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MAY 31 2011

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

To Whom It May Concern:

Enclosed is one copy of the Final After Action Report / Improvement Plan for the November 17, 2010, Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise for the Quad Cities Station. Two copies are provided for the State of Illinois and one copy each is provided for Rock Island and Whiteside Counties. The State of Illinois, Rock Island and Whiteside Counties, and the utility owner/operator, Exelon Nuclear, participated in this exercise. The Final Report 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 was one Area Requiring Corrective Action (ARCA) identified and unresolved during this exercise for the State of Illinois.

The ARCA for the State of Illinois was identified under Criterion 5.b.1 – Emergency Information and Instructions for the Public and the Media - whereby the Joint Information Center (JIC) did not provide to the media, the complete Rock Island County EAS Message as only every other page of the original message was provided.

There was one ARCA from previous exercises, identified under Criterion 6.d.1 – Treatment of Contaminated Injured Individuals, that was resolved by the State of Illinois during this exercise.

There was one Planning Issue from previous exercises, identified under Criterion 2.a.1 – Emergency Worker Exposure Control, that was resolved for the State of Illinois. The Planning Issue is resolved by the December 10, 2010, issuance of revised Radiological Task Force Standard Operating Procedures (RTF-SOPs).

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There was one Planning Issue unresolved during this exercise for the State of Illinois.

The Planning Issue from previous exercises that remains unresolved was identified under Criterion 5.b.1 – Emergency Information and Instructions for the Public and the Media – whereby information contained within the Illinois Plan for Radiological Accidents (IPRA) Volume I, Concept of Operations, is not consistent with the Radiological Task Force (RTF) procedures in regards to the KI information that is provided to the public.

There were no Planning Issues identified for the Counties of Rock Island or Whiteside.


Based on the results of the November 17, 2010 exercise, the offsite radiological emergency response plans and preparedness for the State of Illinois and affected local jurisdictions, site-specific to the Quad Cities 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, Part 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, remains in effect.

Copies of this Report have been provided 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,


Janet M. Odesloo
Deputy Regional Administrator

Enclosure (1)



Quad Cities Station

After Action Report/ Improvement Plan

Exercise Date - November 17, 2010

Radiological Emergency Preparedness (REP) Program



FEMA

Published April 20, 2011



Quad Cities Station

After Action Report/ Improvement Plan

Exercise Date - November 17, 2010

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Published April 20, 2011

Unclassified
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Quad Cities Station

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Unclassified
Radiological Emergency Preparedness Program (REP)

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Quad Cities Station

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EXECUTIVE SUMMARY

On November 17, 2010, a Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise evaluation was conducted by the U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) for the 10-mile Emergency Planning Zone (EPZ) around the Quad Cities Station (QCS). The purpose of the exercise was to assess the capabilities of the 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 August 27, 2008. The qualifying emergency preparedness exercise was conducted on May 20, 1981.

DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Illinois, the counties of Rock Island and Whiteside 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 Final After Action Report (AAR) contains the evaluation of the biennial exercise and the evaluation of the following out-of-sequence interviews and activities:

- Illinois State Police (ISP) District 7 Headquarters Dosimetry Control Officers Briefing
- ISP Traffic and Access Control Post at the ISP District 7 Headquarters
- Medical Services Transportation and Hospital evaluation at Trinity West Hospital
- Protective Actions for Schools (EV-2) for the Riverdale Community Unit School District #2

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

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;

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- U.S. Department of Transportation;
 - U.S. Environmental Protection Agency;
 - U.S. Food and Drug Administration; and
 - U.S. Nuclear Regulatory Commission.

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

Formal submission of the RERPs for the Quad Cities Station to FEMA Region V by the State of Illinois and involved local jurisdictions occurred on March 31, 1981. Formal approval of these RERPs was granted by FEMA on June 4, 1982, under 44 CFR 350.

A REP Partial Participation Plume Exposure Pathway Exercise was conducted on November 17, 2010, 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 Quad Cities Station. The purpose of this After Action Report (AAR)/Improvement Plan (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.

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 Quad Cities Station is located in Rock Island County, Illinois. The Station is 20 miles northeast of the Quad Cities. It is on the eastern bank of the Mississippi River opposite the mouth of the Wapsipinicon River. The topography of the site and its immediate environs is low and relatively flat, with a mean elevation of approximately 605 feet. The ground surface drops off abruptly at the bank of the river, forming a bluff about 30 feet high.

The 10-mile EPZ encompasses the following jurisdictions: Rock Island County, which includes the municipalities of Cordova and Port Byron, and Whiteside County, which includes the municipality of Albany. The 2004 population of the 10-mile EPZ is 3,258 persons. The primary land use around the Quad Cities Station is agricultural, with cash grain crops of corn and soybeans. The closest major industries are located in the Cordova Industrial Park northeast of the Station.

Major transportation facilities in the Quad Cities Station 10-mile EPZ are limited to Interstate Highway 88, which passes nine and one-half (9 ½) miles southeast of the Station; the I&M Raillink and the Mississippi River.

The EPZ also includes several Counties within the State of Iowa within the Jurisdiction of FEMA Region VII.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Quad Cities Station

Type of Exercise

Plume

Exercise Date

November 17, 2010

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 Quad Cities Station exercise:

State Jurisdictions

Illinois Department of Natural Resources
Illinois Department of Transportation
Illinois Emergency Management Agency
Illinois Environmental Protection Agency
Illinois State Police
Trinity Medical Center - West
Trinity Medical Center - West Ambulance

Risk Jurisdictions

City of Albany
City of Cordova
City of Port Byron
Director of Facilities for Morrison High School
Emergency Broadcast System Station WYEC

Emergency Broadcast System Station - WSDR/WZZT/WSSQ

Morrison Fire Department

Morrison High School

Morrison Police Department

Riverdale Community Unit School District #2

Rock Island Amateur Radio Emergency Services

Rock Island County Board of Commissioners

Rock Island County Coroner

Rock Island County Emergency Management Agency

Rock Island County Emergency Management Agency Volunteers

Rock Island County ESDA

Rock Island County Health Department

Rock Island County Highway Department

Rock Island County Human Resources

Rock Island County Sheriff's Department

Rock Island County Superintendent of Schools

The Lincoln Land Chapter of the American Red Cross

Whiteside County Coroner

Whiteside County Emergency Services Coordinator

Whiteside County ESDA

Whiteside County Health Department

Whiteside County Highway Department

Whiteside County Public Information Officer

Whiteside County Sheriff's Department

Whiteside County Superintendent of Schools

Private Organizations

American Red Cross

Exelon Nuclear

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The DHS/FEMA Region V Office evaluated the Quad Cities Station (QCS) Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise conducted on November 17, 2010, 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 the QCS. The purpose of this Final After Action Report (AAR)/Improvement Plan (IP) 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 E "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 Quad Cities Station (QCS) REP Partial Participation Plume Exposure Pathway exercise on November 17, 2010.

Results of a technical review of the scenario, submitted by the State of Illinois and Exelon Nuclear on September 22, 2010, indicated that the scenario was adequate to support

demonstration of DHS/FEMA requirements, as well as criteria selected by the OROs provided in the State's September 17, 2010, extent-of-play submission. DHS/FEMA Region V accepted this exercise scenario on October 18, 2010.

During the exercise, in addition to information and data provided through the QCS 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.

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 November 17, 2010, REP Partial Participation Plume Exposure Pathway Exercise conducted to test the offsite emergency response capabilities of State and local governments in the Emergency Planning Zone (EPZ) surrounding the Quad Cities 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 agreements used in this exercise are found in Appendix E "Exercise Plan" of this report.

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

- M – 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.
- D – 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.
- A – 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.
- P – Plan Issue – An observed or identified inadequacy in the ORO's emergency plan or implementing procedures, rather than in the ORO's performance.

-
- N – 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 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 (51 for Quad Cities 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 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 (3 pages)

DATE: 2010-11-17 SITE: Quad Cities Station, IL M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		IL-IWP---	IL-SIRC---	IL-REAC---	IL-UAC--	IL-EOF---	IL-JIC---	IL-JIC/MBC---	IL-EOC ROC--IL/SRA-	IL-EOC ROC--IL/SL-	IL-EOC WHI--IL/SRA-	IL-EOC WHI--IL/SL-
Emergency Operations Management												
Mobilization	1a1	M	M	M	M	M	M					
Facilities	1b1											
Direction and Control	1c1		M	M	M	M	M		M		M	
Communications Equipment	1d1	M	M	M	M		M					
Equip & Supplies to support operations	1e1		M	M	M		M					
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1		M	M					M		M	
Radiological Assessment and PARs	2b1		M	M								
Decisions for the Plume Phase - PADs	2b2		M	M	M							
PADs for protection of special populations	2c1		M	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	
Implementation of KI decision	3b1											
Implementation of protective actions for special populations - EOCs	3c1											
Implementation of protective actions for Schools	3c2											
Implementation of traffic and access control	3d1				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	M	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	P	M		M	A		M		M
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											

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

DATE: 2010-11-17 SITE: Quad Cities Station, IL M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		IL-ISP D#7 HQ--DCO B-	IL-ISP D#7 HQ--TACP-	IL-Morrison HS--CCC-	IL-Morrison HS--EWMDEq-	IL--Trinity MC Trans-	IL-Morrison HS--EvR-	IL-Morrison HS--EvWD-	IL-Morrison HS--EvWM-	IL-Trinity MC--MSIF-	ROC-IWP---
Emergency Operations Management											
Mobilization	1a1										M
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1		M			M		M		M	M
Equip & Supplies to support operations	1e1	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	
Implementation of KI decision	3b1	M	M								
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2										
Implementation of traffic and access control	3d1		M								
Impediments to evacuation are identified and resolved	3d2										
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										
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						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				M	

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

<p align="center">DATE: 2010-11-17 SITE: Quad Cities Station, IL</p> <p align="center">M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>			ROC-EOC---	ROC--Sheriffs-TACP-DCO B	ROC--Sheriffs-TACP-	ROC--Riverdale SD-EV2-	ROC-EAS-WYEC--	WHI-IWP---	WHI-EOC---	WHI--Sheriffs-TACP-DCO B	WHI--Sheriffs-TACP-	WHI-EBS-WSDR/WZZT/WSSQ
Emergency Operations Management												
Mobilization	1a1	M						M	M			
Facilities	1b1											
Direction and Control	1c1	M							M			
Communications Equipment	1d1	M		M	M			M	M		M	
Equip & Supplies to support operations	1e1	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							M			
PADs for protection of special populations	2c1	M							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				M	M	M	
Implementation of KI decision	3b1	M	M	M	M				M	M	M	
Implementation of protective actions for special populations - EOCs	3c1	M							M			
Implementation of protective actions for Schools	3c2	M			M				M			
Implementation of traffic and access control	3d1	M		M					M		M	
Impediments to evacuation are identified and resolved	3d2	M							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		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											
Mon/Decon of EW worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Unclassified
Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Quad Cities Station

3.3 Criteria Evaluation Summaries

3.3.1 Illinois Jurisdictions

3.3.1.1 State of Illinois - Initial Warning Point

The IEMA Communications Center (IWP), located within the State Emergency Operations Center (SEOC) in Springfield, Illinois demonstrated the Target Capability of Emergency Operations Center Management. The IWP used effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. Dispatchers were familiar with their nuclear incident notification procedures. There are redundant communication systems available at the Dispatch Center, and both primary and backup systems were used effectively during this 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

3.3.1.2 State of Illinois - State of Illinois Response Center

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management by activities including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The State of Illinois Response Center (SIRC) provided sufficient multi-agency coordination for an incident at the Quad Cities Station by promptly activating and operating for the duration of the incident. The SIRC was managed efficiently and effectively completed a partial activation, notification and staffed to an operational level. The SIRC manager provided solid management, direction and control through the use of briefings. This allowed the staff of the SIRC to maintain a common operating picture and overall response to the event. The SIRC manager coordinated with other jurisdictions including the State to make decisions and ensure that appropriate actions were taken to protect the health and safety of the public.

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, 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

3.3.1.3 State of Illinois - Radiological Emergency Assessment Center

The Radiological Emergency Assessment Center (REAC) as part of the State of Illinois effectively demonstrated the Target Capability of Emergency Operations Center Management by promptly activating and providing multi-agency coordination throughout the Radiological Emergency Preparedness Exercise at the Quad Cities Station. The REAC Manager used a decision-making process that involved considerations of appropriate factors, including utility recommendations, plant status, release rate, dose projections, field measurements, weather conditions and knowledge of the area, and provided necessary coordination to make appropriate and timely Protective Action Recommendations (PARs) to the State of Illinois Incident Response Center (SIRC) Manager as well as coordinated with the State of Iowa to provide consistent PARs for the protection of the public.

The Health Physics Specialist performed independent dose projections, compared dose projections and field data to formulate and validate PARs. The REAC Manager demonstrated a leadership role for the offsite response organization and provided direction and control to the response effort. The decisions of the REAC Manager were timely and based upon pertinent information received from REAC staff. The REAC Manager provided the PARs to the SIRC Manager for consideration in the decision-making process of PARs for the State of Illinois.

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: 2.a.1.

ISSUE NO.: 06-10-2a1-P-01

ISSUE: The REAC Health Physics (HP) Specialist procedures do not provide a method for calculating a Direct-Reading Dosimeter (DRD) dose conversion factor based on source term. Additionally, in the event that a calculated administrative limit is too low to read on the 0-20 R DRDs provided to Emergency Workers (EW), procedures do not provide an alternative method for controlling radiation exposure such as use of a clock based stay-time.

CORRECTIVE ACTION DEMONSTRATED: This issue was corrected by revising RTF-POS-2, Health Physics Specialist. The revision includes "If the calculated ratio is greater than 1.67 and less than or equal to 5, consider lowering Emergency Worker Reporting Limit to 1R." Guidance has also been provided to ensure adequate worker protection and to keep doses As Low As Reasonably Achievable (ALARA).

- g. PRIOR ISSUES - UNRESOLVED: 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.

REASON UNRESOLVED: Information contained within the Illinois Plan for Radiological Accidents (IPRA) Volume I, Concept of Operations, is not consistent with the Radiological Task Force (RTF) procedures in regards to the KI information that is provided to the public.

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 Quad Cities Station. The Unified Area Command (UAC) was well equipped with all necessary communications, equipment and supplies required for the capability of efficient communications with offsite 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.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

The Emergency Operations Facility as part of the State of Illinois demonstrated the Target Capability of Emergency Operations Center Management. Effective procedures were used to alert, notify, and mobilize personnel and active the facility in a timely manner. Key personnel with leadership roles provided direction and control. Equipment, maps, displays and other supplies were sufficient to support emergency operations which included at least two communication systems available, at least one operated properly, and communication links were established and maintained with appropriate locations. Communications capabilities were managed in support of emergency operations.

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

- a. MET: 1.a.1, 1.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

3.3.1.6 State of Illinois - Joint Information Center

The Joint Information Center, as part of the State of Illinois, demonstrated the Target Capability of Providing Emergency Public Information through the County Public Information Officers (PIOs) at the Joint Information Center (JIC). Effective procedures were used to alert, notify, and mobilize personnel and activate the facility in a timely manner. Key personnel with leadership roles provided direction and control. Emergency information and instructions were presented to the public and the news media in a timely manner.

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

3.3.1.7 State of Illinois - Joint Information Center/Media Briefing Center

The Joint Information Center, as part of the State of Illinois, demonstrated the Target Capability of Providing Emergency Public Information. Emergency information and instructions were presented to the public and the news media in a timely manner.

An issue was identified which resulted in an Area Requiring Corrective Action (ARCA). The ARCA was based on an observation that a fax was received from a county into the JIC. The fax received was odd numbered pages. The information contained in the fax was not verified by the JIC personnel. The information should have been odd and even numbered pages. The missing information was the locations of the congregate care centers.

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

- a. MET: None
- b. AREAS REQUIRING CORRECTIVE ACTION: 5.b.1.

ISSUE NO.: 51-10-5b1-A-01

CRITERION: OROs provide accurate emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654, E.5., 7., G.3.a, G.4.a.b.c)

CONDITION: Incomplete information was provided to the media. A Rock Island county fax was received at the JIC that was incomplete. Only odd number pages were received. Lacking information included travel routes to reception centers. This information was provided to the media as complete.

POSSIBLE CAUSE: Inattention to detail. Verification and understanding of information being released to the media. Sender not verifying that all information was sent and/or received.

REFERENCE: NUREG-0654, E.5., 7., G.3.a, G.4.a.b.c

EFFECT: Incomplete information released to the media would have caused confusion. If the media used the fax as the basis to write their news story, the news story would have been inaccurate, thus the information provided to the general public would have been incorrect.

RECOMMENDATION: Reinforce the importance of the human performance measures of 1) attention to detail, 2) validation that the information being provided is accurate, 3) verification that all of the material that was sent was received in its

entirety by the other party.

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

3.3.1.8 State of Illinois - Rock Island County Emergency Operations Center - Illinois State Radiological Advisor

The State of Illinois demonstrated the Target Capability of Emergency Center Operations Management during the Quad Cities Station Radiological Emergency Preparedness Exercise on November 17, 2010.

The State Radiological Advisor assigned to Rock Island 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, 2.a.1, 3.a.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

3.3.1.9 State of Illinois - Rock Island County Emergency Operations Center - Illinois State Liaison

The State of Illinois demonstrated the Target Capability of Emergency Center Operations Management during the Quad Cities Station Radiological Emergency Preparedness Exercise on November 17, 2010.

The State Liaison assigned to Rock Island 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: 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

3.3.1.10 State of Illinois - Whiteside County Emergency Operations Center - Illinois State Radiological Advisor

The State of Illinois demonstrated the Target Capability of Emergency Center Operations Management during the Quad Cities Station Radiological Emergency Preparedness Exercise on November 17, 2010.

The State Radiological Advisor assigned to Whiteside 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, 2.a.1, 3.a.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

3.3.1.11 State of Illinois - Whiteside County Emergency Operations Center - Illinois State Liaison

The State of Illinois demonstrated the Target Capability of Emergency Center Operations Management during the Quad Cities Station Radiological Emergency Preparedness Exercise on November 17, 2010.

The State Liaison assigned to Whiteside 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: 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

3.3.1.12 State of Illinois - Illinois State Police District 7 Headquarters - Dosimetry Control Officer Briefing

The State of Illinois demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry and emergency worker radiological exposure management within the 10-mile Emergency Planning Zone. Appropriate dosimetry, record-keeping documents, and information on how to manage each emergency workers' dose was discussed by the Dosimetry Control Officer (DCO). Equipment requiring calibration and testing was within proper dates. The DCO provided instructions on potassium iodide (KI) and instructions on when to ingest KI.

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

- a. MET: 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

3.3.1.13 State of Illinois - Illinois State Police District 7 Headquarters - Traffic and Access Control Post

The State of Illinois demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry, emergency worker radiological exposure management, and the capability to implement Traffic and Access Control Posts (TACPs) within the 10-mile Emergency Planning Zone. During the interview, the Trooper demonstrated knowledge of the provisions of the Emergency Operations Plan related to the establishment of TACPs in addition to the use of the appropriate dosimetry procedures, documentation and communication equipment including portable radios, cell phones and mobile data terminals. This included the provision of dosimetry and the ability to manage emergency worker radiological exposure including the decision to implement 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.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

3.3.1.14 State of Illinois - Morrison High School - Emergency Worker Monitoring and Decontamination of Equipment and Vehicles

The State of Illinois demonstrated the Target Capability for Emergency Worker Monitoring and Decontamination of Equipment and Vehicles. The State 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: 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 - Trinity Medical Center - Medical Service - Transportation

Trinity Medical Ambulance Service effectively demonstrated the Target Capability of Emergency Triage and Pre-Hospital Treatment. The ambulance crew had equipment including maps, monitoring instruments, dosimetry and potassium iodide that were sufficient to support emergency operations. The use of cellular telephone and narrow band radio were demonstrated and capable of supporting communications. The Trinity Medical Ambulance Service personnel demonstrated patient handling, care, and transportation of a potentially contaminated medical victim. Medical care took priority over monitoring, decontamination, and contamination control efforts.

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

- a. MET: 1.d.1, 1.e.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

3.3.1.16 State of Illinois - Morrison High School - Evacuee Registration

The State of Illinois demonstrated the Target Capability for Evacuee Registration. The State had the capability to establish adequate facilities, resources, and trained personnel to provide monitoring and registration of evacuees.

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

-
- a. MET: 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

3.3.1.17 State of Illinois - Morrison High School - Evacuee/Emergency Worker Decontamination

The State of Illinois demonstrated the Target Capability for Evacuee and Emergency Worker Decontamination. The State established adequate facilities, resources, and trained personnel to provide decontamination of evacuees and emergency workers.

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

- a. MET: 1.d.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

3.3.1.18 State of Illinois - Morrison High School - Evacuee/Emergency Worker Monitoring

The State of Illinois demonstrated the Target Capability for Evacuee and Emergency Worker Monitoring. The State established adequate facilities, resources, and trained personnel to provide monitoring of evacuees and emergency workers.

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

- a. MET: 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

3.3.1.19 State of Illinois - Trinity Medical Center - Medical Service - Facility

The Trinity Medical Center demonstrated the Target Capability of Emergency Triage and Pre-Hospital Treatment. Appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and medical services to contaminated, injured individuals were sufficient to support emergency operations. Trinity Medical Center successfully demonstrated communications systems necessary to support emergency operations between the Emergency Department (ED) and ambulances. Sufficient quantities of Personal Protective Clothing (PPE), Radiation Emergency Area (REA) contamination control supplies, and personnel were available. The Nuclear Medicine Department and the ED provided calibrated contamination detection survey meters. The Radiation Safety Office managed radiological exposure to emergency workers in accordance with the plans and procedures. The Trinity Medical Center Radiological Disaster Plan stated that life-threatening emergencies always had priority over concerns involving radioactive contamination. Actions taken by the Trinity Medical Center personnel indicated awareness of the priority of treating serious medical conditions over contamination concerns.

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: 6.d.1.

ISSUE NO.: 51-06-6d1-A-01

ISSUE: Monitoring techniques and contamination control were not adequate.

CORRECTIVE ACTION DEMONSTRATED: This out-of-sequence drill was intended to address and demonstrate resolution of items contained in Issue Number: 51-08-6.d.A.01. All of the concerns listed in the issue were satisfactorily addressed

such as patient radiological monitoring and contamination control techniques, doffing of radiological clothing, bagging, labeling and passing a sample over the REA boundary.

- g. PRIOR ISSUES - UNRESOLVED: None

3.3.2 Risk Jurisdictions

3.3.2.1 State of Illinois - Morrison High School - Congregate Care Center

The State of Illinois demonstrated the Target Capability of Congregate Care Center (CCC) at the Morrison Community High School, Morrison, Illinois. As part of the Quad Cities Station (QCS) Radiological Emergency Preparedness Exercise, the American Red Cross (ARC) demonstrated the capability to provide resources and trained personnel to evacuees. The Lincoln Land Chapter of the ARC, responsible for CCC activities in Whiteside County, successfully demonstrated that the CCC has the resources to provide services and accommodations consistent with ARC planning guidelines.

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

- a. MET: 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

3.3.2.2 Rock Island County - Initial Warning Point

The Rock Island County Initial Warning Point, located in the Rock Island County Sheriff's Dispatch Center, demonstrated the Target Capability of Emergency Operations Center Management. The IWP used effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. Dispatchers were familiar with their nuclear incident notification procedures. There are redundant communication systems available at the Dispatch Center, and both primary and backup systems were used effectively during this 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

3.3.2.3 Rock Island County - Emergency Operations Center

The Rock Island County Emergency Operations Center (EOC) demonstrated the Target Capability of Emergency Operations Center Management by activities including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The focus always remained on the primary objective, which is protecting the public health and safety of those who live and work in local communities. The Rock Island Emergency Management Agency (EMA) Director fully demonstrated the decision-making process involving appropriate factors and necessary coordination when making Protective Action Decisions. Direction and control for the overall response effort of the Rock Island County EOC was successfully demonstrated by the Rock Island County Board Chairperson and the EMA Director.

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.c.2, 3.d.1, 3.d.2, 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

3.3.2.4 Rock Island County - Sheriff's Department - Traffic and Access Control Post - Dosimetry Control Officer Briefing

The Rock Island Sheriff's Department successfully demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry and emergency worker radiological exposure management within the 10-mile Emergency Planning Zone. Appropriate dosimetry, record-keeping documents, and information on how to manage each emergency workers dose was discussed by the Dosimetry Control Officer (DCO). Equipment requiring calibration and testing was within proper dates. The DCO provided instructions on potassium iodide and instructions on when to ingest.

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

- a. MET: 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 Rock Island County - Sheriff's Department - Traffic and Access Control Post

The Rock Island County Sheriff's Department demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry, emergency worker radiological exposure management, and the capability to implement Traffic and Access Control Posts (TACPs) within the 10-mile Emergency Planning Zone. During the interview, the Deputy demonstrated knowledge of the provisions of the Emergency Operations Plan related to the establishment of TACPs in addition to the use of the appropriate dosimetry procedures, documentation and communication equipment including portable radios, cell phones and mobile data terminals. This included the provision of dosimetry and the ability to manage emergency worker radiological exposure including the decision to implement 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.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

3.3.2.6 Rock Island County - Riverdale School District - Evacuation School

Rock Island County demonstrated the Target Capability of Citizen Evacuation and Shelter-in-Place for school children. The Riverdale School District representative described plans and procedures to safely evacuate students from the Quad Cities Station Emergency Planning Zone and reunite them with their families. The school district demonstrated sufficient personnel, current contact information, emergency worker dosimetry, and communications capabilities to notify families and guardians regarding how to reunite with evacuated students.

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 Rock Island County - Emergency Alert System - WYEC

Rock Island County demonstrated the Target Capability of Emergency Public Information and Warning associated with primary alerting and notification of the public was completed in a timely manner. Following the decision by County emergency management officials to notify the public of an emergency situation at the Quad Cities Station, Radio Station WYEC (93.9 FM) personnel demonstrated a thorough understanding of their equipment, the EAS process and executed their duties in a timely and professional manner. Radio Station WYEC is an alternate to the primary EAS Station.

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

-
- a. MET: 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

3.3.2.8 Whiteside County - Initial Warning Point

The Whiteside County Initial Warning Point, located in the Whiteside County Sheriff's Dispatch Center, demonstrated the Target Capability of Emergency Operations Center Management. The IWP used effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. Dispatchers were familiar with their nuclear incident notification procedures. There are redundant communication systems available at the Dispatch Center, and both primary and backup systems were used effectively during this 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

3.3.2.9 Whiteside County - Emergency Operations Center

Whiteside County demonstrated the Target Capability of Emergency Operations Center Management by activities which included the offsite response organizations use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner.

The County Emergency Operations Center (EOC) provided sufficient multi-agency coordination for an incident at the Quad Cities Station by promptly activating and operating for the duration of the incident. The EOC was managed efficiently and effectively completed a full activation,

notification and staffed to an operational level. The Emergency Management Director (EMD) provided effective management, direction and control through the use of briefings and information posted on white boards throughout the EOC. This allowed the staff of the EOC to maintain a common operating picture. The EOC coordinated with other jurisdictions including the State to make decisions and ensure that a consistent message was relayed to the public.

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.c.2, 3.d.1, 3.d.2, 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

3.3.2.10 Whiteside County - Sheriff's Department - Traffic and Access Control Post - Dosimetry Control Officer Briefing

Whiteside County Sheriff's Department effectively demonstrated the Target Capability of Critical Resource Logistics and Distribution. The two Activities of Providing Dosimetry and Implementing the KI decision were accomplished in an effective manner. A Whiteside County Sheriff's Deputy was issued a dosimetry kit and briefed on the use of dosimetry and the potential ingestion of KI. The briefing was conducted in a professional and technically accurate manner. This activity was effectively and efficiently demonstrated by a Whiteside County Sheriff's Deputy. The briefing was completed in accordance with the County plans and procedures.

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

- a. MET: 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

3.3.2.11 Whiteside County - Sheriff's Department - Traffic and Access Control Post

The Target Capability for Emergency Public Safety and Security Response that utilized communications equipment, supplies, and other equipment to support operations was demonstrated by Whiteside County Sheriff's Department. This included the provision of dosimetry and the ability to manage emergency worker radiological exposure including the decision to implement KI.

Whiteside County demonstrated the ability and capability to implement Traffic Control Points within the 10-mile Emergency Planning Zone. This included the use of the appropriate dosimetry procedures, documentation and communication equipment including portable radios, cell phones and mobile data terminals.

All activities described in the demonstration criterion were conducted in accordance with the plan, procedures and 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

3.3.2.12 Whiteside County - Emergency Broadcast Station - WSDR/WZZT/WSSQ

Whiteside County effectively demonstrated the Target Capability of Emergency Public Information and Warning. The activities associated with primary alerting and notification of the public was completed in a timely manner by EAS Station WSDR/WZZT/WSSQ, following the initial decision by County emergency officials to notify the public of an emergency situation. Station WSDR/WZZT/WSSQ personnel were quite experienced with the process and executed their duties in a timely and professional manner.

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

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-
- a. MET: 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

SECTION 4: CONCLUSION

No deficiencies were identified during this exercise for the State of Illinois or for Rock Island or Whiteside Counties. There was one Area Requiring Corrective Action (ARCA) identified for the State of Illinois and one ARCA from a previous exercise that was successfully resolved during this exercise. No ARCAs were identified for Rock Island or Whiteside Counties during this exercise.

There was one ARCA and two Planning Issues from previous exercises for the State of Illinois. The ARCA and one Planning Issue from previous exercises were resolved by the State of Illinois but one Planning Issue remains unresolved. There were no ARCAs or Planning Issues from previous exercises identified for either Rock Island or Whiteside Counties that required demonstration during the exercise.

During this exercise, ARCA 51-10-5b1-A-01 was identified for the State of Illinois under Criterion 5.b.1 – OROs provide accurate emergency information and instructions to the public and the news media in a timely manner, whereby the Joint Information Center provided incomplete information to the media.

Prior ARCA 51-06-6d1-01, Treatment of Contaminated Injured Individuals, was resolved by the State of Illinois.

Prior Planning Issue 06-10-2a1-P-01, Emergency Worker Exposure Control, was resolved by the State of Illinois.

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 November 17, 2010, exercise, the offsite radiological emergency response plans and preparedness for the State of Illinois and affected local jurisdictions, site-specific to the Quad Cities 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

Issue Number: 13-09-5b1-P-01		Criterion: 5b1	
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.			
RECOMMENDATION: Review the information contained within the IPRA and RTF-PARS-2 regarding KI information that is provided to the public and revise the procedures as required to ensure that they contain the same information and direction.			
CORRECTIVE ACTION DESCRIPTION:			
CAPABILITY:		PRIMARY RESPONSIBLE AGENCY:	
CAPABILITY ELEMENT:		START DATE:	
AGENCY POC:		ESTIMATED COMPLETION DATE:	

APPENDIX B: EXERCISE TIMELINE

Table 1, on the following page, presents the times at which key events and activities occurred during the Quad Cities Station REP Partial Participation Plume Exposure Pathway exercise conducted on November 17, 2010. Also included are times notifications were made to the participating jurisdictions/functional entities.

Table 1 - Exercise Timeline
DATE: 2010-11-17, SITE: Quad Cities Station, IL

Emergency Classification Level or Event	Time Utility Declared	IL-SIRC---	IL-REAC---	IL-UAC---	IL-JIC---	ROC-EOC---	WHI-EOC---
Unusual Event	NA	NA	NA	NA	NA	NA	NA
Alert	0829	0849	0850	0853	NA	0944	0942
Site Area Emergency	0945	1002	1008	1006	1017	1004	1004
General Emergency	1115	1129	1127	1138	1120	1141	1141
Simulated Rad. Release Started	1111	1129	1113	1138	NA	NA	NA
Simulated Rad. Release Terminated	NA	NA	NA	NA	NA	NA	NA
Facility Declared Operational		0853	0900	0900	0851	1000	1041
Declaration of State of Emergency		1141	NA	NA	NA	NA	NA
Exercise Terminated		1300	1307	1317	1309	1325	NA
Early Precautionary Actions: State issued Livestock Advisory		1009	NA	NA	NA	NA	NA
1st Protective Action Decision: State issued order to evacuate state parks and hunting areas		NA	NA	1147	NA	NA	NA
Early Precautionary Action Decision: State issued air, water and rail restriction within EPZ of Quad Cities Station		1108	NA	1108	NA	NA	NA
General Information Message: Public advised of incident at Quad Cities Station		NA	NA	NA	NA	1039	1037
General Information Message Siren Activation		NA	NA	NA	NA	1040	1040
General Information EAS Message Broadcast:		NA	NA	NA	NA	1040	1042
1st Protective Action Recommendation: Evacuate Rock Island County Sub-Areas 1, 3, and 6; evacuate Whiteside County Sub-Area 2		1133	1127	NA	NA	NA	NA
Protective Action Decision: Evacuate Rock Island County Sub-Areas 1, 3, and 6; evacuate Whiteside County Sub-Area 2		NA	NA	NA	NA	1140	1146
1st Protective Action Siren Activation		NA	NA	NA	NA	1150	1150
1st EAS Message Broadcast		NA	NA	NA	NA	1150	1152
2nd Protective Action Recommendation: Addition of Whiteside Sub-Area 5 to the evacuation recommendation		1207	1207	NA	NA	NA	NA
Protective Action Decision: Whiteside County evacuate Sub-Areas 2 and 5		NA	NA	NA	NA	NA	1221
2nd Protective Action Siren Activation		NA	NA	NA	NA	1235	1235
2nd EAS Message Broadcast		NA	NA	NA	NA	1241	1237
KI Administration Decision:		1126	1115	NA	NA	1140	1141

APPENDIX C: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel that evaluated the Quad Cities Station REP Partial Participation Plume Exposure Pathway Exercise on November 17, 2010. The list includes the evaluation team leadership and all evaluators. The organization each evaluator represents is indicated by the following abbreviations:

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

ICF Consulting

Title	Name	Organization
Radiological Assistance Committee, Chairman	William E. King	DHS/FEMA
Exercise Director	Stephen Tulley	DHS/FEMA
Senior Specialist	Gary Naskrent	DHS/FEMA
Site Specialist	Todd M. Gemskie	DHS/FEMA
Team Leader - Illinois	Deborah Fulk	DHS/FEMA
Team Leader – Rock Island County	Edward Diaz	DHS/FEMA
Team Leader - Whiteside County	Jay Kinsley	DHS/FEMA

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DATE: 2010-11-17, SITE: Quad Cities Station, IL

LOCATION	EVALUATOR	AGENCY
State of Illinois - Initial Warning Point	Kara Scott	DHS/FEMA
State of Illinois - State of Illinois Response Center	Gary Goldberg Kara Scott	ICF DHS/FEMA
State of Illinois - Radiological Emergency Assessment Center	Richard Grundstrom Dennis Wilford	ICF ICF
State of Illinois - Unified Area Command	Kerris Bates Bart Ray	DHS/FEMA ICF
State of Illinois - Emergency Operations Facility	Alejandro Fernandez	ICF
State of Illinois - Joint Information Center	Alejandro Fernandez Patrick Taylor	ICF ICF
State of Illinois - Joint Information Center/Media Briefing Center	Alejandro Fernandez	ICF
State of Illinois - Rock Island County Emergency Operations Center - Illinois State Radiological Advisor	Clinton Crackel	DHS/FEMA
State of Illinois - Rock Island County Emergency Operations Center - Illinois State Liaison	Todd Gemske	DHS/FEMA
State of Illinois - Whiteside County Emergency Operations Center - Illinois State Radiological Advisor	Richard Smith	ICF
State of Illinois - Whiteside County Emergency Operations Center - Illinois State Liaison	David Stuenkel	ICF
State of Illinois - Illinois State Police District 7 Headquarters - Dosimetry Control Officer Briefing	Bart Ray	ICF
State of Illinois - Illinois State Police District 7 Headquarters - Traffic and Access Control Post	Carl Bebrich	DHS/FEMA
State of Illinois - Morrison High School - Emergency Worker Monitoring and Decontamination of Equipment and Vehicles	Patrick Taylor	ICF
State of Illinois - Trinity Medical Center - Medical Service - Transportation	Kerris Bates	DHS/FEMA
State of Illinois - Morrison High School - Evacuee Registration	Carolyn Sturghill	DHS/FEMA
State of Illinois - Morrison High School - Evacuee/Emergency Worker Decontamination	Patrick Taylor	ICF
State of Illinois - Morrison High School - Evacuee/Emergency Worker Monitoring	Patrick Taylor	ICF
State of Illinois - Trinity Medical Center - Medical Service - Facility	Christopher Bellone	DHS/FEMA
State of Illinois - Morrison High School - Congregate Care Center	Carolyn Sturghill	DHS/FEMA
Rock Island County - Initial Warning Point	Carl Bebrich	DHS/FEMA
Rock Island County - Emergency Operations Center	Clinton Crackel Todd Gemske Carolyn Sturghill Meg Swearingen	DHS/FEMA DHS/FEMA DHS/FEMA ICF
Rock Island County - Sheriff's Department - Traffic and Access Control Post - Dosimetry Control Officer Briefing	Clinton Crackel	DHS/FEMA
Rock Island County - Sheriff's Department - Traffic and Access Control Post	Carolyn Sturghill	DHS/FEMA
Rock Island County - Riverdale School District - Evacuation School	Alejandro Fernandez	ICF
Rock Island County - Emergency Alert System - WYEC	Carl Bebrich	DHS/FEMA
Whiteside County - Initial Warning Point	Christopher Bellone	DHS/FEMA
Whiteside County - Emergency Operations Center	James Greer Richard Smith David Stuenkel	ICF ICF ICF

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Whiteside County - Sheriff's Department - Traffic and Access Control Post - Dosimetry Control Officer Briefing	Richard Smith	ICF
Whiteside County - Sheriff's Department - Traffic and Access Control Post	James Greer	ICF
Whiteside County - Emergency Broadcast Station - WSDR/WZZT/WSSQ	Christopher Bellone	DHS/FEMA
* Team Leader		

APPENDIX D: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AAR	After Action Report
ALS	Advanced Life Support
ARC	America Red Cross
ARCA	Area Requiring Corrective Action
BLS	Basic Life Support
CCC	Congregate Care Center
CMS	Central Management Services
DAT	Disaster Action Team
DCO	Dosimetry Control Officer
EAS	Emergency Alert System
ECL	Emergency Classification Level
ED	Emergency Department
EM	Emergency Management
EMA	Emergency Management Agency
EMD	Emergency Management Director
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
ESDA	Emergency Services Disaster Agency
EW	Emergency Workers
FEMA	Federal Emergency Management Agency
GE	General Emergency
GEMS	Gaseous Effluent Monitor System
HP	Health Physics
HPS	Health Physics Specialist
IC	Incident Commander
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IP	Improvement Plan
ISP	Illinois State Police
IWIN	Illinois Wireless Information Network
IWP	Initial Warning Point
JIC	Joint Information Center

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LD	Luminescent Dosimeter
LEADS	Law Enforcement Agency Data System
NARS	Nuclear Accident Reporting System
NRC	Nuclear Regulatory Commission
NWS	National Weather Service
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAR	Protective Action Recommendation
PIO	Public Information Officer
PNS	Prompt Notification System
PSAP	Public Safety Answering Point
QCS	Quad Cities Station
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
RAFT	Radiological Assessment Field Team
REA	Radiation Emergency Area
REAC	Radiological Emergency Assessment Center
REP	Radiological Emergency Preparedness
RM	REAC Manager
RRC	Radiological Response Chief
RS	Reactor Specialist
RT	Radiological Technician
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SIRC	State Incident Response Center
SM	SIRC Manager
SRD	Self Reading Dosimeter
TACP	Traffic Access Control Post
TEDE	Total Effective Dose Equivalent
UAC	Unified Area Command
UHF	Ultra High Frequency
VHF	Very High Frequency
WCHD	Whiteside County Health Department

APPENDIX E: EXERCISE PLAN

This appendix lists the exercise criteria, which were scheduled for demonstration in the Quad Cities Station Radiological Emergency Preparedness Partial Participation Plume Exposure Pathway Exercise on November 17, 2010, and the offsite extent-of-play agreement accepted by DHS/FEMA Region V on October 22, 2010. 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
QUAD CITIES STATION EXERCISE
November 17, 2010**

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 with 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 at the Whiteside County Airport with State district and regional personnel. The Radiological Assessment Field Team (RAFT) Command Center and mobile lab will be staffed at the IDOT Yard near Lyndon for training purposes. IEMA personnel will be prepositioned in the local area and dispatched to the Rock Island County EOC, Whiteside County EOC, UAC, Emergency Operations Facility (EOF), Technical Support Center (TSC) and the Joint Information Center (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 the Quad Cities 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 County EOCs.

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. DCO logs will be available from an IEMA Radiological Advisors in the County EOCs.

A DCO briefing/traffic and access control (TAC) interview will be conducted by Illinois State Police on November 16, 9:00 a.m. (tentative) at the District 7 Headquarters in East Moline. During this event, the availability of dosimetry will be demonstrated.

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 in the Rock Island 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 (PAR) 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 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 the EPZ counties 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 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 the EPZ counties 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 DCO briefing/TAC interview on November 16, 11:00 a.m. (tentative), at the ISP District 7 Headquarters.

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 DCO briefing/TAC interview on November 16, 11:00 a.m. (tentative), at the ISP District 7 Headquarters.

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 Quad Cities 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 on November 16, 11:00 a.m. (tentative) at ISP District 7 Headquarters.

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

This will be demonstrated through discussions at the UAC between the ISP and Illinois Department of Transportation. A message will be injected to the ISP representative in the Rock Island 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.

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.

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 PAR to the counties and monitoring the instructional messages provided to the public by the counties. This monitoring will be accomplished by IEMA representatives in the County EOCs.

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 County EOCs. 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.

A rumor control phone bank for public inquiries will not be operated by the State during the exercise.

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.

An interview of State and local officials and inspection of Morrison High School will be conducted on November 16, 9:00 am (tentative). The following organizations will be represented at the interview: local EMA, Police and Fire departments, American Red Cross and IEMA. Evacuees will not be processed. The supply list and monitoring equipment will not be available at the interview/inspection. A dosimetry briefing will not be conducted during 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.

An interview of State and local officials and inspection of Morrison High School will be conducted on November 16, 9:00 am (tentative). The following organizations will be represented at the interview: local EMA, Police and Fire departments, and IEMA. Emergency worker equipment not be processed. The supply list and monitoring equipment will not be available at the interview/inspection. A dosimetry briefing will not be conducted during 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.

An interview of local officials and inspection of Morrison High School will be conducted on November 16, 2010, 9:00 am (tentative). 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 a drill at Trinity Medical Center – West in Rock Island on November 16, 9 a.m. (confirmed).

**ROCK ISLAND COUNTY EXTENT-OF-PLAY AGREEMENT
FOR THE
QUAD CITIES STATION EXERCISE
November 17, 2010**

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.

Rock Island County intends to fully activate the Emergency Operations Center (EOC) in Milan, Illinois. The County will implement notification procedures as defined in IPRA-Quad Cities. Representatives from 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. 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 not be demonstrated in the Rock Island County EOC.

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 Rock Island County EOC. Coordination of decisions and emergency activities will be demonstrated between Rock Island County, the SIRC, the UAC, the JIC, and between the County and municipalities within the EPZ. Coordination between Rock Island County and Whiteside 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.

Rock Island County will use NARS, 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.

Rock Island 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 County EOC. The availability of dosimetry and KI will be demonstrated at the County EOC and during the traffic and access control (TAC) demonstration. The DCO briefing for the deputy demonstrating traffic and access control will be conducted at the Rock Island EOC facility.

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 Rock Island 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 Rock Island 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 (PARs) to Rock Island County officials in the County EOC. The Rock Island 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 PARs to Rock Island County officials in the County EOC. The Rock Island County officials will make the final decision regarding what protective actions will be recommended to the 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 Rock Island 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.

Rock Island County will demonstrate this criterion by 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 County EOC.

This criterion will also be demonstrated during the TAC demonstration. The DCO briefing for the Sheriff's deputy demonstrating traffic and access control will be conducted in the field. The DCO and the evaluator will meet at the Rock Island County EOC and go to the designated field location to meet the deputy for the briefing.

This criterion will also be demonstrated at the school interview.

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, Rock Island 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 TAC demonstration. The DCO briefing for the Sheriff's deputy demonstrating traffic and access control will be conducted in the field. The DCO and the evaluator will meet at the Rock Island County EOC and go to the designated field location to meet the deputy for the briefing.

This criterion will also be demonstrated at the school interview.

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

This will be demonstrated by Rock Island 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.

Rock Island 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 Riverdale Community Unit School District #100 on November 16, 9 a.m. (confirmed). The District Superintendent, a Principal, a Teacher, the transportation coordinator (DCO), the maintenance supervisor and a bus driver 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 Rock Island 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 Rock Island County during the exercise based on exercise play. The deputy will drive to the selected post location for the demonstration. The staffing of the remaining posts will be simulated.

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

The Rock Island 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 Rock Island 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 Rock Island 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 during this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS

This evaluation area does not apply to Rock Island 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.

Rock Island County will demonstrate the capability to provide both an alert signal and an initial 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 PARs.

This capability will be demonstrated through the simulated activation of the Quad Cities Station EPZ Prompt Notification System as defined in IPRA-Quad Cities. 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 (WVIK). 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 for a message containing a PAR. If the initial message does not contain a PAR, the evaluator and controller will stay at the radio station for the second message.

Coordination between Rock Island County and Whiteside County will be demonstrated.

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 Rock Island County.

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

Rock Island County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Quad Cities. Contact with the radio station will be simulated for each alert and notification sequence following the sequence issuing the initial PAR.

The ability to provide information to the media will be demonstrated by Rock Island County through a briefing held at the Rock Island County media briefing location. If real media are not present for the briefing, 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 Rock Island County through coordination between the County EOC and the JIC. The Rock Island County EOC controller will inject exercise messages which 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 Rock Island County.

**WHITESIDE COUNTY EXTENT-OF-PLAY AGREEMENT
FOR THE
QUAD CITIES STATION EXERCISE
November 17, 2010**

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.

Whiteside County intends to fully activate the Emergency Operations Center (EOC) in Morrison, Illinois. The County will implement notification procedures as defined in IPRA-Quad Cities. Representatives from 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. 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 not be demonstrated in the Whiteside County EOC.

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 Whiteside County EOC. Coordination of decisions and emergency activities will be demonstrated between Whiteside County, the SIRC, the UAC, the JIC, and between the County and Albany. Coordination between Whiteside County and Rock Island 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.

Whiteside County will use NARS, 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.

Whiteside 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 County EOC. The availability of dosimetry and KI will be demonstrated at the County EOC and during the traffic and access control (TAC) demonstration. The DCO briefing for the deputy demonstrating traffic and access control will be conducted at the Whiteside County Sheriff's 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 Whiteside 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 Whiteside 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 (PARs) to Whiteside County officials in the County EOC. The Whiteside 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 PARs to Whiteside County officials in the County EOC. The Whiteside County officials will make the final decision regarding what protective actions will be recommended to the 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 Whiteside 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.

Whiteside County will demonstrate this criterion by 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 County EOC.

This criterion will also be demonstrated during the (TAC) demonstration. The DCO briefing for the Sheriff's deputy demonstrating traffic and access control will be conducted at the Whiteside County Sheriff's 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, Whiteside County officials will discuss the issuance of KI to emergency workers and immobile populations, as a voluntary measure, and will notify Albany officials of the State's recommendation.

This criterion will also be demonstrated during the TAC demonstration. The DCO briefing for the Sheriff's deputy demonstrating traffic and access control will be conducted at the Whiteside County Sheriff's 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 Whiteside 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.

This criterion will be demonstrated in the Whiteside County EOC.

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

Coordination between Whiteside 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 Whiteside County during the exercise based on exercise play. The deputy will drive to the selected post location for the demonstration. The staffing of the remaining posts will be simulated.

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

The Whiteside 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 Whiteside 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 Whiteside 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 during this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS

This evaluation area does not apply to Whiteside 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.

Whiteside County will demonstrate the capability to provide both an alert signal and an initial 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 PARs.

This capability will be demonstrated through the simulated activation of the Quad Cities Station EPZ Prompt Notification System as defined in IPRA-Quad Cities. 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 (WSDR/WZZT/WSSQ). The local radio station will be contacted during the first, and possibly the second, alert and notification sequence. An evaluator and controller will be positioned at the radio station during the exercise to monitor the messages. If the initial message does not contain a protective action recommendation, the evaluator and controller will stay at the radio station for the second message.

Coordination between Whiteside County and Rock Island County will be demonstrated.

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 Whiteside County.

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

Whiteside County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Quad Cities. Contact with the radio station will be simulated for each alert and notification sequence following the sequence issuing the initial PAR.

The ability to provide information to the media will be demonstrated by Whiteside County through a briefing held at the Whiteside County media briefing location. If real media are not present for the briefing, 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 Whiteside County through coordination between the County EOC and the JIC. The Whiteside County EOC controller will inject exercise messages which 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 Whiteside County.

APPENDIX F: SCENARIO DETAILS

This appendix 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 Quad Cities Station REP Partial Participation Plume Exposure Pathway exercise on November 17, 2010.

Results of a technical review of the scenario, submitted by the State of Illinois and Exelon Nuclear on September 17, 2010, indicated that the scenario was adequate to support demonstration of Department of Homeland Security's requirements, as well as criteria selected by the OROs provided in the State's July 7, 2010, extent-of-play submission.

This exercise scenario was accepted by DHS/FEMA Region V on October 19, 2010.

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

DHS/FEMA concurred with the offsite scenario and extent-of-play submission for the State of Illinois, Rock Island and Whiteside Counties for the November 17, 2010 Biennial Radiological Emergency Preparedness Exercise for the Quad Cities Station.

Quad Cities Station ALERT Scenario Summary

0810 – 0940

Diesel Generator Crankcase Explosion and Cardox Discharge

At 0810, the Control Room (CR) Crew will receive a message that the U1 Diesel Generator (DG) has suffered an explosion and Cardox is discharging into the DG room. The Non-Licensed Operator monitoring the surveillance exited the room and is on the scene giving reports.

At 0820, the CR Crew will receive a message that there is no fire in the DG room, the Cardox discharge has automatically terminated and there are no injuries.

Onsite Expected Actions

The Fire Brigade (simulated) will be dispatched to the scene via a controller message. The Operating Crew should respond by following the actions of the prescribed procedures. The Shift Manager should declare either HA6 "Fire or explosion affecting operability of systems required to establish or maintain safe shutdown" or HA7 "Release of toxic or flammable gases within or restricting access to a Vital Area." [T₀=when the explosion occurs, or CO₂ discharges]

All appropriate notifications should be performed, and the Dialogic System should be activated. The Operating Crew may contemplate calling in extra personnel to assist with monitoring the control boards. Command and Control should be transferred as soon as practicable. The Fire Brigade will continue with follow-up actions such as ventilating the DG room, preparing the room re-entry for inspection, and establishing a Fire Watch.

**Approx.
Time**

Event/Anticipated Offsite Response

0755	Initial conditions/weather forecast message to players.
0810	An Alert is declared at Quad Cities Station.
0825	Exelon notifies the IEMA Telecommunicator of the ALERT via NARS. IEMA Telecommunicator verifies the NARS message. An IEMA Duty Officer contacts the Quad Cities 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. IEMA Telecommunicator notifies appropriate State agencies of the ALERT. IEMA notifies FEMA of the ALERT.
0840	IEMA Telecommunicator notifies EPZ counties of the ALERT via NARS. County telecommunicators complete and verify the NARS message. County telecommunicators notify county officials and municipalities of the ALERT per SOP. Municipal telecommunicators complete and verify the NARS message.

Municipal telecommunicators notify officials of the ALERT per SOP.

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

Quad Cities Station SITE AREA EMERGENCY (SAE) Scenario Summary

0930-1030

Anticipated Transient Without a Scram (ATWS)

Multiple rods drift resulting in scram initiation. The reactor scram results in an Anticipated Transient Without a Scram (ATWS) with automatic and manual actions failing to result in a scram. Reactor Scram (either manual or automatic) fails due to hydraulic failure. ATWS initiation fails to scram the reactor. A spurious Main Steam Isolation Valve (MSIV) isolation occurs. A RWCU isolation failure occurs, however, this is not a loss of containment as there is no pathway to the environment. Notification of A and B SBTG have failed filters (engineering letter).

Onsite Expected Actions

The Operating Crew should respond to the scram signal by recognizing that all rods did not insert. Actions should be initiated to address an ATWS and the appropriate emergency procedures should be entered to address the situation. The Emergency Director should declare a Site Area Emergency based on MS3 (Automatic scram, manual scram, and ARI were not successful from the reactor console). [T₀=when the rods fail to insert from the control room]. All of the appropriate notifications should be performed and site assembly and accountability procedures should be initiated.

1030 to 1110

A concurrent FS1 occurs when a Loss Of Coolant Accident in the U1 Drywell occurs. Drywell Rads rise. The small leak in containment first results in a Loss of RCS RC 3 or 5 (concurrent FA1). A Loss of Fuel Clad (FC5) occurs when Drywell rad >665 R/hr with previous Loss of RCS (concurrent FS1). DW spray will be inhibited.

<u>Approx. Time</u>	<u>Event/Anticipated Offsite Response</u>
0940	A SITE AREA EMERGENCY is declared at Quad Cities Station.
0955	Exelon notifies the IEMA Telecommunicator of the SITE AREA EMERGENCY via NARS. IEMA Telecommunicator verifies the NARS message. REAC contacts the Quad Cities 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)
0955	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 - 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.

**Approx.
Time**

Event/Anticipated Offsite Response

1010 IEMA notifies EPZ counties of the SITE AREA EMERGENCY via NARS.

County telecommunicators complete and verify the NARS message.

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

Counties implement public notification procedures, if appropriate. (Simulated)

Municipal telecommunicators complete and verify the NARS message.

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.

Quad Cities Station GENERAL EMERGENCY (GE) Scenario Summary

1110 through Windshift

RWCU LINE BREAK IN THE REACTOR BUILDING

A release in progress will result from the failure. 1110 FG1 Isolation failure in the Reactor Building (RWCU area) GENERAL EMERGENCY MAX PARS. Loss of Containment –Rx Bld Max Safe operating lvls (CT6.1/3). Loss of Fuel Clad – Drywell Radiation > 665 R/Hr (FC5) previously identified. Loss of RCS – Drywell press > 2.5 due to RCS leakage (RC3) or Drywell Rad >100 R/hr with RCS leakage (RC5) previously identified.

Onsite Expected Actions

The Operating Crew should recognize the break and release. The Emergency Director should declare a General Emergency FG1 (Loss of ANY two barriers, AND loss or potential loss of the third barrier) [T₀=when the RWCU line breaks] with maximum PARS (5 Mile Radius & 10 Miles downwind with Sub-Areas) and a release in progress: At 11:30, a concurrent EAL RG1 occurs as part of the peak release rate.

- 1.) Loss of Containment [CT6.1/3],
- 2.) Loss of RCS [RC3 or RC5], and
- 3.) Loss of Fuel Clad [FC5].

**Approx.
Time**

Event/Anticipated Offsite Response

1110	A GENERAL EMERGENCY is declared at Quad Cities Station.
1125	<p>Exelon notifies the IEMA Telecommunicator of the GENERAL EMERGENCY via NARS. Protective actions are recommended.</p> <p>IEMA Telecommunicator verifies the NARS message.</p> <p>The SIRC and REAC evaluate the protective action recommendation.</p> <p>A recommendation is made to the Governor. The Governor recommends that protective actions be implemented.</p> <p>SIRC staff is advised of the situation.</p> <p>SIRC advises UAC, the County EOC liaisons and JIC staff of the situation.</p> <p>SIRC notifies FEMA of conditions. (Simulated)</p> <p>REAC provides an update to the SIRC and County EOC liaisons.</p> <p>REAC provides an update to the JIC.</p>
1140	<p>SIRC notifies EPZ counties of the GENERAL EMERGENCY and the recommended protective actions via NARS.</p> <p>County telecommunicators complete and verify the NARS message.</p> <p>County telecommunicators notify county officials and municipalities per SOP.</p> <p>Counties implement public notification procedures and traffic and access control per SOPs, as applicable.</p> <p>Municipal telecommunicators complete and verify the NARS message.</p> <p>Municipal telecommunicators notify EOC staff.</p>

2nd PAR Opportunity

Wind Shift

1200 - End

A wind shift (from 310°) occurs resulting in new Sub Areas being affected, (IL Sub-Area 5 added).

Onsite Expected Actions

Recommendations (PARs) should be made for appropriate Illinois and Iowa Sub-Areas,

Approx. Time

Event/Anticipated Offsite Response

1200	A PAR change is declared at Quad Cities Station.
1215	Exelon notifies the IEMA Telecommunicator of the PAR change via NARS. New 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)
1215	REAC provides an update to the SIRC and County EOC liaisons. REAC provides an update to the JIC.
1230	SIRC notifies EPZ counties of the PAR change and the recommended protective actions via NARS. County telecommunicators complete and verify the NARS message. County telecommunicators notify county officials and municipalities per SOP.

**Approx.
Time**

Event/Anticipated Offsite Response

1230 Counties implement public notification procedures and traffic and access control per SOPs, as applicable.

Municipal telecommunicators complete and verify and the NARS message.

Municipal telecommunicators notify EOC staff.

EXERCISE TERMINATION

Exercise termination is scheduled for 1245. Termination criteria include concurrence from each facility that all selected objectives have been evaluated and concurrence from the controllers that all parties are ready to terminate the exercise.

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