and permanent recording dosimeters will be issued.

**Locations evaluated;**

- Harford County EOC
- Cecil County EOC

**Outstanding Issues**

None

**Sub-element 2.b – Radiological Assessment, Protective Action Recommendations, and Precautionary and/or Protective Action Decisions for the Plume Phase of the Emergency**

**Criterion 2.b.1: Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3)**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs.

ORO must have the capability to choose among a range of protective actions those most appropriate in a given emergency. OROs base these choices on PAGs from their plans/procedures or EPA's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and other criteria, such as plant conditions, licensee PARs, coordination of precautionary and/or protective action decisions with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific hostile action, the affiliated response, and the effect of an evacuation on the threat response effort that create higher than normal risk from general population evacuation.

### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.**

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO must demonstrate the capability to use appropriate means, described in the plans/procedures, to develop Protective Action Decisions (PADs) based on available information and Protective Action Recommendations (PARs) provided by the licensee as well as field monitoring data, when available. The ORO must also consider any release and meteorological data provided by the licensee.

The ORO must demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PADs must be appropriate to the scenario. In all cases, calculation of projected dose must be demonstrated. Projected doses must be related to quantities and units of the PAG to which they will be compared.

When the licensee and ORO projected doses differ by more than a factor of 10, the ORO and licensee must determine the source of the difference by discussing input data and assumptions, using different models, or exploring possible reasons. Resolution of these differences must be incorporated into the PADs when timely and appropriate. The ORO must demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs..

#### **State of Maryland Negotiated Extent of Play:**

NO release scenarios may require assessment of "what if" conditions or controller inject after the exercise to demonstrate dose projection capabilities.

#### **Locations evaluated;**

- State AAC (MDE)

#### **Outstanding Issues:**

None

**Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1, A.3; C.4, 6; D.4; J.9; J.10.e, f; m)**

### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.**

OROs must have the capability to make both initial and subsequent PADs. OROs must demonstrate the capability to make initial PADs in a timely manner appropriate to the incident, based on information from the licensee, assessment of plant status and potential or actual releases, other available information related to the incident, input from appropriate ORO authorities (e.g., incident command), and PARs from the utility and ORO staff. In addition, a subsequent or alternate PAD may be appropriate should various conditions (e.g., an HAB incident, weather, release timing and magnitude) pose undue risk to an evacuation, or should evacuation disrupt the efforts to respond to a hostile action.

OROs must demonstrate the ability to obtain supplemental resources (e.g., mutual aid) necessary to implement a PAD when local law enforcement, fire service, HAZMAT, and emergency medical resources are utilized to augment response to the NPP site or other key infrastructure.

Dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. In addition, incident command must provide input regarding considerations for subsequent PADs based on the magnitude of the ongoing threat, the response, and/or site conditions. The decision-makers must demonstrate the capability to change protective actions based on the combination of all these factors.

Should the ORO determine that KI will be used as a protective measure for the general public under offsite plans/procedures, then it must demonstrate the capability to make decisions on the distribution and administration of KI to supplement sheltering and evacuation. This decision must be based on the ORO's plans/procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process must involve close coordination with appropriate assessment and decision-making staff.

Should more than one ORO be involved in decision making, all appropriate OROs must communicate and coordinate PADs with each other. In addition, decisions must be coordinated/communicated with incident command. OROs must demonstrate the capability to communicate the results of decisions to all the affected locations.

#### State of Maryland Negotiated Extent of Play:

Actual KI will not be transported. KI will be available for inspection at the respective storage location. (Note – this may be demonstrated during the out-of-sequence evaluations)

#### Locations evaluated;

#### KI Storage Locations;

Locations Evaluated	KI Storage Locations
Cecil County	Cecil County Health Department (CCHD), Cecil County DES
Harford County	Harford County Health Department (HCHD), Harford County DES
State AAC	MDE
MEMA SEOC (Decision-making discussion)	N/A

## Outstanding Issues

None

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

**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)**

#### **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, when 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 a NPP.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional 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 and 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.

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).

### **State of Maryland Negotiated Extent of Play:**

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups are based on the ORO's plans and procedures and completed, as they would be in an actual emergency. List of any special populations are available for review from the county EOCs. School officials responsible for contacting individual facilities are present in the county EOCs. Private schools, private kindergartens and day care centers will not participate in the exercise with the exception of Harford Christian School, however; OROs will have lists of any facilities located within the jurisdiction available for review.

### **Locations evaluated;**

- Cecil County
- Harford County

### **Outstanding Issues:**

None

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

**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)**

### **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" principle as appropriate.

### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional 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. When 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. Should exercise play 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.

ORO's may have administrative limits lower than EPA-400/R-17/001 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.

ORO's 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.

**State of Maryland Negotiated Extent of Play:** Dosimetry electrical leakage checks will be submitted with the ALC. Electronic dosimetry may be substituted for SRD's at some state or local jurisdictions.

**Locations evaluated;**

- State Field Monitoring Team
- Route Alerting (Cecil and Harford Counties)
- TCP/ACP (All Risk Counties)
- Cecil County
  - EOC
  - Rising Sun High School (Reception Monitoring and Decontamination and Congregate Care)
  - Perryville High School (Emergency Worker Monitoring and Decontamination)
- Harford County
  - EOC
  - Harford Technical School (Congregate Care)
  - Harford Community College Susquehanna Room (Reception Monitoring and Decontamination, Emergency Worker Monitoring and Decontamination)

**Outstanding Issues:**

None

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

**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 is maintained (NUREG-0654/FEMA-REP-1, J.10.e, and f)**

**INTENT**

The Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide KI for institutionalized individuals, and, when 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.

### **EXTENT OF PLAY**

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

OROs 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.

Should a recommendation be 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.

### **State of Maryland Negotiated Extent of Play:**

#### **Locations evaluated;**

- Cecil County
- Harford County

#### **Outstanding Issues:**

None

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

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

### **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.

### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional 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 PADs and emergency information and instructions to) persons with disabilities and access/functional needs, including hospitals/medical facilities, 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 real or simulated, as agreed to in the extent of play. Some contacts with transportation providers must be real, as negotiated in the extent of play. All actual and simulated contacts 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.

#### **State of Maryland Negotiated Extent of Play:**

Lists of any special populations are verified at the EOC but not provided to the evaluator. Lists of all special facilities are provided at evaluation. Contact with any special facility will be simulated or discussed at the EOC. Some facilities (~ 10%) may be contacted.

#### **Locations evaluated:**

- Cecil County
- Harford County

#### **Outstanding Issues:**

None

**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)**

## **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise, an actual event, or by means of drills conducted at any time.**

Public school systems/districts must demonstrate the ability to implement PADs 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. When 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.

Should the objectives be 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, when 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, when 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.

The provisions of this criterion also apply to any private schools, private kindergartens, and licensed daycare centers that participate in REP exercises 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.

### **State of Maryland Negotiated Extent of Play:**

Cecil and Harford Counties will demonstrate protective actions for schools during pre-arranged out-of-sequence (OOS) demonstrations. Protective actions for school children that live inside the 10-mile EPZ but attend school outside the 10-mile EPZ will be demonstrated by actions taken in the EOC during the actual exercise. OROs will have lists of any facilities located within the jurisdiction available for review.

**Locations evaluated:**

April 17, 2018

- Cecil and Harford EOCs

April 9 (Cecil) and April 17 (Harford), 2018

- Conowingo Elementary School (Cecil)
- Darlington Elementary School (Harford)
- Dublin Elementary School (Harford)
- Harford Christian School (Harford)

**Outstanding Issues:**

None

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

**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)**

**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.

**EXTENT OF PLAY**

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

ORO 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.

**State of Maryland Negotiated Extent of Play:**

Traffic and Access control points will be established administratively in the EOC based on scenario conditions. All exercise access control points will be evaluated by interview at the EOCs and not at an actual field location. Communications with the TCP/ACP (police officer in the field) will occur as they would in an actual emergency. Air and water controls will be coordinated (simulated) from the SEOC. Railway traffic coordination will be simulated in the SEOC.

**Locations evaluated:**

- Cecil County
- Harford County
- SEOC (Air / Water)

**Outstanding Issues:**

None

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

**EXTENT OF PLAY**

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

ORO's must 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 wreckers, need not be demonstrated; however, all contacts, actual or simulated, must be logged. The impediment must occur during the evacuation and be on an evacuation route such that re-routing of traffic is required, triggering decision-making and coordination with the JIC to communicate the alternate route to evacuees leaving the area.

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.

**State of Maryland Negotiated Extent of Play:**

Actual equipment will not be dispatched. Should evacuation not be included as one of the protective action then actions to resolve impediments (should an evacuation order be given) will be described to the evaluator including the conduct of a radiological briefing.

**Locations evaluated;**

- Cecil County
- Harford County

**Outstanding Issues:**

None

**Sub-element 4.a – Plume Phase Field Measurements and Analyses**

**Criterion 4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654/FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate disposition on the ground from an airborne plume. In addition, NUREG-0654/FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at an NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

**EXTENT OF PLAY**

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

Responsible OROs must demonstrate the capability to brief FMTs on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment. During an HAB incident, the Field Team management must keep the incident command informed of field monitoring teams' activities and location. Coordination with

FMTs and field monitoring may be demonstrated as out-of-sequence demonstrations, as negotiated in the Extent-of-Play Agreement.

Field measurements are needed to help characterize the release and support the adequacy of implemented protective actions, or to be a factor in modifying protective actions. Teams must be directed to take measurements at such locations and times as necessary to provide sufficient information to characterize the plume and its impacts.

Should the responsibility for obtaining peak measurements in the plume be accepted by licensee field monitoring teams, with concurrence from OROs, there is no requirement for these measurements to be repeated by ORO monitoring teams. Should the licensee FMTs not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all FMTs (licensee, Federal, and ORO) is essential. Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory(ies) must be demonstrated.

ORO must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

**State of Maryland Negotiated Extent of Play:**

These activities are based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least six readings will be obtained by each team at a one survey point at different times in the scenario or at different survey point locations location. In accordance with, (IAW) agreements with Exelon Generation and State and Local organizations, State teams will not measure plume centerline radiation levels. Airborne radioactivity samples will be counted in the field. Chain of custody procedures to deliver samples for additional analysis will be described to the evaluator.

**Locations evaluated;**

- State MDE AAC

**Outstanding Issues:**

None

**Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654/FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)**



## **EXTENT OF PLAY**

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

Two or more FMTs must demonstrate the capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority. FMTs must also demonstrate the capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement. Should samples have radioactivity significantly above background, the authority must consider the need for expedited laboratory analyses of these samples.

OROs must share data in a timely manner with all other appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form(s) for transfer to a laboratory(ies), are in accordance with the ORO's plans/procedures.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

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.

### **State of Maryland Negotiated Extent of Play:**

Only the State teams will demonstrate this objective. One sample will be obtained in an area that exhibits above ambient background radiation levels (plume edge) when applicable. Scenario data / location may not result in access to plume dose. Delivery of samples for additional analysis will not be demonstrated. Chain of custody procedures will be described to the evaluator.

### **Locations evaluated;**

- (2) State MDE Field Monitoring Teams

### **Outstanding Issues:**

None

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

**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)**

#### **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.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional 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 plume 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. Should message dissemination be 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 Emergency Alert System (EAS) broadcast stations may also be accomplished through Site Assistance Visits.

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.

Should route alerting be 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 8 years. All alert and notification activities along the route(s) must be simulated (that is, 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.

**State of Maryland Negotiated Extent of Play:**

Contact with one EAS station will be simulated using EMnet. Actual siren sounding and EAS demonstration will be simulated.

**Note**

Harford County will initiate EAS messaging for the respective local Maryland jurisdictions and will describe the process of using EMnet to the evaluator. The method of sending the message will be verified by a FEMA evaluator however, the actual message will not be broadcasted.

**Locations evaluated;**

- Harford County (Lead)
- Cecil County
- SEOC

**Outstanding Issues:**

None

**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)**

**EXTENT OF PLAY**

Offsite Response Organizations (ORO) with FEMA-approved exception areas (identified in the approved Alert and Notification System Design Report) 5–10 miles from the nuclear power plant should demonstrate the capability to accomplish primary alerting and notification of the exception area(s) within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The 45-minute clock will begin when the OROs make the decision to activate the alert and notification system for the first time for a specific emergency. The initial message should, at a minimum, include: a statement that an emergency exists at the plant and where to obtain additional information.

For exception area alerting, at least one route needs to be demonstrated and evaluated. The selected route(s) should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed-upon location.

Backup alert and notification of the public should be completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. Backup route alerting only needs to be demonstrated and evaluated, in accordance with the ORO's plan and/or procedures and the extent of play agreement, should the exercise scenario call for failure of any portion of the primary system(s), or should any portion of the primary system(s) actually fail to function. Only one route needs to be selected and demonstrated, when applicable. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed-upon location.

#### **State of Maryland Negotiated Extent of Play:**

Siren activation (simulated) is coordinated so that one county activates sirens for the other two risk jurisdictions.

#### **Cecil County/Harford County**

The designated route alerting players will be located at the staging areas (Cecil County: Community Fire Company of Rising Sun, Inc.; Harford County: Harford County EOC). Timing of the back-up routes should only begin after the designated participants receive notification of the failed sirens from the County EOC. One back-up route alerting route will be demonstrated in Cecil County and another in Harford County.

#### **Locations evaluated;**

- Cecil County (Staging area at Community Fire Company of Rising Sun, Inc.)
- Harford County (Staging area at Harford County EOC)

**Outstanding Issues:**

None

**Sub-element 5.b – Subsequent Emergency Information and Instructions for the Public and the Media**

**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)**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to disseminate appropriate emergency information and instructions, including any recommended protective actions, to the public. In addition, NUREG-0654/FEMA-REP-1 requires OROs to ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654/FEMA-REP-1 also provides that a system must be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

**EXTENT OF PLAY**

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional 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. Should message dissemination be 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. 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.

Should ingestion pathway measures be exercised, OROs must demonstrate that a system exists for rapid dissemination of ingestion pathway information to pre-determined 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 and communicated with appropriate security authorities, e.g., law enforcement and NPP security agencies, in accordance with ORO plans/procedures.

### **State of Maryland Negotiated Extent of Play:**

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least one media briefing will be conducted by the MEMA PIO representative at the Coatesville JIC. Public inquiry calls will be initiated at a Site Area Emergency classification. Each location will receive at least six calls. Special News Broadcasts/Press releases will be developed at appropriate centers but actual broadcast of these messages will not take place.

#### **Locations evaluated:**

**Public Inquiry Control:** This will be demonstrated during the exercise for the State and risk jurisdictions.

- SEOC
- Cecil County
- Harford County

**Special News Broadcasts/Press Releases:** This will be demonstrated during the exercise at the MEMA JIC (MEMA SEOC).

- MEMA JIC – Reisterstown, MD

**Media Briefing:** This will be demonstrated during the exercise at the JIC (Coatesville, PA).

- JIC – Coatesville, PA

#### **Outstanding Issues:**

None

### **Sub-element 6.a – Monitoring, Decontamination, and Registration of Evacuees**

**Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA-REP-1, A.3; C.4; J.10.h; J.12)**

#### **INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees, while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

#### **EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.**

Radiological monitoring, decontamination, and registration facilities for evacuees must be set up and demonstrated as they would be in an actual emergency or as indicated in the

Extent-of-Play Agreement. OROs conducting this demonstration must have one-third of the resources (e.g., monitoring teams/instrumentation/portal monitors) available at the facility(ies) as necessary to monitor 20 percent of the population within a 12-hour period. This would include adequate space for evacuees' vehicles. Availability of resources can be demonstrated with valid documentation (e.g., MOU/LOA, etc.) reflecting how necessary equipment would be procured for the location. Plans/procedures must indicate provisions for service animals.

Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. Staff responsible for the radiological monitoring of evacuees must demonstrate the capability to attain and sustain, within about 12 hours, a monitoring productivity rate per hour needed to monitor the 20 percent EPZ population planning base. The monitoring productivity rate per hour is the number of evacuees that can be monitored, per hour, by the total complement of monitors using an appropriate procedure. For demonstration of monitoring, decontamination, and registration capabilities, a minimum of six evacuees must be monitored per station using equipment and procedures specified in the plans/procedures. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators to determine whether the 12-hour requirement can be met.

ORO's must demonstrate the capability to register evacuees upon completion of the monitoring and decontamination activities. The activities for recording radiological monitoring and, when necessary, decontamination must include establishing a registration record consisting of the evacuee's name, address, results of monitoring, and time of decontamination, or as otherwise designated in the plan and/or procedures. Audio recorders, camcorders, or written records are all acceptable means for registration.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any evacuees who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans/procedures. Contamination of the evacuee(s) will be determined by controller inject and not simulated with any low-level radiation source. 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.

Decontamination of evacuees may be simulated and conducted by interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated evacuees, provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any evacuee found to be contaminated, procedures must be discussed concerning handling of potential



contamination of vehicles and personal belongings. Waste water from decontamination operations does not need to be collected.

Individuals who have completed monitoring (and decontamination, when needed) must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger/action level.

In accordance with plans/procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles monitored and decontaminated (when applicable) and do require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

#### State of Maryland Negotiated Extent of Play:

#### This element will be evaluated as an out-of-sequence activity

At least 6 evacuees will be monitored with one simulated contaminated. One vehicle will be monitored. Estimated monitoring rates and teams required for demonstration are listed below. The number of teams is based on 10% of the population arriving at the reception center with some contamination.

- Portal monitors can process (4 persons/min) 240 persons/hr.
- Hand-held monitors process 12 persons/hr.

Cecil County	
Total Population Est.	102,000
Est. Population Within EPZ	7,400
Est. @ Reception (~20% of Risk Population)	~1,500
Time to monitor population (no contaminations) using 1 portal monitor	>10 minutes
Time to monitor population (10% contaminations) using hand-held instruments	30 minutes / team
Teams required for hand-held monitoring in 24 hours	1
Teams required for exercise demonstration (1/3)	1
Harford County	

Total Population Est.	250,000
Est. Population Within EPZ	~12,000
Est. @ Reception	~2,400
Time to monitor population (no contaminations) using 1 portal monitor	>10 minutes
Time to monitor population (10% contaminations) using hand-held instruments	30 minutes / team
Teams required for hand-held monitoring in 24 hours	1
Teams required for exercise demonstration (1/3)	1

**Locations evaluated;**

- Cecil County – Rising Sun High School
- Harford County – Harford Community College Susquehanna Center (co-located with emergency worker)
- Facilities will be staffed and set up and operational prior to the evaluation.

**Outstanding Issues:**

None

**Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles**

**Criterion 6.b.1: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment vehicles. (NUREG-0654/FEMA-REP-1, K.5.a, b)**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of emergency workers and their equipment, inclusive of vehicles.

**EXTENT OF PLAY**

**Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.**

The monitoring staff must demonstrate the capability to monitor emergency worker personnel and their equipment and vehicles for contamination in accordance with the ORO's plans/procedures.

Specific attention must be given to equipment, including any vehicles that were in contact with contamination. The monitoring staff must demonstrate the capability to make decisions on the need for decontamination of personnel, equipment, and vehicles based on

trigger/action levels and procedures stated in the ORO plans/procedures. Monitoring of emergency workers does not have to meet the 12-hour requirement. However, appropriate monitoring procedures must be demonstrated for a minimum of two emergency workers and their equipment and vehicles. Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation.

The area to be used for monitoring and decontamination must be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping, and contamination control measures in place. Monitoring procedures must be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as radiator grills, bumpers, wheel wells, tires, and door handles must be demonstrated. Interior surfaces of vehicles that were in contact with contaminated individuals must also be checked.

Decontamination of emergency workers may be simulated and conducted via interview. Provisions for separate showering and same-sex monitoring must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated individuals where applicable; provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of emergency workers or facilities.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any emergency workers who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans/procedures. Contamination of the individual(s) will be determined by controller inject and not simulated with any low-level radiation source.

Decontamination capabilities and provisions for vehicles and equipment that cannot be successfully decontaminated will be discussed via interview. No water will be flowed during this demonstration.

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.

**State of Maryland Negotiated Extent of Play:**

**This element will be evaluated as an out-of-sequence activity**

Facilities will be staffed set up and operational prior to the evaluation.

**Locations evaluated;**

- Cecil County – Perryville High School (See Map in Appendix C)
- Harford County – Harford Community College Susquehanna Center, and Harford Technical High School Amoss Center (co-located with evacuees) (See Map in Appendix C)

**Outstanding Issues:**

None

**Sub-element 6.c – Temporary Care of Evacuees**

**INTENT**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires OROs to have the capability to establish relocation centers in host/support jurisdictions. The American Red Cross normally provides congregate care in support of OROs under existing letters of agreement.

**ASSESSMENT/EXTENT OF PLAY**

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, drills, an actual event, or SAV.

The evaluator must conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with applicable guidance.

For planning purposes, OROs must plan for a sufficient number of congregate care centers in host/support jurisdictions based on their all-hazard sheltering experience and what is historically relevant for that particular area. In this simulation, it is not necessary to set up operations as they would be in an actual emergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this criterion, exercise demonstration expectations must be clearly specified in Extent-of-Play Agreements.

Congregate care staff must also demonstrate the capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before entering the facility.

Individuals arriving at congregate care facilities must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been placed in a secured area or monitored, cleared, and found to have no contamination or contamination below the trigger/action level.

In accordance with plans/procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not need confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles held in a secure area until they can be monitored and decontaminated (if applicable) and do need confirmation that their vehicle is being held in a secure area or free from

contamination prior to entering the congregate care areas. This capability may be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility(ies). However, availability of such items must be verified by providing the evaluator a list of sources with locations and estimates of quantities.

**State of Maryland Negotiated Extent of Play:**

**This element will be evaluated as an out-of-sequence activity**

These activities are based on the ORO's plans and procedures and will be demonstrated through an interview process. Facilities will not be set up and operational for the evaluation.

**Locations evaluated;**

- Cecil County – Rising Sun High School
- Harford County - Harford Technical High School

**Outstanding Issues:**

None