

U.S. Department of Homeland Security  
Region V  
536 South Clark Street, 6th Floor  
Chicago, IL 60605



**FEMA**

**AUG 06 2019**

Alicia Tate-Nadeau, Acting Director  
Illinois Emergency Management Agency  
2200 South Dirksen Parkway  
Springfield, Illinois 62703

Dear Ms. Tate-Nadeau:

Enclosed is the Final After Action Report/Improvement Plan for the Morrison Community Hospital, Radiological Emergency Preparedness Medical Services Drill, held on May 8, 2019.

There were no Findings or Issues identified as a result of this drill.

Based on the results of the exercise, the planning and preparedness for the State of Illinois and affected local jurisdictions provide reasonable assurance that appropriate measures can be taken to protect public health and safety. Therefore, Title 44 CFR Part 350 approval of the offsite radiological emergency response plans and preparedness for the State of Illinois remain in effect.

If you have any questions, please contact Sean O'Leary, Chair, Regional Assistance Committee, at (312) 408-5389.

Sincerely,

A handwritten signature in black ink, appearing to read "James K. Joseph".

James K. Joseph  
Regional Administrator

Enclosure

cc: DHS/FEMA Headquarters  
NRC Region III  
NRC Headquarters Document Control Desk

# Final After Action Report/ Improvement Plan

Exercise Date – May 8, 2019

Radiological Emergency Preparedness (REP) Program  
Morrison Community Hospital Medical Services Drill

Quad Cities Station



**FEMA**

*Published July 16, 2019*

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## EXECUTIVE SUMMARY

On May 8, 2019, the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) Region V Radiological Emergency Preparedness (REP) Program staff, evaluated a REP Medical Services (MS-1) Drill in the Emergency Planning Zone (EPZ) for the Byron Station.

Byron Station is located in Ogle County, Illinois, on a 1,288-acre site in Rockvale Township, approximately 3.7 miles south-southwest of the City of Byron and 2.2 miles east of the Rock River in Ogle County. The site is situated approximately in the center of the county in a predominantly agricultural area.

The purpose of the MS-1 Drill was to assess the capability of the local ambulance service regarding the treatment and transportation of a contaminated, injured individual to a medical facility and to assess the capability of the medical facility to receive, treat, and decontaminate the injured individual without spreading contamination. The MS-1 Drill was conducted in accordance with FEMA's policies and guidance from the State and local radiological emergency response plans and procedures.

Representatives from the State of Illinois Emergency Management Agency, Morrison Community Hospital, and the Morris Community Hospital Ambulance Service participated in this drill. These representatives demonstrated knowledge of their emergency response plans and procedures and successfully implemented them. The DHS/FEMA evaluation team identified no Findings or Plan Issues.

The DHS/FEMA wishes to acknowledge the efforts of the 16 individuals who participated in the drill and made it a success. The professionalism and teamwork of the participants was evident throughout all phases of the drill.

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## SECTION 1: Exercise Overview

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

- Taking the lead in offsite emergency planning and in the review and evaluation of Radiological Emergency Response Plans (RERPs) and procedures developed by State and local governments;
- 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;
- 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. 82, No. 88, May 9, 2017); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
  - U.S. Department of Agriculture;
  - U.S. Department of Commerce;
  - U.S. Department of Energy;
  - U.S. Department of Health and Human Services;
  - U.S. Department of the Interior;
  - U.S. Department of Transportation;
  - U.S. Environmental Protection Agency;
  - U.S. Food and Drug Administration; and
  - U.S. Nuclear Regulatory Commission.

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

The MS-1 Drill was conducted on May 8, 2019 and evaluated by DHS/FEMA to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public's health and safety during a radiological emergency involving the Byron Station. The purpose of this exercise report is to present the exercise results and findings on the performance of the Off-Site Response Organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V RAC Chair and approved by the DHS/FEMA Headquarters.

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

- 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; and
- FEMA P-1028 REP Program Manual, dated January 2016.



## 1.1 EXERCISE DETAILS

### EXERCISE NAME

2019 Radiological Emergency Preparedness Medical Services Drill

### TYPE OF EXERCISE

Medical Services (MS-1) Drill

### EXERCISE DATE

May 8, 2019

### LOCATIONS

Morrison Community Hospital, Morrison, Illinois

### SPONSORS

Illinois Emergency Management Agency  
2200 South Dirksen Parkway  
Springfield IL 62703

Exelon Corporation  
4300 Winfield Road  
Warrenville, IL 60555

### PROGRAM

Department of Homeland Security/Federal Emergency Management Agency Radiological  
Emergency Preparedness Program

### MISSION

Response

### SCENARIO TYPE

Radiological emergency with a contaminated, injured individual

## 1.2 EXERCISE PLANNING TEAM LEADERSHIP

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Chief, Technological Hazards Branch  
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## 1.3 PARTICIPATING ORGANIZATIONS

Agencies and organizations of the following jurisdictions participated in the exercise:

### STATE ORGANIZATIONS

Illinois Emergency Management Agency (IEMA)

### PRIVATE ORGANIZATIONS

Morrison Community Hospital  
Morrison Community Hospital Ambulance Service  
Exelon Corporation

### FEDERAL ORGANIZATIONS

Federal Emergency Management Agency

## SECTION 2: Exercise Design Summary

### 2.1 EXERCISE PURPOSE AND DESIGN

The Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) administers the Radiological Emergency Preparedness (REP) Program pursuant to the regulations found in Title 44 Code of Federal Regulation (CFR) parts 350, 351, and 352. Title 44 CFR Part 350 names 16 planning standards that form the basis for radiological emergency response planning for state, tribal, and local governments impacted by the EPZs established for each nuclear power plant site in the United States. Title 44 CFR Part 350 sets forth the mechanisms for the formal review and approval of state, tribal, and local government radiological emergency response plans and procedures by FEMA. One of the REP Program requirements established by these regulations is the biennial exercise of offsite response capabilities. During these exercises, FEMA evaluates state, tribal, and local government plans, procedures, and actions to protect the health and safety of the public in the event of a radiological emergency at the nuclear plant.

The DHS/FEMA provides a statement with the transmission of this Final After Action Report/Improvement Plan to the United States NRC that the affected state, tribal, and local plans and preparedness are: (1) adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency; and (2) capable of being implemented. The report and statement are based on the results of this exercise, review of the radiological emergency response plans and procedures, and verification of the periodic requirements set forth in *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (NUREG-0654/FEMA-REP-1, Rev. 1)* through the annual letter of certification and staff assistance visits.

Formal submission of the radiological emergency response plans for the Byron Station to FEMA Region V by the State of Illinois, Rock Island County, and Whiteside County occurred on March 28, 1982. Formal approval of these RERPs was granted by FEMA on September 12, 1984, under 44 CFR 350.

### 2.2 FEMA CORE CAPABILITIES AND EXERCISE OBJECTIVES

Core Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. Using the Homeland Security Exercise and Evaluation Program methodology, the exercise objectives meet the Radiological Emergency Preparedness Program requirements and encompass the emergency preparedness evaluation areas. The critical tasks to be demonstrated were negotiated with the State of Illinois. The Core Capabilities demonstrated during this exercise were:

**Operational Coordination:** Mobilize all critical resources and establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities. Mobilize all critical resources and establish command, control, and coordination structures within the affected community, in other coordinating bodies in surrounding communities, and across the Nation, and maintain as needed throughout the duration of an incident. Enhance and maintain command, control, and coordination structures consistent with the National Incident Management System (NIMS) to meet basic human needs, stabilize the incident, and transition to recovery.

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**Environmental Response/Health and Safety:** Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities. Identify, assess, and mitigate worker health and safety hazards, and disseminate health and safety guidance and resources to response and recovery workers. Minimize public exposure to environmental hazards through assessment of the hazards and implementation of public protective actions. Detect, assess, stabilize, and clean up releases of oil and hazardous materials into the environment, including buildings/structures, and properly manage waste. Identify, evaluate, and implement measures to prevent and minimize impacts to the environment, natural and cultural resources, and historic properties from all-hazard emergencies and response operations.

**Critical Transportation:** Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas. Establish physical access through appropriate transportation corridors and deliver required resources to save lives and to meet the needs of disaster survivors. Ensure basic human needs are met, stabilize the incident, transition into recovery for an affected area, and restore basic services and community functionality. Clear debris from any route type (i.e., road, rail, airfield, port facility, waterway) to facilitate response operations.

**Mass Care Services:** Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies. Move and deliver resources and capabilities to meet the needs of disaster survivors, including individuals with access and functional needs. Establish, staff, and equip emergency shelters and other temporary housing options (including accessible housing) for the affected population. Move from congregate care to non-congregate care alternatives and provide relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes.

**Public Health, Healthcare, and Emergency Medical Services:** Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations. Deliver medical countermeasures to exposed populations. Complete triage and initial stabilization of casualties and begin definitive care for those likely to survive their injuries and illnesses. Return medical surge resources to pre-incident levels, complete health assessments, and identify recovery processes.

**Public and Private Services and Resources:** Provide essential public and private services and resources to the affected population and surrounding communities, to include emergency power to critical facilities, fuel support for emergency responders, and access to community staples (e.g., grocery stores, pharmacies, and banks) and fire and other first response services.

The Core Capabilities and their associated Evaluation Criteria selected for demonstration by the jurisdictions establish the assessment objectives for the exercise. These Core Capabilities, when successfully demonstrated, meet the exercise objectives.

The objectives for this exercise were as follows:

**Objective 1:** Demonstrate the ability to provide direction and control and make protective action decisions through the state emergency operations centers, county emergency operations centers, and field activities by exercise play and discussion of plans and procedures.

**Objective 2:** Demonstrate the ability to make protective action decisions affecting state and county emergency workers and the public through exercise play and discussion of plans and procedures.

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**Objective 3:** Demonstrate the ability to implement protective actions for state and county emergency workers and the public through exercise play and discussion of plans and procedures.

**Objective 4:** Demonstrate the ability to monitor, decontaminate, register, and shelter evacuees through exercise play and discussion of plans and procedures.

**Objective 5:** Demonstrate the capacity for timely communications in support of security, situational awareness, and operations in accordance with the plan, procedures, and Extent-of-Play Agreement, among and between affected communities in the impact area and all response forces.

**Objective 6:** Demonstrate the capacity to stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Demonstrate the capacity to provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

Collectively, these six Objectives successfully demonstrated the Core Capabilities and Evaluation Criteria selected by the jurisdictions in accordance with NUREG-0654/FEM-REP-1 and the REP Program Manual (FEMA P-1028, dated January 2016).

## SECTION 3: Analysis of Capabilities

### 3.1 SUMMARY RESULTS OF EXERCISE EVALUATION

This section provides a combined assessment of state and local jurisdictions based upon their collective demonstrated performance under the core capabilities associated with the exercise evaluation criteria described in Appendix E, Extent-of-Play Agreements. It employs an integration of the Homeland Security Exercise Evaluation Program and REP Program evaluation methodologies – an analytical process used to assess the demonstration of specific capabilities during an exercise. A capability provides a means to perform one or more critical tasks under specified conditions and to specific performance standards. Core capabilities form the foundation of the National Preparedness System. The REP Program evaluation criteria provide the conditions and performance standards for establishing reasonable assurance that State and Local authorities can protect public health and safety in response to a nuclear power plant accident.

An overall summary of demonstrated capabilities is presented in Section 3.2, Table 3.2.1 of this report. Criteria-specific narrative summaries are presented in a separate document entitled Morrison MS-1 Narrative Summaries. The narratives summarize observations made pursuant to the REPP Evaluation Criteria used to assess the organizations and locations that were selected by the State of Illinois. The organizations, locations, and evaluation criteria selected by the State of Illinois are described in Appendix E, Extent-of-Play Agreements, which were approved by DHS/FEMA on April 10, 2019.

The results of the assessment are summarized below by Core Capability, as demonstrated during the May 8, 2019, Morrison Community Hospital Medical Services Drill.

**Operational Coordination:** Mobilize all critical resources and establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities. Mobilize all critical resources and establish command, control, and coordination structures within the affected community, in other coordinating bodies in surrounding communities, and across the Nation, and maintain as needed throughout the duration of an incident. Enhance and maintain command, control, and coordination structures consistent with the National Incident Management System (NIMS) to meet basic human needs, stabilize the incident, and transition to recovery.

**Environmental Response/Health and Safety:** Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities. Identify, assess, and mitigate worker health and safety hazards, and disseminate health and safety guidance and resources to response and recovery workers. Minimize public exposure to environmental hazards through assessment of the hazards and implementation of public protective actions. Detect, assess, stabilize, and clean up releases of oil and hazardous materials into the environment, including buildings/structures, and properly manage waste. Identify, evaluate, and implement measures to prevent and minimize impacts to the environment, natural and cultural resources, and historic properties from all-hazard emergencies and response operations.

**Critical Transportation:** Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas. Establish physical access through appropriate transportation corridors and deliver required resources to save lives and to meet the needs of disaster survivors. Ensure basic human needs are met, stabilize the incident,

transition into recovery for an affected area, and restore basic services and community functionality. Clear debris from any route type (i.e., road, rail, airfield, port facility, waterway) to facilitate response operations.

**Mass Care Services:** Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies. Move and deliver resources and capabilities to meet the needs of disaster survivors, including individuals with access and functional needs. Establish, staff, and equip emergency shelters and other temporary housing options (including accessible housing) for the affected population. Move from congregate care to non-congregate care alternatives and provide relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes.

**Public Health, Healthcare, and Emergency Medical Services:** Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations. Deliver medical countermeasures to exposed populations. Complete triage and initial stabilization of casualties and begin definitive care for those likely to survive their injuries and illnesses. Return medical surge resources to pre-incident levels, complete health assessments, and identify recovery processes.

**Public and Private Services and Resources:** Provide essential public and private services and resources to the affected population and surrounding communities, to include emergency power to critical facilities, fuel support for emergency responders, and access to community staples (e.g., grocery stores, pharmacies, and banks) and fire and other first response services.

The Core Capabilities and their associated Evaluation Criteria selected for demonstration by the jurisdictions establish the assessment objectives for the exercise. These Core Capabilities, when successfully demonstrated, meet the exercise objectives.

## 3.2 EXERCISE EVALUATION AND RESULTS

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the December 4, 2018 Partial-Participation Plume Exposure Pathway Exercise and out-of-sequence interviews and demonstrations.

Each jurisdiction and functional entity was evaluated based on their demonstration of Core Capabilities and their equivalent Radiological Emergency Preparedness Evaluation Criteria, as delineated in the Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual dated January 2016. Exercise criteria are listed by number, and the demonstration status of those criteria are indicated by the use of the following terms:

1. M: Met (no unresolved Level 1 or Level 2 findings were assessed, and there were no unresolved findings from prior exercises)
2. Level 1 Finding was assessed
3. Level 2 Finding was assessed or an unresolved Level 2 finding(s) from a prior exercise
4. P: Plan Issue was assessed
5. ND: Not Demonstrated
6. NS: Not Selected (the Criterion was not selected for demonstration)



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**Table 3.2.1 – Summary of Exercise Evaluation – State of Illinois**

DATE: May 8, 2019 SITE: Byron Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Morrison Community Hospital - Medical Service - T	Morrison Community Hospital - Medical Services - F
<b>Emergency Operations Management</b>			
Mobilization	1a1		
Facilities	1b1		
Direction and Control	1c1		
Communications Equipment	1d1		
Equipment and Supplies to Support Operations	1e1	M	M
<b>Protective Action Decision-Making</b>			
EW Exposure Control Decisions	2a1		
PARs	2b1		
PADs	2b2		
PADs for Disabled/Functional Needs	2c1		
Ingestion PADs	2d1		
RRR Decisions	2e1		
EW Exposure Control Implementation	3a1	M	M
KI Public/Institutionalized	3b1		
PAD Implementation Disabled/Functional Needs	3c1		
PAD Implementation Schools	3c2		
TACP Establishment	3d1		
Impediments	3d2		
Implement Ingestion PADs	3e1		
Ingestion Pathway Decisions	3e2		
Implementation of RRR Decisions	3f1		
<b>Field Measurement and Analysis</b>			
RESERVED	4a1		
Field Team Management	4a2		
Field Team Operations	4a3		
Field Team Sampling	4b1		
Laboratory Operations	4c1		
<b>Emergency Notification and Public Info</b>			
Initial Alert & Notification	5a1		
RESERVED	5a2		
Backup Alert & Notification	5a3		
Exception Area Alerting	5a4		
Subsequent Information & Instructions	5b1		
<b>Support Operations and Facilities</b>			
Reception Center Operations	6a1		
EW Monitoring & Decontamination	6b1		
Congregate Care	6c1		
Contaminated Injured	6d1	M	M

## 3.3 JURISDICTIONAL SUMMARY OF EXERCISE EVALUATION RESULTS

The following sections present narrative summaries that describe observations made during the exercise pursuant to the Evaluation Criteria and Core Capabilities demonstrated at each jurisdiction's response locations. Narrative summaries are organized by Jurisdiction, Location, Assessed Core Capability, and the Evaluation Criterion discussed in the Appendix E Extent-of-Play Agreements. The results of the assessments are summarized in Table 3.2.1.

### 3.3.1 State of Illinois

#### 3.3.1.1 Trinity Medical Center - Medical Service - T

**Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety**

**Core Capability: Mass Care Services**

**Core Capability: Public & Private Services and Resources**

**Core Capability: Public Health and Medical Services**

**Criterion 3.a.1 – Core Capability: Operational Coordination**

**Core Capability: Environmental Response/Health and Safety**

**Criterion 6.d.1 – Core Capability: Critical Transportation**

**Core Capability: Mass Care Services**

#### 3.3.1.2 UnityPoint Health-Trinity Medical Center - Medical Services - F

**Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety**

**Core Capability: Mass Care Services**

**Core Capability: Public & Private Services and Resources**

**Core Capability: Public Health and Medical Services**

**Criterion 3.a.1 – Core Capability: Operational Coordination**

**Core Capability: Environmental Response/Health and Safety**

**Criterion 6.d.1 – Core Capability: Critical Transportation**

**Core Capability: Mass Care Services**

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the State of Illinois is as follows:

- 'MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
- LEVEL 1 FINDINGS: NONE
- LEVEL 2 FINDINGS: NONE
- PLAN ISSUES: NONE
- PRIOR ISSUES – RESOLVED: NONE
- PRIOR ISSUES – UNRESOLVED: NONE

## SECTION 4: Conclusion

There were no Findings or Plan Issues identified for the State of Illinois.

Based on the results of the MS-1 Drill, the planning and preparedness for the State of Illinois and affected local jurisdictions provide reasonable assurance that appropriate measures can be taken to protect public health and safety. Therefore, Title 44 CFR Part 350, approval of the offsite radiological emergency response plans and preparedness for the state of Illinois, remains in effect.

## APPENDIX A: Exercise Evaluation Team

**EXERCISE DATE: May 8, 2019**

**SITE: Morrison Community Hospital - Byron Station**

Exercise Management	Name	Agency/ Organization
Chair, Regional Assistance Committee	Sean O'Leary	DHS/FEMA
Exercise Director	Stephen Tulley	DHS/FEMA
Illinois Site Specialist	David Persaud	DHS/FEMA

Evaluated Off-Site Response Organizations/Locations	Evaluator	Agency/ Organization
<b>State of Illinois</b>		
Morrison Community Hospital - Medical Service - Transportation	Kimberly Alahmadi	DHS/FEMA
Morrison Community Hospital - Medical Services - Facility	Brian Reinhart	DHS/FEMA



## APPENDIX B: Acronyms and Abbreviations

ACRONYM	DESCRIPTION
AAR	After Action Report
CDT	Central Daylight Time
CFR	Code of Federal Regulation
cpm	counts per minute
DCO	Dosimetry Control Officer
DLR	Dosimeter of Legal Record
DRD	Direct-Reading Dosimeter
ECL	Emergency Classification Level
EPZ	Emergency Planning Zone
EW	Emergency Worker
FEMA	Federal Emergency Management Agency
IEMA	Illinois Emergency Management Agency
IL	Illinois
IPRA	Illinois Plan for Radiological Accidents
KI	potassium iodide
MRT	Medical Radiation Technician
ND	Not Demonstrated
NIMS	National Incident Management System
NRC	Nuclear Regulatory Commission
NS	Not Selected
ORO	Off-Site Response Organization
PPE	Personal Protective Equipment
RAC	Regional Assistance Committee
REA	Radiation Emergency Area
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RRG	Radiological Response Group
RT	Radiation Technologist

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## APPENDIX C: Extent-of-Play Agreements



## **ILLINOIS EMERGENCY MANAGEMENT AGENCY**

Offsite Medical Drill  
Extent of Play and Injects for Byron  
Medical Services Drill  
Morrison Community Hospital  
Morrison, Illinois

May 8, 2019  
Start time 1:00 p.m.



Extent of Play Agreement

Medical Services Exercise

May 8, 2019

Location: Morrison Community Hospital  
303 North Jackson  
Morrison, IL 61270

Transportation Provider: Morrison Ambulance

Participant Roster:

Patients #1 adult patient #2 adult

Lead Controller: IEMA

Ambulance Controller: Joni Estabrook

Hospital Controller: Tolly Knezevich

Medical Radiation Technician: Rob Deters

Criteria that can be re-demonstrated immediately for credit at the discretion of the evaluator include the following: For Transportation: 1.d.1, 3.a.1 and 6.d.1; for the Hospital 1.d.1, 1.e.1, 3.a.1 and 6.d.1. Criteria may be re-demonstrated, as agreed by the Lead Controller and FEMA.

EVALUATION AREA 1 – EMERGENCY OPERATIONS MANAGEMENT

Criterion 1.d.1: At least two communication systems are available, at least one operated properly, and communication links are established and maintained with appropriate locations.

The Ambulance will use 2-way radios to communicate with Morrison Community Hospital. Other communication systems that may be used include commercial telephone or cell phones.

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

Morrison Community Hospital will adequately demonstrate the ability to support operations, with adequate resources. Morrison Community Hospital will also issue dosimetry and perform a dosimetry control briefing to staff prior to drill start.

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EVALUATION AREA 3 – PROTECTIVE ACTION IMPLEMENTATION

Criterion 3.a.1: The ORO's issue appropriate dosimetry, and procedures, and manage radiological exposure to emergency workers in accordance with the plan/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.

EVULAUION AREA 6.d – TRANSPORTATION AND TREATMENT OF CONTAMINATED INJURED INVIDUALS

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.

Scenario and Background

**Introduction:**

An offsite medical drill will be conducted to demonstrate the State of Illinois' concept of operations of handling contaminated injured individuals. The drill is structured to address MS-1 Hospital and Transportation Criteria.

**Extent of Play:**

The Byron Station has declared a general emergency. The emergency alert sirens have sounded, the public has been directed to evacuate affected areas and to report to reception centers set up in the local area. The scenario is based on a local resident and her daughter who has reported to the reception center from a rural area and spent an extended time in the Quad Cities Station EPZ. The drill will begin at the pickup of the patient and parent by the ambulance. Any reception center activities will be observed and evaluated at the reception center demonstration. The walking well patient presenting in registration will be evaluated by the hospital to assist in planning efforts to update the plan.

**Hospital and Transportation:**

The hospital will demonstrate procedures for limiting exposure to hospital staff, decontaminating a patient, and restricting access to the area where the patient is being treated and monitored.

Morrison Ambulance will demonstrate the capability to transport a contaminated, injured individual(s) to Morrison Community Hospital. The ambulance crew will pick up a contaminated injured patient near the hospital at a simulated reception center. IEMA staff will be available to accompany the ambulance staff during the transportation portion of the drill.

Morrison Ambulance will call in the information regarding the patient to the hospital, so they can prepare the receipt of a contaminated injured patient. Morrison Community Hospital will implement their plan for receipt, isolation and treatment of an injured contaminated patient. Medical personnel will utilize universal precautions and good housekeeping practices to minimize the spread of contamination and will focus on treating the patient's medical condition. Simple decontamination efforts will be demonstrated after the patient has been medically stabilized. The hospital will demonstrate procedures for limiting exposure to hospital staff, decontaminating a patient, and restricting access to the area where the patient is being treated and monitored. Hospital personnel will demonstrate their knowledge of who to call beyond IEMA for assistance in Radiological Accidents, e.g., REAC/TS.

One IEMA MRT will be available to participate in this drill. The IEMA MRT is available to facilitate hospital staff in monitoring the parent of the patient, ambulance staff and ambulance itself so it can be put back into service as soon as possible.

The drill will conclude with hospital nuclear medicine staff supervising the removal of protective clothing and surveying of the emergency room and hospital personnel. The IEMA MRT will be available to facilitate contamination control and decontamination efforts if needed.

IEMA will also advise on the proper procedure for release or disposal of contaminated material.

#### Objectives:

1. Demonstrate the ability of EMS personnel to transport a contaminated injured patient.
2. Demonstrate the ability of hospital personnel to treat a contaminated injured patient.
3. Demonstrate the ability of personnel to exercise proper radiological controls and issuance of dosimetry.
4. Demonstrate the proper techniques of personnel decontamination.
5. Demonstrate proper communication between medical personnel and IEMA staff.
6. Demonstrate proper use of radiation detectors.

#### IEMA Players and Controllers

Injured Victims (#1 adult patient, #2 adult)

IEMA MRT

IEMA Ambulance Controller

IEMA Hospital Controller

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Extent of Play for Morrison Community Hospital

Byron Station has declared a general emergency. The emergency alert sirens have sounded, the public has been directed to evacuate affected areas and to report to reception centers set up in the local area. The scenario is based on two residents who had stayed in the EPZ when the release occurred.

This drill will originate near the hospital at a simulated reception center.

1. An ambulance and EMS staff will be used to demonstrate loading, transporting and unloading the victim. EMS personnel will pick up the patient at a staged location close to the hospital. The patient will be pre-staged for the ambulance arrival. IEMA staff will not be present for the transportation portion of the drill.
2. The ambulance crew will communicate with the receiving hospital regarding the medical status of the patient and any additional precautions taken to prevent spread of contamination.
3. Hospital staff will be providing radiological exposure control and monitoring of EMS and hospital personnel. IEMA assistance will be provided, if needed.
4. Decontamination is determinant on ambulance protocols and injury that the patient presents.
5. Hospital personnel will be responsible for any patient and staff radiological monitoring and contamination control activities, duties may change over if IEMA becomes available to be dispatched.
6. IEMA staff in coordination with Morrison Hospital staff will supervise the ingress and egress of radiological control areas. Monitoring will be performed prior to personnel leaving the potentially contaminated patient treatment area. Protective clothing used by hospital personnel will be similar to that used for a chemical or biological agent in accordance with hospital protocol. Multiple methods of decontamination, including dry, damp or wet, may be utilized for the removal of contamination.
7. The medical facility will demonstrate or describe their procedures for the medical treatment and necessary decontamination of a contaminated injured individual. Multiple methods of decontamination, including dry, damp or wet, may be utilized for the removal of contamination. Hospital personnel will survey the hospital REA and medical personnel to maintain contamination control. These methods may include taking wipes of floors and surfaces so that the hospital and ambulance can be cleared for normal operations.
8. The hospital may need to contact REAC/TS to determine appropriate samples needed to assess internal contamination. Any samples collected will be sent to REAC/TS for analyzing, IEMA does not process biological samples.
9. Emergency medical personnel will be able to maintain their exposure below the limits specified in 10 CFR Part 20 because for the exercise, the dose rate from the patient is below 2 mr/hr.
10. After the hospital is notified, hospital personnel will prepare the area to receive the patient in accordance with their procedures and provide security as necessary. IEMA as a general practice would, if necessary, post radiation signs in accordance with the requirements as set forth in 10 CFR Part 20. Hospital security will control the area in accordance with the same policies and procedures used to provide isolation in the treatment of a chemical or biological agent.
11. Regardless of specific written hospital procedures for addressing radiation contamination, the supervision and advice provided by IEMA personnel should be the governing guidance for determining whether the patient's contamination situation is appropriately addressed.
12. The contaminated injured patient will be accompanied by a parent and infant that needs to be monitored. The pediatric and infant decon will be an objective to be performed and evaluated by the hospital, per hospital request.

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After Action Report/Improvement Plan

Byron Station

13. After monitoring and decon has occurred the patient will utilize the decon room for final shower purpose.

The drill terminate when the controller verifies that the criteria under Evaluation Area 6, Sub-element 6.d.1 and Evaluation Area 3, Sub-element 3.a.1, have been satisfied.

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After Action Report/Improvement Plan

Byron Station

TIME: Pre t = 0

Victim Instructions

MESSAGE FORM

☐ Controller

☒ Player

☐ Contingency

Drill/Exercise Type: Morrison Community Hospital

Message for: Victim #1 adult patient and #2 adult spouse and EMS staff

MESSAGE

The Quad Cities Nuclear Power Station has issued a public broadcast that a radioactive release has occurred and that the residents and those working or residing in the Quad Cities EPZ area are being evacuated.

Before evacuating you and your spouse spend extended time in the EPZ during the release, which delays you in reporting to the reception center. You have been exposed and contaminated with low levels of radioactive materials. Upon arrival at the reception center your spouse falls and starts bleeding in one arm and has glass embedded in her wrist limiting the mobility of your fingers. The reception center staff notifies 911.

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The information would be available to the hospital as they received preliminary notification information from outbound ambulance calls.

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TIME: Time 0

MESSAGE: Initial Conditions

MESSAGE FORM

(X) Controller

(X) Player

( ) Contingency

Drill/Exercise Type: Morrison Community Hospital Medical Drill

Message for: Hospital Personnel and Nuclear Medicine Staff

MESSAGE

Initial Conditions:

<u>Contamination Levels:</u>	<u>Initial survey Reading</u>	<u>First Decon</u>	<u>Second Decon</u>	<u>Third Decon</u>
Right palm**	700 cpm	500 cpm	300 cpm	75 cpm
Left palm**	600 cpm	300 cpm	60 cpm	
Pant legs at both knees	500 cpm	Should be removed		
Shoes (should be removed)	900 cpm	0 should be removed		

\*Pant/shoes should be removed and bagged.

\*\*Contamination would likely be spread from hand to other parts of the patient's skin or clothing from child to parent. Contamination levels on #1 adult patient will be driven by her interaction with #2 adult

Current Medical Conditions:

Complaining of pain in wrist, 5 out of 10 scale, conscious, alert pulse present, bleeding or other obvious signs of injury.

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TO: First Responders/EMS  
FROM: EMS Controller

NOTE: Do not provide the data to players unless the means to obtain it are demonstrated.

THIS IS A DRILL

DO NOT initiate actions affecting safe operations

Message: male patient complaining of wrist pain, bleeding and numbness. Patient has allergy to penicillin.

	<i>EMS Arrival on Scene</i>	<i>Enroute to Hospital</i>	<i>In REA</i>
Level of consciousness:	ResponsiveX3	*	*
Respirations:	24	*	*
Pulse:	65	*	*
Skin:	Dry	*	*
Blood Pressure:	140/74	110/70	100/68
Visual:		*	*

Note:

\*Patient condition en route and in REA are dependent on EMT actions and level of training.

\*Allergy to penicillin

Expected Action:

Follow local protocols or standing orders.

THIS IS A DRILL

DO NOT initiate actions affecting safe operations



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After Action Report/Improvement Plan

Byron Station

TIME: 0 + 5 min.

MESSAGE: \_\_\_\_\_

MESSAGE FORM

(X) Controller

(X) Player

( ) Contingency

Drill/Exercise Type: Morrison Community Hospital Medical Drill

Message for: Hospital Personnel

MESSAGE

When the hospital is notified that a potentially contaminated patient will be arriving, if the hospital has not already, they should make preparations to receive patient in accordance with hospital procedures.

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ED controller may inject, with permission of Evaluator, a time jump to expedite REA preparedness.

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After Action Report/Improvement Plan

Byron Station

TIME: After patient arrival at hospital

MESSAGE: Decontamination Activities

MESSAGE FORM

☒ (X) Controller

☐ ( ) Player

☐ ( ) Contingency

Drill/Exercise Type: Morrison Community Hospital

Message for: IEMA RAD Controllers

MESSAGE

If proper radiological controls are in place no contamination is found in the ambulance. All areas of the hospital and path from ambulance to treatment room will be surveyed and read as background.

The controller may adjust contamination levels based on actions of the players.

The patient has contamination on right palm, left palm, pant knees and shoes. The spouse has contaminated shoes and one contaminated hand that was held by pediatric patient. Contamination levels and locations will be adjusted at the discretion of the controller.

IT DOES NOT MATTER IF THE CLOTHING IS REMOVED BY THE AMBULANCE OR HOSPITAL PERSONNEL. Clothing should be bagged and labeled.

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