



FEMA

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U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

To whom it may concern:

Enclosed is the After Action Report for the Susquehanna Steam Electric Station (SSES)/Geisinger Wyoming Valley Medical Center MS-1 Drill that was evaluated on April 23, 2013.

There were no "Deficiencies" or "Areas Requiring Corrective Action" identified during the drill.

Based on the review of the offsite radiological emergency response plans and procedures submitted, FEMA Region III has determined they are adequate and there is reasonable assurance they can be implemented, as demonstrated during the Susquehanna Steam Electric Station/Geisinger Wyoming Valley Medical Center 2013 MS-1 Drill.

If you have any questions, please contact Barton Freeman at (215) 931-5567.

Sincerely,

A handwritten signature in black ink, appearing to read "MaryAnn Tierney".

MaryAnn Tierney
Regional Administrator

Enclosure

IX49
NRC



Susquehanna Steam Electric Station

After Action Report/ Improvement Plan

Drill Date - April 23, 2013

Radiological Emergency Preparedness (REP) Program



FEMA

Published June 23, 2013

Unclassified

Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Susquehanna Steam Electric Station

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Susquehanna Steam Electric Station After Action Report/Improvement Plan

Published June 23, 2013

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EXECUTIVE SUMMARY

On April 23, 2013 a medical services drill was evaluated in relation to the Susquehanna Steam Electric Station (SSES) by the Federal Emergency Management Agency (FEMA), Region III, Radiological Emergency Preparedness Program (REPP). The purpose of the drill was to assess the level of State and local preparedness in responding to a radiological emergency. The drill was held in accordance with DHS's policies and guidance concerning the exercise of State and local radiological emergency response plans (RERPs) and procedures. The most recent previous FEMA evaluated medical services drill for this site was conducted on April 3, 2011, at Bloomsburg Hospital, Bloomsburg, PA.

FEMA, Region III, wishes to acknowledge the efforts of the many individuals in the Commonwealth of Pennsylvania, the risk jurisdiction of Luzerne County, the Plains Volunteer Ambulance, and Geisinger Wyoming Valley Medical Center which participated in this drill. Protecting the public health and safety is the full-time job of some of the drill 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 this drill.

The Susquehanna Steam Electric Station 2013 Medical Services Drill evaluation included two (2) participating locations. Two evaluators provided analyses of six (6) Exercise Criteria. These analyses resulted in a determination that all criteria were successfully demonstrated and there were no Deficiencies, Areas Requiring Corrective Action, or Planning Issues.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Susquehanna Steam Electric Station

Type of Exercise

Drill

Exercise Date

April 23, 2013

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Emergency

1.2 Exercise Planning Team Leadership

Robert Meinert

Lead Exercise Planner

Pennsylvania Emergency Management Agency

Exercise Planner

2605 Interstate Drive

Harrisburg, Pennsylvania, 17110

717-651-2215

rmeinert@pa.gov

Laurin Fleming

Exercise Planner

Pennsylvania Emergency Management Agency

Emergency Management Program Specialist

2605 Interstate Drive

Harrisburg, Pennsylvania, 17110
717-561-2119
laurfleming@state.pa.us

Barton Freeman
Lead Federal Evaluator
Federal Emergency Management Agency, Region III
Site Specialist
615 Chestnut Street
6th Floor
Philadelphia, Pennsylvania, 19106
215-931-5567
barton.freeman@fema.dhs.gov

Stephen Berkanich
Exercise Coordinator
Luzerne County Emergency Management Agency
Emergency Management Director
185 Water Street
Wilkes-Barre, Pennsylvania, 18702
570-820-4400
sgekanich@luzernecounty.org

Ron Remsky
Lead Controller
Pennsylvania Power and Light, Emergency Planning
Emergency Planner
1190 East Mountain Drive
Wilkes-Barre, Pennsylvania, 18702
570-954-9096
rpremsky@pplweb.com

1.3 Participating Organizations

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

State Jurisdictions

Pennsylvania Emergency Management Agency

Risk Jurisdictions

Luzerne County Emergency Management Agency

Plains Volunteer Ambulance

Geisinger Wyoming Medical Center

Private Organizations

Susquehanna Steam Electric Station, PPL

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

On April 23, 2013 a medical services drill was evaluated in relation to the Susquehanna Steam Electric Station (SSES) by the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), Region III, Radiological Emergency Preparedness Program (REPP). The purpose of the drill was to assess the level of State and local preparedness in responding to a radiological emergency. The drill was held in accordance with DHS's policies and guidance concerning the exercise of State and local radiological emergency response plans (RERPs) and procedures. The most recent previous FEMA evaluated medical services drill for this site was conducted on April 6, 2011.

FEMA, Region III, wishes to acknowledge the efforts of the many individuals in the Commonwealth of Pennsylvania, the risk jurisdiction of Luzerne County, Plains Volunteer Ambulance, and Geisinger Wyoming Valley Medical Center, which participated in this drill.

Protecting the public health and safety is the full-time job of some of the drill 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 this drill.

2.2 Exercise Objectives, Capabilities and Activities

The objective of the SSES/Geisinger Wyoming Valley Medical Center Medical Services (MS-1) Drill was to demonstrate that the response organizations have the personnel, equipment, training, and knowledge to effectively assess the condition of a potentially radioactively contaminated patient, protect against cross contamination, transport, and transfer, the patient to a hospital where the patient can then be decontaminated and treated. The hospital personnel are responsible for preparing a receiving and treatment area, operating radiological detection equipment, and implementing proper emergency worker protective procedures.

All activities were evaluated in accordance with current FEMA directives and guidance and were performed in accordance with current hospital plans and procedures.

2.3 Scenario Summary

The exercise scenario for this Medical Services Drill consisted of simulated notifications of escalating emergency classification levels at SSES from Site Area Emergency to General Emergency. Subsequent to being notified of the General Emergency, the 911 Center informed the hospital that an incident had occurred at a decontamination center resulting in the injury and possible radiological contamination of an evacuee. The hospital implemented its plan to prepare a Radiation Emergency Area to receive and treat the patient and activated its radiation emergency medical team.

The patient was injured in a fall that resulted in a bruised and lacerated forehead, neck pain, abrasions on the left and right palms and both knees. Detectable radioactive contamination was found on both palms and the forehead.

The patient was assessed, prepared for transport, and evacuated to the hospital by ambulance. At the hospital, the patient was received by staff and monitored for radioactive contamination. Hospital personnel established an outdoor Emergency Radiation Area. Gross decontamination was implemented and the patient was subsequently treated for injuries.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Drill 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 23, 2013, SSES/Geisinger Wyoming Valley Medical Center MS-1 Drill.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of the Exercise Evaluation Area Criteria contained in the Radiological Emergency Preparedness Program Manual. Detailed information on the Exercise Evaluation Area Criteria and the Extent-of-Play Agreement used in this exercise are found in the Exercise Plan, Appendix B.

3.2 Summary Results of Drill Evaluation

The Susquehanna Steam Electric Station 2013 Medical Services Drill evaluation included two (2) participating locations. Two evaluators provided analyses of six (6) Exercise Criteria. These analyses resulted in a determination that all criteria were successfully demonstrated and there were no Deficiencies, Areas Requiring Corrective Action, or Planning Issues.

Table 3.1 - Summary of Drill Evaluation

DATE: 2013-04-23 SITE: Susquehanna Steam Electric Station, PA M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		LzCo, GWVMC	LzCo PVA
Emergency Operations Management			
Mobilization	1a1		
Facilities	1b1		
Direction and Control	1c1		
Communications Equipment	1d1		
Equipment and Supplies to Support Operations	1e1	M	M
Protective Action Decision Making			
Emergency Worker Exposure Control	2a1		
Dose Assessment & PARs & PADs for the Emergency Event	2b1		
Dose Assessment & PARs & PADs for the Emergency Event	2b2		
PADs for disabilities & access/functional needs people	2c1		
Radiological Assessment & Decision-making for Ingestion Pathway	2d1		
Radiological Assessment & Decision-making for Relocation/Reentry/Return	2e1		
Protective Action Implementation			
Implementation of Emergency Worker Exposure Control	3a1	M	M
Implementation of KI PAD for Institutionalized Individuals/Public	3b1		
Implementation of PADs for disabilities & access/functional needs people	3c1		
Implementation of PADs for Schools	3c2		
Implementation of Traffic & Access Control	3d1		
Impediments to Evacuation	3d2		
Availability & use of Commodity & Resource Information	3e1		
Preprinted Materials for Implementing PADs for Commodities & Resources	3e2		
Implementation of Relocation/Reentry/Return Decisions	3f1		
Field Measurement and Analysis			
RESERVED	4a1		
Field Team Management	4a2		
Plume Phase Field Measurement, Handling, & Analyses	4a3		
Post Plume Phase Field Measurements & Sampling	4b1		
Laboratory Operations	4c1		
Emergency Notification and Public Info			
Activation of the Prompt Alert & Notification System	5a1		
RESERVED	5a2		
Activation of the Back-up ANS	5a3		
Activation of the Exception Area ANS	5a4		
Emergency Information & Instructions for the Public/Media	5b1		
Support Operations/Facilities			
Monitoring, Decontamination, & Registration of Evacuees	6a1		
Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1		
Temporary Care of Evacuees	6c1		
Transportation/Treatment of Contaminated Injured Individuals	6d1	M	M

3.3 Criteria Evaluation Summaries

3.3.1 Risk Jurisdictions

3.3.1.1 Luzerne County, Geisinger Wyoming Valley Medical Center

In summary, the status of DHS/FEMA criteria for this location is as follows:

- a. MET: 1.e.1, 3.a.1, 6.d.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.2 Luzerne County, Plains Volunteer Ambulance

In summary, the status of DHS/FEMA criteria for this location is as follows:

- a. MET: 1.e.1, 3.a.1, 6.d.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

SECTION 4: CONCLUSION

Based on the review of the offsite radiological emergency response plans and procedures submitted, FEMA Region III has determined they are adequate and there is reasonable assurance they can be implemented, as demonstrated during the Susquehanna Steam Electric Station/Geisinger Wyoming Valley Medical Center 2013 MS-1 Drill.

APPENDIX A: DRILL EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators for the SSES 2013 SSES/Geisinger Wyoming Valley Medical Center MS-1 Drill evaluated on April 23, 2013:

DATE: 2013-04-23, SITE: Susquehanna Steam Electric Station, PA

LOCATION	EVALUATOR	AGENCY
Luzerne County, Geisinger Wyoming Valley Medical Center	Robert Neff	FEMA RIII
Luzerne County, Plains Volunteer Ambulance	*Barton Freeman	FEMA RIII
* Team Leader		

APPENDIX B: EXERCISE PLAN

The enclosed Exercise Plan was created as an overall tool for facilitation and implementation of the SSES Geisinger Wyoming Valley Medical Center 2013 MS-1 Drill and to integrate the concepts and policies of the Homeland Security Exercise Evaluation Program with the Radiological Emergency Preparedness Program Exercise Methodology. The Exercise Plan was originally drafted and published by the Pennsylvania Emergency Agency (PEMA) as an independent document and is annexed here.

The "Susquehanna Steam Electric Station Geisinger Wyoming Valley Medical Center Medical Services Drill Extent of Play" was agreed upon by FEMA Region III, PEMA, and the emergency management agencies of the participants. It is included as an Appendix of the Exercise Plan.

For the purposes of this report, the terms exercise and drill are synonymous.

NATIONAL EXERCISE PROGRAM

Exercise Plan

2013 Susquehanna Steam and Electric Station Medical Services Exercise

FEMA EVALUATED MEDICAL SERVICES EXERCISE (MS-1)

U.S. DEPARTMENT OF HOMELAND SECURITY

GEISINGER WYOMING VALLEY HOSPITAL

Exercise Date: April 23, 2013



FEMA

Date Published: January 9, 2013

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PREFACE

The 2013 Susquehanna Steam and Electric Station Medical Services Exercise (MS-1) is sponsored by Pennsylvania Emergency Management Agency (PEMA) and the Federal Emergency Management Agency (FEMA). This Exercise Plan (ExPlan) was produced with input, advice, and assistance from the Exercise Planning Team (EPT), which followed the guidance set forth in the Federal Emergency Management Agency (FEMA), Homeland Security Exercise and Evaluation Program (HSEEP).

The ExPlan gives officials, observers, media personnel, and players from participating organizations the information necessary to observe or participate in a nuclear power plant accident response exercise focusing on participants' emergency response plans, policies, and procedures as they pertain to this type of event. The information in this document is current as of the date of publication and is subject to change as dictated by the EPT.

The 2013 Susquehanna Steam and Electric Station Medical Services Exercise is an *unclassified exercise*. The control of information is based more on public sensitivity regarding the nature of the exercise than on the actual exercise content. Some exercise material is intended for the exclusive use of exercise planners, Controllers, and Evaluators, but Players may view other materials deemed necessary to their performance. The ExPlan may be viewed by all exercise participants, *but the Controller and Evaluator (C/E) Handbook is a restricted document intended for Controllers and Evaluators only.*

All exercise participants should use appropriate guidelines to ensure the proper control of information within their areas of expertise and to protect this material in accordance with current jurisdictional directives. Public release of exercise materials to third parties is at the discretion of DHS and the EPT.

HANDLING INSTRUCTIONS

1. The title of this document is 2013 Susquehanna Steam and Electric Station Medical Services *Exercise Plan (ExPlan)*.
2. The information gathered in this ExPlan is unclassified, *For Official Use Only (FOUO)* and should be handled as sensitive information not to be disclosed. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives. Reproduction of this document, in whole or in part, without prior approval from the Exercise Planning Director is prohibited.
3. At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, will be stored in a locked container or area offering sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.
4. For more information, please consult the following point of contact (POC):

Federal POC(s):

Barton Freeman
Emergency Management Program Specialist
Federal Emergency Management Agency
615 Chestnut Street
Philadelphia, PA 19106-4404
215-931-5567
Barton.freeman@dhs.gov

State/ORO POC(s):

Robert L. Meinert, MS-1 Coordinator
Pennsylvania Emergency Management Agency
2605 Interstate Drive
Harrisburg, Pennsylvania 17110
717.651.2215
rmeinert@pa.gov

Laurin Fleming
Emergency Management Specialist
Pennsylvania Emergency Management Agency
2605 Interstate Drive
Harrisburg, PA 17110
717-651-2119
laufleming@state.pa.us

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CHAPTER 1: GENERAL INFORMATION

Introduction

The 2013 Susquehanna Steam and Electric Station Medical Services Exercise (MS-1) is a Functional Exercise (FE) designed to establish a learning environment for players to exercise emergency response plans, policies, and procedures as they pertain to Nuclear Power Plant accidents. A Functional Exercise is a complex event that requires detailed planning. To conduct an effective exercise, subject matter experts (SMEs) and local representatives from numerous agencies have taken part in the planning process and will take part in exercise conduct and evaluation.

This Exercise Plan (ExPlan) was produced at the direction of the Federal Emergency Management Agency with the input, advice, and assistance of the Commonwealth of Pennsylvania. The 2013 Susquehanna Steam and Electric Station Medical Services Exercise (MS-1) is evidence of the growing partnership between State and local jurisdictions for response to the threats our Nation and communities face.

Confidentiality

The 2013 Susquehanna Steam and Electric Station Medical Services Exercise is an *unclassified exercise*. The control of information is based more on public sensitivity regarding the nature of the exercise than on the actual exercise content. Some exercise material is intended for the exclusive use of exercise planners, controllers, and evaluators, but players may view other materials deemed necessary to their performance. This Exercise Plan may be viewed by all exercise participants, *but the Controller and Evaluator (C/E) Handbook is a restricted document intended for controllers and evaluators only.*

All exercise participants should use appropriate guidelines to ensure the proper control of information within their areas of expertise and protect this material in accordance with current Federal, State and Local directives.

Public release of exercise materials to third parties is at the discretion of the Pennsylvania Emergency Management Agency (PEMA) and the Exercise Planning Team.

Purpose

The purpose of this exercise is to evaluate player actions against current response plans and capabilities for a nuclear power plant-related incident, and to comply with the requirements of 44 CFR 350 and the guidelines of NUREG 0654/FEMA-REP-1. Exercise planners utilized the elements described in the 67 FR 20580 (April 25, 2002) and Radiological Emergency Preparedness (REP) Program Manual (April 2012) to develop this exercise.

The objective of the Pennsylvania Emergency Management Agency and local jurisdictions is to demonstrate reasonable assurance that the public can be protected during a nuclear power plant emergency.

Target Capabilities

The establishment of the National Preparedness Priorities have steered the focus of homeland security toward a capabilities-based planning approach. Capabilities-based planning focuses on planning under uncertainty, since the next danger or disaster can never be forecast with complete accuracy. Therefore, capabilities-based planning takes an all-hazards approach to planning and preparation which builds capabilities that can be applied to a wide variety of incidents. States and Urban Areas use capabilities-based planning to identify a baseline assessment of their homeland security efforts by comparing their current capabilities against the Target Capabilities List (TCL) and the critical tasks of the Universal Task List (UTL). This approach identifies gaps in current capabilities and focuses efforts on identifying and developing priority capabilities and tasks for the jurisdiction. These priority capabilities are articulated in the jurisdiction's homeland security strategy and Multi-Year Training and Exercise Plan (TEP), of which this exercise is a component of.

The capabilities listed below have been selected by the Exercise Planning Team from the priority capabilities identified in Commonwealth of Pennsylvania Multi-Year TEP and the FEMA Radiological Emergency Preparedness Program Manual (April 2012), Exercise Evaluation Criteria. These capabilities provide the foundation for development of the exercise objectives and scenario, as the purpose of this exercise is to measure and validate performance of these capabilities and their associated critical tasks.

- Planning
- Communications
- Community Preparedness and Participation
- WMD/HazMat Response and Decontamination
- Emergency Triage and Pre-Hospital Treatment
- Medical Supplies Management and Distribution

Exercise Objectives

The Emergency Preparedness Evaluation Areas – the elements and sub elements – for this exercise are those that are required to be demonstrated in every MS-1 Exercise, per 67 FR 20580 (April 25, 2002) and the Radiological Exercise Preparedness (REP) Program manual (April 2012). Appendix B, Extent of Play, Shows the emergency preparedness elements that are required to be demonstrated in the 2013 Susquehanna Steam and Electric Station Medical Services Exercise, along with the level of demonstration that will be displayed in the exercise (i.e, fully demonstrated, limited demonstration, simulated, Out-Of-Sequence interviews, not demonstrated).

The objective of this exercise is to demonstrate reasonable assurance that the health and safety of the public can be protected through successful demonstration of tasks identified in Appendix B.

Outstanding Issues

There were no Areas Requiring Corrective Action (ARCAs) as a result of the previous FEMA-evaluated MS-1 Exercise.

CHAPTER 2: EXERCISE LOGISTICS

Exercise Summary

General

The 2013 Susquehanna Steam and Electric Station Medical Services Exercise is designed to establish a learning environment for players to exercise their plans and procedures for responding to a radiological incident. The 2013 Susquehanna Steam and Electric Station Medical Services Exercise will be conducted on April 23, 2013. Exercise play is scheduled for four (4) hours or until the Lead Controller determines that the exercise objectives have been met at each venue.

Assumptions

Assumptions constitute the implied factual foundation for the exercise and, hence, are assumed to be present before the start of the exercise. The following general assumptions apply to the 2013 Susquehanna Steam and Electric Station Medical Services Exercise:

- The exercise will be graded against the REP criteria. Elements outside the scope of the REP criteria will not be graded.
- This exercise will be conducted in a no-fault learning environment wherein systems and processes, not individuals, will be evaluated.
- Exercise simulation will be realistic and plausible, containing sufficient detail from which to respond.
- Exercise players will react to the information and situations as they are presented, in the same manner as if this had been a real event.

Constructs and Constraints

Constructs are exercise devices designed to enhance or improve exercise realism. Alternatively, constraints are exercise limitations that may detract from exercise realism. Constraints may be the inadvertent result of a faulty construct or may pertain to financial and staffing issues. Although there are a number of constructs and constraints (also known as exercise artificialities) for any exercise, the EPT recognizes and accepts the following as necessary:

- Exercise communication and coordination will be limited to the participating exercise venues.
- Communication methods may include Telephone, Mobile Telephone, radio, and other method made available for players to use during the exercise.
- Out-of-Sequence play is allowed.
- Certain simulations are allowed.

The participating agencies may need to balance exercise play with real-world emergencies. It is understood that real-world emergencies will take priority.

Exercise Participants

The following are the categories of participants involved in this exercise; note that the term “participant” refers to all categories listed below, not just those playing in the exercise:

- *Players.* Players are agency personnel who have an active role in responding to the simulated emergency and perform their regular roles and responsibilities during the exercise. Players initiate actions that will respond to and mitigate the simulated emergency.
- *Controllers.* Controllers set up and operate the exercise site; plan and manage exercise play; act in the roles of response individuals and agencies not playing in the exercise. Controllers direct the pace of exercise play and routinely include members from the exercise planning team. They provide key data to players and may prompt or initiate certain player actions to ensure exercise continuity.
- *Evaluators.* Evaluators are chosen to evaluate and provide feedback on a designated functional area of the exercise. They are chosen based on their expertise in the functional area(s) they have been assigned to review during the exercise and their familiarity with local emergency response procedures. Evaluators assess and document participants’ performance against established emergency plans and exercise evaluation criteria, in accordance with HSEEP standards and within the bounds of REP Program guidance and regulations. They are typically chosen from amongst planning committee members or the agencies/organizations that are participating in the exercise. FEMA Evaluators will not serve as Controllers.
- *Actors.* Actors are exercise participants who act or simulate specific roles during exercise play. They are typically volunteers who have been recruited to play the role of victims or other bystanders.
- *Observers.* Observers visit or view selected segments of the exercise. Local Observers do not play in the exercise, and do not perform any control or evaluation functions. Local Observers will view the exercise from a designated observation area and will be asked to remain within the observation area during the exercise. PEMA observers may be present at selected locations as assigned by the Lead Controller. VIPs or other visitors will be handled by each agency or location (Municipal EOC, County EOC, etc.) according to those agencies’ policies and procedures.
- *Media Personnel.* Some media personnel may be present as observers pending approval by the Pennsylvania Emergency Management Agency (PEMA).
- *Support Staff.* Exercise support staff includes individuals who are assigned administrative and logistical support tasks during the exercise (i.e. registration, catering, etc.)

Exercise Tools

Controller and Evaluator Handbook

The 2013 Susquehanna Steam and Electric Station Medical Services Exercise C/E Handbook is designed to help exercise Controllers and evaluators conduct and evaluate an effective exercise. This Handbook also enables Controllers and Evaluators to understand their roles and responsibilities in exercise execution and evaluation.

Master Scenario Events List

A MSEL outlines benchmarks, as well as injects that drive exercise play. It also details realistic input to the exercise players as well as information expected to emanate from simulated organizations (i.e., those nonparticipating organizations, agencies, and individuals who would usually respond to the situation). An inject will include several items of information, such as inject time, intended recipient, responsible controller, inject type, a short description of the event, and the expected player action.

For the 2013 Susquehanna Steam and Electric Station Medical Services Exercise a MSEL will not be used. Exercise events are driven by the scenario. Controllers will describe the patient's condition and provide radiological data for the decontamination team.

Exercise Implementation

Exercise Play

Exercise play will begin at approximately 0900 with a situation update going to each participating venue. Play will proceed according to the events outlined in the scenario, in accordance with established plans and procedures. The exercise will conclude upon the completion of operations and attainment of the exercise objectives, as determined by the Lead Controller.

Exercise Rules

The following are the general rules that govern exercise play:

- Real-world emergency actions take priority over exercise actions.
- Exercise participants will comply with real-world response procedures, unless otherwise directed by control staff.
- All communications (written, radio, telephone, etc.) made during the exercise will begin and end with the phrase, *"This is an exercise."*

Exercise participants placing telephone calls or initiating radio communication must identify the organization, agency, office, and/or individual with whom they wish to speak.

Safety Requirements

General

Exercise participant safety takes priority over exercise events. Although the organizations involved in the 2013 Susquehanna Steam and Electric Station Medical Services Exercise come from various response agencies, they share the basic responsibility for ensuring a safe environment for all personnel involved in the exercise. In addition, aspects of an emergency response are dangerous. Professional health and safety ethics should guide all participants to operate in their assigned roles in the safest manner possible. The following general requirements apply to the exercise:

- An exercise Safety Controller will be identified and be responsible for participant safety.
- All exercise controllers, evaluators, and staff will serve as safety observers while the exercise activities are underway. Any safety concerns must be immediately reported to the Safety Controller.
- Participants will be responsible for their own and each other's safety during the exercise. It is the responsibility of all persons associated with the exercise to stop play if, in their opinion, a real safety problem exists. Once the problem is corrected, exercise play can be restarted.
- All organizations will comply with their respective environmental, health, and safety plans and procedures, as well as the appropriate Federal, State, and local environmental health and safety regulations.

Exercise Setup

Exercise setup involves the pre-staging and dispersal of exercise materials; including registration materials, documentation, signage, and other equipment as appropriate.

Accident Reporting and Real Emergencies

- Anyone observing a participant who is seriously ill or injured will first advise the nearest controller to call 911, and state "***This is not an Exercise***" prior to explaining the injury or illness then if possible, renders aid, provided the aid does not exceed his or her training.
- The controller who is made aware of a real emergency will initiate the broadcast "***This Is Not An Exercise***" on the controller radio network or telephone, providing the following information to the Lead Controller and Exercise Director:
 - Venue/function
 - Location within the venue/function
 - Condition
 - Requirements

- If the nature of the emergency requires a suspension of the exercise at the venue/function, all exercise activities at that facility will immediately cease. Exercise play may resume at that venue/function once the “Real-World Emergency” situation has been addressed.
- Exercise play at other venue/functions should not cease if one venue/function has declared a “Real-World Emergency” unless they are reliant on the affected venue.
- If a real emergency occurs that affects the entire exercise, the exercise may be suspended or terminated at the discretion of the Exercise Director and Lead Controller.

Site Access

Security

To prevent confusion and interruption of the exercise, access to the exercise sites will be limited to exercise participants only. Players should advise their venue’s controller or evaluator if an unauthorized person is present. Each organization should follow its internal security procedures, augmented as necessary to comply with exercise requirements.

Observer Coordination

Each organization with observers will coordinate with the Lead Controller or Exercise Director for access to the exercise site. Observers will be escorted to an observation area for orientation and conduct of the exercise. All observers will be asked to remain within the designated observation area during the exercise. Exercise Director and/or the Observer Controller will be present to explain the exercise program and answer questions for the observers during the exercise.

Parking and Directions

Parking information and directions to each venue area are available from the facility through the Lead Controller.

Restroom Facilities

Restroom facilities will be available at each venue.

Exercise Identification

Players, Controllers and Evaluators will display the agency issued Identification badges while the exercise is in play.

Communications Plan

Exercise Start, Suspension, and Termination Instructions

The exercise is scheduled to run for four (4) hours or until the Lead Controller after consultation with the Lead Evaluator determines that the exercise objectives have been met. The Lead Controller will announce the exercise suspension or termination.

All spoken and written communication will start and end with the statement, "THIS IS AN EXERCISE."

Player Communication

Players will use routine, in-place agency communication systems. Additional communication assets may be made available as the exercise progresses. The need to maintain capability for a real-world response may preclude the use of certain communication channels or systems that would usually be available for an actual emergency incident. In no instance will exercise communication interfere with real-world emergency communications. Each venue will coordinate its own internal communication networks and channels.

The primary means of communication among, Controllers, and the venues will be telephone.

Player Briefing

Controllers/Evaluators may be required to read specific scenario details to the participants to begin exercise play. They may also have technical handouts or other materials to give to players in order to better orient them to the exercise environment.

External Affairs

Any participation by actual media shall be coordinated through the PEMA Press Office.

CHAPTER 3: PLAYER GUIDELINES

Exercise Staff

Exercise Director

The Exercise Director has the overall responsibility for planning, coordinating, and overseeing all exercise functions. The Exercise Director for the 2013 Susquehanna Steam and Electric Station Medical Services Exercise is the Lead Controller who will manage the exercise activities and maintain a close dialogue with the Controllers regarding the status of play and the achievement of the exercise design objectives.

Trusted Agents

Trusted agents are exercise planners and participants who are responsible for developing the Scenario and the Master Scenario Events List (MSEL). These documents are restricted and are not available to other members of the Exercise Planning Team, Players, or other Participants. The trusted agents for the 2013 Susquehanna Steam and Electric Station MS-1 Exercise include the Exercise Director, Lead Controller, PPL, and the Luzerne County Emergency Management Agency.

Lead Controller

The Lead Controller is responsible for the overall organization of the 2013 Susquehanna Steam and Electric Station MS-1 Exercise. The Lead Controller monitors exercise progress and coordinates decisions regarding deviations or significant changes to the scenario caused by unexpected developments during play. The Lead Controller monitors actions by individual Controllers and ensures they implement all designated and modified actions at the appropriate time. The Lead Controller debriefs the Controllers after the exercise and oversees the setup and takedown of the exercise.

Controllers

At least one controller will be onsite with every facility participating in the exercise. The Lead Facility Controller at each location will coordinate any changes that impact the scenario or affect other areas of play through the Lead Controller. The individual controllers issue exercise materials to players as required and monitor the exercise timeline. Controllers also provide injects to the players as described in the scenario.

Lead Evaluator

The Lead Evaluator is responsible for the overall evaluation of the 2013 Susquehanna Steam and Electric Station MS-1 Drill. The Lead Evaluator monitors exercise progress and stays in contact with the Lead Controller regarding changes to the exercise during play. The Lead Evaluator monitors actions of individual Evaluators and ensures they are tracking progress of the players in

accordance with the Overview of Play. The Lead Evaluator debriefs the evaluators after the exercise and oversees the entire evaluation and After Action process. The Lead Evaluator will be the PEMA MS-1 Program Coordinator.

Evaluators

Evaluators work under the direction of the Lead Evaluator, and as a team with Controllers. Evaluators are SMEs who record events that take place during the exercise and assess/submit documentation for review and inclusion in the After Action Report (AAR). Evaluators should refrain from any direct interaction with the players during exercise play except with the facilitation of a Controller for clarification of issues or during scheduled interviews.

Player Instructions

Before the Exercise

- Review the appropriate emergency plans, procedures, and exercise support documents.
- Be at the appropriate site at least 30 minutes before the start of the exercise. Wear appropriate uniform/identification badge.
- Players who gain knowledge of the scenario before the exercise must notify a controller so that appropriate actions can be taken to ensure a valid evaluation.
- Please sign in.

During the Exercise

- Respond to the exercise events and information as if the emergency were real, unless otherwise directed by an exercise controller.
- Controllers will only give you information they are specifically directed to disseminate. You are expected to obtain other necessary information through existing emergency information channels.
- Do not engage in personal conversations with controllers, evaluators, observers, or media personnel while the exercise is in progress. If you are asked an exercise-related question, give a short, concise answer. If you are busy and cannot immediately respond, indicate so, but report back with an answer at the earliest time possible.
- If you do not understand the scope of the exercise or if you are uncertain about an organization's or agency's participation in an exercise, ask a controller.
- Parts of the scenario may seem implausible. Recognize that the exercise has objectives to satisfy and may require the incorporation of unrealistic aspects. Note that every effort has been made by the trusted agents to balance realism with safety and the creation of an effective learning and evaluation environment.

- All exercise communication will begin and end with the phrase “This is an exercise.” This is a precaution taken so anyone overhearing the conversation will not mistake the exercise play for a real-world emergency.
- When communicating with any venue, identify the organization, agency, office, and/or individual with which you want to speak.
- Verbalize out loud when taking an action. This will ensure that evaluators are made aware of critical actions as they occur.
- Maintain a log of your activities. Many times, this log may include documentation of activities missed by a controller or evaluator.

Following the Exercise

- At the end of the exercise at your facility, participate in the Hotwash with the controllers and evaluators.
- Provide all rosters, sign in sheets, logs, messages, notes or materials generated from the exercise to your controller or evaluator for review and inclusion in the After Action Report (AAR).

Simulation Guidelines

Because the 2013 Susquehanna Steam and Electric Station MS-1 Exercise is of limited duration and scope, the physical description of what would fully occur at the incident sites and surrounding areas will be relayed to the Players by Simulators or Controllers.

If a real emergency occurs during the exercise, the exercise at your respective venue may be suspended or terminated at the discretion of the controller(s) at each venue. If a real emergency occurs, say “Real-World Emergency” and notify the nearest Controller and Evaluator.

CHAPTER 4: EVALUATION AND POST-EXERCISE ACTIVITIES

Exercise Documentation

The goal of the 2013 Susquehanna Steam and Electric Station MS-1 Exercise is to comprehensively exercise and evaluate the OROs' plans and capabilities as they pertain to a potential nuclear power plant incident. After the exercise, data collected by Controllers, Evaluators, and Players will be used to identify strengths and areas for improvement in the context of the exercise design objectives.

Debriefing

Immediately following the completion of exercise play, Controllers will facilitate a debriefing with Players from their assigned location. The debriefing is an opportunity for Players to voice their opinions on the exercise and their own performance. At this time, Evaluators can also seek clarification on certain actions and what prompted Players to take them. The debriefing should not last more than 30 minutes. Evaluators should take notes during the debrief and include these observations in their analysis.

Exercise Evaluation Hotwash

Controllers, Evaluators, and selected exercise participants will attend a facilitated Controller / Evaluator/Player Hotwash on April 23 at 1230 at the Geisinger Wyoming Valley Hospital. During the Hotwash these individuals will discuss their observations of the exercise in an open environment to clarify actions taken during the exercise.

Participants and Public/Media Briefings

Participants and Public/Media Briefings are not routinely facilitated subsequent to MS-1 Exercises. Questions about exercise activities and results will be referred to the PEMA PIO and FEMA External Affairs Office.

After Action Report

The AAR is the culmination of the exercise. It is a written report outlining the strengths and areas for improvement identified during the exercise. The AAR will include the executive summary, scenario description, mission outcomes, and capability analysis. The AAR will be drafted by the lead evaluator. The Draft AAR will be provided to PEMA Technological Hazards Branch for review and comment within 30 days of the exercise. The Final AAR will be completed and distributed to NRC, FEMA HQ, and PEMA within 90 days. The NRC is responsible for posting the AAR on its website within 120 days of the exercise.

After Action Conference and Improvement Plan

The improvement process represents the comprehensive, continuing preparedness effort of which the 2013 Susquehanna Steam Electric Station MS-1 Exercise is a part. The lessons learned and recommendations from the AAR will be incorporated into the Improvement Plan (IP), if required.

After Action Conference

The After Action Conference (AAC), tentatively scheduled for May 23, 2013 at 1000, is a forum for jurisdiction officials to hear the results of the evaluation analysis, validate the findings and recommendations in the draft AAR, and begin development of the IP. The After Action Conference will be conducted via conference call.

Improvement Plan

The IP identifies how recommendations will be addressed, including what actions will be taken, who is responsible, and the timeline for completion. It is created by key stakeholders from the 2013 Susquehanna Steam and Electric Station MS-1 Exercise participating agency officials during the AAC scheduled for May 23, 2013.

APPENDIX A: EXERCISE SCHEDULE

Table A.1 MS-1 Exercise Schedule

Time (Tentative)	Personnel	Activity
April 23, 2013		
0800	Exercise Staff Assembly	Exercise Briefing
0900	Exercise Participants	Begin Exercise
0915	Hospital Maintenance Staff	Setup REA
1230	Exercise Staff Assembly	Exercise Debriefing/Hotwash

APPENDIX B: EXTENT OF PLAY INFORMATION
SUSQUEHANNA STEAM AND ELECTRIC STATION
GEISINGER WYOMING VALLEY MEDICAL CENTER MEDICAL SERVICES
EXERCISE
April 23, 2013

Method of Operation

1. The power station and its personnel will not play as active role in the facilitation of this exercise. The plant's simulated events, radiation releases, and emergency classifications will be injected by off-site controllers. A pre-approved scenario will be used.
2. The Pennsylvania Emergency Management Agency (PEMA), Eastern Area Office and the Bureau of Radiation Protection will not be activated as part of this exercise. The Exercise Coordinator will provide pre-exercise coordination and observe exercise activities.
3. PPL will participate as a Controller in this exercise.
4. Luzerne County Emergency Management Agency will provide pre-exercise coordination, participate in this exercise as the county communications coordinator and observe exercise activities
5. Controllers will be supplied by PEMA. Controllers are not players and will provide injects and information to initiate and stimulate exercise play by providing radiological readings during the monitoring of personnel. Live radioactive sources will only be used to perform operational checks of radiological monitoring instruments.
6. PEMA staff and qualified county emergency management personnel will be assigned 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 is not permitted, except as appropriate to provide training to participants awaiting a re-demonstration.
7. Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA), Radiological Emergency Preparedness Program (REPP) Evaluators: FEMA Evaluators will be present at designated demonstration locations.

8. Exercise activities are scheduled to commence on or about 0900, April 23, 2013 and continue until the participants have completed the exercise objectives and demonstrated the Exercise Evaluation Criteria.
9. Participants and agencies will Stand Down when the Controllers have confirmed with the evaluators that all evaluation criteria have been demonstrated and when the State and County Observers are satisfied that the Objectives have been met.
10. 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.
11. During the exercise any activity that is not satisfactorily demonstrated may be redemonstrated 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. Redemonstrations will be negotiated between the players, observers, controllers, and evaluators. 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.

Objectives

- A. Demonstrate the ability to respond to a radiation medical emergency following the procedures of Luzerne County Emergency Management Agency, Plains Ambulance and Geisinger Wyoming Valley Medical Center.
- B. Demonstrate timely and accurate communications between the hospital and offsite response agencies. (Telephones will be used in lieu of radios whenever possible to limit the potential misinterpretation of the exercise as an actual event.)
- C. Demonstrate correct priorities and appropriate techniques in EMS, transportation of patients and pre-hospital and hospital emergency care of radioactively contaminated patients.
- D. Demonstrate inter-agency cooperation between the Ambulance Company/ EMS and the Hospital.

SUSQUEHANNA STEAM ELECTRIC STATION
GEISINGER WYOMING VALLEY MEDICAL CENTER MEDICAL
SERVICES EXERCISE

Extent of Play Agreement

Evaluation Area 1—Emergency Operations Management
Sub-Element 1.e—Equipment and Supplies to Support Operations

Intent

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

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG-0654, H.7,10; J.10.a, b, e, J.11; K.3.a).

Extent of Play

Equipment within the facility (facilities) should be sufficient and consistent with the role assigned to that facility in the ORO's plans and/or procedures in support of emergency operations. Use of maps and displays is encouraged. All instruments should be inspected, inventoried, and operationally checked before each use. Instruments should be calibrated in accordance with the manufacturer's recommendations. Unmodified CDV-700 series instruments and other instruments without a manufacturer's recommendation should be calibrated annually. Modified CDV-700 instruments should be calibrated in accordance with the recommendation of the modification manufacturer. A label indicating such calibration should be on each instrument, or calibrated frequency can be verified by other means. Additionally, instruments being used to measure activity should have a range of readings sticker affixed to the side of the instrument. The above considerations should be included in 4.a.1 for field team equipment; 4.c.1 for radiological laboratory equipment (does not apply to analytical equipment); reception center and emergency worker facilities' equipment under 6.a.1; and ambulance and medical facilities' equipment under 6.d.1.

Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers should be available for issuance to all categories of emergency workers that could be deployed from that facility. Appropriate direct-reading dosimetry should allow individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans and procedures.

Dosimetry (*Direct Reading Dosimeters*) should be inspected for electrical leakage at least annually and replaced, if necessary. CDV-138s, due to their documented history of electrical leakage problems, should be inspected for electrical leakage at least quarterly and replaced if necessary. This leakage testing will be verified during the exercise, through documentation submitted in the Annual Letter of Certification, and/or through a staff assistance visit.

Responsible OROs should demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers, as indicated on rosters; institutionalized individuals, as indicated in capacity lists for facilities; and, where stipulated by the plan and/ or procedures, members of the general public (including transients) within the plume pathway EPZ.

Quantities of dosimetry and KI available and storage location(s) will be confirmed by physical inspection at storage location(s) or through documentation of current inventory submitted during the exercise, provided in the Annual Letter of Certification submission, and/or verified during a Staff Assistance Visit. Available supplies of KI should 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.

At locations where traffic and access control personnel are deployed, appropriate equipment (for example, vehicles, barriers, traffic cones and signs, etc.) should be available or their availability described.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

State Negotiated Extent of Play:

In accordance with PEMA standard operating procedures ambulance crews operating outside the 10 mile Emergency Planning Zone are considered 'Category C' emergency workers; therefore, they are only required to implement protective measures consistent with protection against blood-borne pathogens; i.e., long sleeved garments, trousers, impermeable gloves, and surgical masks. Ambulance "Category C" emergency workers are not issued dosimetry or KI unless they are tasked to enter the 10 mile EPZ. At that time, the county will issue what is needed.

Hospital personnel are also considered "Category C" emergency workers and will conform to PEMA SOP protective measures at minimum. Direct Reading Dosimeters may be issued individually; however, an Area Kit will be established in the Radiation Emergency Area (REA). Individual PRDs will be issued by the hospital. Radiological Survey Instruments are calibrated per manufactures recommendations.

Outstanding Issues:

None

Evaluation Area 3—Protective Action Implementation

Sub-Element 3.a—Implementation of Emergency Worker Exposure Control

Intent

This sub-element derives from NUREG-0654, which provides that OROs should have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimetry and permanent record dosimetry; the reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; and establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of protective action guides, always applying the ALARA (As Low As is Reasonably Achievable) principle as appropriate.

Criterion 3.a.1: The OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and 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. (NUREG- 0654, K.3.a, b).

Extent of Play

ORO's should demonstrate the capability to provide appropriate direct-reading and permanent record dosimetry, dosimeter chargers, and instructions on the use of dosimetry to emergency workers. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows individual(s) to read the administrative reporting limits (that are pre-established at a level low enough to consider subsequent calculation of Total Effective Dose Equivalent) and maximum exposure limits (for those emergency workers involved in life saving activities) contained in the ORO's plans and procedures.

Each emergency worker should have the basic knowledge of radiation exposure limits as specified in the ORO's plan and/or procedures. Procedures to monitor and record dosimeter readings and to manage radiological exposure control should be demonstrated.

During a plume phase exercise, emergency workers should demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker should report accumulated exposures during the exercise as indicated in the plans and procedures. OROs should demonstrate the actions described in the plan and/or procedures by determining whether to replace the worker, to authorize the worker to incur additional exposures or to take other actions. If scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed

and at what exposure levels. Emergency workers may use any available resources (for example, written procedures and/or co-workers) 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 and adequate control of exposure can be affected for all members of the team by one dosimeter worn by the team leader. Emergency workers who are assigned to low exposure rate areas, for example, 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. It should be noted that, even in these situations, each team member must still have their own permanent record dosimetry. Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must re-enter an evacuated area following or during the plume passage, should be limited to the lowest radiological exposure commensurate with completing their missions.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

State Negotiated Extent of Play:

Radiological briefings will be provided to address exposure limits and procedures to replace personnel approaching limits and how permission to exceed limits is obtained. At any time, players may ask other players or supervisors to clarify radiological information. In Pennsylvania, emergency workers outside the EPZ do not have turn-back values. Standard issue of dosimetry and potassium iodide for each category of emergency worker is as follows:

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

Category B: 1 PRD and 1 unit of KI

Category C: 1 PRD

All locations that have dosimetry equipment indicated within their Radiological Emergency Response Plan (RERP) will make the dosimetry equipment (and KI, as appropriate) 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 may be used.

Outstanding Issues:

None

Evaluation Area 6—Support Operation/ Facilities

Sub-Element 6.d—Transportation and Treatment of Contaminated Injured Individuals

Intent

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) should 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, F.2; H.10; K.5.a, b; L.1, 4).

Extent of Play

Monitoring, decontamination, and contamination control efforts will not delay urgent medical care for the victim.

Offsite Response Organizations (ORO) should demonstrate the capability to transport contaminated injured individuals to medical facilities. An ambulance should be used for the response to the victim. However, to avoid taking an ambulance out of service for an extended time, any vehicle (for example, car, truck, or van) may be used to transport the victim to the medical facility. Normal communications between the ambulance/dispatcher and the receiving medical facility should be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur before releasing the ambulance from the exercise. This communication would include reporting radiation monitoring results, if available. Additionally, the ambulance crew should 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, done en route, or deferred to the medical facility. Before using a monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities should be completed as they would be in an actual emergency. Appropriate contamination control measures should be demonstrated before and during transport and at the receiving medical facility.

The medical facility should demonstrate the capability to activate and set up a radiological emergency area for treatment. Equipment and supplies should be available for the treatment of contaminated injured individuals.

The medical facility should demonstrate the capability to make decisions on the need for decontamination of the individual, to follow appropriate decontamination procedures, and to

maintain records of all survey measurements and samples taken. All procedures for the collection and analysis of samples and the decontamination of the individual should be demonstrated or described to the evaluator.

All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

State Negotiated Extent of Play:

Demonstrate that the facility has the appropriate space, adequate resources and trained personnel to provide monitoring, decontamination and medical services to contaminated/injured individuals.

Demonstrate the ability to transport contaminated/injured individuals while using ALARA principles.

The Ambulance Service shall pick-up a pre-staged simulated contaminated/injured victim.

Outstanding Issues:

None

APPENDIX C: SCENARIO AND TIME LINE

GEISINGER WYOMING VALLEY MEDICAL CENTER Medical Services Exercise (MS-1)

April 23, 2013

EXERCISE SUMMARY

The purpose of this exercise is to demonstrate the capabilities of the emergency response organizations in Luzerne County in handling contaminated/injured persons and to satisfy both the hospital's requirement for an emergency/drill and the "Medical Services Guidance Memorandum MS-1".

PARTICIPANTS

Geisinger Wyoming Valley Medical Center
Plains Volunteer Ambulance
Luzerne County Emergency Management Agency

CONTROLLERS

Pennsylvania Emergency Management Agency
Luzerne County Emergency Management Agency
PPL

EVALUATORS

Department of Homeland Security, Federal Emergency Management Agency

OBSERVERS

Luzerne County Emergency Management Agency
Pennsylvania Emergency Management Agency
PPL

SCHEDULE OF EVENTS

Geisinger Wyoming Valley

- 09:00 AM Exercise begins.
- 09:05 AM Hospital is notified that the emergency at the Susquehanna Steam Electric Station (SSES) has escalated to a **Site Area Emergency**.
- 09:15 AM Hospital is notified that the emergency at SSES has escalated to a **General Emergency**.
- 09:30 AM Hospital is notified that there is a victim injured and potentially contaminated.
- 10:05 AM Victim arrives at the hospital.
- 11:45 AM Patient is stabilized and decontaminated. Staff exit REA (demonstrated). Clean up begins (discussed). Exercise ends as objectives are met.
- 11:50 AM Upon conclusion of the evaluation, two self presenting potentially contaminated and injured walk into the Emergency Department and request monitoring.
- 12:30 AM Critique (Hotwash) at hospital.

Plains Ambulance

- 09:00 AM Exercise begins.
- 09:05 AM Ambulance is notified that the emergency at the Susquehanna Steam Electric Station (SSES) has escalated to a **Site Area Emergency**.
- 09:15 AM Ambulance is notified that the emergency at SSES has escalated to a **General Emergency**.
- 09:20 AM An ambulance is requested to report to the accident site to pick up an injured and potentially contaminated individual. (*Simulated - Staging will be at the Plains Ambulance Station 90 Maffett St in Plains Township*)(*Controller Note: Ambulance to notify the hospital of potentially contaminated injured patient by 09:30. See Controller Prompts*)
- 09:50 AM Ambulance leaves for hospital.
- 10:05 AM Ambulance arrives at the hospital.

10:20 AM Exercise ends for ambulance crew.

NOTE: Ambulance will respond without siren and lights.

12:30 PM Critique (Hotwash) at hospital immediately following the exercise.

SCENARIO

09:05 AM Ambulance and the hospital are notified that an emergency at SSES has escalated to a **Site Area Emergency**.

09:15 AM Ambulance and hospital are notified that the SSES incident has escalated to **General Emergency**.

09:20 AM Ambulance is requested to report to the monitoring decontamination center accident scene to pick up an injured and potentially contaminated victim. (*Simulated - Staging will be at the Plains Ambulance Station 90 Maffett St in Plains Township*)

09:35 AM Hospital is notified that an injured, potentially contaminated victim will be brought in for treatment. (*Controller Note: Ambulance to notify the hospital of potentially contaminated injured patient by 9:30. See Controller Prompts*)

09:50 AM Ambulance leaves for the hospital.

10:05 AM Ambulance arrives at the hospital. Hospital Staff initiates control of ambulance and patient.

10:10 AM Hospital staff takes control of the contaminated/injured person. Ambulance and crew are monitored before being released.

10:20 AM Exercise ends for ambulance crew

11:45 AM After the patient is stabilized and decontaminated; Staff member demonstrates exit from the REA and clean-up of the area begins (explained). End Exercise when objectives are met.

11:50 AM After evaluation is complete, the hospital will provide staff with a training opportunity consisting of two additional, self presenting "victim/patients" that will walk into the Emergency Department.

12:30 PM Exercise critique (Hotwash) at the hospital.

OBJECTIVES

- A. Demonstrate the ability to respond to a radiation medical emergency following Luzerne County Emergency Management Agency, Plains Ambulance and Geisinger Wyoming Valley Medical Center procedures.
- B. Demonstrate timely and accurate communications between the hospital and offsite response agencies. (Telephones will be used in lieu of radios whenever possible to limit the potential misinterpretation of the exercise as an actual event.)
- C. Demonstrate correct priorities and appropriate techniques in EMS, transportation of patients and pre-hospital and hospital emergency care of radioactively contaminated patients.
- D. Demonstrate inter-agency cooperation between the Ambulance Service / EMS and the Hospital

CONTROLLER PROMPTS

- 09:05 AM The **county controller** notifies the ambulance and the hospital that the plant has declared a **Site Area Emergency**. Instruct staff to prepare for possible contaminated/injured victim.
- 09:15 AM The **county controller** notifies the ambulance and the hospital that the plant has declared a **General Emergency**.
- 09:20 AM The **county controller** notifies the **ambulance** to pick up a contaminated/injured victim. (*Simulated – staged at the Plains Ambulance Station 90 Maffett St in Plains Township*)
- 09:30 AM The **county controller** ensures that EMS notifies the Hospital that a potentially contaminated injured victim is being brought in. The nature of the injuries and the extent of contamination is unknown at this time.
- 09:30 AM The **ambulance** notifies the **hospital** that a contaminated/injured victim is being brought in. The nature of the injuries and the extent of contamination is unknown at this time. (**Plains Volunteer Ambulance**)
- 09:50 AM The **county controller** release the **ambulance** to leave for the hospital at this time.

Controller cautions the driver not to use emergency lights or sirens.

All communications should be precede and conclude with “THIS IS AN EXERCISE”

CONTROLLER NOTE: If the ambulance crew does not have monitoring equipment, the patient should be treated as **potentially contaminated** and injuries communicated to the crew as indicated in the attachments.

During hospital monitoring of the victim, inform the monitor of the injuries and contamination levels as indicated by the attachments.

CONTROLLER ASSIGNMENTS

Communications
All other

Luzerne County
PEMA

Begin and end all communications with
"THIS IS AN EXERCISE"

ATTACHMENT 1

INJURED PERSON

Situation: During an incident at Susquehanna Steam and Electric Station (SSES), an evacuee arriving at a Monitoring and Decontamination Station for the SSES10-Mile Emergency Planning Zone fell at the entryway of the facility prior to monitoring, landing hard on his hands and knees and striking his head against a metal doorjamb. The victim is conscious and complaining of neck pain and some left leg pain around the knee. Plains Ambulance was dispatched to the scene to provide medical support and transport to the nearest MS-1 Hospital.

Injuries: Victim has an abrasion and swelling on the forehead, a small laceration on the left knee found on survey and is complaining of neck pain and pain in the left knee area.

Contamination: (Initial): Right palm - **1400 cpm**, Left palm - **1200 cpm**
Left Knee area – **1100 cpm**

Blood Pressure: 136/78

Pulse: 112

Breathing: 24

Temperature: Normal

Nausea: No

Vision: Clear, eyes equal and reactive (PEARLA)

No Known Allergies.

Complaint of neck pain and pain at left knee. Patient will indicate pain upon palpation. Upon inspection, EMS can see minor bleeding at the knee laceration. When questioned, the patient will realize pressure and ache at the injury on the forehead. If the forehead is palpated, the patient will elicit a pain response.

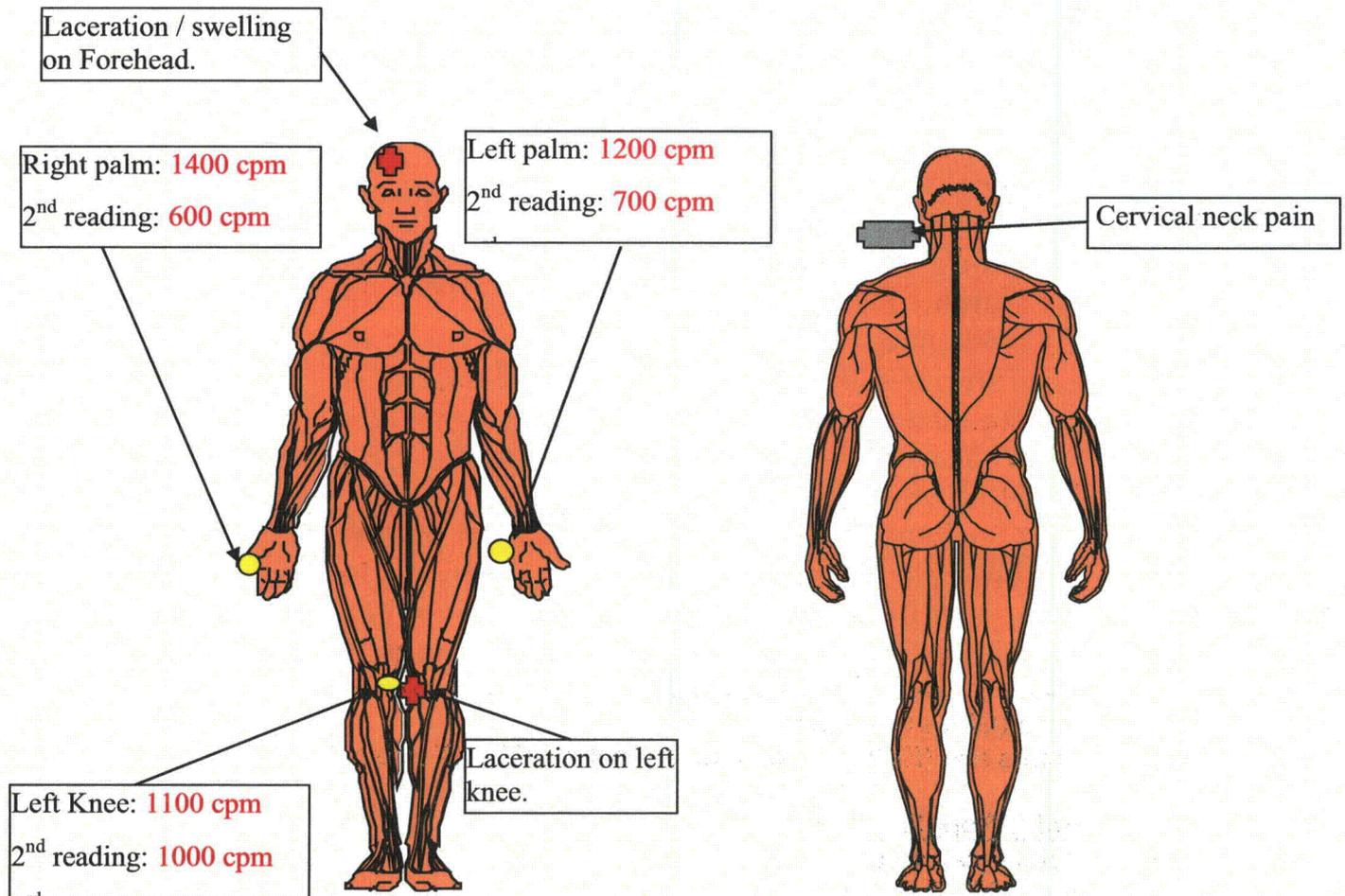
Patient may give own responses to all other queries

ATTACHMENT 2

BODY MAP Yellow indicates areas of contamination Red indicates areas of injury

A) Victim is complaining of cervical neck pain and left leg pain (knee).

B) Contamination is as follows: Left Knee- 1100 cpm (Initial)
Right palm – 1000 cpm (Initial)
Left palm 1000 cpm (Initial)



Patient pain complaint in the neck is nuisance pain upon movement and limits range of motion. If X-rays are taken, the hospital will find nothing notable. The knee laceration shows minor bleeding when inspected.

Gross decontamination should be accomplished at the scene.

Controller will give initial and follow on contamination injects at the hospital. Readings will be lowered by controller after successful decontamination demonstration. Evaluator and Controller may ask questions as the exercise progresses.

MS-1 EXERCISE NOTES

Communications

Telephone
Pagers
Call back (verification)
Relay and accuracy of patient information
Inter staff communications

Contamination Control

Glove changes
Control of run-off & Cross Contamination
Control of contaminated waste
Remove blankets and backboard from gurney
Decontamination of victim/staff
Set up of REA

Patient Care

Life threatening injury takes precedence over contamination
Treatment of injury
Patient reassurance
Documentation
X-Rays
Swabbing i.e. mouth, eyes, nose, collection of dressings, blood, urine, etc. (evidence and lab)

Protective clothing

Seal openings gloves, boots, use face shields, and cover exposed skin
Double glove (Glove Changes)
Decon posters and (Exiting procedures from the REA – Disrobing)

Equipment & Supplies

Survey Meters (calibrated)
Dosimeters – DRD's (Leak Tested)

PRD's
Monitoring Procedures
Decontamination Kit & Supplies – Check for expiration dates

OTHER
Security
Documentation of readings (forms)

NOTES:

THIS IS AN EXERCISE

CONTROLLER/EVALUATOR NOTES

TOPIC	PLAINS AMBULANCE	GEISINGER WYOMING VALLEY MEDICAL CENTER
Communications		
Contamination Control		
Clean Transfer		
Equipment		
Monitoring Procedures		
Decontamination		
Personal Protective Clothing		
Dosimetry		
Patient Care		
Response time		
Radiation Emergency Area (REA) Set- Up or Hot Zone Control		
Disrobing Procedures		
Security		
Glove changes		

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