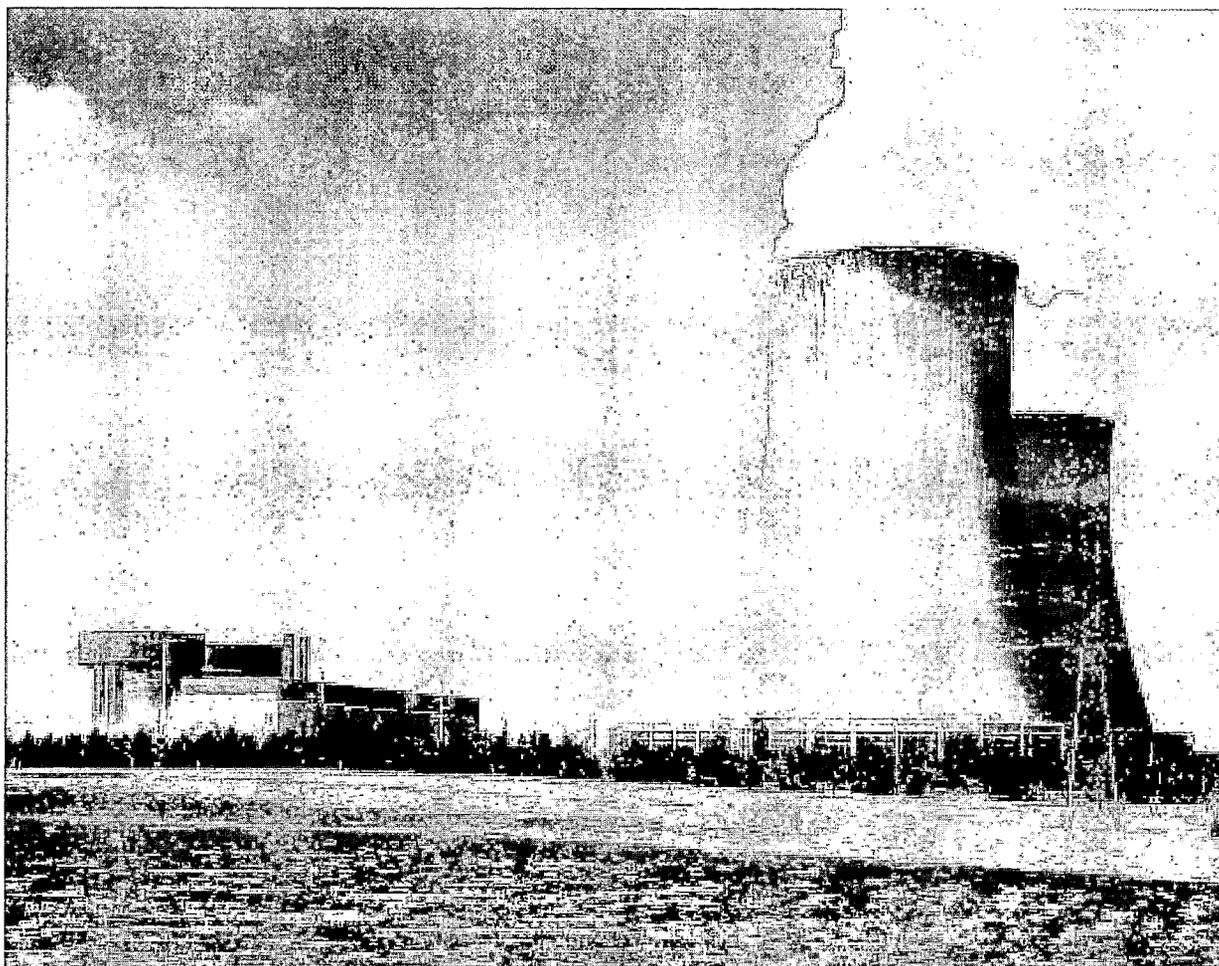


# Final After Action Report/ Improvement Plan

Exercise Date – October 29, 2019

Radiological Emergency Preparedness (REP) Program



Byron Station



FEMA

*Published January 21, 2020*

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Radiological Emergency Preparedness (REP) Program

After Action Report/Improvement Plan

Byron Station

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## EXECUTIVE SUMMARY

On October 29, 2019, the Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) Region V Radiological Emergency Preparedness Program staff evaluated a Partial-Participation Plume Exposure Pathway Exercise in the Emergency Planning Zone (EPZ) for the Byron Station.

Byron Station is located in Ogle County, Illinois. The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at the Byron Station. This exercise was conducted in accordance with FEMA's policies and guidance concerning the exercise of state and local radiological emergency response plans and procedures. The previous federally-evaluated exercise at this site was conducted on September 26, 2017. The qualifying emergency preparedness exercise was conducted on November 15, 1983.

Officials and representatives from the State of Illinois, the risk Counties of Ogle and Winnebago, and the Licensee participated in this exercise. State and local officials demonstrated knowledge of their emergency response plans and procedures and successfully implemented them.

The DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success. Approximately 180 individuals participated in the off-site portion of the exercise. The professionalism and teamwork of the participants was evident throughout all phases of the exercise.

## SECTION 1: Exercise Overview

The Department of Homeland Security (DHS)/Federal Emergency Management Agency (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 Preparedness (REP) Plans 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.

A REP Partial-Participation Plume Exposure Pathway Exercise was conducted on October 29, 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 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 Byron Station Radiological Emergency Preparedness Exercise

### TYPE OF EXERCISE

Plume Exposure Pathway

### EXERCISE DATE

October 29, 2019

### LOCATIONS

See Appendices C and E for a complete list of locations.

### 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

## 1.2 EXERCISE PLANNING TEAM LEADERSHIP

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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
- Illinois State Police District 1
- Mutual Aid Box Alarm System

### RISK COUNTY ORGANIZATIONS

#### **Ogle County**

- Ogle County Board Chair
- Ogle County Community Organizations Active in Disasters
- Ogle County Consolidated Dispatch Center
- Ogle County Dosimetry Control Officer
- Ogle County Emergency Management Agency
- Ogle County Health Department
- Ogle County Highway Department
- Ogle County Information Technology
- Ogle County Regional Office of Education
- Ogle County Sheriff's Office
- Oregon Police Department
- Community Unit School District #226

#### **Winnebago County**

- Winnebago County 911
- Winnebago County Board Chairman
- Winnebago County Emergency Services and Disaster Agency
- Winnebago County Health Department
- Winnebago County Regional Office of Education
- Winnebago County Sheriff's Office
- Rockford Fire Department

### PRIVATE ORGANIZATIONS

- American Red Cross
- Exelon Corporation
- WRHL EAS Station

### FEDERAL ORGANIZATIONS

- Nuclear Regulatory Commission

## 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 Emergency Planning Zones 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 Nuclear Regulatory Commission 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 Byron Station to FEMA Region V by the State of Illinois and involved local jurisdictions occurred on March 28, 1982. Formal approval of the plans 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, Ogle County, and Winnebago County. The Core Capabilities demonstrated during this exercise were:

**Operational Coordination:** Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities. 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 to meet basic human needs, stabilize the incident, and transition to recovery.

**Situational Assessment:** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response. Deliver information sufficient to inform decision-making regarding immediate lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs and stabilize the incident. Deliver enhanced information to reinforce ongoing lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs, stabilize the incident, and transition to recovery.

**Public Information and Warning:** Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken and the assistance being made available. Inform all affected segments of society of critical lifesaving and life-sustaining information by all means necessary, including accessible tools, to expedite the delivery of emergency services and aid the public to take protective actions. Deliver credible and actionable messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions and facilitate the 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.

**On-Scene Security, Protection, and Law Enforcement:** Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel engaged in lifesaving and life-sustaining operations. Establish a safe and secure environment in an affected area. Provide and maintain on-scene security and meet the protection needs of the affected population over a geographically dispersed area while eliminating or mitigating the risk of further damage to persons, property, and the environment.

**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.

**Operational Communications:** Ensure the capacity for timely communications in support of security, situational awareness, and operations, by any and all means available, among and between affected communities in the impact area and all response forces. Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, Tribal, state, and local first responders.

**Infrastructure Systems:** Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Re-establish critical infrastructure within the affected areas to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery. Provide for the clearance, removal, and disposal of debris. This core capability includes the capability to address roadway impediments due to landslides and other events that impair/impede safe evacuation of the public.

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.

**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 activate the prompt alert and notification system utilizing the primary notification system and the emergency alert system through exercise play and discussion of plans and procedures.

**Objective 5:** Demonstrate the effectiveness of plans, policies, and procedures in the joint information centers and the joint information system for public and private sector emergency information communications through exercise play and discussion of plans and procedures.

**Objective 6:** Demonstrate the ability to monitor, decontaminate, register, and shelter evacuees through exercise play and discussion of plans and procedures.

**Objective 7:** Demonstrate the ability to provide dose projection and protective action decision making for the plume phase.

**Objective 8:** 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 9:** 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 nine 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 Radiological Emergency Preparedness (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, Tables 3.2.1 through 3.2.3, of this report. Criteria-specific narrative summaries are presented in Section 3.3 of the report. The narratives summarize observations made pursuant to the REP Evaluation Criteria used to assess the organizations and locations that were selected by the State of Illinois, Ogle County, and Winnebago County. The organizations, locations, and evaluation criteria selected by the State of Illinois, Ogle County, and Winnebago County are described in Appendix E, Extent-of-Play Agreements, which were approved by DHS/FEMA on September 30, 2019.

The results of the assessment are summarized below by Core Capability, as demonstrated during the October 29, 2019, Byron Station REP Exercise.

**Operational Coordination:** Key leadership personnel established and maintained a unified and coordinated operational structure which provided effective and responsive command, direction and control and coordination within and between the affected jurisdictions to meet basic human needs and stabilize the incident. Critical stakeholders were appropriately integrated within the overall decision-making process, which enabled protective action recommendations to be evaluated in an appropriate and timely manner. This process included input from both relevant critical stakeholders and support personnel and took into account the safety and well-being of emergency workers and the general public and protecting property and infrastructure protective action decisions were made without undue delay.

**Situational Assessment:** Decision makers were provided with decision-relevant information regarding the nature and extent of the simulated radiological and other hazards, any cascading effects, and the status of the response. The Illinois Emergency Management Agency Radiological Emergency Assessment Center demonstrated proficiency in the use of dose assessment software to calculate dose projections independent of the Byron Station's dose projections. The staff calculated hypothetical dose projections based on plant conditions, possible release scenarios, and Controller-injected field monitoring team data. Leadership was prepared to gather and deliver enhanced information to reinforce lifesaving and life-sustaining activities, if needed, and engage governmental and private sector resources within and outside of the affected area to meet basic human needs and stabilize the incident, as necessary.

**Public Information and Warning:** The jurisdictions, as a whole, demonstrated the ability to deliver coordinated, prompt, reliable and actionable information to the whole community through the use of clear, consistent and accessible means. Accurate initial information and follow-up on instructions were

made with the formulation of news releases being reviewed from the Joint Information System and briefings conducted at the Ogle County and Winnebago County Emergency Management Agency. Alert and notification of the public and media was completed in a timely manner by simulated means of sounding of sirens, Emergency Alert System messaging, warning in state parks, news releases and media briefings. The simulated release of information via the aforementioned public information modes were consistent with protective action decisions and contained applicable and specific instructions relative to those decisions.

**Environmental Response/Health and Safety:** Appropriate measures were taken to ensure the protection of the health and safety of the public and workers, as well as the environment in support of responder operations and the affected communities. The availability of guidance and resources to address hazardous radiological materials was integrated in support of responder operations and the affected communities. State Liaisons at the Byron Station Emergency Operations Facility, Ogle County Emergency Operations Center (EOC), and Winnebago County EOC communicated well with the State EOC to ensure that state protective action recommendations and county protective action decisions and responses were coordinated properly. Leadership identified, assessed, and mitigated worker health and safety hazards and disseminated health and safety guidance and resources to responders in accordance with the scenario, plans and procedures, and the extent-of-play agreements.

**On-Scene Security and Protection:** State and local law enforcement agencies demonstrated the capability to ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel who could have been directed to engage in lifesaving and life-sustaining operations. The implementation of traffic and access control was appropriately assessed and coordinated in a timely manner. On-scene security at Emergency Operations Centers (EOCs), schools, reception centers and other facilities met protection requirements and eliminated or mitigated the risk of damage to persons, property, and the environment.

**Critical Transportation:** Officials demonstrated the capability to provide 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. School officials effectively demonstrated the ability to implement protective actions for affected local schools.

**Mass Care Services:** Congregate care center staff demonstrated the ability to provide life-sustaining services to affected populations with a focus on family reunification, feeding and sheltering. The American Red Cross, which manages all shelter operations under the REP Program, demonstrated the ability to provide resources, services and accommodations consistent with planning guidelines. They also demonstrated knowledge of the process, and to determine whether evacuees had been monitored for contamination and determined to be acceptable before entering congregate care facilities.

**Public Health, Healthcare, and Medical Services:** Qualified medical personnel successfully demonstrate the ability to provide targeted public health, medical, and behavioral health support and products to populations that might enter shelters and deliver medical countermeasures to exposed populations at Adventist Bolingbrook Hospital.

**Operational Communications:** Evaluation Criterion 1d1, which is the key criterion for this capability, was evaluated for applicable organizations and functional entities. Each applicable organization and location demonstrated the capacity for timely communications in support of security, situational awareness, and operations by primary and backup means, the ability to communicate with both the

emergency response community and the affected populations, and to establish interoperable communications between Federal, state, and local all response groups and locations and between affected communities in the impact area.

**Infrastructure Systems:** Evaluation Criterion 3d2, which is the key criterion for this capability, was assessed pursuant to the State of Illinois, Ogle County, and Winnebago County capabilities to address impediments to mass evacuation. The State of Illinois, Ogle County, and Winnebago County demonstrated the capability to address roadway impediments due to road blockages and other events that impair/impepe safe evacuation of the public.

## 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 October 29, 2019, 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 REP 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. L1: Level 1 Finding was assessed
3. L2: 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)

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

DATE: October 29, 2019 SITE: Byron Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	TACP ISP District 1	TACP DCO Briefing ISP District 1	State Radiological Advisor – Ogle County	IEMA Operations Liaison – Ogle County	IEMA Operations Liaison – Winnebago
Emergency Operations Management						
Mobilization	1a1					
Facilities	1b1					
Direction and Control	1c1				M	M
Communications Equipment	1d1	M	M			
Equipment and Supplies to Support	1e1	M	M			
Protective Action Decision-Making						
EW Exposure Control Decisions	2a1			M		
PARs	2b1					
PADs	2b2			M		
PADs for Disabled/Functional Needs	2c1			M		
Ingestion PADs	2d1					
RRR Decisions	2e1					
Protective Action Implementation						
EW Exposure Control Implementation	3a1	M	M	M		
KI Public/Institutionalized	3b1			M		
PAD Implementation Disabled/Functional	3c1			M		
PAD Implementation Schools	3c2			M		
TACP Establishment	3d1	M		M		
Impediments	3d2			M		
Implement Ingestion PADs	3e1					
Ingestion Pathway Decisions	3e2					
Implementation of RRR Decisions	3f1					
Field Measurement and Analysis						
RESERVED	4a1					
Field Team Management	4a2					
Field Team Operations	4a3					
Field Team Sampling	4b1					
Laboratory Operations	4c1					
Emergency Notification and Public Info						
Initial Alert & Notification	5a1			M	M	M
RESERVED	5a2					
Backup Alert & Notification	5a3					
Exception Area Alerting	5a4					
Subsequent Information & Instructions	5b1				M	M
Support Operations and Facilities						
Reception Center Operations	6a1					
EW Monitoring & Decontamination	6b1					
Congregate Care	6c1					
Contaminated Injured	6d1					

**Table 3.2.2 – Summary of Exercise Evaluation – Ogle County**

DATE: October 29, 2019 SITE: Byron Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Ogle -- IWP	Ogle -- EOC	Winnabago County Liaison	Ogle County Sheriff TACP	Ogle County Sheriff DCO Briefing	Oregon Police Department TACP	Oregon Police Department DCO Briefing	CUSD #226 Byron EV2	Radio Station WRHL
Emergency Operations Management										
Mobilization	1a1	M	M	M						
Facilities	1b1		M							
Direction and Control	1c1		M	M						
Communications Equipment	1d1	M	M				M	M	M	M
Equipment and Supplies to Support Operations	1e1		M		M	M	M	M	M	
Protective Action Decision-Making										
EW Exposure Control Decisions	2a1									
PARs	2b1									
PADs	2b2		M							
PADs for Disabled/Functional Needs	2c1		M							
Ingestion PADs	2d1									
RRR Decisions	2e1									
Protective Action Implementation										
EW Exposure Control Implementation	3a1		M		M	M	M	M	M	
KI Public/Institutionalized	3b1		M							
PAD Implementation Disabled/Functional Needs	3c1		M							
PAD Implementation Schools	3c2		M						M	
TACP Establishment	3d1		M	M	M		M			
Impediments	3d2		M	M						
Implement Ingestion PADs	3e1									
Ingestion Pathway Decisions	3e2									
Implementation of RRR Decisions	3f1									
Field Measurement and Analysis										
RESERVED	4a1									
Field Team Management	4a2									
Field Team Operations	4a3									
Field Team Sampling	4b1									
Laboratory Operations	4c1									
Emergency Notification and Public Info										
Initial Alert & Notification	5a1		L2							M
RESERVED	5a2									
Backup Alert & Notification	5a3									
Exception Area Alerting	5a4									
Subsequent Information & Instructions	5b1		M							
Support Operations and Facilities										
Reception Center Operations	6a1									
EW Monitoring & Decontamination	6b1									
Congregate Care	6c1									
Contaminated Injured	6d1									

**Table 3.2.3 – Summary of Exercise Evaluation – Winnebago County**

DATE: October 29, 2019 SITE: Byron Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Winnebago County – IWP	Winnebago County – EOC	Winnebago County Sheriff Office TACP	Winnebago County Sheriff DCO Briefing
Emergency Operations Management					
Mobilization	1a1	M	M		
Facilities	1b1				
Direction and Control	1c1		M		
Communications Equipment	1d1	M	M	M	M
Equipment and Supplies to Support Operations	1e1		M	M	M
Protective Action Decision-Making					
EW Exposure Control Decisions	2a1				
PARs	2b1				
PADs	2b2				
PADs for Disabled/Functional Needs	2c1				
Ingestion PADs	2d1				
RRR Decisions	2e1				
Protective Action Implementation					
EW Exposure Control Implementation	3a1		M	M	M
KI Public/Institutionalized	3b1		M		
PAD Implementation Disabled/Functional Needs	3c1				
PAD Implementation Schools	3c2				
TACP Establishment	3d1		M	M	
Impediments	3d2		M		
Implement Ingestion PADs	3e1				
Ingestion Pathway Decisions	3e2				
Implementation of RRR Decisions	3f1				
Field Measurement and Analysis					
RESERVED	4a1				
Field Team Management	4a2				
Field Team Operations	4a3				
Field Team Sampling	4b1				
Laboratory Operations	4c1				
Emergency Notification and Public Info					
Initial Alert & Notification	5a1				
RESERVED	5a2				
Backup Alert & Notification	5a3				
Exception Area Alerting	5a4				
Subsequent Information & Instructions	5b1				
Support Operations and Facilities					
Reception Center Operations	6a1				
EW Monitoring & Decontamination	6b1				
Congregate Care	6c1				
Contaminated Injured	6d1				

## 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 Appendix E, Extent-of-Play Agreements. The results of the assessments are summarized in Tables 3.2.1, 3.2.2, 3.2.3, and 3.2.4.

### 3.3.1 State of Illinois

#### 3.3.1.1 Illinois State Police District 1 Headquarters - TACP

**Criterion 1.d.1 – Core Capability: Operational Communications**

**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 3.d.1 – Core Capability: Operational Coordination**

**Core Capability: Critical Transportation**

**Core Capability: On-Scene Security and Protection**

#### 3.3.1.2 Illinois State Police District 1 Headquarters - DCO Briefing

**Criterion 1.d.1 – Core Capability: Operational Communications**

**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**

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

1. M: MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
2. L1: LEVEL 1 FINDINGS: NONE
3. L2: LEVEL 2 FINDINGS: NONE
4. P: PLAN ISSUES: NONE
- e. PRIOR ISSUES – RESOLVED: NONE

f. PRIOR ISSUES – UNRESOLVED: NONE

### **3.3.2 Risk Jurisdiction – Ogle County**

#### **3.3.2.1 Initial Warning Point**

**Criterion 1.a.1 – Core Capability: Operational Communications**

**Criterion 1.d.1 – Core Capability: Operational Communications**

#### **3.3.2.2 Emergency Operations Center**

**Criterion 1.a.1 – Core Capability: Operational Communications**

**Criterion 1.b.1 – Core Capability**

**Criterion 1.c.1 – Core Capability: Operational Coordination**

**Core Capability: Operational Communications**

**Core Capability: Situational Assessment**

**Criterion 1.d.1 – Core Capability: Operational Communications**

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

**Core Capability: Mass Care Services**

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

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

**Criterion 2.b.2 – Core Capability: Operational Coordination**

**Core Capability: Intelligence and Information Sharing**

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

**Core Capability: Operational Communications**

**Core Capability: Situational Assessment**

**Criterion 2.c.1 – Core Capability: Operational Coordination**

**Core Capability: Operational Communications**

**Core Capability: Situational Assessment**

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

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

**Criterion 3.b.1 – Core Capability: Public Information and Warning**

**Core Capability: Operational Coordination**

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

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

**Criterion 3.c.1 – Core Capability: Public Information and Warning**

**Core Capability: Operational Coordination**

**Core Capability: Critical Transportation**

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

**Criterion 3.c.2 – Core Capability: Operational Coordination**

**Core Capability: Critical Transportation**

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

- Criterion 3.d.1 – Core Capability: Operational Coordination**
  - Core Capability: Critical Transportation**
  - Core Capability: On-Scene Security and Protection**
- Criterion 3.d.2 – Core Capability: Operational Coordination**
  - Core Capability: Critical Transportation**
  - Core Capability: Infrastructure Systems**
- Criterion 5.a.1 – Core Capability: Public Information and Warning**
  - Core Capability: Operational Coordination**
  - Core Capability: Operational Communications**
- Criterion 5.b.1 – Core Capability: Public Information and Warning**
  - Core Capability: Operational Communications**

### **3.3.2.3 Winnebago County Liaison**

- Criterion 1.a.1 – Core Capability: Operational Communications**
- Criterion 1.c.1 – Core Capability: Operational Coordination**
  - Core Capability: Operational Communications**
  - Core Capability: Situational Assessment**
- Criterion 3.d.1 – Core Capability: Operational Coordination**
  - Core Capability: Critical Transportation**
  - Core Capability: On-Scene Security and Protection**
- Criterion 3.d.2 – Core Capability: Operational Coordination**
  - Core Capability: Critical Transportation**
  - Core Capability: Infrastructure Systems**

### **3.3.2.4 Ogle County Sheriff – TACP**

- Criterion 1.d.1 – Core Capability: Operational Communications**
- 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 3.d.1 – Core Capability: Operational Coordination**
  - Core Capability: Critical Transportation**
  - Core Capability: On-Scene Security and Protection**

### **3.3.2.5 Ogle County Sheriff – DCO Briefing**

- 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**

**3.3.1.6 Oregon Police Department - TACP**

**Criterion 1.d.1 – Core Capability: Operational Communications**  
**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 3.d.1 – Core Capability: Operational Coordination**  
**Core Capability: Critical Transportation**  
**Core Capability: On-Scene Security and Protection**

**3.3.1.7 Oregon Police Department - DCO Briefing**

**Criterion 1.d.1 – Core Capability: Operational Communications**  
**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**

**3.3.1.8 WRHL – Emergency Alert System Radio Station**

**Criterion 1.d.1 – Core Capability: Operational Communications**  
**Criterion 5.b.1 – Core Capability: Public Information and Warning**  
**Core Capability: Operational Communications**

**3.3.1.9 CUSD #226 Byron – School Interview**

**Criterion 1.d.1 – Core Capability: Operational Communications**  
**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 3.c.2 – Core Capability: Operational Coordination**  
**Core Capability: Critical Transportation**

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

- a. M: MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
- b. L1: LEVEL 1 FINDINGS: NONE
- c. L2: LEVEL 2 FINDINGS: 5.a.1
- d. P: PLAN ISSUES: NONE
- e. PRIOR ISSUES – RESOLVED: NONE
- f. PRIOR ISSUES – UNRESOLVED: NONE

### **3.3.3 Risk Jurisdiction – Winnebago County**

#### **3.3.3.1 Initial Warning Point**

**Criterion 1.a.1 – Core Capability: Operational Communications**

**Criterion 1.d.1 – Core Capability: Operational Communications**

#### **3.3.3.2 Emergency Operations Center**

**Criterion 1.a.1 – Core Capability: Operational Communications**

**Criterion 1.c.1 – Core Capability: Operational Coordination**

**Core Capability: Operational Communications**

**Core Capability: Situational Assessment**

**Criterion 1.d.1 – Core Capability: Operational Communications**

**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 3.b.1 – Core Capability: Public Information and Warning**

**Core Capability: Operational Coordination**

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

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

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

**Core Capability: Critical Transportation**

**Core Capability: On-Scene Security and Protection**

**Criterion 3.d.2 – Core Capability: Operational Coordination**

**Core Capability: Critical Transportation**

**Core Capability: Infrastructure Systems**

**3.3.3.3 Winnebago County Sheriff's Department – TACP**

**Criterion 1.d.1 – Core Capability: Operational Communications**

**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 3.d.1 – Core Capability: Operational Coordination**

**Core Capability: Critical Transportation**

**Core Capability: On-Scene Security and Protection**

**3.3.3.5 Winnebago County Sheriff's Department – DCO Briefing**

**Criterion 1.d.1 – Core Capability: Operational Communications**

**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**

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
- b. L1: LEVEL 1 FINDINGS: NONE
- c. L2: LEVEL 2 FINDINGS: NONE
- d. P: PLAN ISSUES: NONE
- e. PRIOR ISSUES – RESOLVED: NONE
- f. PRIOR ISSUES – UNRESOLVED: NONE

## SECTION 4: Conclusion

There were no Level 1, Level 2, or Plan Issues identified for the State of Illinois or Winnebago County. There were no Level 1 or Plan Issues identified for Ogle County. A Level 2 Issue, related to Criterion 5.a.1 in Ogle County, is described in Appendix A, along with the recommended corrective action.

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 remains in effect.

# APPENDIX A: Improvement Plan

This appendix summarizes the findings from the evaluation of all jurisdictions and functional entities that participated in the October 29, 2019, Byron Station Plume Pathway Exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Byron Station, recommended corrective actions, and a schedule of corrective actions for the identified primary responsible agency.

**Issue: 09-19-5a1-L2-1**

**ORO: Ogle County**

**Criterion: 5.a.1**

<p><b>CONDITION:</b> The WHRL Radio Station in Rochelle, Illinois, was not notified or activated by the County Board Chairman or the Ogle County Emergency Management Agency Coordinator at the Alert Emergency Classification Level status at the Byron Generating Station in accordance with the Ogle County Procedures for Byron Nuclear Power Station and the Procedures for Public Notification In The Event Of An Incident At The Byron Nuclear Power Station.</p>	
<p><b>POSSIBLE CAUSE:</b> Procedures to activate the local radio stations were not followed:</p> <ol style="list-style-type: none"> <li>1. The Ogle County Procedures for the County Board Chairman, 10/20/2019, Chapter 4 – pages Byron 4-2, line 8; state to “Review the procedures to activate the local radio station (see the agreements for phone numbers and passwords).”</li> <li>2. Procedures– Notification of WRHL AM/FM; “Letter of Agreement and Memorandum of Understanding” Attachment A; Procedures for Public Notification In The Event Of An Incident At The Byron Nuclear Power Station.</li> </ol> <p>Line 1; Upon notification of an Alert, a Site Area Emergency, or a General Emergency, the Ogle County EMA Coordinator or the County Board Chairman will call WRHL via commercial telephone.</p>	
<p><b>RECOMMENDATION:</b></p> <ol style="list-style-type: none"> <li>1. Provide additional training and review on procedures outlined in Chapter 4, Ogle County Procedures; Byron Nuclear Power Station Final Combined Plan and in Procedures for Public Notification in the Event of an Incident at the Byron Nuclear Power Station; Attachment A: Notification of WRHL, AM/FM; Attachment B: Instructions for Ogle County For An Actual Emergency; and Attachment C: Live Broadcast Over WHRL By Ogle County Officials.</li> <li>2. Use the checklists in the plan to ensure that all necessary actions are performed.</li> </ol>	
<p><b>SCHEDULE OF CORRECTIVE ACTIONS:</b> The Illinois Emergency Management Agency (IEMA) and Ogle County Emergency Management Agency (EMA) will determine the corrective actions.</p>	
<p><b>CORRECTIVE ACTION DESCRIPTION:</b> The IEMA and Ogle County EMA will determine the corrective actions.</p>	
<p><b>CAPABILITY:</b> Operational Communication</p>	<p><b>PRIMARY RESPONSIBLE AGENCY:</b> IEMA and Ogle County EMA</p>

<p><b>CORE CAPABILITY ELEMENT:</b> Public Information and Warning</p>	<p><b>ESTIMATED COMPLETION DATE:</b> The IEMA and Ogle County EMA will determine the completion date.</p>
<p><b>REP ASSESSMENT AREA:</b> Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance (5.a.1).</p>	<p><b>AGENCY POC:</b> Bill Conway</p>

## APPENDIX B: Exercise Timeline

All times are in Central Daylight Time

Emergency Classification Level or Event	Time Utility Declared	SEOC	Ogle County	Winnebago County
Unusual Event (end of verification call for ECLs) <sup>1</sup>	N/A	N/A	N/A	N/A
Alert	0813	N/A	0828	0929
Site Area Emergency	0952	N/A	0959	1040
General Emergency	1111	N/A	1124	1159
Release of Radioactive Material Started <sup>2</sup>		N/A	1124	1159
Release of Radioactive Material Terminated <sup>3</sup>	N/A	N/A	N/A	N/A
Facility Declared Operational <sup>4</sup>		N/A	0929	1004
Declaration of State/Local Emergency <sup>5</sup>		N/A	N/A	N/A
Exercise Termination		N/A	1259	1245
Early Precautionary Action Decision: <sup>6</sup> <The State issued an order to evacuate state parks and hunting areas.>		N/A	1020	N/A
Early Precautionary Action Decision: <sup>6</sup> <The State issued a Livestock Advisory: All livestock are to be sheltered and placed on stored feed and water within the 10-mile EPZ.>		1055	1055	1110
Early Precautionary Action Decision: <sup>6</sup> <The state issued Air, water and rail traffic restrictions within 5/10 miles of Byron Station.>		1116/1040/NA	N/A	N/A
Early Precautionary Action Decision: <sup>6</sup> <Evacuate Schools and/or Special Populations.>		N/A	N/A	N/A
General Information Message: <sup>7</sup> <Public advised of incident at Byron Station >		N/A	1045	N/A
Siren Activation: <sup>8</sup>		N/A	N/A	N/A
EAS Message: <sup>9</sup>		N/A	N/A	N/A
Protective Action Recommendation <sup>10</sup> Evacuation of Sub-Areas: 19, 23, 25		N/A	1144	1159
Protective Action Decision: <sup>11</sup>		N/A	1210	N/A
Siren Activation: <sup>8</sup>		N/A	1215	N/A
EAS Message: <sup>9</sup>		N/A	1227	N/A
Protective Action Recommendation <sup>10</sup> Evacuation of Sub-Areas:		N/A	N/A	N/A
Protective Action Decision: <sup>11</sup> Evacuate Schools		N/A	1210	N/A
Siren Activation: <sup>8</sup>		N/A	N/A	N/A
EAS Message: <sup>9</sup>		N/A	N/A	N/A
KI Administration Emergency Workers and Immobile Populations Decision (SEOC/REAC)/Implementation (UAC/Counties)		N/A	N/A	N/A

**LEGEND: N/A = ECL/Event/Action Not Applicable at Location****- = Time Not Reported**

1	End of verification call is time to be recorded in table. Evaluators should note all times associated with the process, i.e. start of notification call, end of call, start of verification call, and end of verification call. Notification time for UAC is end of verification call with the state; JIC time is as communicated by the state.
2	Note time notified by utility, in REAC record time as announced in REAC if release is noted as occurring prior to notification of utility.
3	Only noted if release is terminated prior to the termination of the exercise.
4	Time that the facility manager or designee declares the facility Operational. Evaluators should also note time facility is declared Activated. A facility is considered Activated as soon as notification of an incident is received, and the Director/Commissioner/Emergency Management Representative makes the determination to activate the facility. The facility is not considered Operational until it is ready to carry out full emergency operations with key decision makers in place.
5	Time of local declaration of emergency.
6	Time of local decision. If the State makes the decision, time is based on state decision and county times should be when county is made aware of decision.
7	Time that the message to be broadcast to the public is officially approved by appropriate authority
8	Time is end of demonstration of the process that would result in siren activation (simulated unless otherwise noted in Extent-of-Play)
9	Time that message is able to be transmitted from the radio station to the public. This time would be based on if radio station can record and broadcast at the same time, or if message needs to be completely transmitted prior to being able to broadcast to the public.
10	Time that PAR(s) is/are approved or declared by the governing authority. If a facility is not part of the decision-making process, note the time the facility is officially notified of the PAR.
11	Time that PAD(s) is/are approved or declared by the governing authority. If a facility is not part of the decision-making process, note the time the facility is officially notified of the PAD.

# APPENDIX C: Exercise Evaluation Team

**EXERCISE DATE: October 29, 2019**

**SITE: 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
Team Leader – Ogle County	Kim Alahmadi	DHS/FEMA
Team Leader – Winnebago County	Curtis Williams	DHS/FEMA
Contractor Evaluator Support – Regional Coordinator	John Wills	ICF

Evaluated Off-Site Response Organizations/Locations	Evaluator	Agency/ Organization
<b>State of Illinois</b>		
Illinois State Police District 1 HQ – DCO Briefing	Gary Bolender	ICF
Illinois State Police District 1 HQ – TACP	Karl Rabenhorst	DHS/FEMA
<b>Ogle County</b>		
Initial Warning Point	Meg Swearingen	ICF
Emergency Operations Center	Vince Kalson	DHS/FEMA
Emergency Operations Center	Jim Greer	ICF
Emergency Operations Center	Meg Swearingen	ICF
Winnebago County Liaison	Kimberly Alahmadi	DHS/FEMA
Ogle County Sheriff TACP	Bart Ray	ICF
Ogle County Sheriff DCO Briefing	Gary Bolender	ICF
Oregon Police Department TACP	Bart Ray	ICF
Oregon Police Department DCO Briefing	Tom Gahan	ICF
CUSD #226 – Byron	Alvin Blake	DHS/FEMA
Radio Station WRHL	Todd Gemskie	DHS/FEMA
<b>Winnebago County</b>		
Initial Warning Point	Katie Boyce	DHS/FEMA
Emergency Operations Center	Katie Boyce	DHS/FEMA
Emergency Operations Center	Tom Gahan	ICF
Winnebago County Sheriff TACP	Alvin Blake	DHS/FEMA
Winnebago County DCO Briefing	Karl Rabenhorst	DHS/FEMA

## APPENDIX D: Acronyms and Abbreviations

ACRONYM	DESCRIPTION
ARC	American Red Cross
CDT	Central Daylight Time
CFR	Code of Federal Regulations
DCO	Dosimetry Control Officer
DHS	Department of Homeland Security
DLR	Dosimeter of Legal Record
DRD	Direct Reading Dosimeter
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMA	Emergency Management Agency
EM	Emergency Management
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
FEMA	Federal Emergency Management Agency
ICF	ICF International
IDOT	Illinois Department of Transportation
IEMA	Illinois Emergency Management Agency
ILEAS	Illinois Law Enforcement Alarm System
IPAWS	Integrated Public Alert and Warning System
IPRA	Illinois Plan for Radiological Accidents
ISP	Illinois State Police
JIC	Joint Information Center
KI	Potassium Iodide
MERCI	Medical Emergency Radio Communications for Illinois
MRT	Medical Radiation Technician
NARS	Nuclear Accident Reporting System
NRC	Nuclear Regulatory Commission
NUREG	Nuclear Regulatory Guide
ORO	Off-site Response Organization
PAD	Protective Action Decision
PAR	Protective Action Recommendation
PIO	Public Information Officer
RAC	Regional Assistance Committee
RCO	Radiation Control Officer
REA	Radiation Emergency Area
REAC	Radiological Emergency Assessment Center
REP	Radiological Emergency Preparedness

UNCLASSIFIED  
Radiological Emergency Preparedness (REP) Program

After Action Report/Improvement Plan

Byron Station

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RRG	Radiological Response Group
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SOP	Standard Operating Procedure
TAC	Traffic and Access Control
TSC	Technical Support Center
UAC	Unified Area Command

# APPENDIX E: Extent-Of-Play Agreements

## STATE OF ILLINOIS EXTENT OF PLAY AGREEMENT

### FOR THE BYRON STATION EXERCISE

October 29th, 2019

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 4.a.3, 4.b.1, 4.c.1, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chair of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 3.d.2, 5.a.1 and 5.b.1.

**NOTE: If the exercise scenario, or related exercise play, does not prompt specific criteria-related actions, individual criteria may be addressed through a functional interview or alternative scenario-driven task demonstration. When utilized, this process will be done in a manner not to disrupt or interfere with normal exercise play.**

#### **EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT**

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

The State Emergency Operations Center (SEOC) and the Radiological Emergency Assessment Center (REAC) will be activated, however neither will not be evaluated. The IEMA Emergency Response Telecommunicator will implement procedures for notification of IEMA staff as defined in IEMA SOPs. The SEOC will be partially activated with IEMA personnel. REAC will be fully activated for training purposes and to support county and utility exercise play only. Rosters will not be provided to demonstrate 24-hour staffing of the SEOC and REAC.

The Unified Area Command (UAC) will be activated at (location to be determined) with State district and regional personnel to support exercise play but will not be evaluated. The Radiological Response Group (RRG) will be activated for the Byron Pre-Exercise on September 24<sup>th</sup> and located at 111 5<sup>th</sup> Avenue, Rochelle, IL for training purposes, but will not be evaluated. A FEMA observer (or observers) is requested to provide feedback on RRG training activities during the Pre-Exercise.

IEMA personnel will be prepositioned in the local area and dispatched to the County EOCs, Unified Area Command (UAC), Emergency Operations Facility (EOF), Technical Support Center (TSC) and the JIC (in Warrenville and Springfield). The JIC will not be evaluated for this exercise but will participate to the level necessary to support utility, State and county-level exercise play.

The prepositioned State staff will begin exercise play no earlier than the Alert.

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

This criterion will not be demonstrated during this exercise.

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

The ability to direct and control emergency response activities will be conducted at the SEOC, REAC, the UAC and the JIC but will not be evaluated. Coordination will be conducted between the SEOC, the REAC, the UAC (simulated), the JIC, the EOF, RRG and the county EOCs but will not be evaluated.

The JIC (in Warrenville and Springfield) will not be evaluated for this exercise but will participate to the level necessary to support utility, State and county-level exercise play.

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

IEMA may use a combination of communication systems [Nuclear Accident Reporting System (NARS), telefax, commercial telephone, cellular phone, email/electronic media, radio] to communicate with other organizations and locations to support exercise play, but will not be evaluated.

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

The State of Illinois will use equipment, maps and displays to support emergency operations, but will not be evaluated. Dosimetry Control Officer (DCO) logs will be available from an IEMA Radiological Advisors in the Ogle County EOC.

A DCO briefing/Traffic and Access Control (TAC) interview will be conducted by Illinois State Police District 1 during an out-of-sequence interview on Wednesday, October 30th at 9:30 AM (confirmed) at District 1 Headquarters in Sterling. During this event, the availability of dosimetry will be demonstrated. No more than 10% of ISP District 1 dosimetry kits will be inspected during the interview to confirm serial numbers.

## **EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING**

**Criterion 2.a.1:** OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

If applicable, the ability to make the decision to recommend the use of KI to emergency workers may be demonstrated (but not evaluated) in REAC to the extent necessary to support county exercise play.

**Criterion 2.b.1:** Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions.

To the extent necessary to support exercise play the REAC will evaluate the licensee information and complete independent dose projections based on that information and simulated field

monitoring data. REAC will make an evaluation of the data and make a protective action recommendation to the SEOC, however this criterion will not be evaluated.

The coordination to determine protective action recommendations (PARs) based upon available shelters, evacuation time estimates and other relevant factors will be demonstrated between the SEOC and REAC.

**Criterion 2.b.2:** A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy).

The coordination to determine protective action recommendations (PARs) based upon available shelters, evacuation time estimates and other relevant factors will be discussed between the SEOC and REAC, but will not be evaluated. The State PAR will be transmitted to Ogle County via NARS.

The capability to determine which centers should be activated for monitoring, decontamination, registration, reception and congregate care will be discussed at SEOC and REAC and provided to counties to the level necessary to support exercise play, but will not be evaluated.

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

The coordination to determine protective action recommendations (PARs) based upon available shelters, evacuation time estimates and other relevant factors will be demonstrated between the SEOC and REAC. The State PAR will be transmitted to Ogle County via NARS, and then forwarded to Ogle County Officials at the Winnebago County EOC.

The ability to make the decision to recommend the use of KI to institutionalized persons will be demonstrated in REAC.

**Criterion 2.d.1:** Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria.

This criterion will not be demonstrated during this exercise.

**Criterion 2.e.1:** Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures.

This criterion will not be demonstrated during this exercise.

### **EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION**

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

A DCO briefing/Traffic and Access Control (TAC) interview will be conducted by Illinois State Police District 1 during an out-of-sequence interview on Wednesday, October 30<sup>th</sup> at 9:30 AM (confirmed) at District 1 Headquarters in Sterling.

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

The State of Illinois does not currently recommend the use of KI by the general public. However, if necessary to support exercise play the State will address the general public who has KI regarding the proper time to consider taking KI through the JIC.

**Criterion 3.c.1:** Precautionary and/or protective action decisions are implemented for persons with disabilities and access/functional needs other than schools within areas subject to protective actions.

This criterion does not apply to the State of Illinois.

**Criterion 3.c.2:** OROs/School officials implement precautionary and/or protective actions for schools.

This criterion does not apply to the State of Illinois.

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

This criterion will not be demonstrated during the exercise. An out-of-sequence DCO briefing/Traffic and Access Control (TAC) interview will be conducted by Illinois State Police District 1 during an out-of-sequence interview on Wednesday, October 30th at 9:30 AM (confirmed) at District 1 Headquarters in Sterling.

**Criterion 3.d.2:** Impediments to evacuation are identified and resolved.

This criterion will not be demonstrated during this exercise.

**Criterion 3.e.1:** The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

This criterion will not be demonstrated during this exercise.

**Criterion 3.e.2:** Appropriate measures, strategies and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production.

This criterion will not be demonstrated during this exercise.

**Criterion 3.f.1:** Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented.

This criterion will not be demonstrated during this exercise.

#### **EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS**

**Criterion 4.a.1:** {Reserved}

**Criterion 4.a.2:** Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure.

This criterion will not be evaluated, but for the Byron Pre-Exercise on September 24<sup>th</sup>, the RRG will deploy field teams from 111 5<sup>th</sup> Avenue, Rochelle, IL for practice and training purposes. A FEMA observer (or observers) is requested to provide feedback

**Criterion 4.a.3:** Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media.

This criterion will not be evaluated but this task may be performed by the field teams and information will be coordinated with RRG Command. A FEMA observer is requested to provide feedback of the practice and training activities. The RRG staging area will be located at 111 5<sup>th</sup> Avenue, Rochelle, IL.

**Criterion 4.b.1:** The field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision making.

This criterion will not be demonstrated during this exercise.

**Criterion 4.c.1:** The laboratory is capable of performing required radiological analyses to support protective action decisions.

This criterion will not be demonstrated.

#### **EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION**

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

The State's role in demonstrating this criterion is limited to transmitting the State's protective action recommendation (PAR) to Ogle County officials and monitoring the instructional messages provided to the public by Ogle County to support exercise play. This monitoring will be accomplished by IEMA representatives in the Ogle County EOC.

**Criterion 5.a.2:** [RESERVED]

**Criterion 5.a.3:** Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system.

This criterion does not apply to the State of Illinois.

**Criterion 5.a.4:** Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation.

This criterion does not apply to the State of Illinois.

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

This will be demonstrated at the JIC in coordination with the SEOC, REAC, the County EOC. IEMA personnel will be present at the JIC to coordinate with the Exelon staff. Media briefings will be conducted at the JIC. A livestock advisory will be issued to the media from the JIC or the SEOC if appropriate, however this criterion will not be evaluated.

The State of Illinois does not currently recommend the use of KI by the general public. However, the State will address the general public, who has KI, regarding the proper time to consider taking KI through the JIC, if applicable in the scenario.

### **EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES**

**Criterion 6.a.1:** The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees.

All related reception centers have been evaluated in the last 8 years. This criterion will not be demonstrated during this exercise.

**Criterion 6.b.1:** The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles.

All related reception centers have been evaluated in the last 8 years. This criterion will not be demonstrated during this exercise

**Criterion 6.c.1:** Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities.

All related reception centers have been evaluated in the last 8 years. This criterion will not be demonstrated during this exercise

**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.

The MS-1 demonstration for OSF St. Anthony was successfully completed on July 11, 2019.

# OGLE COUNTY EXTENT OF PLAY AGREEMENT

## FOR THE

### BYRON STATION EXERCISE

October 29th, 2019

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 4.a.3, 4.b.1, 4.c.1, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chair of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 3.d.2, 5.a.1, and 5.b.1.

**NOTE: If the exercise scenario, or related exercise play, does not prompt specific criteria-related actions, individual criteria may be addressed through a functional interview or alternative scenario-driven task demonstration. When utilized, this process will be done in a manner not to disrupt or interfere with normal exercise play.**

#### EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

Ogle County will fully activate the Emergency Operations Center (EOC) in Rochelle, Illinois. The County will implement notification procedures as defined in IPRA-Byron. Representatives from the EPZ municipalities, Winnebago County, IEMA, ISP and Exelon will staff the County EOC but will not be pre-positioned in the EOC. A roster will be provided to demonstrate 24-hour staffing of the EOC. The evaluator will not be allowed to remove the roster from the EOC.

An evaluator will be positioned at the County Sheriff's Communications Center (initial warning point) at the start of the exercise.

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

This criterion will be evaluated at the Ogle County EOC on October 29th. If possible, this criterion will be evaluated prior to the commencement of exercise play, however, if the scenario interferes, this will be done after the conclusion of scenario-based activities.

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

Decision making will be demonstrated at the Ogle County EOC. Coordination of decisions and emergency activities will be demonstrated between Ogle County, the State Emergency Operation Center (SEOC) and the JIC, and between the County and municipalities within the EPZ. Coordination between Ogle County and Winnebago County will be demonstrated.

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

Ogle County may use a combination of NARS, commercial telephone, cellular telephone, electronic mail, radio and telefax to communicate with departments/agencies. Ogle County may choose to use WebEOC during the exercise, but on an unevaluated, trail basis.

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

Ogle County will demonstrate the ability to support operations through the use of maps, status boards and other displays as appropriate. DCO logs will be available from the IEMA Radiological Advisor in the Ogle County EOC. The availability of dosimetry and KI will be demonstrated during the traffic and access control demonstration and the school interview.

The DCO briefing for the Ogle County deputy demonstrating traffic and access control will be conducted at the Ogle County EOC on October 29<sup>th</sup> out of sequence to, but not interfering with, exercise play. The DCO briefing for the Oregon Police officer demonstrating traffic and access control will be conducted on **Tuesday, October 29th at 3:00 PM (confirmed)** at the Oregon Police Department.

## **EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING**

**Criterion 2.a.1:** OROs use a decision-making process, considering relevant factors and appropriate coordination, to insure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

This criterion does not apply to Ogle County.

**Criterion 2.b.1:** Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions.

This criterion does not apply to Ogle County.

**Criterion 2.b.2:** A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy).

The State of Illinois will make protective action recommendations to Ogle County officials in the Ogle County EOC. The Ogle County officials will make the final decision regarding what protective actions will be recommended to the public.

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

The State of Illinois will make protective action recommendations to Ogle County officials in the County EOC. The Ogle County officials will make the final decision regarding what protective actions will be recommended for groups of people with disabilities and those with access/functional needs

**Criterion 2.d.1:** Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria.

This criterion does not apply to Ogle County.

**Criterion 2.e.1:** Timely post-plume phase relocation, reentry and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the OROs plan and/or procedures.

This criterion will not be demonstrated during this exercise.

### **EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION**

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

Ogle County will demonstrate this criterion by close coordination with the IEMA Radiological Advisor and timely dissemination and exchange of information within the County Dosimetry Control Officer network. Exercise messages will be injected which will ensure the opportunity to demonstrate this criterion in the Ogle County EOC.

The DCO briefing for the Ogle County deputy demonstrating traffic and access control will be conducted at the Ogle County EOC on October 29<sup>th</sup> out of sequence to, but not interfering with, exercise play. The DCO briefing for the Oregon Police officer demonstrating traffic and access control will be conducted on **Tuesday, October 29<sup>th</sup> at 3:00 PM (confirmed)** at the Oregon Police Department.

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

When notified by the State of Illinois to distribute and administer KI, Ogle County officials will discuss the issuance of KI and immobile populations, as a voluntary measure, and will notify the municipalities of the State's recommendation.

The State of Illinois will make an announcement through the JIC of the appropriate time for the public to consider voluntarily taking KI.

**Criterion 3.c.1:** Protective action decisions are implemented for people with disabilities and those with access/functional needs other than schools within areas subject to protective actions.

This will be demonstrated by Ogle County through the simulated implementation of the appropriate procedures. The appropriate officials will coordinate transportation and receiving facilities for people with disabilities and those with access/functional needs other than schools within areas subject to protective actions. One of each type of special facility will be contacted during the exercise. One of each type of transportation provider (ambulance/bus) will be contacted during the exercise. The public will not be involved in the demonstration.

The Mobility Impaired List/Cards will be available for inspection in the County EOC during the exercise. The evaluator will not be allowed to remove the list/cards from the EOC.

**Criterion 3.c.2:** OROs/School officials implement precautionary and/or protective actions for schools.

Ogle County officials will demonstrate this capability through the simulated implementation of the appropriate procedures in the Ogle county EOC. The EPZ schools and transportation providers will be contacted during the exercise.

A School interview (EV-2) will be conducted out of sequence at Byron CUSD #226 on Monday, October 28<sup>th</sup>, 2019 at 1:00 pm (confirmed). The roles of the superintendent, principal, transportation coordinator, bus driver, maintenance supervisor and DCO will be represented at the interview. Teacher participation is encouraged but not specifically required.

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

Coordination between Ogle County agencies designated to provide traffic and access control will be exhibited in the Ogle County EOC. The DCO briefing for the Ogle County deputy demonstrating traffic and access control will be conducted at the Ogle County EOC on October 29<sup>th</sup> out of sequence to, but not interfering with, exercise play. A deputy will not be asked to drive to the selected post location for the demonstration, but will provide adequate information to the evaluator to describe the process of staffing the selected post. The post will be selected by the State exercise controller. The staffing of the remaining posts will be simulated.

An Oregon Police officer will demonstrate traffic and access control procedures on **Tuesday, October 29<sup>th</sup> at 3:00 PM (confirmed)** at the Oregon Police Department. Any traffic and access control assignments will be simulated and not require the officer to drive to a location.

**Criterion 3.d.2:** Impediments to evacuation are identified and resolved.

The Ogle County EOC staff will demonstrate the capability to identify and take appropriate actions concerning impediments to evacuation. A message will be injected by the Controller that will drive this demonstration. County personnel will deal with the impediment by identifying the equipment needed, discussing its estimated time of arrival, etc. Actual contacts with resource providers will be made and logged. The impediment information will also be coordinated into public messaging (i.e., via media briefing, notifying the JIC, etc.) to communicate alternative routes to potential evacuees.

**Criterion 3.e.1:** The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

This criterion does not apply to Ogle County.

**Criterion 3.e.2:** Appropriate measures, strategies and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk and agricultural production.

This criterion does not apply to Ogle County.

**Criterion 3.f.1:** Decisions regarding controlled re-entry, relocation and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented.

This criterion will be not be demonstrated during this exercise.

#### **EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS**

This evaluation area does not apply to Ogle County.

### **EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION**

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

Ogle County will demonstrate the capability to provide both an alert signal and an instructional message to populated areas throughout the 10-mile plume pathway EPZ in a timely manner after their decision to activate the alert and notification system to implement protective action decisions (PAD).

This capability will be demonstrated through the simulated activation of the Byron Station EPZ Prompt Notification System as defined in IPRA-Byron. The Prompt Notification System (outdoor warning sirens) will not be activated during the exercise.

The ability to provide instructions to the public will be demonstrated through the simulated activation of the local radio station (WRHL). The local radio station will be contacted during the first, and possibly the second, alert and notification sequence. An evaluator and a controller will be positioned at the radio station during the exercise to monitor the initial message. If the initial message does not contain a PAR, the evaluator and controller will stay at the radio station until a message containing a PAR is received.

The IEMA Controller will terminate the demonstration if the demonstration interferes with the radio station's daily operations.

**Criterion 5.a.2:** [RESERVED]

**Criterion 5.a.3:** Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system.

This criterion may be demonstrated in this exercise by Ogle County, but that determination will be made on/after September 24<sup>th</sup>.

**Criterion 5.a.4:** Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation.

This criterion does not apply to Ogle County.

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

Ogle County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Byron. Contact with the radio station will be simulated for each alert and notification sequence following the message containing a protective action recommendation.

The ability to provide information to the media will be demonstrated by Ogle County through briefings held at the Ogle County media briefing location. If real media are not present for the

briefings, the controller and observers will serve as mock media. Evaluators will not serve as mock media.

The ability to deal with rumors will be demonstrated by Ogle County through coordination between the County EOC and the JIC support unit at the SEOC. The Ogle County EOC controller will inject exercise messages that will ensure the opportunity to demonstrate this criterion. County officials will investigate and address "rumors." If appropriate, the "rumors" will be coordinated between State and County officials in the County EOC and the JIC support unit at the SEOC.

**EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES**

This evaluation area does not apply to Ogle County.

# WINNEBAGO COUNTY EXTENT OF PLAY AGREEMENT

## FOR THE BYRON STATION EXERCISE

October 29<sup>th</sup>, 2019

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 4.a.3, 4.b.1, 4.c.1, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chair of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 3.d.2, 5.a.1 and 5.b.1.

**NOTE: If the exercise scenario, or related exercise play, does not prompt specific criteria-related actions, individual criteria may be addressed through a functional interview or alternative scenario-driven task demonstration. When utilized, this process will be done in a manner not to disrupt or interfere with normal exercise play.**

### EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

Winnebago County intends to activate the Emergency Operations Center (EOC) in Rockford, Illinois, to the appropriate level. The County will implement notification procedures as defined in IPRA-Byron. The EOC will be staffed with representatives from the County Board, ESDA Director or Coordinator, a Sheriff's Department representative, Highway Department representative and Regional Superintendent of Schools representative. If the scenario does not drive protective actions in Winnebago County, the County may decide to down-staff the EOC to a level sufficient to support Ogle County play and represent Winnebago County operational knowledge. A roster will be provided to demonstrate 24-hour County staffing of the EOC. Evaluators will not be allowed to remove the roster from the EOC.

An evaluator will be positioned at the County Sheriff's Communications Center (initial warning point) at the start of the exercise.

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

This criterion will be not demonstrated during this exercise.

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

Coordination of decisions and emergency activities will be demonstrated between Winnebago County and Ogle County.

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

Winnebago County will use commercial telephone, radio and telefax to communicate with departments and agencies at other locations. Winnebago County may choose to use WebEOC during the exercise, but on an unevaluated, trial basis. The determination to use WebEOC in the exercise will be determined on/after September 24<sup>th</sup>, 2019.

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

Winnebago County will adequately demonstrate the ability to support operations through the use of maps, status boards and other displays as appropriate. The availability of dosimetry and KI will be demonstrated during the traffic and access control demonstration. The DCO briefing for the deputy demonstrating traffic and access control will be conducted at the County EOC.

## **EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING**

**Criterion 2.a.1:** OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

This criterion does not apply to Winnebago County.

Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions.

This criterion does not apply to Winnebago County.

**Criterion 2.b.2:** A decision-making process involving consideration of appropriate factors and necessary coordination is used to make precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy).

This criterion does not apply to Winnebago County. Ogle County is solely responsible for this criterion.

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

This criterion does not apply to Winnebago County.

**Criterion 2.d.1:** Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria.

This criterion does not apply to Winnebago County.

**Criterion 2.e.1:** Timely post-plume phase relocation, reentry and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the OROs plan and/or procedures.

This criterion does not apply to Winnebago County. Ogle County is solely responsible for this criterion.

## **EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION**

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

Winnebago County will demonstrate this criterion by close coordination with IEMA and timely dissemination and exchange of information within the County Dosimetry Control Officer network.

This criterion will also be demonstrated during the traffic and access control demonstration. The Sheriff's deputy will obtain dosimetry from the DCO in the County EOC. The DCO briefing for the deputy demonstrating traffic and access control will be conducted at the County EOC.

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

When notified by the State of Illinois to distribute and administer KI, Winnebago County officials will discuss the issuance of KI to immobile populations, as a voluntary measure.

**Criterion 3.c.1:** Protective action decisions are implemented for people with disabilities and those with access/functional needs other than schools within areas subject to protective actions.

This criterion does not apply to Winnebago County.

**Criterion 3.c.2:** OROs/School officials implement precautionary and/or protective actions for schools.

This criterion does not apply to Winnebago County.

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

Coordination between Winnebago County and Ogle County will be demonstrated. Decision making regarding traffic and access control will be demonstrated by the Winnebago County representative in the Ogle County EOC.

A Sheriff's deputy will be available during the exercise day, but out-of-sequence to exercise play, to simulate the staffing of one post. The post for the demonstration will be selected by the State exercise controller. The deputy will not be asked to drive to the selected post location for the demonstration. The staffing of the remaining posts will be simulated.

**Criterion 3.d.2:** Impediments to evacuation are identified and resolved.

The Winnebago County EOC staff will demonstrate the capability to identify and take appropriate actions concerning impediments to evacuation. A message will be injected by the Controller that will drive this demonstration. County personnel will deal with the impediment by identifying the equipment needed, discussing its estimated time of arrival, etc. Actual contacts with resource providers will be made and logged.

The impediment information will also be coordinated into public messaging (i.e., via media briefing, notifying the JIC, etc.) to communicate alternative routes to potential evacuees. Coordination of this task may be demonstrated or coordinated by the Winnebago County

Sheriff's Department Liaison, located in the Ogle County EOC, if required by the exercise scenario.

**Criterion 3.e.1:** The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

This criterion does not apply to Winnebago County.

**Criterion 3.e.2:** Appropriate measures, strategies and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk and agricultural production.

This criterion does not apply to Winnebago County.

**Criterion 3.f.1:** Decisions regarding controlled re-entry, relocation and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented.

This criterion does not apply to Winnebago County.

#### **EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS**

This evaluation area does not apply to Winnebago County.

#### **EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION**

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

This criterion does not apply to Winnebago County. This function is the responsibility of Ogle County demonstrated.

**Criterion 5.a.2:** [RESERVED]

**Criterion 5.a.3:** Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system.

This criterion does not apply to Winnebago County.

**Criterion 5.a.4:** Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation.

This criterion does not apply to Winnebago County.

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

This criterion does not apply to Winnebago County. This function is the responsibility of Ogle County.

**EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES**

This evaluation area does not apply to Winnebago County.

# APPENDIX F: On-Site/Off-Site Scenario Timeline

## Byron Station Off-Site Exercise Timeline 2019 Evaluated Exercise

TIME	EVENT/ANTICIPATED RESPONSE
0800	Initial conditions/weather forecast message to players.
0820	An Alert is declared at Byron Station.
0835	<p>Exelon sends Utility NARS to IEMA Telecommunicator, Ogle County, and Winnebago County Initial Warning Point of the ALERT via NARS.</p> <p>IEMA Telecommunicator verifies the NARS message.</p> <p>An IEMA Duty Officer contacts the Byron Station Shift Engineer.</p> <p>IEMA Telecommunicator notifies IEMA personnel of the ALERT per SOP.</p> <p>IEMA may activate the State Emergency Operations Center (SEOC) and Radiological Emergency Assessment Center (REAC), if appropriate.</p> <p>IEMA may dispatch liaisons to the County EOCs, Unified Area Command (UAC), Radiological Response Group (RRG), Joint Information Center (JIC), Technical Support Center (TSC) and Emergency Operations Facility (EOF), if appropriate.</p> <p>IEMA notifies Governor's Office of the ALERT. (Simulated)</p> <p>IEMA Telecommunicator notifies appropriate State agencies of the ALERT. IEMA notifies FEMA of the ALERT. (Simulated)</p>
0850	<p>IEMA Telecommunicator notifies Ogle County and Winnebago County of the ALERT via NARS. Ogle County and Winnebago County Telecommunicators complete and verify the NARS message.</p> <p>Ogle County and Winnebago County Telecommunicators notify county officials, support counties and municipalities of the ALERT per SOP.</p> <p>Support county and municipal telecommunicators complete and verify the NARS message.</p> <p>Support county and municipal telecommunicators notify officials of the ALERT per SOP. Counties may activate the EOC, if appropriate.</p>
0955	A SITE AREA EMERGENCY is declared at Byron Station.
1010	<p>Exelon notifies the IEMA Telecommunicator, Ogle County, and Winnebago County of the SITE AREA EMERGENCY via NARS.</p> <p>IEMA Telecommunicator verifies the NARS message.</p> <p>REAC contacts the Byron Station Shift Engineer.</p> <p>SEOC is activated if not previously activated.</p> <p>SEOC notifies the Governor's Office and requests that a representative report to the State EOC. (Simulated)</p>

	<p>State dispatches liaisons to the County EOCs, UAC, RRG, JIC, TSC and EOF, if not previously dispatched.                  SEOC notifies FEMA of conditions.                  IEMA notifies State agencies (Simulated):</p> <ul style="list-style-type: none"> <li>- Illinois State Police</li> <li>- IDOT/Division of Highways</li> <li>- IDOT/Division of Aeronautics</li> <li>- IDNR</li> <li>- ING</li> <li>- ICC</li> <li>- American Red Cross</li> <li>- IDPH</li> <li>- IEPA</li> <li>- IDOC</li> <li>- IDHS</li> <li>- IDOA</li> <li>- OSFM</li> <li>- Others as appropriate</li> </ul> <p>REAC contacts Federal agencies. (Simulated)                  REAC provides an update to the SEOC and county EOC Liaisons.                  REAC provides an update to the JIC.</p>
1025	<p>IEMA notifies Ogle County and Winnebago County of the SITE AREA EMERGENCY via NARS.                  Ogle County and Winnebago County Telecommunicators complete and verify the NARS message.                  Ogle County and Winnebago County Telecommunicators notify county officials, support counties and municipalities of the SITE AREA EMERGENCY per SOP.                  Ogle County and Winnebago County implements public notification procedures, if appropriate. (Simulated)                  Support county and municipal telecommunicators complete and verify the NARS message.                  Support county and municipal telecommunicators notify officials per SOP. County EOCs are activated if not previously activated.                  Dosimetry is issued to emergency personnel, including EOC staff, and exposure records are completed.</p>
1100	<p>A GENERAL EMERGENCY is declared at Byron Station.</p>
1115	<p>Exelon notifies the IEMA Telecommunicator, Ogle County, and Winnebago County of the GENERAL EMERGENCY via NARS. Protective actions are recommended.                  IEMA Telecommunicator verifies the NARS message.                  SEOC and REAC evaluate the protective action recommendation.                  A recommendation is made to the Governor. The Governor recommends that protective actions be implemented.                  SEOC staff is advised of the situation.</p>

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	<p>SEOC advises UAC, the county EOC liaisons and JIC staff of the situation. SEOC notifies FEMA of conditions. (Simulated) REAC provides an update to the SEOC and county EOC liaisons. REAC provides an update to the JIC.</p>
1130	<p>SEOC notifies Ogle County and Winnebago County of the GENERAL EMERGENCY and the recommended protective actions via NARS. Ogle County and Winnebago County Telecommunicators complete and verify the NARS message. Ogle County and Winnebago County Telecommunicators notify county officials, support counties and municipalities per SOP. Ogle County and Winnebago County implement public notification procedures and traffic and access control per SOPs, as applicable. Support county and municipal telecommunicators complete and verify the NARS message. Support county and municipal telecommunicators notify EOC staff.</p>
1230	<p>Terminate exercise play.</p>