



**FEMA**

NRC Headquarters Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

To Whom It May Concern:

Enclosed is one copy of the After Action Report (AAR) / Improvement Plan (IP) for the July 27, 2011, Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise for the Byron Station. The State of Illinois, Ogle and Winnebago Counties, and the utility owner/operator, Exelon Nuclear, participated in this exercise. The AAR /IP was prepared by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V, Radiological Emergency Preparedness Program.

No Deficiencies were identified for any jurisdiction during this exercise.

There were two new Areas Requiring Corrective Action (ARCA) identified during this exercise and one ARCA from the previous exercise that was resolved.

The ARCA for the State of Illinois was identified under Criterion 2.b.2 – The SIRC Manager did not reconsider restricting air traffic after a change in radiological conditions, allowing aircraft to fly through the plume.

An ARCA for Ogle County was identified under Criterion 3.c.2 – The Ogle County Schools Liaison did not advise Loreda Taft Field Campus to evacuate per the Protective Action Decision to evacuate the schools located within Sub-Area 19.

An ARCA from a previous exercise for the Ogle County was identified under Criterion 5.a.1– The Ogle County Emergency Management Coordinator did not instruct the radio station to repeat recorded Local Radio Stations Messages every 15 minutes. The ARCA was resolved during this exercise.

Based on the results of the July 27, 2011, exercise, the offsite radiological emergency response plans and preparedness for the State of Illinois and affected local jurisdictions site-specific to the Byron Station, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

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Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Illinois site-specific to the Byron Station, granted on October 14, 1982, remains in effect.

Copies of this Report were transmitted to the DHS/FEMA National Office, Nuclear Regulatory Commission (NRC) Region III, and the State of Illinois.

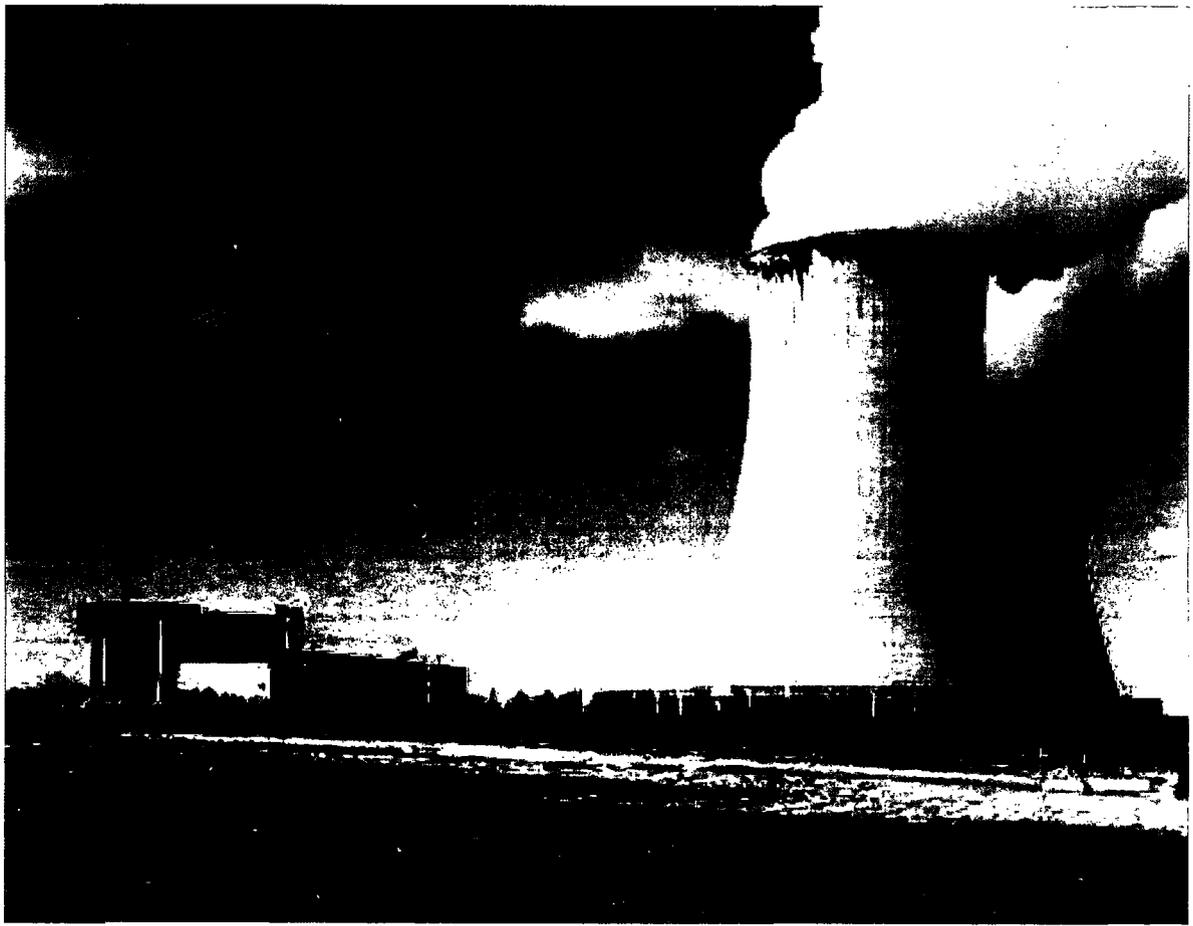
If you have any questions, please contact William E. King, Chairman, Regional Assistance Committee, DHS/FEMA, Region V, at (312) 408-5575.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Velasquez III".

Andrew Velasquez III  
Regional Administrator

Enclosure (1)



Byron Station

# After Action Report/ Improvement Plan

Exercise Date - July 27, 2011

Radiological Emergency Preparedness (REP) Program



**FEMA**

*Published November 21, 2011*



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## EXECUTIVE SUMMARY

On July 27, 2011 a Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise was conducted for the 10-mile Emergency Planning Zone (EPZ) around the Byron Station by the U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA). The purpose of the exercise was to assess the capabilities of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with DHS/FEMA's policies and guidance concerning the exercise of State and local Radiological Emergency Response Plans (RERPs) and procedures.

The most recent exercise at this site was conducted on July 29, 2009. The qualifying emergency preparedness exercise was conducted on November 15, 1983.

DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Illinois the risk counties of Ogle and Winnebago participated along with State Government.

Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork on the part of all the participants were evident during this exercise.

This After Action (AAR)/Improvement Plan (IP) Report contains the evaluation of the biennial exercise and the evaluation of the following out-of-sequence interviews and activities: Illinois State Police (ISP) Dosimetry Control Officers Briefing, ISP Traffic and Access Control Point at the ISP District 16 Headquarters, Protective Actions for Schools (EV-2), Monitoring and Decontamination of Evacuees and Emergency Workers, Decontamination of Emergency Worker's Equipment, Public Registration and Congregate Care, Treatment and Transport of Contaminated Patients at Freeport Hospital and Byron Ambulance, Mt. Morris Dosimetry Control Officer Briefing, Mt. Morris Traffic and Access Control Points. Except where noted in this report, the State and local organizations demonstrated knowledge of and adequately implemented their emergency response plans and procedures.

### INTRODUCTION - EXERCISE BASIS

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On December 7, 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. DHS/FEMA's activities are conducted pursuant to Title 44 of the Code of Federal Regulations (CFR) Parts 350 "Review and Approval of State and Local Radiological Emergency Plans and Preparedness", 351 "Radiological Emergency Planning and Preparedness" and 352 "Commercial Nuclear Power Plants: Emergency Preparedness Planning" (Commonly referred to as 44 CFR 350 through 352). These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

FEMA Regulation 44 CFR 350 establishes the policies and procedures for DHS/FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local governments' participation in joint exercises with licensees.

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

- Taking the lead in offsite emergency planning and in the review and evaluation of RERPs and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993); 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

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- 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 July 27, 2011, 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 health and safety during a radiological emergency involving the Byron Station. The purpose of this AAR/IP is to present the exercise results and findings based on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

The findings presented in this AAR/IP are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V RAC Chairperson, 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;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991; and
- FEMA "Radiological Emergency Preparedness: Exercise Evaluation Methodology; Notice" as published in the Federal Register Notice, Vol. 67, No. 80, dated April 25, 2002.

Section 1 of this report, entitled "Exercise Overview", presents information pertaining to the team that planned and coordinated the exercise. This section also provides listing of all participating jurisdictions and functional entities that were evaluated.

Section 2 of this report, entitled "Exercise Design Summary", contains the purpose and design of the exercise, a description of the plume pathway EPZ and presents basic information and data relevant to the exercise scenario.

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Section 3 of this report, entitled "Analysis of Capabilities," presents detailed information on the demonstration of applicable exercise criteria at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. This section also contains: (1) descriptions of all Deficiencies and ARCAs (if any) assessed during this exercise, recommended corrective actions, and the State and local governments' schedule of corrective actions, if applicable, for each identified exercise issue; and (2) descriptions of unresolved ARCAs assessed during previous exercises and the status of the OROs' efforts to resolve them.

Section 4 of this report, entitled "Conclusion" presents the DHS/FEMA summary of overall exercise conduct and results as evaluated against the requirements of 44 CFR 350.

#### Emergency Planning Zone (EPZ) - Description

The Byron Station, Units 1 and 2, is located on a 1,288-acre site in Rockville Township, approximately 3.7 miles south-southwest of the City of Byron and 2.2 miles east of the Rock River in Ogle County, Illinois. The site is situated approximately in the center of the county in a predominantly agricultural area, with cash grain crops of corn and soybeans.

The plume pathway EPZ consists of a circle with the Byron Station as the center point. The EPZ extends approximately 10 miles outward in all directions from the Byron Station. In the event of a serious accident at the Byron Station, the plume exposure EPZ will be the area in which intensive efforts will be made to notify and protect residents and transient populations from exposure to radiation. This EPZ includes Ogle County, a small portion of Winnebago County and the following municipalities: Byron, Oregon, Stillman Valley, Leaf River, Mount Morris, and Davis Junction.

The population distribution in the 10-mile EPZ surrounding the Byron Station is relatively low. Based on the 2000 census, the City of Byron has a population of 2,917, Oregon has a population of 4,060, Stillman Valley has a population of 1,048, Leaf River has a population of 555, Mount Morris has a population of 3,013, and Davis Junction has a population of 491; for a total of 12,084 residents. The 10 Sub-Areas (Numbered: 10, 12, 14, 17, 23, 25, 27, 28, 39 and 40) located in the Byron Station EPZ have a total population of 27,297 per the 2000 census.

Recreational facilities outside the municipalities include the 273-acre Lowden Memorial State

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Park located three and one-half miles southwest of the Byron Station. This park has facilities for hiking, camping, picnicking, boating and fishing. The 1,800-acre Castle Rock State Park and Nature Preserve is located seven miles south-southwest of the Byron Station. This park has facilities for picnicking, fishing, boating, and hiking along the 600-acre Nature Preserve. The 2,225-acre Lowden-Miller State Forest is approximately six and one-half miles southwest of the Byron Station. This facility has trails for hiking (year-round), skiing (seasonal) and hunting (October to December; 40 hunters per day).

Major transportation facilities in the Byron Station EPZ are limited to Illinois Route 72, three and one-half miles north of the station, Illinois Route 2, two and one-half miles west of the station, and Illinois Route 64, four and one-half miles south of the station. Three rail lines also run through the Byron Station EPZ: the Illinois and Missouri (I & M) Rail Link line is four and one-half miles north of the station, the Burlington Northern and Santa Fe Railway Company line is five and one-half miles south of the station, and the Illinois Railnet line is nine and one-half miles east of the station.

There were no Deficiencies identified during this exercise for the State of Illinois, Ogle nor Winnebago County. There were two Areas Requiring Corrective Actions (ARCA) identified during this exercise; one for the State of Illinois and one for Ogle County. The State of Illinois received an ARCA finding under Evaluation Area 2, Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency. Ogle County received an ARCA finding under Evaluation Area 3, Implementation of Protective Actions for Special Populations, School Evacuation. There was one previous ARCA finding under Evaluation Area 5, Emergency Notification and Public Information that was corrected during this exercise. There is one Planning Issue that carries over for the State of Illinois regarding KI information given to public in conflict to the IPRA Plan and RTF Standard Operating Procedures.

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## SECTION 1: EXERCISE OVERVIEW

### 1.1 Exercise Details

**Exercise Name**

Byron Station

**Type of Exercise**

Plume

**Exercise Date**

July 27, 2011

**Program**

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

**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 Byron Station exercise:

State Jurisdictions

Illinois Emergency Management Agency

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Illinois Emergency Management Agency - Radiological Advisor  
Illinois Emergency Management Agency - State Liaison  
Illinois Environmental Protection Agency  
Illinois State Police  
Illinois National Guard  
Illinois Department of Natural Resources  
Illinois Department of Public Health  
Illinois Department of Transportation  
Byron Ambulance Service  
Byron Township  
Davis Junction Township  
Exelon Nuclear  
Freeport Medical Center  
Freeport Memorial Hospital  
Leaf River Township  
Marion Township  
Meridian School District  
Mount Morris Police Department  
Mount Morris Township  
Nuclear Regulatory Commission  
Ogle County Board Chairman  
Ogle County Emergency Management Coordinator  
Ogle County Sheriff's Department  
Ogle County Unified Area Command Liaison Officer  
Oregon Township  
Rochelle Township  
Rockford Chief of Police  
Rockford Fire Department Chief  
Rockvale Township  
Stillman Valley Township  
Winnebago County Board of Supervisors  
Winnebago County Emergency Services and Disaster Agency  
Winnebago County Liaison  
Winnebago County Sherriff's Department

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Winnebago County Public Works Department  
Winnebago County Unified Area Command Liaison Officer  
WRHL Emergency Broadcast Station

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## **SECTION 2: EXERCISE DESIGN SUMMARY**

### **2.1 Exercise Purpose and Design**

The DHS/FEMA Region V Office evaluated the Byron Station Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise conducted on July 27, 2011, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERP) and procedures to protect the public health and safety during a radiological emergency involving Byron Station. The purpose of this report is to present the results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

### **2.2 Exercise Objectives, Capabilities and Activities**

Exercise objectives and identified Capabilities/REP Criteria selected to be demonstrated are discussed in Appendix D "Exercise Plan."

The Exercise Planning Team (EPT) selected objectives that focus on evaluating emergency response procedures, identifying areas for improvement, and fostering collaboration between the various Offsite Response Organizations (OROs) and stakeholders. This exercise focused on the following objectives:

- ORO demonstration of effective Emergency Operations Management.
- ORO demonstration of effective Protective Action Decision Making.
- ORO demonstration of effective Protective Action Implementation.
- ORO demonstration of effective Emergency Notification and Public Information.
- ORO demonstration of effective Support Operations and Facilities

### **2.3 Scenario Summary**

Appendix F "Scenario Details," contains a summary of the Exercise Scenario, a simulated sequence of events that was used as the basis for invoking emergency response actions by Offsite Response Organizations (OROs) in the Byron Station REP Partial Participation Plume Exposure Pathway exercise on July 27, 2011.

Results of a technical review of the scenario, submitted by the State of Illinois and Exelon

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Nuclear on May 26, 2011, indicated that the scenario was adequate to support demonstration of DHS/FEMA's requirements, as well as criteria selected by the OROs provided in the State's March 28, 2011, extent-of-play submission. DHS/FEMA Region V accepted this exercise scenario on April 5, 2011.

During the exercise, in addition to information and data provided through the Byron Station onsite scenario, controllers from the State of Illinois provided "inject messages" containing scenario events and/or relevant data to those persons or locations who would normally receive notification of such events. These inject messages were the method used for invoking additional specific response actions by OROs.

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## SECTION 3: ANALYSIS OF CAPABILITIES

### 3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the July 27, 2011 REP Partial Participation Plume Exposure Pathway Exercise conducted to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Byron Station.

Each jurisdiction and functional entity was evaluated based on its demonstration of exercise criteria delineated in Federal Register Notice: Vol. 67, No. 80, dated April 25, 2002. Detailed information on the exercise criteria and the extent-of-play agreement used in this exercise are found in Appendix E of this report.

Presented below are definitions of the terms used in this report relative to criteria demonstration status:

- **Met** - The status of a REP exercise Evaluation Area Criterion indicating that the participating Offsite Response Organization (ORO) demonstrated all demonstration criteria for the Evaluation Area Criterion to the level required in the extent-of-play agreement with no Deficiencies or ARCAs assessed in the current exercise and no unresolved prior ARCAs.
- **Deficiency** - An observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant.
- **Area Requiring Corrective Action (ARCA)** - An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety. Listing of the demonstrated exercise criteria under which one or more ARCAs was/were assessed during the current exercise or ARCAs assessed during prior exercises remain unresolved. Included is a description of any ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise.

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- **Planning Issue** – An observed or identified inadequacy in the ORO's emergency plan or implementing procedures, rather than in the ORO's performance.
  - **Not Demonstrated** - Exercise criteria that were not demonstrated as scheduled during this exercise and the reason(s) they were not demonstrated.
  - **Prior ARCAs - Resolved** – Descriptions of ARCAs assessed during previous exercises that were resolved and the corrective actions demonstrated, in this exercise.
  - **Prior ARCAs – Unresolved** – Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

### **3.2 Summary Results of Exercise Evaluation**

The matrix presented in Table 3.1, on the following pages, presents the status of all exercise criteria from Federal Register Notice: Vol. 67, No. 80, dated April 25, 2002, which were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. The criterion status box is blank if it was not scheduled for demonstration.

This subsection provides information on the evaluation of each participating jurisdiction and functional entity in a jurisdiction-based, issues-only format.

The DHS has developed a standardized system for numbering exercise issues. This system is used to achieve consistency in numbering exercise issues among DHS Regions and site-specific exercise reports within each Region. It also is used to expedite tracking of exercise issues on a nationwide basis.

The identifying number of Deficiencies, ARCAs, and Plan Issues includes the following elements, with each element separated by a hyphen (-).

- **Plant Site Identifier** – A two-digit number, corresponding to the Utility Billable Plant Site Code (9 for Byron Station).
- **Exercise Year** – The last two digits of the year the exercise was conducted.
- **Criterion Number** – An alpha and two-digit number corresponding to the criteria numbers in the

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six Exercise Evaluation Areas described in Federal Register Notice, Vol. 67, No. 80, dated April 25, 2002, which amends FEMA-REP 14, Radiological Emergency Preparedness Exercise Manual.

- Issue Classification Identifier – (D = Deficiency, A = ARCA, P = Plan Issue).
- Exercise Identification Number – A separate two or three-digit indexing number assigned to each issue identified in the exercise.



Table 3.1 - Summary of Exercise Evaluation (Continued, page 2/3)

DATE: 2011-07-27 SITE: Byron Station, IL  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		IL-Jefferson HS--EvWM-	IL-Jefferson HS--EvWD-	IL-Jefferson HS--EWMDEq-	IL-Jefferson HS--CCC-	IL-Jefferson HS--EvR-	IL-Freeport MH--MSIF-	OGL-IWP---	OGL-EOC---	OGL--Mt. Morris PD-TACP-	OGL--Mt Morris PD-DCO B-	OGL-EBS-WRHL---
Emergency Operations Management												
Mobilization	1a1							M	M			
Facilities	1b1											
Direction and Control	1c1								M			
Communications Equipment	1d1	M	M	M	M	M	M	M	M	M	M	M
Equip & Supplies to support operations	1e1	M	M	M	M	M	M		M	M	M	
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase - PADs	2b2								M			
PADs for protection of special populations	2c1								M			
Rad Assessment and Decision making for Ingestion Pathway	2d1											
Rad Assess/Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1						M		M	M	M	
Implementation of KI decision	3b1								M	M	M	
Implementation of protective actions for special populations - EOCs	3c1								M			
Implementation of protective actions for Schools	3c2								A			
Implementation of traffic and access control	3d1								M	M		
Impediments to evacuation are identified and resolved	3d2								M			
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1											
Field Teams obtain sufficient information	4a2											
Field Teams Manage Sample Collection Appropriately	4a3											
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1								M			M
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1								M			M
Support Operations/Facilities												
Mon/Decon of evacuees and EWs and registration of evacuees	6a1	M	M		M	M						
Mon/Decon of EW worker equipment	6b1			M								
Temporary care of evacuees	6c1				M							
Transportation and treatment of contaminated injured individuals	6d1						M					

Table 3.1 - Summary of Exercise Evaluation (Continued. page 3/3)

		OGI--Meridian SD-EV2-	WIN-IWP---	WIN-EOC---	WIN-EOC--TACP-	WIN-EOC OGL-WIN Liaison-	IL--Byron AmbS-MSIT-	IL-ISP#16-DCO Brief	OGI-Sheriffs-TACP	OGI-Sheriffs-DCO	IL-ISP District 16-TACP	WIN-EOC-DCO Brief
<p align="center">DATE: 2011-07-27 SITE: Byron Station, IL M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>												
Emergency Operations Management												
Mobilization	1a1		M	M								
Facilities	1b1			M								
Direction and Control	1c1			M		M						
Communications Equipment	1d1	M	M	M	M	M	M	M	M	M	M	M
Equip & Supplies to support operations	1e1	M		M	M		M	M	M	M	M	M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase - PADs	2b2											
PADs for protection of special populations	2c1											
Rad Assessment and Decision making for Ingestion Pathway	2d1											
Rad Assess/Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1	M		M	M		M	M	M	M	M	M
Implementation of KI decision	3b1	M		M	M			M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1											
Implementation of protective actions for Schools	3c2	M										
Implementation of traffic and access control	3d1			M	M				M		M	
Impediments to evacuation are identified and resolved	3d2			M								
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1											
Field Teams obtain sufficient information	4a2											
Field Teams Manage Sample Collection Appropriately	4a3											
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1					M						
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1											
Support Operations/Facilities												
Mon/Decon of evacuees and EWs and registration of evacuees	6a1											
Mon/Decon of EW worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1						M					



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## 3.3 Criteria Evaluation Summaries

### 3.3.1 Illinois Jurisdictions

#### 3.3.1.1 State of Illinois - Initial Warning Point

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

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

#### 3.3.1.2 State of Illinois - State of Illinois Response Center

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.c.1, 5.a.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 2.b.2.

ISSUE NO.: 09-11-2b2-A-01

CRITERION: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make PADs for the general public including KI if ORO policy.

CONDITION: Neither the SIRC Manager, REAC Manager nor any other IEMA staff addressed the decision to restrict or allow aircraft to fly through the plume after radiological conditions changed.

POSSIBLE CAUSE: After the change in radiological conditions by a sudden spike of iodine being detected the REAC Manager and SIRC Manager considered the fact that they had overlooked the PAR to ingest KI but never considered that they had not restricted air traffic from flying through the plume.

REFERENCE: NUREG-0654/FEMA REP-1 Planning Standard J.9, J.10.m

EFFECT: Leaving the air space open, potentially allows low flying aircraft such as helicopters, crop dusters and pleasure craft to fly through the plume. This lack of coordination and consideration after the change in radiological conditions adversely affects the health and safety of the public.

RECOMMENDATION: Conduct training sessions with the SIRC and REAC manager regarding air, water and rail restrictions during PARs and PADs.

- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### 3.3.1.3 State of Illinois - Radiological Emergency Assessment Center

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 2.c.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: 5.b.1.

ISSUE NO.: 13-09-5b1-P-01

ISSUE: Residents of the Clinton 10-mile EPZ were not notified that they may need to ingest KI after such a recommendation was made for emergency workers and immobile persons.

CORRECTIVE ACTION DEMONSTRATED: The State of Illinois will no longer notify the public to ingest KI once a release of radioactive material has occurred at the Byron Station. Not all Plans (IPRA Volume 1) or procedures have been changed

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in accordance with this decision.

- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.1.4 State of Illinois - Unified Area Command**

The State of Illinois demonstrated the Target Capability of On-Site Incident Management by coordinating radiological sampling operations required to support Protective Action Decision-making throughout the Radiological Emergency Preparedness Exercise at the Byron Nuclear Power Station.

The Unified Area Command was equipped with necessary communications, equipment and supplies required for the capability of efficient communications with off-site organizations. A representative of the Illinois State Police at the UAC activated the call-down procedures in advance of evacuation orders and stationed Troopers at appropriate Traffic and Access Control Posts. The coordination efforts between the Illinois State Police, Illinois Department of Transportation and County Sheriff's Departments allowed for the effective removal of traffic impediments that occurred during the evacuation process. Throughout the exercise, the Incident Commander (IC) had frequent briefings and discussions to resolve issues as they occurred. The IC was able to pass command to the Deputy IC without any loss of continuity to the operation process. The UAC staff interacted and communicated with each other and respective agencies effectively.

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 3.d.1, 3.d.2, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.1.5 State of Illinois - Emergency Operations Facility**

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

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

### **3.3.1.6 State of Illinois - Joint Information Center/Media Briefing Center**

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

- a. MET: 1.d.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.1.7 State of Illinois - Joint Information Center**

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

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### **3.3.1.8 State of Illinois - Ogle County Emergency Operations Center - Illinois State Radiological Advisor**

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Byron Nuclear Power Station Radiological Emergency Preparedness Exercise on July 27, 2011.

The State Radiological Advisor assigned to the Ogle County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

- a. MET: 1.a.1, 1.c.1, 1.e.1, 2.b.2, 2.c.1, 3.a.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.1.9 State of Illinois - Ogle County Emergency Operations Center - Illinois State Liaison**

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Byron Nuclear Power Station Radiological Emergency Preparedness Exercise on July 27, 2011.

The State Liaison assigned to the Ogle County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

- a. MET: 1.c.1, 1.d.1, 5.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None

- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.1.10 State of Illinois - Winnebago County Emergency Operations Center - Illinois State Radiological Advisor**

During the Byron Station Radiological Emergency Preparedness Exercise conducted on Wednesday, July 27, 2011, the State Radiological Advisor in the Winnebago County Emergency Operations Center successfully demonstrated the Target Capability to support the County's decision-making process for ensuring that relevant factors were considered and to ensure that appropriate coordination between the State of Illinois, Ogle and Winnebago Counties occurred. He also demonstrated the operation of the exposure control system, including the use of potassium iodide (KI) which was in place for emergency workers. He coordinated with the Radiological Advisor at Ogle County to receive pertinent information in the event that any radiation exposure was in excess of administrative limits or protective action guides. He communicated with EOC Staff in regards to reassuring that the appropriate protective action recommendations that were issued were based on available information regarding plant conditions, field monitoring data, licensee and offsite response organization dose projections.

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

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

### **3.3.1.11 State of Illinois - Winnebago County Emergency Operations Center - Illinois State Liaison**

During the Byron Station Radiological Emergency Preparedness Exercise conducted on Wednesday, July 27, 2011, the Illinois State Liaison in the Winnebago County Emergency Operations Center successfully demonstrated direction and control to that part of the overall response effort for which he was responsible. He also successfully demonstrated the Target

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Capability to support Winnebago County by providing the use of effective procedures to alert, notify and mobilize emergency personnel in a timely manner. The State Liaison was responsive of communications from the Ogle County EOC regarding alert and notification actions. He was in frequent contact with the Illinois Emergency Management Agency, Unified Area Command, the Joint Information Center, and the State Liaison in the Ogle County EOC, to confirm that alert and notification information received at the Winnebago County was accurate and up to date.

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

- a. MET: 1.c.1, 1.d.1, 5.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

#### **3.3.1.12 State of Illinois - Jefferson High School - Evacuee/Emergency Worker Monitoring**

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

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

#### **3.3.1.13 State of Illinois - Jefferson High School - Evacuee/Emergency Worker Decontamination**

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

- a. MET: 1.d.1, 1.e.1, 6.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None

- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.1.14 State of Illinois - Jefferson High School - Emergency Worker Monitoring and Decontamination of Equipment**

The State of Illinois along with the Rockford Fire Department and Rockford Police Department successfully demonstrated the Target Capability for Emergency Worker Monitoring and Decontamination of Equipment and Vehicles. The Jefferson High School Reception Center had adequate procedures and resources for accomplishment of monitoring and decontamination of emergency worker equipment including vehicles.

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

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

### **3.3.1.15 State of Illinois - Jefferson High School - Evacuee Registration**

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

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

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### **3.3.1.16 State of Illinois - Freeport Memorial Hospital - Medical Service - Facility**

The State of Illinois (Freeport Memorial Hospital) demonstrated the Target Capability that they had proper space, resources, and trained personnel to monitor, decontaminate and provide medical services to contaminated injured individuals.

Upon arrival to Freeport Memorial Hospital, the ambulance gurney was aligned beside a hospital gurney. The patient was transferred across the Radiological Emergency Area (REA) control line to the hospital gurney. The patient was wheeled into the decontamination room by a REA nurse. The ability to issue appropriate dosimetry and manage radiological exposure to emergency workers was demonstrated.

The REA nurses and Radiation Safety Officer were appropriately dressed with personal protective equipment which included double gloves, booties, hair coverings, and protective face covering.

The availability of dosimetry and potassium iodide (KI) for hospital personnel was not demonstrated during this drill.

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

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

### **3.3.1.17 State of Illinois - Byron Ambulance - Medical Service - Transportation**

The State of Illinois and the Byron Ambulance Service demonstrated the Target Capability that they have the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. Byron Ambulance Service demonstrated the capability to transport and provide initial medical care to a contaminated, injured individual.

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

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

### **3.3.1.18 State of Illinois - Illinois State Police - District 16 - DCO Brief**

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

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

### **3.3.1.19 State of Illinois - Illinois State Police #16 - TACP**

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

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

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### **3.3.2 Risk Jurisdictions**

#### **3.3.2.1 Ogle County - Initial Warning Point**

The Ogle County Sheriff's Department 911 Dispatch Center, demonstrated the Target Capability of Emergency Operations Center Management as the Ogle County Initial Warning Point for radiological incidents at the Byron Station.

The County Sheriff's dispatcher used appropriate procedures to accurately record information received from the Byron Station and accurately relayed that information to the Grundy County Emergency Management Director. A variety of primary and back-up communications systems were demonstrated during the exercise.

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

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

#### **3.3.2.2 Ogle County - Emergency Operations Center**

The Ogle County Emergency Operations Center (EOC) demonstrated the Target Capability of Emergency Operations Center Management which included the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner.

The Ogle County EOC provided sufficient multi-agency coordination in response to the simulated incident at the Byron Station by promptly activating and operating for the duration of the exercise. The EOC was managed efficiently and effectively, completed a full activation and notification, and was staffed to a fully operational level. The Ogle County EOC provided timely and effective management and direction and control through the use of briefings information posted on EOC monitors and the Groove system to track, organize and maintain a chronological record of events. The EOC coordinated with the risk counties and other state

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agencies to synchronize decision making and dissemination of public information regarding the situation at the Byron Station.

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 3.c.2.

ISSUE NO.: 09-11-3c2-A-02

CRITERION: OROs/school officials decide upon and implement protective actions for schools (NUREG-0654, J.10.c.d.g.)

CONDITION: The Ogle County Schools Liaison did not advise Loreda Taft Field Campus to evacuate per the Protective Action Decision to evacuate the schools located within Sub-Area 19.

POSSIBLE CAUSE: The Schools Liaison failed to verify and validate their assumption that Loreda Taft Field Campus was located in Sub-Area 20, vice Sub-Area 19 and failed to implement the PAD as directed by the Ogle County Board Chairman.

REFERENCE: NUREG 0654/FEMA-REP-1, II.J.10.c.d.g; EPA 400; IPRA Volume IV, Ogle County 2A, Page 124

EFFECT: Lorado Taft Field Campus students would have been left at the school and could have been subjected to an unnecessary risk to a radiological exposure dependent on the radioactive plume travel. Additionally, parents would have arrived at the receiving school (Sauk Valley College) only to find that their children were not there, thus causing concern for their children's safety and whereabouts.

RECOMMENDATION: Additional training for the School Liaison Staff is necessary.

- c. DEFICIENCY: None

- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: 5.a.1.

ISSUE NO.: 09-09-5a1-A-01

ISSUE: The Ogle County Emergency Management Agency (EMA) Coordinator did not instruct the radio station to repeat recorded Local Radio Stations Messages every 15 minutes.

CORRECTIVE ACTION DEMONSTRATED: For both EAS activations, the EMC called the radio station, WRHL, via commercial telephone lines. She recorded the message over the phone and instructed the Emergency Alert radio station (EAS station) to simulate playing the message starting at 1033 hours and repeating the messages every 15 minutes. This issue has been appropriately redemonstrated.

- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.2.3 Ogle County - Mt. Morris Police Department - Traffic and Access Control Point**

Ogle County and the Mount Morris Police Department demonstrated the Target Capability of Emergency Public Safety and Security Response.

The Mount Morris Police Department is responsible for establishing Traffic and Access Control Posts (TACPs) within Ogle County to assist Ogle County Sheriff's Department and the Illinois State Police.

The Mount Morris Police Officer was equipped with communication capabilities, current list and map of the TACPs, flares, orange cones along with an emergency worker exposure control packet containing dosimetry and potassium iodide (KI).

It was explained that the Police Officer would be dispatched to a TACP. The Police Officer would be assigned a designated TACP and would direct traffic north, south, east, or west to avoid an accident or prevent the public from entering into the 10-mile EPZ. If any additional supplies would be needed, the request or information would go to Dispatch.

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

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

#### **3.3.2.4 Ogle County - Mt. Morris Police Department - Dosimetry Control Officer Briefing**

The Dosimetry Control Officer for the Mount Morris Police Department (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Emergency workers understood to periodically (every 30 minutes) and at the end of each mission read and record dosimeter readings. The demonstration was conducted by DCO and stated that if any questions, the DCO would be able to contact the IEMA Radiological Liaison in the Ogle County Emergency Operations Center.

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

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

### **3.3.2.5 Ogle County - Emergency Broadcast Station - WRHL**

Ogle County demonstrated the Target Capability of Emergency Public Information and Warning associated with primary alerting and notification of the public in a timely manner. Following the decision by Ogle County emergency management officials to notify the public of an emergency situation at the Bryon Station, Radio station WRHL personnel demonstrated a thorough understanding of their equipment, the EAS process and executed their duties in a timely and professional manner.

The radio station is not a 24-hour station; To enable after hours coverage; plans and procedures have been developed in collaboration with Ogle County and radio station management to notify key station staff, who would report to the radio station within 10-15 minutes. The radio station also had the capability to broadcast emergency messages from a remote location at 15 minute intervals.

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

- a. MET: 1.d.1, 5.a.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.2.6 Ogle County - Meridian School District - Evacuation School**

The Meridian School District demonstrated the Target Capability by making appropriate decisions and implementing protective actions for their respective schools.

There are three schools within the 10-mile Emergency Planning Zone. These schools have a population of 434, 433, and 598. in the event of a school evacuation, the students would be transported by bus to Thomas Jefferson High School located in Rockford, Illinois.

There are 28 buses available for transport. Each bus is equipped with maps and a two-way radio (StarCom) that allows for constant communication with each driver.

Each bus driver would attend a dosimetry briefing and be issued a dosimetry kit. Also provided would be instructions on reporting requirements, turn-back value (3 R as established by the Illinois Emergency Management Agency), and KI instructions such as dosage, purpose, record-keeping requirement, and possible side effects of KI.

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.2.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

#### **3.3.2.7 Winnebago County - Initial Warning Point**

During the Byron Station Radiological Emergency Preparedness Exercise conducted on Wednesday, July 27, 2011, the Winnebago County Initial Warning Point (IWP) successfully demonstrated the Target Capability to use effective procedures to alert, notify, and mobilize emergency personnel and activate personnel and facilities in a timely manner. The IWP for Winnebago County was the Emergency 911 Dispatch Center, 4511 N. Main St., Rockford, IL, where the Sheriff's Department dispatchers were on duty 24-hours a day, seven days a week. A variety of primary and back-up systems were successfully demonstrated during the exercise.

All activities described in the demonstration criterion were carried out in accordance with the plan, procedures, and the extent of play agreement.

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

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

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- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.2.8 Winnebago County - Emergency Operations Center**

During the Byron Station Radiological Emergency Preparedness Exercise conducted on Wednesday, July 27, 2011, the Winnebago County Emergency Operations Center successfully demonstrated the Target Capability to use of effective procedures to alert emergency personnel and activate facilities in a timely manner. The EOC staff provided sufficient coordination to respond to an incident at the Byron Station through timely activation, effective management of the EOC, and staffing to an operational level. The Emergency Management Agency Director provided effective management, direction and control throughout the exercise. He coordinated decision-making with the State of Illinois and Ogle County and ensured that clear and consistent information was communicated to the public.

All activities described in the demonstration criterion were carried out in accordance with the plan, procedures, and the extent of play agreement.

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

- a. MET: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.2.9 Winnebago County - Emergency Operations Center - TACP**

During the Byron Station Radiological Emergency Preparedness Exercise conducted on Wednesday, July 27, 2011, the Winnebago County successfully demonstrated the Target Capability to effectively staff traffic and access control points (TACPs). Accurate instructions were provided to the Winnebago County Sheriff's department to implement appropriate traffic and access control. Maintaining traffic and access control was the responsibility of the sheriff office who directs evacuating traffic establishes access control and protects evacuated areas. In addition, the Sheriff's Department demonstrated knowledge of the provisions of the Emergency Operations Plan related to the establishment of TACPs.

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All activities described in the demonstration criterion were carried out in accordance with the plan, procedures, and the extent of play agreement.

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

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

#### **3.3.2.10 Ogle County - Sheriff Department - TACP**

Ogle County demonstrated the Target Capability of Emergency Public Safety and Security Response.

The Ogle County Sheriff's Department is responsible for establishing Traffic and Access Control Posts (TACPs) within Ogle County with assistance from the Illinois State Police.

The Ogle County Sheriff's Deputy was equipped with communication capabilities, current list and map of the TACPs, flares, orange cones along with an emergency worker exposure control packet containing dosimetry and potassium iodide (KI).

It was explained that the Sheriff's Deputy be dispatched to a TACP. The Deputy would be assigned a designated TACP and would direct traffic north, south, east, or west to avoid an accident or prevent the public from entering into the 10-mile EPZ. If any additional supplies would be needed; the request or information would go to the Ogle County Sheriff's Department Dispatch.

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.d.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None

- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

### 3.3.2.11 Ogle County - Sheriff Department - DCO Briefing

The Ogle County Dosimetry Control Officer (DCO) demonstrated the Target Capability of Emergency Operations Center Management for the Dosimetry Control Officer briefing by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Each dosimetry kit contained one Dosimetry Corporation of America (DCA) Model 622 0-20 R Direct-Read Dosimeter (DRD) exchanged in January 2011, one inLight Systems Landauer dosimeter, dated July 2010 – June 2012, 14 iOSAT 130 mg KI tablets in a foil pack (expiration date extended to June 2011), instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record. When the decision was made for emergency workers to ingest KI, the Ogle County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

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### **3.3.2.12 Winnebago County - Emergency Operations Center - DCO Brief**

During the Byron Station Radiological Emergency Preparedness Exercise conducted on Wednesday, July 27, 2011, the Winnebago County successfully demonstrated the Target Capability to effectively demonstrate their ability to issue appropriate instructions and to effectively limit the exposure of radiation to emergency workers. The Winnebago County Dosimetry Control Officer (DCO) was assigned the responsibility to conduct radiological briefings for officers assigned to man Traffic and Access Control Points (TACP). The briefing covered the following topics: properly checking the dosimeters; reading and recording the dosimeters; positioning of dosimetry on clothing and familiarizing themselves with the administrative limits. The DCO continued to monitor emergency workers to assure that they received limited radiation exposure throughout the exercise.

All activities described in the demonstration criterion were carried out in accordance with the plan, procedures, and the extent of play agreement.

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

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

### **3.3.3 Support Jurisdictions**

#### **3.3.3.1 State of Illinois - Jefferson High School - Congregate Care Center**

The State of Illinois along with the American Red Cross successfully demonstrated the Target Capability of Congregate Care Center at the Jefferson High School. The American Red Cross successfully demonstrated that they had the resources to provide services and accommodations consistent with American Red Cross planning guidelines, and had procedures to assure that evacuees had been monitored for contamination, and had been decontaminated as appropriate prior to entering the congregate care facility.

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

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

### **3.3.3.2 Winnebago County - Ogle County Emergency Operations Center - Liaison to Ogle County**

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

- a. MET: 1.c.1, 1.d.1, 5.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

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## SECTION 4: CONCLUSION

There were no Deficiencies identified during this exercise for the State of Illinois, Ogle nor Winnebago County. There were two Areas Requiring Corrective Actions (ARCA) identified during this exercise; one for the State of Illinois and one for Ogle County. The State of Illinois received an ARCA finding under Evaluation Area 2, Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency. Ogle County received an ARCA finding under Evaluation Area 3, Implementation of Protective Actions for Special Populations, School Evacuation. One Planning Issue carries over for the State of Illinois regarding KI information given to public in conflict to the IPRA Plan and RTF Standard Operating Procedures.

During this exercise, ARCA 09-11-2b2-A-01 was identified for the State of Illinois under criterion 2.b.2 – OROs decision making process involving consideration of appropriate factors and necessary coordination used to make protective action decisions.

During this exercise, ARCA 09-11-3c2-A-02 was identified for the Ogle County under criterion 3.c.2 - OROs implementation of protective actions for schools.

Prior ARCA 09-09-5a1-A-01, Activation of Prompt Alert and Notification, was resolved by Ogle County.

Prior Planning Issue 13-09-5b1-P-01, Emergency Information and Instructions for the Public and the Media, remains unresolved by the State of Illinois.

Based on the results of the July 27, 2011 exercise, the offsite radiological emergency response plans and preparedness for the State of Illinois and affected local jurisdictions, site-specific to the Byron Station, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, the Title 44 CFR 350, approval of the offsite radiological emergency response plans and preparedness for the State of Illinois site-specific to the Quad Cities Station, granted on December 4, 1980, remain in effect.

## APPENDIX A: IMPROVEMENT PLAN

<b>Issue Number: 09-11-3c2-A-02</b>		<b>Criterion: 3c2</b>	
<b>ISSUE:</b> The Ogle County Schools Liaison did not advise Loreda Taft Field Campus to evacuate per the Protective Action Decision to evacuate the schools located within Sub-Area 19.			
<b>RECOMMENDATION:</b> Additional training for the School Liaison Staff is necessary.			
<b>CORRECTIVE ACTION DESCRIPTION:</b>			
<b>CAPABILITY:</b>		<b>PRIMARY RESPONSIBLE AGENCY:</b>	
<b>CAPABILITY ELEMENT:</b>		<b>START DATE:</b>	
<b>AGENCY POC:</b>		<b>ESTIMATED COMPLETION DATE:</b>	

## APPENDIX B: EXERCISE TIMELINE

Table 1, on the following page, presents the times at which key events and activities occurred during the Byron Station REP Partial Participation Plume Exposure Pathway Exercise on July 27, 2011. Also included are times that notifications were made to the participating jurisdictions/functional entities.

Table 1 - Exercise Timeline  
DATE: 2011-07-27, SITE: Byron Station, IL

Emergency Classification Level or Event	Time Utility Declared	IL - SIRC	IL - REAC	IL - UAC	IL - JIC	OGL-EOC	WIN-EOC
Unusual Event		N/A	N/A	N/A	N/A	N/A	N/A
Alert		0838	N/A	0843	0854	0856	0930
Site Area Emergency		1001	0959	1006	1001	1016	1027
General Emergency		1113	1108	1117	1121	1130	1159
Simulated Rad. Release Started		1113	1057	1117	1121	1130	1159
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0905	0905	0850	1015	0955	1011
Declaration of State of Emergency		1124	N/A	1130	1124	N/A	N/A
Exercise Terminated		1257	1257	1310	1257	1306	1255
Early Precautionary Actions:		1011	1000	1026	1042	1105	N/A
1st Protective Action Decision:		N/A	N/A	N/A	N/A	1151	1159
1st Siren Activation		N/A	N/A	N/A	N/A	1200	1200
1st EAS or EBS Message		N/A	N/A	N/A	N/A	1203	1203
KI Administration Decision:		1145	1135	N/A	1146	1154	1209

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## APPENDIX C: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel that evaluated the Byron Station REP Partial Participation Plume Exposure Pathway Exercise on July 27, 2011. The organization each evaluator represents is indicated by the following abbreviations:

DHS/FEMA Dept of Homeland Security/Federal Emergency Management Agency

ICF Consulting

Radiological Assistance Committee, Chairman	William E. King	DHS/FEMA
Exercise Director	Stephen Tulley	DHS/FEMA
Senior Specialist	Dwaine Warren	DHS/FEMA
Site Specialist	Darren Bates	DHS/FEMA
Team Leader - Illinois	Todd Gemske	DHS/FEMA
Team Leader - Ogle County	Deborah Fulk	DHS/FEMA
Team Leader - Winnebago County	Carolyn Sturghill	DHS/FEMA

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Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Byron Station

DATE: 2011-07-27, SITE: Byron Station, IL

LOCATION	EVALUATOR	AGENCY
State of Illinois - Initial Warning Point	Kaori Flores	FEMA HQ
State of Illinois - State of Illinois Response Center	Kaori Flores *Todd Gemskie David Stuenkel	FEMA HQ FEMA ICFI
State of Illinois - Radiological Emergency Assessment Center	Paul Cormier Bart Ray	ICFI ICFI
State of Illinois - Unified Area Command	Michael Howe Robert Noecker	FEMA HQ ICFI
State of Illinois - Emergency Operations Facility	Henry Christiansen	ICFI
State of Illinois - Joint Information Center/Media Briefing Center	Henry Christiansen	ICFI
State of Illinois - Joint Information Center	John Simpson	FEMA RV
State of Illinois - Ogle County Emergency Operations Center - Illinois State Radiological Advisor	Bridget Ahlgrim Kerris Bates	FEMA HQ FEMA RV
State of Illinois - Ogle County Emergency Operations Center - Illinois State Liaison	David Ortman	FEMA RV
State of Illinois - Winnebago County Emergency Operations Center - Illinois State Radiological Advisor	Edward Golinski	FEMA RV
State of Illinois - Winnebago County Emergency Operations Center - Illinois State Liaison	Richard McPeak	ICFI
State of Illinois - Jefferson High School - Evacuee/Emergency Worker Monitoring	Edward Diaz	FEMA RV
State of Illinois - Jefferson High School - Evacuee/Emergency Worker Decontamination	Edward Diaz	FEMA RV
State of Illinois - Jefferson High School - Emergency Worker Monitoring and Decontamination of Equipment	Katherine Nishihara	FEMA RIX
State of Illinois - Jefferson High School - Evacuee Registration	Kerris Bates	FEMA RV
State of Illinois - Freeport Memorial Hospital - Medical Service - Facility	Henry Christiansen	ICFI
State of Illinois - Byron Ambulance - Medical Service - Transportation	James King	FEMA RV
State of Illinois - Illinois State Police - District 16 - DCO Brief	Bonnie Sheffield	FEMA - HQ
State of Illinois - Illinois State Police #16 - TACP	Robert Noecker	ICFI
Ogle County - Initial Warning Point	Edward Diaz	FEMA RV
Ogle County - Emergency Operations Center	Bridget Ahlgrim David Ortman Pat Tenorio	FEMA HQ FEMA RV FEMA HQ
Ogle County - Mt. Morris Police Department - Traffic and Access Control Point	Clinton Crackel	FEMA RV
Ogle County - Mt. Morris Police Department - Dosimetry Control Officer Briefing	David Stuenkel	ICFI
Ogle County - Emergency Broadcast Station - WRHL	Edward Diaz	FEMA RV
Ogle County - Meridian School District - Evacuation School	Paul Cormier Bart Ray	ICFI ICFI
Winnebago County - Initial Warning Point	Richard McPeak	ICFI
Winnebago County - Emergency Operations Center	Edward Golinski Richard McPeak Bonnie Sheffield	FEMA RV ICFI FEMA - HQ
Winnebago County - Emergency Operations Center - TACP	Clinton Crackel	FEMA RV
Ogle County - Sheriff Department - TACP	Richard Echavarría	FEMA RIX
Ogle County - Sheriff Department - DCO Briefing	Katherine Nishihara	FEMA RIX

**Unclassified**  
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Byron Station

Winnebago County - Emergency Operations Center - DCO Brief	James King	FEMA RV
State of Illinois - Jefferson High School - Congregate Care Center	Richard Grundstrom	ICFI
Winnebago County - Ogle County Emergency Operations Center - Liaison to Ogle County	David Ortman	FEMA RV
* Team Leader		

## APPENDIX D: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AAR	After Action Report
ALERT	Automated Location Environmental Radiation Telemetry
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
DCO	Dosimetry Control Officer
DRD	Direct Reading Dosimeter
EAS	Emergency Alert System
ECL	Emergency Classification Level
EM	Emergency Management
EMA	Emergency Management Agency
EMC	Emergency Management Coordinator
EMT	Emergency Medical Technicians
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
ERT	Emergency Response Telecommunicator
EW	Emergency Worker
FEMA	Federal Emergency Management Agency
FPD	Fire Protection District
GE	General Emergency
GEMS	Gaseous Effluent Monitoring System
IC	Incident Commander
IEMA	Illinois Emergency Management Agency
IIS	Illinois Information Service
IP	Improvement Plan
ISP	Illinois State Police
IWP	Initial Warning Point
JIC	Joint Information Center
LD	Luminescent Dosimeter
LEADS	Law Enforcement Agencies Data System
MABAS	Mutual Aid Box Alarm System
MBR	Media Briefing Room
MRT	Medical Radiation Technician
NARS	Nuclear Accident Reporting System

Unclassified  
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Byron Station

NRC	Nuclear Regulatory Commission
NWS	National Weather Service
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAR	Protective Action Recommendations
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRM	Portal Radiation Monitors
RAC	Regional Assistance Committee
RAFT	Radiological Assessment Field Teams
RCS	Reception Center Supervisor
REA	Radiological Emergency Area
REAC	Radiological Emergency Assessment Center
REP	Radiological Emergency Preparedness
RM	REAC Manager
RSO	Radiation Safety Officer
RTF	Radiological Task Force
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SOP	Standard Operating Procedure
SRD	Self Reading Dosimeter
TEDE	Total Effective Dose Equivalent
UAC	Unified Area Command

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## APPENDIX E: EXERCISE PLAN

This appendix lists the exercise criteria, which were scheduled for demonstration in the Byron Station Radiological Emergency Preparedness Partial Participation Plume Exposure Pathway Exercise on July 27, 2011, and the offsite extent-of-play agreement accepted by DHS/FEMA Region V on April 5, 2011. The exercise criteria, contained in the FEMA "Radiological Emergency Preparedness Exercise Evaluation Methodology; Notice," as published in the Federal Register Notice/Vol. 67, dated April 25, 2002, represent a functional translation of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980. Because the exercise criteria are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent-of-play agreement is prepared by the State and accepted by DHS/FEMA to provide evaluators with guidance on expected actual demonstration of the criteria.

**STATE OF ILLINOIS EXTENT OF PLAY AGREEMENT  
FOR THE  
BYRON STATION EXERCISE  
July 27, 2011**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 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 Chairperson of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

**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), which houses the IEMA Communications Center (Initial Warning Point), the State of Illinois Response Center (SIRC) and the Radiological Emergency Assessment Center (REAC), will be activated. The IEMA Emergency Response Telecommunicator will implement procedures for notification of IEMA staff as defined in IEMA SOPs. The SIRC will be partially activated IEMA personnel. REAC will be fully activated. Rosters will be provided to demonstrate 24-hour staffing of the SIRC and REAC. The evaluator will not be allowed to remove the rosters.

The Unified Area Command (UAC) will be activated with State district and regional personnel at the Whiteside County Airport. Radiological Assessment Field Team (RAFT) and the mobile lab will be staffed for training purposes. IEMA personnel will be prepositioned in the local area and dispatched to the County EOCs, UAC, EOF, Technical Support Center (TSC) and the JIC. FEMA will not evaluate the TSC.

An actual phone call will be made to the FEMA duty officer advising them of the situation at Byron Station. Follow up calls to FEMA will be simulated.

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 demonstrated at the SIRC, REAC, the UAC and the JIC. Coordination will be demonstrated between the SIRC, the REAC, the UAC, the JIC, the EOF and the Ogle County EOC.

**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 will use a variety of communication systems [Nuclear Accident Reporting System (NARS), telefax, commercial telephone, cellular phone, radio] to communicate with other organizations and locations.

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

The State of Illinois will demonstrate the use of equipment, maps and displays to support emergency operations. 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 the Illinois State Police on July 26<sup>th</sup> at 9:00 AM at the ISP District 16 Headquarters in Pecatonica, IL. During this event, the availability of dosimetry will be demonstrated. No more than 10% of ISP District 16 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.

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

A message will be injected to the Radiological Advisor in the Ogle County EOC to drive the decision to authorize exposure in excess of administrative limits.

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

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 SIRC.

**Criterion 2.b.2:** A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PADs) 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 demonstrated between the SIRC and REAC. 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 demonstrated at UAC, with input from the SIRC and REAC.

**Criterion 2.c.1:** Protective action decisions are made, as appropriate, for special population groups.

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

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 re-location, re-entry 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 and procedures, and manage radiological exposure to emergency workers in accordance with the plan and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart.

This will be demonstrated during the ISP DCO briefing/TAC interview will be conducted on July 26<sup>th</sup> at 9:00 AM at the ISP District 16 Headquarters in Pecatonica, IL.

**Criterion 3.b.1:** KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained.

This will be demonstrated during the ISP DCO briefing/TAC interview will be conducted on July 26<sup>th</sup> at 9:00 AM at the ISP District 16 Headquarters in Pecatonica, IL.

**Criterion 3.c.1:** Protective action decisions are implemented for special population groups within areas subject to protective actions.

This criterion does not apply to the State of Illinois.

**Criterion 3.c.2:** OROs/School officials decide upon and implement 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 will be demonstrated by the State through coordination between the UAC and the County EOCs, in accordance with the Byron Station EPZ Traffic and Access Control procedures. The staffing of the State posts will be simulated during the exercise.

A TAC interview will be conducted in conjunction with the DOC briefing on July 26<sup>th</sup> at 9:00 AM at the ISP District 16 Headquarters.

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

This will be demonstrated through discussions at the UAC between the Illinois State Police and Illinois Department of Transportation. A message will be injected at the Ogle County EOC that will drive this demonstration. State personnel will deal with the impediment by discussing the need for equipment, and its estimated time of arrival, etc. Actual contacts with resource providers will be made and logged, as applicable.

**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 re-entry of emergency workers and relocation and return of the public 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:** The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates.

This criterion will not be demonstrated during this exercise.

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

This criterion will not be demonstrated during this exercise.

**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 demonstrated during this exercise.

**Criterion 4.b.1:** The field teams 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 during this exercise.

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**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.

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

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

**Criterion 5.a.3:** 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. Backup alert and notification of the public is completed within 45 minutes 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.b.1:** OROs provide accurate 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 SIRC, REAC, UAC and the Ogle 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 SIRC when appropriate.

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

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

This criterion will be demonstrated at Jefferson High School during an out of sequence inspection and interview conducted on July 26<sup>th</sup> at 11:00 AM. The following organizations will be represented at the interview: local EMA, Police and Fire Department, American Red Cross and IEMA. Evacuees will not be processed. Monitoring equipment will not be available at the interview/inspection.

**Criterion 6.b.1:** The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment including vehicles.

This criterion will be demonstrated at Jefferson High School during an out of sequence inspection and interview conducted on July 26 at 11:00 AM. The following organizations will be represented at the interview: local EMA, Police and Fire Department, American Red Cross and IEMA. Emergency worker equipment will not be processed. Monitoring equipment will not be available at the interview/inspection.

**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.

This criterion will be demonstrated at Jefferson High School during an out of sequence inspection and interview conducted on July 26 at 11:00 AM. Representatives of the American Red Cross will be present for the interview. Evacuees will not be processed. Equipment will not be available at the interview/inspection.

**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.

This criterion will be demonstrated during an out of sequence drill conducted at Freeport Memorial Hospital on July 26, at 10 a.m.

**OGLE COUNTY EXTENT OF PLAY AGREEMENT  
FOR THE  
BYRON STATION EXERCISE  
July 27, 2011**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 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 Chairperson of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

**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 in Oregon (initial warning point) at the start of the exercise.

**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.

Decision making will be demonstrated at the Ogle County EOC. Coordination of decisions and emergency activities will be demonstrated between Ogle County, the SIRC, UAC 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 will use NARS, commercial telephone, cellular phone, radio and telefax to communicate with departments and agencies at other locations.

**Criterion 1.e.1:** Equipment, maps, displays, 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 during the exercise. The DCO briefing for the Mount Morris Police officer demonstrating traffic and access control will be conducted on July 25<sup>th</sup> at 1:00 pm at the Mount Morris 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 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 Ogle County.

**Criterion 2.b.1:** Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data and licensee and ORO dose projections, as well as knowledge of on-site and off-site 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 protective action decisions (PADs) 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 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:** Protective action decisions are made, as appropriate, for special population groups.

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 special population groups.

**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 re-location, re-entry 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 and procedures, and manage radiological exposure to emergency workers in accordance with the plan and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart.

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.

This criterion will also 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 during the exercise. The DCO briefing for the Mount Morris Police officer demonstrating traffic and access control will be conducted on July 25<sup>th</sup> at 1:00 PM at the Mount Morris Police Department.

**Criterion 3.b.1:** KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained.

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

This criterion will also 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 during the exercise. The DCO briefing for the Mount Morris Police officer demonstrating traffic and access control will be conducted on July 25<sup>th</sup> at 1:00 PM at the Mount Morris Police Department.

**Criterion 3.c.1:** Protective action decisions are implemented for special population groups 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 special populations. 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 will be available for inspection in the County EOC during the exercise. The evaluator will not be allowed to remove the list from the EOC.

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

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

A school interview will be conducted with the Meridian Community Unit School District #223 on July 25<sup>th</sup> at 3:00 PM. The Superintendent, a Principal, a Teacher, the transportation coordinator (DCO)/bus driver and the maintenance supervisor will be present at the interview.

**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 County EOC. A Sheriff's deputy will be available during the exercise to demonstrate the staffing of one post. The post for the demonstration will be selected by Ogle County during the exercise based on exercise play. The deputy will drive to the selected post location for the demonstration. At the evaluator's discretion, the interview and TAC demonstration may take place at the County EOC. The staffing of the remaining posts will be simulated.

A Mount Morris Police officer will demonstrate traffic and access control procedures on July 25<sup>th</sup> at 1:00 PM at the Mount Morris Police Département.

**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.

**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 of emergency workers and relocation and return of the public are coordinated with appropriate organizations and implemented.

This criterion will not be demonstrated 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 FEMA 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 recommendations (PAR).

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.

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

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**Criterion 5.a.3:** 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. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system.

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. 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.

County emergency broadcast messages and news releases, if issued, will be faxed to the JIC.

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

This evaluation area does not apply to Ogle County.

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**WINNEBAGO COUNTY EXTENT OF PLAY AGREEMENT  
FOR THE  
BYRON STATION EXERCISE  
July 27, 2011**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 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 Chairperson of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

**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 minimum staffing. 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 demonstrated during this exercise on July 27, 2011 in the county emergency operations center.

**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.

**Criterion 1.e.1:** Equipment, maps, displays, 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.

**Criterion 2.b.1:** Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data and licensee and ORO dose projections, as well as knowledge of on-site and off-site 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 protective action decisions (PADs) 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:** Protective action decisions are made, as appropriate, for special population groups.

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 planning criteria.

This criterion does not apply to Winnebago County.

**Criterion 2.e.1:** Timely re-location, re-entry 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.

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

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

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 should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained.

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

**Criterion 3.c.1:** Protective action decisions are implemented for special population groups within areas subject to protective actions.

This criterion does not apply to Winnebago County.

**Criterion 3.c.2:** OROs/School officials decide upon and implement 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 to demonstrate the staffing of one post. The post for the demonstration will be selected by Winnebago County during the exercise based on exercise play if the scenario causes Winnebago County to staff posts. If it does not, the post will be selected by the evaluator. The deputy will drive to the selected post location for the demonstration. At the evaluator's discretion the interview and demonstration can take place at the Winnebago County EOC. 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.

**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 of emergency workers and relocation and return of the public 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. Ogle County is solely responsible for alert and notification of the entire EPZ.

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

**Criterion 5.a.3:** 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. Backup alert and notification of the public is completed within 45 minutes 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.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. Ogle County is solely responsible for emergency information and instructions to the public and news media for the entire EPZ.

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

This evaluation area does not apply to Winnebago County.

**EXTENT OF PLAY AGREEMENT  
FOR THE  
MEDICAL SERVICES EXERCISE  
July 26, 2011**

**Location:** Freeport Memorial    **Transportation Provider:** Byron Ambulance  
1045 West Stephenson  
Freeport, IL 61032

**Participants:**

Victim (volunteer)

Lead Controller: (IEMA)

IEMA ER Monitor: Not Applicable

IEMA Hospital Controller Kathy Allen

IEMA Ambulance Monitor: Kelly Grahn

IEMA Ambulance Controller: Joni

Estabrook

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

**EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT**

**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.

The Byron Ambulance will use 2-way radios to communicate with OSF St. James. Other communication systems that can be used include commercial telephone or cell phones.

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

OSF St. James will adequately demonstrate the ability to support operations, with adequate resources. The availability of dosimetry and KI for hospital

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personnel will **not** be demonstrated during this exercise, however IEMA staff will be issued dosimetry and KI as field team members.

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

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

The use of dosimetry and KI will not be demonstrated by hospital staff.

For purposes of the exercise, if there is no medical need to bring equipment into and out of the treatment room, nasal swabs will be taken (swabs to be taken outside the nose to simulate taking swabs inside the nose) and passed out of the room to demonstrate movement of equipment and supplies into and out of the controlled area. These swabs will be utilized to establish if any radioactive materials have been inhaled.

### **EVALUATION AREA 6.d – TRANSPORTATION AND TREATMENT OF CONTAMINATED INJURED INDIVIDUALS**

**Criterion 6.d.1:** The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals.

Byron Ambulance will demonstrate the capability to transport contaminated, injured individuals to Freeport Memorial in Freeport, Illinois. The ambulance crew will pick up a contaminated injured patient near the grounds of Freeport Memorial. The ambulance crew will be aware that a release has occurred from Byron plant but not able to determine if the patient is contaminated. Byron Ambulance will utilize universal precautions and good housekeeping practices to minimize the spread of contamination, and will focus on treating the patient's medical condition.

Byron Ambulance will call in the information regarding the patient to Freeport Memorial in Freeport so they can prepare for receipt of a potentially contaminated patient

Freeport Memorial will implement their plan for receipt, isolation and treatment of an injured contaminated patient. Medical personnel will utilize

universal precautions and good housekeeping practices to minimize the spread of contamination, and will focus on treating the patient's medical condition. Simple decontamination efforts will be demonstrated after the patient has been medically stabilized. The hospital will demonstrate procedures for limiting exposure to hospital staff, decontaminating a patient, and restricting access to the area where the patient is being treated and monitored. Hospital personnel will demonstrate their knowledge of who to call beyond IEMA for assistance in Radiological Accidents, e.g., REAC/TS.

For purposes of this exercise, an IEMA staff member will be dispatched to Freeport Memorial with radiation detection and measurement equipment to survey out ambulance staff. The purpose of having an IEMA MRT available is to facilitate monitoring the ambulance and ambulance personnel so they are not kept out of service for an extended period of time.

The drill will conclude with the hospital representative supervising the removal of protective clothing and surveying of the emergency room and hospital personnel. IEMA will also advise on the proper procedure for release or disposal of contaminated material.

Following the conclusion of the drill, a short critique will be held.



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## APPENDIX F: SCENARIO DETAILS

### OFFSITE EXERCISE TIMELINE

July 27, 2011

<u>Approx. Time</u>	<u>Event/Anticipated Response</u>
0745	Initial conditions/weather forecast message to players.
0805	An Alert is declared at Byron Station.
0820	Exelon notifies the IEMA Telecommunicator of the ALERT via NARS.  IEMA Telecommunicator verifies the NARS message.  An IEMA Duty Officer contacts the Byron Station Shift Engineer.  IEMA Telecommunicator notifies IEMA personnel of the ALERT per SOP.  IEMA may activate the State of Illinois Response Center (SIRC) and Radiological Emergency Assessment Center (REAC), if appropriate.  IEMA may dispatch liaisons to the County EOCs, Unified Area Command (UAC), Radiological Assessment Field Team (RAFT) Staging Area, Joint Information Center (JIC), Technical Support Center (TSC) and Emergency Operations Facility (EOF), if appropriate.  IEMA notifies Governor's Office of the ALERT. (Simulated)  IEMA Telecommunicator notifies appropriate State agencies of the ALERT.  IEMA notifies FEMA of the ALERT. (Simulated)
0835	IEMA Telecommunicator notifies Ogle County of the ALERT via NARS.  County telecommunicator completes and verifies the NARS message.

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County telecommunicator notifies Ogle County officials, Winnebago County and municipalities of the ALERT per SOP.

Winnebago County and municipal telecommunicators complete and verify the NARS message.

Winnebago County and municipal telecommunicators notify officials of the ALERT per SOP.

The counties and municipalities may activate the EOCs, if appropriate.

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<u>Approx. Time</u>	<u>Event/Anticipated Response</u>
0935	A SITE AREA EMERGENCY is declared at Byron Station..
0950	Exelon notifies the IEMA Telecommunicator of the SITE AREA EMERGENCY via NARS.  IEMA Telecommunicator verifies the NARS message.  REAC contacts the Byron Station Shift Engineer.  SIRC is activated if not previously activated.  SIRC notifies the Governor's Office and requests that a representative report to the State EOC. (Simulated)  State dispatches liaisons to the County EOCs, UAC, RAFT, JIC, TSC and EOF, if not previously dispatched.  SIRC notifies FEMA of conditions. (Simulated)  IEMA notifies State agencies (Simulated): - Illinois State Police - IDOT/Division of Highways - IDOT/Division of Aeronautics - IDNR - Illinois National Guard

- ICC
- American Red Cross
- IDPH
- IEPA
- IDOC
- IDHS
- IDOA
- Office of the State Fire Marshal
- others as appropriate

REAC contacts Federal agencies. (Simulated)

REAC provides an update to the SIRC and County EOC Liaisons.

REAC provides an update to the JIC.

1005 IEMA notifies Ogle County of the SITE AREA EMERGENCY via NARS.

County telecommunicator completes and verifies the NARS message.

Approx.  
Time

Event/Anticipated Response

County telecommunicators notify Ogle County officials, Winnebago County and municipalities of the SITE AREA EMERGENCY per SOP.

Ogle County implements public notification procedures, if appropriate. (Simulated)

Winnebago County and municipal telecommunicators complete and verify the NARS message.

Winnebago County and municipal telecommunicators notify officials per SOP.

County and municipal EOCs are activated if not previously activated.

Dosimetry is issued to emergency personnel, EOC staff and exposure records are completed.

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- 1055 A GENERAL EMERGENCY is declared at Byron Station.
- 1110 Exelon notifies the IEMA Telecommunicator of the GENERAL EMERGENCY via NARS. Protective actions are recommended.
- IEMA Telecommunicator verifies the NARS message.
- The SIRC and REAC evaluate the protective action recommendation.
- A recommendation is made to the Governor. The Governor recommends that protective actions be implemented.
- SIRC staff is advised of the situation.
- SIRC advises UAC, the County EOC liaisons and JIC staff of the situation.
- SIRC notifies FEMA of conditions. (Simulated)
- REAC provides an update to the SIRC and County EOC liaisons.
- REAC provides an update to the JIC.
- 1125 SIRC notifies Ogle County of the GENERAL EMERGENCY and the recommended protective actions via NARS.
- County telecommunicator completes and verifies the NARS message.

Approx.  
Time

Event/Anticipated Response

County telecommunicator notifies Ogle County officials, Winnebago County and municipalities per SOP.

Ogle County implements public notification procedures and traffic and access control per SOPs, as applicable.

Winnebago County and municipal telecommunicators complete and verify the NARS message.

Winnebago County and municipal telecommunicators notify EOC staff.

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1245      Exercise Terminated