



# **REVISED FINAL EXERCISE REPORT**

## **INDIAN POINT ENERGY CENTER**

**Licensee: Entergy  
Exercise Date: December 3, 2008**

**Report Date: Sept 18, 2009  
Revised Date: June 20, 2010**

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**U.S. DEPARTMENT OF HOMELAND SECURITY  
FEDERAL EMERGENCY MANAGEMENT AGENCY  
REGION II  
26 Federal Plaza  
New York, New York 10278**

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## Table of Contents

I.	EXECUTIVE SUMMARY .....	1
II.	INTRODUCTION .....	2
III.	EXERCISE OVERVIEW.....	5
	A. Emergency Planning Zone Description .....	5
	B. Exercise Participants .....	7
	C. Exercise Timeline .....	12
IV.	EXERCISE EVALUATION AND RESULTS. ....	15
	A. Summary Results of Exercise Evaluation .....	15
	B. Status of Jurisdictions Evaluated .....	25
1.	NEW YORK STATE.....	27
	1.1 New York State Emergency Operations Center .....	27
	1.2 Licensee Emergency Operations Facility .....	27
	1.3 New York State Accident Assessment .....	27
	1.4 New York State Personnel Monitoring Center - Townline Sub Residence .....	27
	1.5 Indian Point Joint Information Center .....	28
	1.6 Indian Point Joint Information Center Briefings.....	28
	1.7 Indian Point Joint Information Center Public Inquiry.....	29
	1.8 Indian Point EAS Station WHUD .....	29
	1.9 State of New York Call Center .....	29
	2.0 New York State - Westchester County Joint Emergency Worked.....	29
	Personnel Monitoring Center	
2.	RISK JURISDICTIONS	
	2.1 ORANGE COUNTY .....	30
	2.1.1 Orange County Emergency Operations Center.....	30
	2.1.2 Orange County Accident Assessment.....	33
	2.1.3 Orange County - Field Monitoring Team 1 .....	33
	2.1.4 Orange County - Field Monitoring Team 2 .....	33
	2.1.5 Orange County - General Population Reception Center.....	33
	Middletown High School	
	2.1.6 Orange County - General Population Bus Company - West Point Tours.....	33
	2.1.7 Orange County School Bus Company - West Point Tours- Highland Falls..	34
	2.1.8 Orange County - School Interview - Fort Montgomery Elementary School..	34
	2.1.9 Orange County - Congregate Care Center - Middletown High School.....	34

2.1.10	Orange County - Medical Services Transport – Cornwall.....	34
	Volunteer Ambulance Corps -2009	
2.1.11	Orange County - Medical Services Hospital – St Lukes .....	35
	Cornwall Hospital - 2009	
2.1.12	Orange County - Medical Services Hospital – St Lukes .....	36
	Cornwall Hospital - 2007	
2.1.13	Orange County Medical Services Transport - 2007.....	36
2.1.14	Orange County - Emergency Worker Personnel Monitoring Center.....	37
	Orange - Ulster Boces	
2.1.15	Orange County Traffic Control Point .....	37
2.2	PUTNAM COUNTY.....	38
2.2.1	Putnam County - Warning Point.....	38
2.2.2	Putnam County Emergency Operations Center.....	38
2.2.3	Putnam County Accident Assessment.....	40
2.2.4	Putnam County - Field Monitoring Team Alpha.....	41
2.2.5	Putnam County - Field Monitoring Team Bravo.....	42
2.2.6	Putnam County - School Reception Center - Kent Primary School.....	42
2.2.7	Putnam County - General Population Bus Company.....	42
	Haldane Central School District	
2.2.8	Putnam County - School Interview - Haldane Central School District.....	43
2.2.9	Putnam County - School Bus Company - Haldane Central School District..	43
2.2.10	Putnam County - School Interview - Noahs Ark Nursery School.....	43
2.2.11	Putnam County - School Interview - Putnam Valley Day Care.....	43
2.2.12	Putnam County - School Interview - St Phillips Nursery School.....	44
2.2.13	Putnam County - Medical Services Transport.....	44
	Carmel Volunteer Ambulance Company	
2.2.14	Putnam County - Medical Services Hospital - Putnam Hospital.....	44
2.2.15	Putnam County Traffic Control Point.....	45
2.2.16	Putnam County Reception Center Carmel High school.....	46
2.3	ROCKLAND COUNTY .....	48
2.3.1	Rockland County - Warning Point.....	48
2.3.2	Rockland County Emergency Operations Center.....	48
2.3.3	Rockland County Accident Assessment.....	48
2.3.4	Rockland County - Field Monitoring Team 1.....	48
2.3.5	Rockland County - Field Monitoring Team 2.....	49
2.3.6	Rockland County - General Population Reception Center.....	49
	Pearl River High School	
2.3.7	Rockland County - General Population Bus Company.....	51
	Clarkstown Central School District	
2.3.8	Rockland County - General Population Bus Company .....	51
	East Ramapo Central School District	
2.3.9	Rockland County - School Bus Company.....	51
	Clarkstown Central School District	
2.3.10	Rockland County - School Bus Company .....	52
	East Ramapo Central School District	

2.3.11 Rockland County - Medical Services Transport .....	52
Spring Hill Ambulance Corps	
2.3.12 Rockland County - Medical Services Hospital - Good Samaritan Hospital....	52
2.3.15 Rockland County - Emergency Worker Personnel Monitoring .....	52
Center – Rockland County Sewer District	
2.3.14 Rockland County Traffic Control Point.....	53
 2.4 WESTCHESTER COUNTY.....	 54
2.4.1 Westchester County - Warning Point.....	54
2.4.2 Westchester County Emergency Operations Center.....	54
2.4.3 White Plains Control Cell.....	54
2.4.4 Westchester County Accident Assessment.....	54
2.4.5 Westchester County - Field Monitoring Team HD-1.....	56
2.4.6 Westchester County - Field Monitoring Team HD-2.....	56
2.4.7 Westchester County Call Center.....	56
2.4.8 Westchester County - Traffic Control Point .....	56
2.4.9 Westchester County - General Population Chappaqua Bus Company.....	57
2.4.10 Westchester County - School Bus Company Chappaqua Bus.....	57
2.4.11 Westchester County - School Bus Company Briarcliff Manor.....	57
School District	
2.4.12 Westchester County - Lakeland School Bus Company.....	57
2.4.13 Westchester County - Todd Elementary School Interviews.....	58
2.4.14 Westchester County - Briarcliff High School Interview.....	58
2.4.15 Westchester County - Briarcliff Middle School Interview.....	58
2.4.16 Westchester County - Anne M. Donner Middle School Interviews.....	58
2.4.17 Westchester County - Roosevelt Education Center School Interview.....	59
2.4.18 Westchester County - Yorktown Heights Center School Interview.....	59
2.4.19 Westchester County - Brookside Elementary School Interview.....	59
2.4.20 Westchester County - Carrie E. Thompkins Elementary School Interview....	59
2.4.21 Westchester County - Claremont Elementary School Interview.....	60
2.4.22 Westchester County - Croton Harmon High School Interview.....	60
2.4.23 Westchester County - Fox Meadow School Interview.....	60
2.4.24 Westchester County - Hillcrest Elementary School Interview.....	60
2.4.25 Westchester County - Oakside Elementary School Interview.....	61
2.4.26 Westchester County - Ossining High School Interview.....	61
2.4.27 Westchester County - Park Early Childhood Center School Interview.....	61
2.4.28 Westchester County - Peekskill High School Interview.....	61
2.4.29 Westchester County - Peekskill Middle School Interview.....	62
2.4.30 Westchester County - Pierre Van Cortland Middle School Interview.....	62
2.4.31 Westchester County - Pines Bridge School Interview.....	62
2.4.32 Westchester County - Seven Bridges Middle School Interview.....	62
2.4.33 Westchester County - West Orchard Elementary School Interview.....	63
2.4.34 Westchester County - Woodside Elementary School Interview.....	63
2.4.35 Westchester County - Walden School Interview.....	63
2.4.36 Westchester County - Medical Service Hospital Westchester Medical Center.....	63
2.4.37 Westchester County - Medical Service Transport Trans Care.....	64
Ambulance Service	
2.4.38 Westchester County - Hendrick Hudson School Bus Company Interview.....	64

2.4.39 Westchester County - Hendrick Hudson District School Interviews.....	65
2.4.40 Westchester County - Lakeland School District School Interviews.....	65
2.4.41 Westchester County Croton Bus Company Interview.....	65

## 2.5 SUPPORT JURISDICTIONS

2.5.1 Bergen County Emergency Operations Center.....	65
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APPENDIX 1. ACRONYMS AND ABBREVIATIONS.....	66
APPENDIX 2. EXERCISE EVALUATORS AND TEAM LEADERS.....	69
APPENDIX 3. EXERCISE OBJECTIVES & EXTENT OF PLAY.....	74
APPENDIX 4. EXERCISE SCENARIO.....	107
APPENDIX 5. PLANNING ISSUES.....	110

## LIST OF TABLES

TABLE 1. EXERCISE TIME LINE.....	12
TABLE 2. SUMMARY OF EXERCISE EVALUATIONS.....	16

# **I. Executive Summary**

The Federal Emergency Management Agency, Region II evaluated an exercise on December 3, 2008 and related out of sequence activities in the plume exposure pathway emergency planning zone (EPZ) around the Indian Point Energy Center (IPEC). The purpose of the exercise and out of sequence activities was to assess the level of State and local preparedness in responding to a radiological emergency. The exercise and out of sequence activities were held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans (RERP) and procedures.

The most recent previous exercise at this site was conducted on December 3, 2008. The qualifying emergency preparedness exercise was conducted on March 3, 1982.

FEMA wishes to acknowledge the efforts of the many individuals in New York State; Westchester, Rockland, Orange, and Putnam Counties; and Bergen County, New Jersey who participated in this exercise.

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. The cooperation and teamwork of all participants were evident during this exercise.

This report contains the draft evaluation of the biennial exercise and of the following out-of-sequence activities in Orange, Putnam, Rockland and Westchester counties:

Reception Centers; Congregate Care Centers; Emergency Worker Personnel Monitoring Centers; General and Special Population Bus Companies; School Bus Companies; Traffic Control Points; School Interviews and Medical Drills.

The State and local organizations, except where noted in this report, satisfactorily demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Deficiencies and nine Areas Requiring Corrective Actions (ARCAs) were identified. Two ARCA's have been resolved. Six of the eight ARCA's from the previous 2006 exercise were corrected. Therefore there are eleven ARCAs remaining.

## II. Introduction

On December 7, 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351, and 352. These regulations are a key element in the REP Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

FEMA Rule 44 CFR 350 establishes the policies and procedures for 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 government participation in joint exercises with licensees.

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 the following Federal agencies with responsibilities in the radiological emergency planning process:

- U.S. Department of Commerce,
- U.S. Nuclear Regulatory Commission,
- U.S. Environmental Protection Agency,
- U.S. Department of Energy

- U.S. Department of Agriculture,
- U.S. Department of Transportation
- U.S. Department of Health and Human Services,
- U.S. Department of the Interior,
- U.S. Food and Drug Administration, and
- US Department of Defense

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

Formal submission of the RERPs for the IPEC to FEMA Region II by the State of New York and involved local jurisdictions occurred on October 10, 1991. Formal approval of the RERP was granted by FEMA on May 3, 1996, under 44 CFR 350.

A full-scale REP exercise was evaluated on December 3, 2008 to assess the capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency at the IPEC. The purpose of this exercise report is to present the exercise results and findings on the performance of the offsite response organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with final determinations made by the DHS New York Field Office Branch Chief and RAC Chairperson, and approved by the Acting Director of the Chemical and Nuclear Planning and Protection Division, Office of Infrastructure Protection, DHS.

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

- NUREG-0654/FEMA-REP-1, Rev. 1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” November 1980; and
- Radiological Emergency Preparedness: Exercise Evaluation Methodology,” published in the Federal Register on September 12, 2001, and revised April 25, 2002.



Section III of this report, titled "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of the actual occurrence of key exercise events and activities.

Section IV of this report, titled "Exercise Evaluation and Results," presents information on the demonstration of applicable exercise evaluation areas at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. This section also contains: (1) descriptions of all Deficiencies and Areas Requiring Corrective Action (ARCAs) assessed during this exercise, recommendations for corrective actions, and the State and local governments' schedule of corrective actions for each identified exercise issue, and (2) descriptions of unresolved ARCAs assessed during previous exercises and the status of the Off Site Response Organizations (OROs)' efforts to resolve them.

## **II. Exercise Overview**

Contained in this section are data and basic information relevant to the December 3, 2008 exercise held to test the offsite emergency response capabilities in the area surrounding the IPEC. This section of the exercise report includes a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

### **A. Plume Emergency Planning Zone Description**

The IPEC's 10-mile plume pathway EPZ contains portions of four New York State counties: Orange, Putnam, Rockland, and Westchester.

The IPEC is located on the east bank of the Hudson River about 24 miles north of the New York City boundary line at Indian Point, Village of Buchanan in upper Westchester County, New York. The station is about 0.8 miles southwest of the city of Peekskill, 8.3 miles south of West Point, 1.5 miles northeast of the Lovett Generating Station site, 4.6 miles north of the Bowline Point Generating Station site, and 2.3 miles north of Montrose Point.

The IPEC is accessible by several roads in the Village of Buchanan. Broadway, a two-lane paved road, borders the site to the east and is the primary access road to the site. The Village roads of Bleakley Avenue and First Street enter Broadway across from the eastern site boundary. Additionally, a paved road links the eastern boundary of the site to the plants.

There are no residences within the site boundary. In addition, there are no public highways or railroads that traverse the site area.

The IPEC is surrounded on almost all sides by high ground ranging from 600 to 1,000 feet above sea level. The site is on the east bank of the Hudson River which runs northeast to southwest at this point but turns sharply northwest approximately two miles northeast of the site.

The west bank of the Hudson is flanked by the steep, heavily wooded slopes of the Dunderberg Mountain and to then northwest (elevations 1,086 feet and 1,257 feet respectively) and Buckberg Mountain to the west-southwest (elevation 793 feet). These peaks extend to the west by other names and gradually rise to slightly higher peaks.

The general orientation of this mass of high ground is northeast to southwest. One mile northwest of the site, Dunderberg Mountain bulges to the east; north of Dunderberg and the site, high ground reaching 800 feet forms the east bank of the Hudson as the river makes a sharp turn to the northwest. To the east of the site, peaks are generally lower than those to the north and west. The Spitzenberg and Blue Mountains average about 600 feet in height and there is a weak, poorly defined series of ridges that again run mainly in a north-northeast direction. The river south of the site makes another sharp bend to the southeast and then widens as it flows past Croton and Haverstraw.

The IPEC is approximately 239 acres in size and contains three pressurized water reactors: Unit 1 (615 MWt, 265 MWe, de-fueled), Unit 2 (2,758 MWt, 873 MWe), and Unit 3 (3,025 MWt, 965 MWe). Indian Point Unit 3 is adjacent to and south of Unit 1 and Unit 2 is to the north of Unit 1. The two operating units, #'s 2 and 3, were designed by the Westinghouse Electric Corporation. Indian Point Unit 1 was decommissioned and defueled in 1974.

IPEC's pressurized water nuclear power plants each contain a nuclear reactor and closed loops of pressurized water that remove the heat energy from the reactor core and transfer the energy to a secondary water system that generates steam. The steam, in turn, drives a turbine generator set which produces electric power.

## **B. Exercise Participants**

The following agencies, organizations, and units of government participated in the Indian Point 3 exercise on December 3, 2008.

### **Federal Agencies**

US Military Academy at West Point

### **State Jurisdictions**

New York State Division of Military and Naval Affairs

New York State Department of Agriculture and Markets

New York State Department of Environmental Conservation

New York State Department of Health

New York State Department of Highways

New York State Department of Social Services

New York State Department of Transportation

New York State Emergency Management Office

New York State Emergency Medical Services Coordinator

New York State Office of Fire Prevention and Control

New York State Park Police

New York State Public Service Commission

New York State Police

New York Thruway Authority

New York State Office of General Services

NYS Energy Research and Development Authority

State University of New York

New York State Office of the Aging

New York State Office of Human Services

New York State Education Department

New York State Department of Labor

New York State Office of Mental Health

New York State Division of Criminal Justice Services

## **Risk Jurisdictions**

### **Orange County**

Orange County Commission on Aging  
Orange County Commissioner on Emergency Services  
Orange County Commissioner on Finance  
Orange County Commissioner on Fire Services  
Orange County Commissioner on Mental Health  
Orange County Commissioners on Health  
Orange County Commissioners on Social Services  
Orange County Department of Health  
Orange County Department of Public Works, Buildings and Grounds  
Orange County Department of Social Services  
Orange County District Attorney's Office  
Orange County Division Budget  
Orange County Division of Emergency Management  
Orange County Division of Environmental Health  
Orange County Division of Fire Services  
Orange County Executive Office  
Orange County Health Department  
Orange County Maintenance  
Orange County Sheriff's Office

### **Putnam County**

Putnam County Bureau of Emergency Services  
Putnam County Department of Highways and Facilities  
Putnam County Department of Social Services  
Putnam County Deputy County Executive  
Putnam County Division of Mental Health  
Putnam County Office for Aging  
Putnam County Patient Services  
Putnam County Schools  
Putnam County Sheriff's Department

### **Rockland County**

Rockland Board of Cooperative Education Services  
Rockland County Sheriff's Department  
Rockland County Community College  
Rockland County Clerk's Office

Rockland County Department of Finance and Administration  
Rockland Board of Cooperative Education Services  
Rockland County Sheriff's Department  
Rockland County Community College  
Rockland County Clerk's Office  
Rockland County Department of Finance and Administration  
Rockland County Department of Health  
Rockland County Purchasing Department  
Rockland County Department of Law  
Rockland County Department of Highways  
Rockland County Department of Hospitals  
Rockland County Department of Mental Health  
Rockland County Department of Planning  
Rockland County Department of Public Transportation  
Rockland County Department of Social Services  
Rockland County Division of Environmental Resources  
Rockland County Executive's Office  
Rockland County Facilities Management  
Rockland County Fire and Emergency  
Rockland County Fire Training Center  
Rockland County Legislature  
Rockland County Management Information Systems  
Rockland County Office of Consumer Protection, Weights, and Measures  
Rockland County Department of General Services  
Rockland County Planning Board  
Rockland County Sewer District, Sparkill  
Rockland County Sheriff

**Westchester County**

Westchester County Bureau of Labor  
Westchester County Commissioner  
Westchester County Department of Consumer Protection  
Westchester County Department of Emergency Services  
Westchester County Department of Health  
Westchester County Department of Information Technology  
Westchester County Department of Parks  
Westchester County Department of Planning  
Westchester County Department of Public Services  
Westchester County Department of Public Works  
Westchester County Department of Social Services

Westchester County Department of Transportation  
Westchester County Executive Office  
Westchester County Geographical Information Services  
Westchester County Office of Hispanic Affairs  
Westchester County Police Department  
Westchester County Senior Services  
Westchester County Office of Hispanic Affairs  
Westchester County Police Department  
Westchester County Senior Services

**Support Jurisdictions**

Clarkstown Police Department  
Connecticut Department of Emergency Management and Homeland Security  
Grassland Fire Brigade  
New Castle Police Department  
New Jersey Department of Environmental Protection, Bureau of Nuclear Energy  
New Jersey Office of Emergency Management  
New Jersey State Police  
South Orangetown Volunteer Ambulance  
Stony Point Police Department

**Bergen County**

Bergen County Hazardous Materials Personnel  
Bergen County Office of Emergency Management

**Private /Volunteer Organizations**

American Red Cross  
Cornell Cooperative Extension  
Entergy Nuclear Northeast  
Gilbert H. Cosnett & Associates  
Peter Brega Bus Company  
Radio Amature Civil Emergency Services  
Student Bus Company, Inc.  
Salvation Army  
Transcare Ambulance Service

United Water Agency  
Westchester Medical Center  
WHUD Radio Station staff

**Federal Jurisdictions**

US Military Academy at West Point  
Nuclear Regulatory Commission



## **C. Exercise Timeline**

Table 1, on the following page, presents the time at which key events and activities occurred during the Indian Point Exercise on December 3, 2008. Also included are times notifications were made to the participating jurisdictions/functional entities.

**Table 1 - Exercise Timeline**  
**DATE: 2008-12-03, SITE: Indian Point, NY**

Emergency Classification Level or Event	Time Utility Declared	NYSEOC	IP JIC	IP EAS WHUD	OC EOC	PC EOC	RC EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Site Area Emergency	0853	0858	0931	0935	857	0900	0900
General Emergency	1052	1052	1100	1129	1052	1102	1104
Simulated Rad. Release Started	1220	1224	1231	1229	1228	1225	1225
Simulated Rad. Release Terminated	1455	1500	1509	N/A	1455	1455	1501
Facility Declared Operational		0915	1020	0830	0939	1024	0935
Declaration of State of Emergency		N/A	N/A	N/A	0945	0917	0940
Exercise Terminated		1518	1509	1515	1508	1508	1520
Early Precautionary Actions:		0915	1016	N/A	0945	0918	0916
"Heads Up" Siren Activation		0935	0935	0935 (call)	0935	0935	0935
"Heads Up" EAS Message		0939	0939	0939	0939	0939	0939
1st Protective Action Decision: Shelter		1125	---	1129	1103	1103	1111
1st Protective Action Decision: Evacuate		1125	1140	1129	1103	1103	1111
1st Siren Activation		1127	1125	1125	1127	1127	1127
1st EAS or EBS Message		1131	1125	1129	1131	1131	1131
2nd Protective Action Decision: Shelter		1220	---	1220 (fax only)	N/A	1220	1220
2nd Protective Action Decision: Evacuate		1220	1220	1220 (fax only)	1156	1220	1220
2nd Siren Activation		1222	1220	1222 (fax only)	1222	1222	1222
2nd EAS or EBS Message		1226	1220	1226 (fax only)	1226	1226	1226
3rd Protective Action Decision: Shelter		1241	---	1249 (fax only)	N/A	1225	1241
3rd Protective Action Decision: Evacuate		1241	1242	1249 (fax only)	1241	1225	1241
3rd Siren Activation		1243	1242	1249 (fax only)	1243	1243	1243
3rd EAS or EBS Message		1247	1242	1249 (fax only)	1247	1247	1247
4th Protective Action Decision: Shelter		N/A	---	---	N/A	---	---
4th Protective Action Decision: Evacuate		1349	1358	---	N/A	1354	1355
4th Siren Activation		1357	1358	---	1357	1357	1357
4th EAS or EBS Message		1401	1358	---	1401	1401	1401
KI Administration Decision		1058	1140	1135	1103	1113	1111

**Table 1 - Exercise Timeline**  
**DATE: 2008-12-03, SITE: Indian Point, NY**

Emergency Classification Level or Event	Time Utility Declared	WC EOC	BC EOC
Unusual Event	N/A	N/A	N/A
Alert	N/A	N/A	N/A
Site Area Emergency	0853	0856	0923
General Emergency	1052	1052	1100
Simulated Rad. Release Started	1220	1222	1234
Simulated Rad. Release Terminated	1455	1500	---
Facility Declared Operational		1000	0915
Declaration of State of Emergency		0930	1105
Exercise Terminated		1500	1305
Early Precautionary Actions:		0940	---
"Heads Up" Siren Activation		0935	N/A
"Heads Up" EAS Message		0939	N/A
1st Protective Action Decision: Shelter		1125	N/A
1st Protective Action Decision: Evacuate		1125	N/A
1st Siren Activation		1127	N/A
1st EAS or EBS Message		1131	N/A
2nd Protective Action Decision: Shelter		1220	N/A
2nd Protective Action Decision: Evacuate		1220	N/A
2nd Siren Activation		1222	N/A
2nd EAS or EBS Message		1226	N/A
3rd Protective Action Decision: Shelter		1241	N/A
3rd Protective Action Decision: Evacuate		1241	N/A
3rd Siren Activation		1243	N/A
3rd EAS or EBS Message		1247	N/A
4th Protective Action Decision: Shelter		---	N/A
4th Protective Action Decision: Evacuate		1354	N/A
4th Siren Activation		1357	N/A
4th EAS or EBS Message		1401	N/A
KI Administration Decision		1111	N/A

## **IV. 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 December 3, 2008 exercise and associated out of sequence demonstrations to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the IPEC.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of criteria contained in the September 12, 2001, Federal Register Notice (revised April 25, 2002). Detailed information on the exercise criteria and the extent-of-play agreement used in this exercise are found in Appendix 3 of this report.

### **A. Summary Results of Exercise Evaluation**

The matrix presented in Table 2, on the following pages, presents the status of the exercise evaluation area criteria from the FEMA REP Exercise Evaluation Methodology that were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise evaluation area criteria are listed by number and the demonstration status of the criteria is indicated by the use of the following letters:

M – Met (No Deficiency or ARCAs assessed and no unresolved ARCAs from prior exercises)

D – Deficiency assessed

A – ARCA(s) assessed

N – Not Demonstrated (Reason explained in Subsection B)

U – Unresolved ARCA(s) from prior exercises

Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		NYSEOC	Licensee - EOF	NYSAA	NYS EWPMC TSR	NYS-WC EWPMC	IP JIC	IP JIC BRIEF	IP JIC PI	IP EAS WHUD	NYS CC	OC EOC
Emergency Operations Management												
Mobilization	1a1	M	M				M				M	M
Facilities	1b1	M				M						M
Direction and Control	1c1	M	M				M				M	M
Communications Equipment	1d1	M	M		M		M			M	M	M
Equip & Supplies to support operations	1e1	M	M				M				M	M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1			M								
Radiological Assessment and PARs	2b1			M								
Decisions for the Plume Phase -PADs	2b2	M										M
PADs for protection of special populations	2c1	M										M
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and 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	M						
Implementation of protective actions for special populations - EOCs	3c1	M										M
Implementation of protective actions for Schools	3c2											M
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		A
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											M
Emergency information and instructions for the public and the media	5b1	M					M	M	M		M	M
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1				M	M						
Mon / decon of emergency worker equipment	6b1				M	M						
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Table 2 - Summary of Exercise Evaluation

<p>DATE: December 3, 2008 SITE: Indian Point Energy Center, NY</p> <p>M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>		OC AA	OC FMT1	OC FMT2	OC GPRC MHS	OC GPBC WPT	OC SBC WPT HF	OC SI FMES	OC CCC MHS	OC MST COVAC	OC MSH SLCH	OC TCP
Emergency Operations Management												
Mobilization	1a1		M	M								
Facilities	1b1											
Direction and Control	1c1											
Communications Equipment	1d1		M	M								
Equip & Supplies to support operations	1e1											
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1	M										
Radiological Assessment and PARs	2b1	M										
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	2c1											
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and 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	A	M
Implementation of KI decision	3b1	M	M	P	M	M	M			M		M
Implementation of protective actions for special populations - EOCs	3c1											
Implementation of protective actions for Schools	3c2							M				
Implementation of traffic and access control	3d1											M
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		M	P								
Field Teams obtain sufficient information	4a2	M										
Field Teams Manage Sample Collection Appropriately	4a3		M	M								
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 emergency workers, and registration of evacuees	6a1				M							
Mon / decon of emergency worker equipment	6b1				M							
Temporary care of evacuees	6c1								M			
Transportation and treatment of contaminated injured individuals	6d1									M	P	

Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		OC	EW	PMC	OUB		PC	WP		PC	EOC		PC	AA		PC	FMT A		PC	FMT B		PC	GPRC	CHS		PC	SRC	KPS		PC	GPBC	HCSD		PC	SBC	HCSD		PC	SI	HCSD			
Emergency Operations Management																																											
Mobilization	1a1							M		M						M		M																									
Facilities	1b1																																										
Direction and Control	1c1									M																																	
Communications Equipment	1d1							M		M						M		M																									
Equip & Supplies to support operations	1e1							M		M																																	
Protective Action Decision Making																																											
Emergency Worker Exposure Control	2a1												M																														
Radiological Assessment and PARs	2b1												M																														
Decisions for the Plume Phase -PADs	2b2									M																																	
PADs for protection of special populations	2c1									M																																	
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1																																										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1																																										
Protective Action Implementation																																											
Implementation of emergency worker exposure control	3a1		M													M		M		M		M		M		M										M		M		M		M	
Implementation of KI decision	3b1		M										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		M
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																M		M																								
Field Teams obtain sufficient information	4a2												M																														
Field Teams Manage Sample Collection Appropriately	4a3																M		M																								
Post plume phase field measurements and sampling	4b1																																										
Laboratory operations	4c1																																										
Emergency Notification and Public Info																																											
Activation of the prompt alert and notification system	5a1									M																																	
Activation of the prompt alert and notification system - Fast Breaker	5a2																																										
Activation of the prompt alert and notification system - Exception areas	5a3									M																																	
Emergency information and instructions for the public and the media	5b1									A																																	
Support Operations/Facilities																																											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1		M																																								
Mon / decon of emergency worker equipment	6b1		M																																								
Temporary care of evacuees	6c1																																										
Transportation and treatment of contaminated injured individuals	6d1																																										

Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		PC SI NANS	PC SI PVDC	PC SI SPNS	PC MST CVAC	PC MS PHC	PC TCP	RC WP	RC EOC	RC AA	RC FMT1
Emergency Operations Management											
Mobilization	1a1							M	M		M
Facilities	1b1										
Direction and Control	1c1								M		
Communications Equipment	1d1								M		M
Equip & Supplies to support operations	1e1								M		
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1									M	
Radiological Assessment and PARs	2b1									M	
Decisions for the Plume Phase -PADs	2b2								P		
PADs for protection of special populations	2c1								M		
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1				M	M	M			M	M
Implementation of KI decision	3b1				M		M			M	M
Implementation of protective actions for special populations - EOCs	3c1								M		
Implementation of protective actions for Schools	3c2	M	M	M					M		
Implementation of traffic and access control	3d1						M		M		
Impediments to evacuation are identified and resolved	3d2								M		
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										M
Field Teams obtain sufficient information	4a2									M	
Field Teams Manage Sample Collection Appropriately	4a3										M
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1								M		
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3								M		
Emergency information and instructions for the public and the media	5b1								M		
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1				M	M					



Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		RC FMT2	RC GPRC PRHS	RC GPBC CCSD	RC GPBC ERCSD	RC SBC CCSD	RC SBC ERCSD	RC MST SHAC	RC MSH GSH	RC TCP	RC EWPMC
Emergency Operations Management											
Mobilization	1a1	M									
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1	M									
Equip & Supplies to support operations	1e1		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 the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	M	M	M	M	M	M	M	M	M	A
Implementation of KI decision	3b1	P	M	M	M	M	M			M	M
Implementation of protective actions for special populations - EOCs	3c1			M	M		M				
Implementation of protective actions for Schools	3c2					M					
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	M									
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3	M									
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 emergency workers, and registration of evacuees	6a1		M								M
Mon / decon of emergency worker equipment	6b1										M
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1							M	M		

Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		WC WP	WPCC	WC EOC	WC AA	WC FMTHD1	WC FMTHD2	WC CC	WC GPBC CB	WC SBC BMDS	WC SBC CB
Emergency Operations Management											
Mobilization	1a1	P		M		M	M	M			
Facilities	1b1										
Direction and Control	1c1			M							
Communications Equipment	1d1	M		M		M	M	M			
Equip & Supplies to support operations	1e1			M				M			
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1				M						
Radiological Assessment and PARs	2b1				M						
Decisions for the Plume Phase -PADs	2b2			M							
PADs for protection of special populations	2c1			M							
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1				M	M	M		M	M	M
Implementation of KI decision	3b1				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							
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					M	M				
Field Teams obtain sufficient information	4a2				A						
Field Teams Manage Sample Collection Appropriately	4a3					P	M				
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1	M		M							
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3			M							
Emergency information and instructions for the public and the media	5b1		M	M				M			
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		WC SBC HHB	WC SBC LB	WC SI AMDMS	WC SI REC	WC SI YHC	WC SI BHS	WC SI BMS	WC SI BES0	WC SI CETES	WC SI CES
Emergency Operations Management											
Mobilization	1a1										
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1										
Equip & Supplies to support operations	1e1										
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 the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	P	M								
Implementation of KI decision	3b1	M	M								
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M	M	M	M	M
Implementation of traffic and access control	3d1										
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 emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		WC SI CHHS	WC SI FMS	WC SI HES	WC SI OES	WC SI OHS	WC SI PECC	WC SI PHS	WC SI PMS	WC SI P/CMS	WC SI PBS
Emergency Operations Management											
Mobilization	1a1										
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1										
Equip & Supplies to support operations	1e1										
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 the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1										
Implementation of KI decision	3b1										
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M	M	M	M	M
Implementation of traffic and access control	3d1										
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 emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation

DATE: December 3, 2008 SITE: Indian Point Energy Center, NY  M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		WC SI SBMS	WC SI TES	WC SI WS	WC SI WOES	WC SI WES	WC SI YCHS	WC MST TCAS	WC MSH WMC	WC TCP	BC EOC
Emergency Operations Management											
Mobilization	1a1										M
Facilities	1b1										
Direction and Control	1c1										M
Communications Equipment	1d1										M
Equip & Supplies to support operations	1e1										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 the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1							A	M	M	
Implementation of KI decision	3b1							M	M	M	
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M				M
Implementation of traffic and access control	3d1									M	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 emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1							M	P		

## B. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating jurisdiction and functional entity, in a jurisdiction-based, issues-only format. Presented below is a definition of the terms used in this subsection relative to objective demonstration status.

**Met** - Listing of the demonstrated exercise evaluation criteria under which no Deficiencies or ARCAs were assessed during this exercise and under which no ARCAs assessed during prior exercises remain unresolved.

**Deficiency** - Listing of the demonstrated exercise evaluation criteria under which one or more Deficiencies were assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.

**Area Requiring Corrective Actions** - Listing of the demonstrated exercise evaluation criteria under which one or more ARCAs were assessed during the current exercise or ARCA's assessed during prior exercises remain unresolved. Included is a description of the ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise.

**Not Demonstrated** - Listing of the exercise evaluation criteria which were not demonstrated as scheduled during this exercise and the reason they were not demonstrated.

**Prior ARCAs - Resolved** - Description of ARCA's assessed during previous exercises which were resolved in this exercise and the corrective actions demonstrated.

**Prior ARCAs - Unresolved** - Description of ARCA's assessed during prior exercises which were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues which are discussed in this report.

A Deficiency is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that off site 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."

An ARCA is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself to have adverse impact public health and safety."

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

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

**Plant Site Identifier Codes** - A two-digit number corresponding to the Utility Billable Plant Site.

**Exercise Year** - The last two digits of the year the exercise was conducted.

**Evaluation Area Criterion** - A letter and number corresponding to the criteria in the FEMA REP Exercise Evaluation Methodology.

**Issue Classification Identifier** - (D = Deficiency, A = ARCA). Only Deficiencies and ARCAs are included in exercise reports.

**Exercise Issue Identification Number** - A separate two (or three) digit indexing number assigned to each issue identified in the exercise.

# **1. New York State**

## **1.1 New York State - Emergency Operations Center**

- a. MET:** 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 2.c.1, 3.c.1, 5.a.1, 5.b.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

## **1.2 Licensee Emergency Operations Facility**

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

## **1.3 New York State - Accident Assessment**

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

## **1.4 New York State - (Personnel Monitoring Center Townline Sub-Residence October 8, 2009)**

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



## **1.5 Indian Point - Joint Information Center**

- a. MET:** 1.a.1, 1.c.1, 1.d.1, 1.e.1, 5.a.1, 5.b.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES: - RESOLVED:** ONE

**ISSUE NO:** 32-06-1.d.1-A-01

**ISSUE:** During the media briefings held at 0934 and 1201, spokespersons from the State, Westchester County, the Moderator and Representatives from Putnam, Orange and Rockland counties experienced audio transmission drop - out and static which interfered with the transmission of spoken information from the Media Briefing Room at the Joint Information Center and the Media Briefing areas in Putnam, Orange and Rockland Counties. A back-up communication bridge was available but not used.

**CORRECTIVE ACTION DEMONSTRATED:** During the December 3, 2008 exercise no transmission failures were noted and this ARCA has been corrected.

- f. PRIOR ISSUES - UNRESOLVED:** NONE

## **1.6 Indian Point - Joint Information Center Briefings**

- a. MET:** 5.b.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

## **1.7 Indian Point - Joint Information Public Inquiry**

- a. MET: 5.b.1**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

## **1.8 Indian Point - EAS Station - WHUD**

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

## **1.9 State of New York - Call Center**

- 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. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

## **2.0 State of New York - Westchester County Emergency Worker Personnel Monitoring Center (July 9, 2009)**

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

## **2. Risk Jurisdictions**

### **2.1 ORANGE COUNTY**

#### **2.1.1 Orange County - Emergency Operations Center**

**a. MET:** 1.a.1, 1.b1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 5.b.1  
2.c.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.3

**b. AREAS REQUIRING CORRECTIVE ACTION: TWO**

**ISSUE NO:** 32-08-5.a.1-A-01

**CONDITION:** During the preparation of the third EAS message, there was confusion between Orange County and the State EOC. The OCEOC listed specific instructions and areas to be evacuated and announced in the EAS.

These areas are mentioned in OC's Evacuation Plans. The State EOC was more general in the writing of the EAS. For example, instead of writing "Town of Cornwall East of Rt. 32 is to be evacuated" the State EOC wrote "Town of Cornwall is to be evacuated. " This would have the effect of directing members of the of the public outside the 10-mile EPZ to evacuate.

The State mentioned there was an issue with their pre-scripted EAS messages. The OCEOC advised the State EOC to review the county's Radiological Emergency Response Plans for specific localities and area descriptions in the Orange County portion of the 10-mile EPZ. The discussions between the OCEOC and the State to correct the EAS message delayed its release and also delayed the sounding of the sirens, possibly putting members of the public at risk.

**POSSIBLE CAUSE:** The State did not review the locations and boundary limits for all localities within the 10-mile EPZ for Orange County prior to drafting EAS messages. They may not have the updated and correct pre-scripted EAS messages.

**REFERENCE:** NUREG-0654, E.5.6.7.

**EFFECT:** If the State's original EAS message had been broadcast, some of the public outside the 10 - mile EPZ would have been incorrectly advised to evacuate and incorrectly advised to take KI (which they do not have). This could have led to general confusion as to who should evacuate and who should stay behind. The delay of the sirens while the text of the EAS message was corrected could have put people in the EPZ at risk.

**RECOMMENDATION:** The NY State Emergency Management Agency should work with Orange County personnel to be sure that the EPZ area information is accurate, and that pre-scripted EAS messages are clear.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated, biennial exercise.

**ISSUE NO:** 32-08-5.a.1-A-02

**CONDITION:** The Joint Information Center's web page on New York Alert posted two Information Alerts for the general public at 1222 and 1243. In each case the counties and the specific localities evacuated were listed, with areas to be evacuated shown in bold-face type. However, unlike the other three counties, the Orange County list was divided into two sections. Some areas were listed in the bolded section under Orange County. Other towns/villages were listed in plain text in a paragraph format within the text of the document.

**Example – in bolded text:**

**Orange County:**

**Bear Mountain State Park**

**West Point**

**Highlands**

**Example** – in unbolded text/paragraph format:

“Orange County orders additional evacuation of these areas; Village of Harriman East of the NYS Thruway, Village of Woodbury East of NYS Thruway...”

If this had been an actual emergency, members of the public may not have seen the “additional areas” to be evacuated if they did not completely read, and understand the on-line bulletins.

**POSSIBLE CAUSE:** The JIC and NY Alert did not clearly list all areas to be evacuated in a single list.

**REFERENCE:** NUREG-0654, E.5, 6, 7

**EFFECT:** If this had been an actual emergency, members of the public may not have seen the additional areas that were to be evacuated, but which were not presented in boldface type in the Information Alert message posted on NY Alert like the other areas indicated. This would have placed members of the public at risk if they did not see the complete areas to be evacuated because some members of the public who should have evacuated might have stayed within the 10-mile EPZ

**RECOMMENDATION:** Ensure that all information regarding areas to be evacuated is presented clearly in printed and posted materials, including the JIC website.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated, biennial exercise.

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - RESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.1.2 Orange County - Accident Assessment**

- a. MET:** 2.a.1, 2.b.1, 3.a.1, 3.b.1, 4.a.2
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.1.3. Orange County - Field Monitoring Team 1**

- a. MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.1.4 Orange County - Field Monitoring Team 2**

- a. MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.1.5 Orange County - (General Population Reception Center Middletown High School - September 10, 2008)**

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

### **2.1.6. Orange County - (General Population Bus Company West Point Tours Highland Falls - Feb. 7, 2008)**

- a. MET:** 3.a.1, 3.b.1
- b. AREAS REQUIRING:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. RIOR ISSUES - UNRESOLVED:** NONE

**2.1.7 Orange County - School Bus Company - (West Point Tours  
Highland Falls - February 7, 2008)**

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

**2.1.8 Orange County - School Interview  
(Fort Montgomery Elementary School - January 23, 2008)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.1.9 Orange County - Congregate Care Center  
(Middletown High School - September 23, 2008)**

- a. MET: 6.c.1**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.1.10 Orange County - Medical ServicesTransport  
(Mobile Life Support Services - May 28, 2009)**

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

### **2.1.11 Orange County - Medical Services Hospital (St Lukes Cornwall Hospital - May 28, 2009)**

**a. MET:** 6.d.1

**b. AREAS REQUIRING CORRECTIVE ACTION:** ONE

**ISSUE NO:** 32-08-3.a.1-A-03

**CONDITION:** The procedure for St. Luke's Cornwall Hospital does not adequately address exposure control for emergency workers. Radiology Policy and Procedure Number IP 1018 does not include procedures for using dosimetry, administrative reporting limits, or a decision chain for replacing emergency workers. During the event, workers were questioned regarding their dose limits. Workers reported that the dose limit was 5 R, with a reporting level of 1 R. If increasing levels of exposure were noted on the DRDs, then the Radiological Safety Officer (RSO) would be consulted and would be responsible for replacing workers if necessary. This information was covered in the training session, but is not included in the procedures. Additionally, since they used a 200 mR DRD, the DRD would have to be re-zeroed four times before reaching the administrative reporting level of 1 R.

**POSSIBLE CAUSE:** St. Luke's Cornwall Hospital Radiology Policy and Procedure Number IP 1018 does not provide guidance to continually monitor and control emergency worker exposure, and the dosimetry provided would be awkward to use as the dose level approached the administrative level of 1R because of its low reading value (200 mR).

**REFERENCE:** NUREG-0654 K 3.a.,b.

**EFFECT:** Without a procedure to continually monitor and control emergency worker exposure, which includes setting administrative dose limits, a worker may potentially receive unwarranted radiation exposure that is potentially harmful to human health. Additionally, having to re-zero a 200 mR dosimeter 4 times before reaching the administrative reporting level of 1 mR would cause further delay and exposure.



**RECOMMENDATION:** The procedure needs revision to include guidance on use of dosimetry, administrative dose limits, and designate an individual who is responsible for managing worker exposure control. Also, provision of higher-reading (0-20 R) self reading dosimeters in addition to the 200 mR's should be considered. Personnel should be trained on the revised procedure.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated, biennial exercise.

- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

**2.1.12 Orange County - Medical Services Hospital  
(St Lukes Cornwall Hospital - Oct. 17, 2007)**

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

**2.1.13 Orange County - Medical Services Transport  
(Cornwall Volunteer Ambulance Corps. - Oct. 17, 2007)**

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

**2.1.14 Orange County - (Emergency Worker Personnel Monitoring Center - Orange-Ulster Boces - Nov. 13, 2008)**

- a. MET:** 3.a.1, 3.b.1, 6.a.1, 6.b.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. PRIOR ISSUES - RESOLVED:** NONE
- e. PRIOR ISSUES - UNRESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

**2.1.15 Orange County - Traffic Control Point**

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

## **2.2 PUTNAM COUNTY**

### **2.2.1 Putnam County - Warning Point**

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

### **2.2.2 Putnam County - Emergency Operations Center**

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

**ISSUE NO:** 32-08-5.b.1-A-04

**CONDITION:** Several Emergency Alert System (EAS) Follow-On messages that had been approved for publication by the Putnam County leadership were not published in the NY-Alert system.

**POSSIBLE CAUSE:** The Putnam County public information supervisory staff apparently did not verify directly in the NY-Alert system and the EAS/News Release Log Book if EAS Follow-On messages approved by the Putnam County leadership had in fact been published in the system and documented in the log. This was possibly because of insufficient and/or inadequate training from the New York State Emergency Management Office (NYSEMO) in the use of the NY-Alert system.

**REFERENCE:** NUREG-0654, E.5 and E.7.; Putnam County Radiological Emergency Response Plan, Putnam Public Information Procedure, August 1, 2008.

**EFFECT:** Lack of updated emergency information for the public in the NY-Alert system.

**RECOMMENDATION:** Putnam County should coordinate with NYSEMO to provide additional training in the use of the NY-Alert system, and to provide additional training to its emergency management leadership and JIC Workroom staff regarding the county Public Information Procedure. In particular, the training should address the need to verify directly in the NY-Alert system that messages that have been approved for distribution are in fact published. The training should also address the need to review the content of EAS follow-on messages to ensure consistency with the associated EAS message. NYSEMO should coordinate with Putnam County and other users to review its NY-Alert system to identify opportunities to streamline the process of drafting, publishing, and archiving messages.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated, biennial exercise.

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - RESOLVED:** TWO

**ISSUE NO:** 75-06-5.a.3-A-02

**ISSUE:** The Putnam County Sheriff's Department EOC representative did not follow up on the time it took to complete backup route alerting that was performed (simulated) following a report of siren failures when the Emergency Classification Level was at Alert. The requirement for backup route alerting is that it be completed within 45 minutes from when a siren failure is detected by the ORO (per NUREG-0654, E.6, Appendix 3.B.2.c).

**CORRECTIVE ACTION DEMONSTRATED:** Putnam County currently uses a high speed telephone emergency notification system known as Code RED to provide back-up to the new siren system to alert and notify residents located within the Indian Point Energy Center (IPEC) Emergency Planning Zone (EPZ). During the exercise Putnam County successfully demonstrated the ability to provide timely back-up alert and notification by delivering a prerecorded test message using its new Code RED system. For the purposes of the exercise, the Code RED system was demonstrated concurrently with the first siren activation.

**ISSUE NO:** 75-06-5.b.1-A-03

**ISSUE:** The Putnam County Public Information Officer (PIO)/Joint Information Center (JIC) Work room did not receive operations information of significant public relevance in a timely manner. As a result, in some cases, inaccurate information was presented during media briefings and, in other cases, there were delays in making up-to-date information available to the media and the public. Because the lead PIO for the county was also the EOC Operations Officer, some public and media inquiries that were successfully handled by the EOC Operations Officer did not get relayed to the EOC Emergency Information Coordinator and the PIO/JIC Work room was not made aware of these inquiries.

**CORRECTIVE ACTION DEMONSTRATED:** Putnam County demonstrated effective and timely flow of critical information between the EOC operations staff and the JIC Workroom. During the exercise, the Public Information Administrator located in the JIC Work room maintained frequent communication via telephone with the Emergency Information Coordinator/Public Information lead located in the EOC. Additionally, the Public Information Administrator periodically reviewed new information posted by EOC staff on the Putnam County EOC information management system (EOC Commander) and proactively engaged the Emergency Information Coordinator/Public Information lead regarding new and evolving activities to ensure that, as appropriate, the current status of Putnam County's actions could be promptly addressed in press releases and conveyed to the spokesperson, who participated in the Virtual JIC.

**f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.2.3 Putnam County - Accident Assessment**

**a. MET:** 2.a.1, 2.b.1, 3.a.1, 3.b.1, 4.a.2

**b. AREAS REQUIRING CORRECTIVE ACTION:** NONE

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - UNRESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

## **2.2.4 Putnam County - Field Monitoring Team Alpha**

- a. MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** TWO

**ISSUE NO:** 75-06-3.a.1-A-04

**ISSUE:** The Putnam County Field Monitoring Teams (FMTs) were directed, at 11:35 a.m., to take KI in response to the declaration of a General Emergency at Indian Point. The FMTs were never informed that a radioactive release had occurred and were not directed to don protective clothing (to be simulated). This is in direct contradiction to the requirements in the Putnam County Radiological Emergency Response Plan, Section 3.4 (p. 4-41), which states, "team members will be directed to don protective clothing when the following three conditions are met: (1) A General Emergency has been declared, (2) there has been a release of radioactive material from the site and (3) the wind is blowing from the site toward Putnam County." Since these conditions were met in the scenario, the direction to the FMTs to dress in Anti-Contamination clothing should have been given concurrent with the notice to ingest KI, but was omitted from the radio - communicated notice.

**CORRECTIVE ACTION DEMONSTRATED:** Putnam County Field Monitoring Teams were informed that a radiological release had occurred and were directed to don protective clothing (simulated) as required per the Putnam County Radiological Emergency Response Plan. Putnam County Field Monitoring Teams did successfully demonstrate this criterion, with no additional issues identified.

**ISSUE NO:** 75-06-4.a.3-A-05

**ISSUE:** Putnam County Field Team Alpha did not take radiation exposure rate readings at the 5 minute mark and at the completion of the air sampling. These additional exposure rate surveys are called for in Step 1.6 of the Airborne Survey Techniques method (Putnam County Radiological Emergency Response Plan, Procedure 4, Radiological Officer, p. 4-68).

**CORRECTIVE ACTION DEMONSTRATED:** This ARCA was successfully demonstrated during the 2008 exercise by Putnam County Field Teams. Putnam County Field Teams did take radiation exposure readings at the beginning, 5 minute mark and at the completion of the air sampling as required per the Putnam County Radiological Emergency Response Plan during the exercise.

**f. PRIOR ISSUES - UNRESOLVED:** NONE

#### **2.2.5 Putnam County - Field Monitoring Team Bravo**

**a.MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3

**b.AREAS REQUIRING CORRECTIVE ACTION:** NONE

**c.DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - RESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

#### **2.2.6 Putnam County - School Reception Center (Kent Primary School - April 25, 2008)**

**a. MET:** 3.c.2

**b. AREAS REQUIRING CORRECTIVE ACTION:** NONE

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED::** NONE

**e. PRIOR ISSUES - RESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

#### **2.2.7 Putnam County - General Population Bus Company (Haldane Central School District - November 16, 2008)**

**a. MET:** 3.a.1, 3.b.1, 3.c.1

**b. AREAS REQUIRING CORRECTIVE ACTION:** NONE

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - RESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

**2.2.8 Putnam County - School Interview  
(Haldane Central School District - November 16, 2008)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.2.9 Putnam County - School Bus Company  
(Haldane Central School District - November 13, 2008)**

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

**2.2.10 Putnam County - School Interview  
(Noahs Ark Nursery School - November 13, 2008)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.2.11 Putnam County - School Interview  
(Putnam Valley Day Care - November 6, 2008)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**



**2.2.12 Putnam County - School Interview  
(St. Phillips Nursery School - November 8, 2008)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.2.13 Putnam County - Medical Services Transport  
(Carmel Volunteer Ambulance Company - May 16, 2008)**

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

**2.2.14 Putnam County - Medical Services Hospital  
(Putnam Hospital Center - May 16, 2008)**

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

## **2.2.15 Putnam County - Traffic Control Point**

- a. MET:** 3.a.1, 3.b.1, 3.d.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** TWO

**ISSUE NO:** 75-06-3.d.1-A-08

**ISSUE:** During the Indian Point Energy Center (IPEC) radiological emergency response exercise on November 14, 2006, the Putnam County Emergency Management Agency provided two Putnam County Sheriff's Department management personnel for interviews to demonstrate the extent of play with regard to the ability to provide staffing at traffic and access control points (TCP/ACP). The intent of the extent of play interviews was to determine if personnel who normally would staff TCP/ACPs had adequate knowledge and training to fulfill these functions. The management personnel provided, who were both sergeants and playing as the Sheriff's Department representatives at the EOC, did not meet the intent of the extent of play.

**CORRECTIVE ACTION DEMONSTRATED:** The Putnam County Sheriffs Department furnished two line level officers for interview to demonstrate this criterion. These officers were separate and apart from the management level officers representing the PCSD in the EOC. These were officers who would be assigned to TCPs in an actual event. They were interviewed separately and demonstrated a commendable knowledge of the mission assignment, all policies and procedures and were very familiar with operation of all issued equipment.

- f. PRIOR ISSUES - UNRESOLVED:** NONE

## **2.2.16 Putnam County- General Population Reception Center (Carmel High School - April 4, 2009)**

**a. MET:** 3.a.1, 3.b.1, 6.b.1

**b. AREAS REQUIRING CORRECTIVE ACTION:** TWO

**ISSUE NO:** 32-08-6.a.1-A-05

**CONDITION:** At both male and female decontamination areas, although they appear in the Reception Center Schematics (Putnam County Radiological Response Plan Appendix V, Rev 8/08, page V-6), step-off pads were not utilized. At the male decontamination area, the post-decontamination survey was conducted in the middle of the room and not at a clear egress point. The evacuee was then allowed to walk out through a potentially contaminated area. Also in the male decontamination area the personnel monitors were not initially aware of the release criteria and (0.1 mR above background) and had to be prompted by the controller. At the female decontamination area, the bottoms of the evacuee's shoes were not checked and the Personnel Decontamination Specialists were admittedly not familiar with the procedure. In both areas, contamination controls must be improved to prevent the potential spread of contamination to non-contaminated areas of the facility.

**POSSIBLE CAUSE:** Because the reception center demonstration was conducted in conjunction with a mass casualty incident involving school children, more volunteers arrived to help at the school than were originally expected. While the fact that many volunteers showed up and were eager to help should be viewed as positive, many of these volunteers had received little or no training.

**REFERENCE:** NUREG - 0654 J.12; Putnam County Radiological Emergency Response Plan, Appendix V- Reception Center Schematics (Rev 8/08), pageV-6

**EFFECT:** The failure to properly monitor evacuees at egress points could result in the reception center becoming contaminated.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated biennial exercise.

**ISSUE NO:** 32-08-6.a.1-A-06

**CONDITION:** At the personnel monitoring point, after an alarm was received on the portal monitor, the Personnel Monitor proceeded to frisk the evacuee. This unnecessary step took several minutes to complete and is contrary to the Putnam County Radiological Response Plan, Procedure 3, step 4.5.7, which directs the Monitor, in the event of an alarm to, “note the area of the alarm indication and to direct the evacuee to step back and proceed to the decontamination area.”

**POSSIBLE CAUSE:** The most likely cause is unfamiliarity with the content of the procedure.

**REFERENCE:** NUREG - 0654 J.12; Putnam County Radiological Emergency Response Plan, Procedure 3, step 4.5.7 (Rev 7/08).

**EFFECT:** When contamination is detected on an individual, it should be removed as soon as possible to maintain exposure as low as possible. This is true for not only emergency workers, but also the general public. The unnecessary frisking of evacuees could also lead to long lines, long wait times and negatively impact the productivity rate for this facility.

**RECOMMENDATION:** Provide additional training on the content of Procedure 3 for Personnel Monitors.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated, biennial exercise.

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - RESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

## **2.3 Rockland County**

### **2.3.1 Rockland County - Warning Point**

- a. MET:** 1.a.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.3.2 Rockland County - Emergency Operations Center**

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

### **2.3.3 Rockland County - Accident Assessment**

- a. MET:** 2.a.1, 2.b.1, 3.a.1, 3.b.1, 4.a.2
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.3.4 Rockland County - Field Monitoring Team 1**

- a. MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.3.5 Rockland County - Field Monitoring Team 2**

- a. MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.3.6 Rockland County - General Population Reception Center (Pearl River High School - June 12, 2008)**

- a. MET:** 1.e.1, 3.b.1, 6.a.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** TWO

**ISSUE NO:** 32-08-1.e.1-A-07

**CONDITION:** The Pearl River (PR) Personnel Monitoring Center (PMC) mission included issuance of KI to general public evacuees, at their request, upon their arrival at the PMC. As part of the PMC setting-up process, a large cardboard box, containing an estimated 2,000 packets of KI was taken to the two-person team assigned to handle KI issues to the general public. Some, if not all, packets had passed an expiration date of over one year.

Each KI packet consisted of 14 - 130 mg IOSAT tablets. Examination of the labels of approximately 50 packets revealed that the expiration date of each (3/20/07) had passed. The PR Fire Chief (PMC Director) and the KI issue team stated that there was no other supply of KI at the PMC and that they were not aware of any letter extending the use of the expired KI. The observer from RC added that adequate supplies of new KI were available at the County, but the delivery of them to the PR PMC was inadvertently overlooked in preparing for this evaluation. Both the Rockland County observer and the State Controller concurred that no letter extending the shelf-life of the expired KI had been promulgated.

**POSSIBLE CAUSE:** The apparent cause of the condition described above was the failure to distribute current KI stocks from the RC Emergency Management Office to the PR PMC and to dispose of the expired stocks of KI.

**REFERENCE:** NUREG-0654 J.10.e.

**EFFECT:** Issuing KI beyond its expiration date, unless the expiration date is extended and justified in writing by competent authority, could result in the user receiving reduced, no, and/or adverse benefit from the properties of the expired KI.

**CORRECTIVE ACTION DEMONSTRATED:** There were stocks of KI with a proper date of 2/2014 at the Pearl River Personnel Monitoring Center; however, the old stock had not yet been removed. Rockland County Emergency Management Office has removed the expired KI. This issue is resolved.

**ISSUE NO:** 32-08-3.a.1-A-08

**CONDITION:** It was observed that the dosimetry issuance for all the emergency workers (EWs) was not documented on a single record/log. The name and Self-Reading Dosimeters/Permanent Record Dosimetry (SRD/PRD) serial numbers were documented on the Radiation Exposure Record (Individual) card by each EW. This card was issued with the dosimetry and was taken by the EW to document their periodic SRD readings. At the end of the exercise, the Radiation Exposure Record (Individual) cards were turned in by all the EWs along with the dosimetry. By interview it was determined that the only documentation at the PMC would be the Radiation Exposure Record (Individual) cards.

**EFFECT:** Without a combined (master list) record of what dosimetry was issued to each EW at the dosimetry issue point the Radiation Exposure Record (Individual) card becomes essential. Problems of lost cards or improperly documented cards could lead to not knowing which EW had what dosimetry, and therefore not know their exposure.

**CORRECTIVE ACTION DEMONSTRATED:** The Rockland County Office of Emergency Management has created an Emergency Worker Dosimetry Issuance Log. This log is part of DOH-2 attachment 8 and will be part of the 2009 plan changes. This issue is resolved.

- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

**2.3.7 Rockland County - General Population Bus Company  
(Clarkstown Central School District - November 4, 2008)**

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

**2.3.8 Rockland County - General Population Bus Company  
(East Ramapo Central School District - November 4, 2008)**

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

**2.3.9 Rockland County - School Bus Company  
(Clarkstown Central School District - November 4, 2008)**

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



**2.3.10 Rockland County - School Bus Company  
(East Ramapo Central School District - November 4, 2008)**

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

**2.3.11 Rockland County - Medical Services Transport  
(Spring Hill Ambulance Corps - May 20, 2009)**

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

**2.3.12 Rockland County - Medical Services Hospital  
(Good Samaritan Hospital - May 20, 2008)**

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

**2.3.13 Rockland County - Emergency Worker Personnel Monitoring  
Center (Rockland County Sewer District September 25, 2008)**

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

**ISSUE NO:** 75-06-3.a.1-A-09

**ISSUE:** The South Orangetown Ambulance Emergency

Medical Technicians (EMT) were issued a high range 0 to 200 R direct reading dosimeter but were not issued a low range dosimeter.

**REASON UNRESOLVED:** South Orangetown Ambulance EMTs were not demonstrated (or evaluated) during this exercise. This ARCA will be reevaluated in 2010 during a Staff Assistance Visit.

#### **2.3.14 Rockland County - Traffic Control Point**

**a. MET:** 3.a.1, 3.b.1, 3.d.1

**b. AREAS REQUIRING CORRECTIVE ACTION:** NONE

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - RESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

## **2.4 WESTCHESTER COUNTY**

### **2.4.1 Westchester County - Warning Point**

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

### **2.4.2 Westchester County - Emergency Operations Center**

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

### **2.4.3 White Plains Control Cell**

- a. MET:** 5.b.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

### **2.4.4 Westchester County - Accident Assessment**

- a. MET:** 2.a.1, 2.b.1, 3.a.1, 3.b.1
- b. AREAS REQUIRING CORRECTIVE ACTION:** ONE

**ISSUE NO:** 32-08-4.a.2-A-09

**CONDITION:** In order to characterize the plume, both exposure rate data and radioiodine concentration measurements are needed. The licensee uses one of two default noble gas to iodine ratios for two types of release scenarios. For a Loss of Coolant Accident the assumed noble gas to iodine ratio is 10000 and for a steam generator accident the ratio is 100. The field monitoring data is one method verifying the validity of these assumptions. The licensee failed to provide any radioiodine concentration data to the offsite jurisdictions.

**POSSIBLE CAUSE:** Dependency on the default noble gas to iodine ratios without any verification of the accuracy of the value.

**REFERENCE:** NUREG-0654 I.10; WCERP Procedure 3-1 Attachment 3, Step 1

**EFFECT:** A relatively minor error in the 10000 to 1 ratio which was assumed in this exercise, has the potential to impact the accuracy of the thyroid dose projection and therefore the appropriate distance that would require evacuation and does not allow the offsite jurisdiction to characterize the release.

**RECOMMENDATION:** Retrain all staff both onsite and offsite to impress upon them the importance of getting radioiodine data to verify or modify the assumed ratios in the release. Add steps in the procedures to assure that responders follow through with verifying the assumed ratios.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated biennial exercise.

**c. DEFICIENCY:** NONE

**d. NOT DEMONSTRATED:** NONE

**e. PRIOR ISSUES - RESOLVED:** NONE

**f. PRIOR ISSUES - UNRESOLVED:** NONE

#### **2.4.5 Westchester County - Field Monitoring Team HD-1**

- a. MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

#### **2.4.6 Westchester County - Field Monitoring Team HD-2**

- a. MET:** 1.a.1, 1.d.1, 3.a.1, 3.b.1, 4.a.1, 4.a.3
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

#### **2.4.7 Westchester County - Call Center**

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

#### **2.4.8 Westchester County - Traffic Control Point**

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

**2.4.9 Westchester County - (General Population Bus Company  
Chappaqua Bus October 22, 2009)**

- a. MET:** 3.a.1, 3.b.1, 3.d.1
- b. DEFICIENCY:** NONE
- c. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ARCAS - RESOLVED:** NONE
- f. PRIOR ARCAS - UNRESOLVED:** NONE

**2.4.10 Westchester County - (School Bus Company Chappaqua Bus  
October 22, 2009)**

- a. MET:** 3.a.1, 3.b.1, 3.d.1
- b. DEFICIENCY:** NONE
- c. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ARCAS - RESOLVED:** NONE
- f. PRIOR ARCAS - UNRESOLVED:** NONE

**2.4.11 Westchester County - (School Bus Company Briarcliff  
Manor School District May 2, 2009)**

- a. MET:** 3.a.1, 3.b.1, 3.d.1
- b. DEFICIENCY:** NONE
- c. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ARCAS - RESOLVED:** NONE
- f. PRIOR ARCAS - UNRESOLVED:** NONE

**2.4.12 Westchester County - (Lakeland School Bus Company  
Interview August 4, 2009)**

- a. MET:** 3.a.1, 3.b.1, 3.d.1
- b. DEFICIENCY:** NONE
- c. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ARCAS - RESOLVED:** NONE
- f. PRIOR ARCAS - UNRESOLVED:** NONE

**2.4.13 Westchester County - (Todd Elementary School Interview Aug. 28, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.14 Westchester County - (Briarcliff High School Interview Aug. 25, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.15 Westchester County - (Briarcliff Middle School Interview Aug. 25, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.16 Westchester County - Anne M. Dorner Middle School Interview December 8, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.17 Westchester - (Roosevelt Education Center School Interview December 8, 2009)**

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

**2.4.18 Westchester County - (Yorktown Heights Center School Interview December 21, 2009)**

- a. MET:** 3.c.2
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

**2.4.19 Westchester County - (Brookside Elementary School Interview December 8, 2009)**

- a. MET:** 3.c.2
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

**2.4.20 Westchester County - (Carrie E. Tompkins Elementary School Interview December 21, 2009)**

- a. MET:** 3.c.2
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE



**2.4.21 Westchester County - (Claremont Elementary School  
Interview December 21, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.22 Westchester County - (Croton Harmon High School  
Interview December 21, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.23 Westchester County - (Fox Meadow School Interview  
December 21, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.24 Westchester County - (Hillcrest Elementary School Interview  
January 7, 2010)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.25 Westchester County - (Oaksdale Elementary School Interview  
January 7, 2010)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.26 Westchester County - (Ossining High School  
Interview December 8, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.27 Westchester County - (Park Early Childhood Center School  
Interview December 8, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.28 Westchester County - (Peekskill High School Interview  
January 7, 2010)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.29 Westchester County - (Peekskill Middle School Interview January 7, 2010)**

- a. MET: 3.c.2**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAS - RESOLVED: NONE**
- f. PRIOR ARCAS - UNRESOLVED: NONE**

**2.4.30 Westchester County - (Pierre Van Cortland Middle School Interview December 21, 2009)**

- a. MET: 3.c.2**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAS - RESOLVED: NONE**
- f. PRIOR ARCAS - UNRESOLVED: NONE**

**2.4.31 Westchester County - (Pines Bridge School Interview December 21, 2009)**

- a. MET: 3.c.2**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAS - RESOLVED: NONE**
- f. PRIOR ARCAS - UNRESOLVED: NONE**

**2.4.32 Westchester County - (Seven Bridges Middle School Interview December 14, 2009)**

- a. MET: 3.c.2**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ARCAS - RESOLVED: NONE**
- f. PRIOR ARCAS - UNRESOLVED: NONE**

**2.4.33 Westchester County - (West Orchard Elementary School Interview December 14, 2009)**

- a. MET: 3.c.2
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAS - RESOLVED: NONE
- f. PRIOR ARCAS - UNRESOLVED: NONE

**2.4.34 Westchester County - (Woodside Elementary School Interview January 7, 2010)**

- a. MET: 3.c.2
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAS - RESOLVED: NONE
- f. PRIOR ARCAS - UNRESOLVED: NONE

**2.4.35 Westchester County - (Walden School Interview December 21, 2009)**

- a. MET: 3.c.2
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAS - RESOLVED: NONE
- f. PRIOR ARCAS - UNRESOLVED: NONE

**2.4.36 Westchester County - (Medical Service Hospital Westchester Center November 5, 2009)**

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

**2.4.37 Westchester County - (Medical Services Transport  
Trans Care Ambulance Service November 5, 2009)**

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

**ISSUE NO:** 75-06-3a1-A-12

**ISSUE:** The ambulance crew (Transcare Ambulance Service) who responded to the Emergency Worker Personnel Monitoring Center (PMC) to transport the injured emergency worker did not have any dosimetry. While the PMC was located outside the emergency planning zone, handling and transporting a contaminated emergency worker requires the use of dosimetry by the ambulance crew in accordance with Westchester County Procedure IP-3.3, Section 3.5.

**REASON UNRESOLVED:** This issue was not corrected because, once again, dosimeters were not issued to Transcare EMS.

**SCHEDULE OF CORRECTIVE ACTIONS:** The corrective action for this issue will be demonstrated at the next federally evaluated biennial exercise.

**2.4.38 Westchester County - (Hendrick Hudson School Bus Company  
Interview Aug. 25, 2009)**

- a. MET:** 3.a.1;3.c.2
- b. AREAS REQUIRING CORRECTIVE ACTION:** NONE
- c. DEFICIENCY:** NONE
- d. NOT DEMONSTRATED:** NONE
- e. PRIOR ISSUES - RESOLVED:** NONE
- f. PRIOR ISSUES - UNRESOLVED:** NONE

**2.4.39 Westchester County - School Interviews Hendrick Hudson School District - (Frank G. Lindsey Elementary School, Blue Mountain Middle School, Buchanan Verplank Elementary School, Furnace Woods Elementary School, Hendrick Hudson High School, Sep. 16, 2009)**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.40 Westchester County - School Interviews Lakeland School District Interviews - (Benjamin Franklin Elementary School, Thomas Jefferson Elementary School, Lake Alternative High School, Van Cortland Elementary School, Lincoln - Titus Elementary School, Lakeland High School, Walter Panas High School, Cooper Beech Middle School,**

- a. MET: 3.c.2**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

**2.4.41 Westchester County - (Croton Bus Company Interview Oct. 21, 2009)**

- a. MET: 3.a.1;3.b.1**
- b. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- c. DEFICIENCY: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES - RESOLVED: NONE**
- f. PRIOR ISSUES - UNRESOLVED: NONE**

## **3.0 Support Jurisdictions**

### **3.1 Bergen County Emergency Operations Center**

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

# APPENDIX 1

## ACRONYMS AND ABBREVIATIONS

AA	Accident Assessment
ACP	Access Control Point
ALS	Advanced Life Support
ARCA	Area Requiring Corrective Action
ATL	Assessment Team Leader
BC	Bergen County
BCPD	Bergen County Police Department
BLS	Basic Life Support
BOCES	Board of Cooperative Education Services
CC	Call Center
CCC	Congregate Care Center
CCSD	Clarkstown Central School District
CD	Compact Disk
CDE	Committed Dose Equivalent
CEMD	County Emergency Management Director
CENS	Community Emergency Notification System
CEOM	County Emergency Operations Manager
CERT	Community Emergency Response Team
COVAC	Cornwall Volunteer Ambulance Corps.
CRO	County Radiological Officer
CVAC	Carmel Volunteer Ambulance Corps.
DAL	Dose Assessment Lead
DAR	Dose Assessment Room
DEP	Department of Environmental Protection
DOH	Department of Health
DOT	Department of Transportation
DRD	Direct Reading Dosimeter
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
ED	Emergency Director
EM	Emergency Manager
EMT	Emergency Medical Technician
ENS	Emergency Notification System
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPA	Environmental Protection Agency
EPZ	Emergency Planning Zone
ER	Emergency Room
ERCSD	East Ramapo Central School District
ERO	Emergency Response Organization
ERPA	Emergency Response Planning Area
EW	Emergency Worker



EWDC	Emergency Worker Decontamination Center
EWPMC	Emergency Worker Personnel Monitoring Center
FCC	Federal Communications Commission
FMES	Fort Montgomery Elementary School
FMT	Field Monitoring Team
FTC	Field Team Coordinator
FTS	Field Team Supervisor
GE	General Emergency
GM	Geiger Muller
GPBC	General Population Bus Company
GPRC	General Population Reception Center
GSH	Good Samaritan Hospital
HCSD	Haldane Central School District
HF	Highland Falls
HI	Hearing Impaired
ICS	Incident Command System
IPEC	Indian Point Energy Center
JIC	Joint Information Center
JNC	Joint News Center
KI	Potassium Iodide
KPS	Kent Primary School
MHS	Middletown High School
MMC	Media Management Coordinator
MSH	Medical Services Hospital
MST	Medical Services Transport
NANS	Noah's Ark Nursery School
NJSP	New Jersey State Police
NRC	Nuclear Regulatory Commission
NYS	New York State
NYSEMO	New York State Emergency Management Office
NYSP	New York State Police
OC	Orange County
OCE	Orange County Executive
OCEOC	Orange County Emergency Operations Center
OLL	Offsite Lead Liaison
OUB	Orange-Ulster BOCES
PAD	Protective Action Decision
PC	Putnam County
PCC	Public Call Center
PCSD	Putnam County Sheriff's Department
PHC	Putnam Hospital Center
PI	Public Inquiry
PIO	Public Information Officer
PM	Portal Monitor
PMC	Personal Monitoring Center
PR	Pearl River
PRD	Permanent Record Dosimeter
PRHS	Pearl River High School
PRVFD	Pearl River Volunteer Fire District

PVDC	Putnam Valley Day Care
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
RC	Rockland County
RCEOC	Rockland County Emergency Operations Center
REA	Radiological Emergency Area
RECS	Radiological Emergency Communication System
REP	Radiological Emergency Preparedness
REPP	Radiological Emergency Preparedness Plan
RERP	Radiological Emergency Response Plan
RSO	Radiological Safety Officer
SAE	Site Area Emergency
SBC	School Bus Company
SEMO	State Emergency Management Office
SEOC	State Emergency Operations Center
SFC	Special Facilities Coordinator
SHAC	Spring Hill Ambulance Corps.
SI	School Interview
SLCH	St. Luke's Cornwall Hospital
SO	Safety Officer
SPNS	St. Philips Nursery School
SRD	Self Reading Dosimeters
SWP	State Warning Point
TCAS	TransCare Ambulance Service
TCP	Traffic Control Points
TEDE	Total Effective Dose Equivalent
TSR	Townline Sub-Residency
VHF	Very High Frequency
VOIP	Voice Over Internet Protocol
WC	Westchester County
WCEOC	Westchester County Emergency Operations Center
WCREP	Westchester County Radiological Emergency Plan
WMC	Westchester Medical Center
WP	Warning Point
WPCC	White Plains Control Cell
WPT	West Point Tours
WWP	Westchester Warning Point

## APPENDIX 2

### EXERCISE EVALUATORS AND TEAM LEADERS

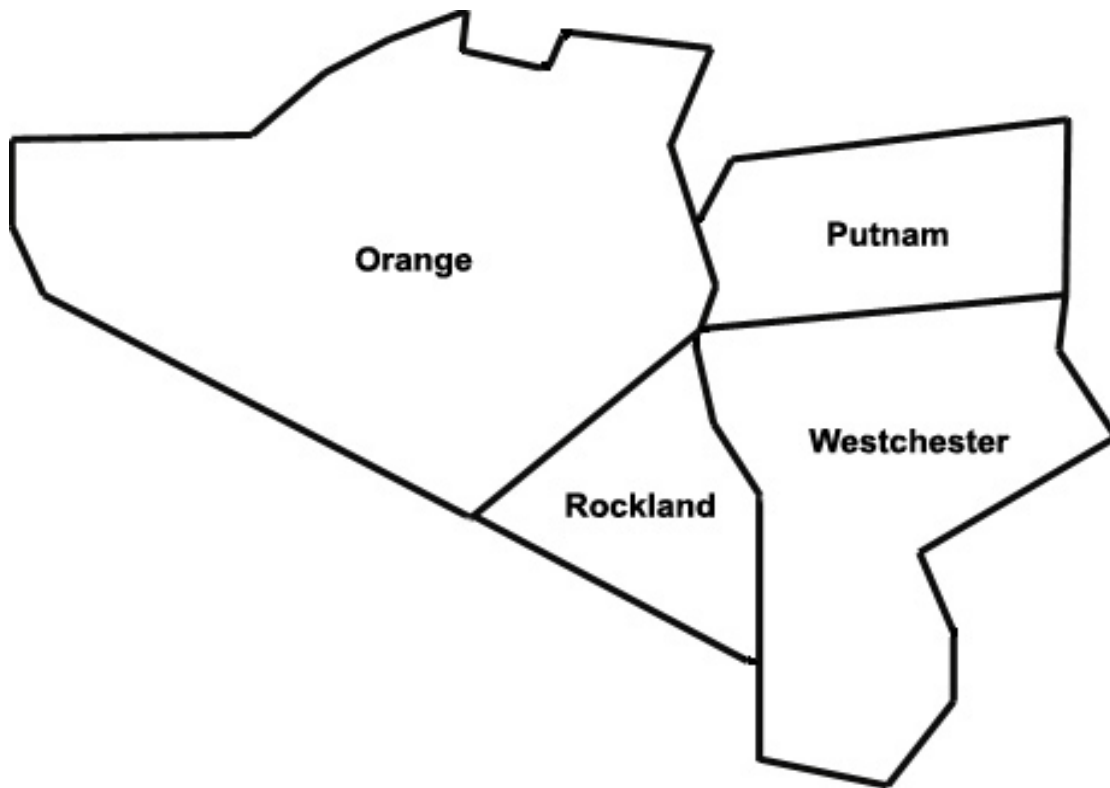
DATE: December 2008 SITE: Indian Point Energy Center, NY

LOCATION	EVALUATOR	AGENCY
New York State Emergency Operations Center	Bob Black Gary Goldberg *Brian Hasemann	ICF ICF FEMA
Licensee Emergency Operations Facility	Quirino Iannazzo	ICF
New York State Accident Assessment	Reggie Rodgers	ICF
New York State Personnel Monitoring Center - Townline Sub-Residency	Deborah Blunt *Korky Dulgerian	ICF FEMA
New York State-Westchester County Joint Emergency Worker Personal Monitoring Center	Ronald Biernacki *Korky Dulgerian	ICF FEMA
Indian Point Joint Information Center	Nancy Johnson Miriam Weston	ICF FEMA
Indian Point Joint Information Center Briefings	Paul Nied	ICF
Indian Point Joint Information Center Public Inquiry	Dick Wessman	ICF
Indian Point EAS Station WHUD	Robert Vork	ICF
State of New York Call Center	Gary Bolender	ICF
Orange County Emergency Operations Center	*Russell Fox Jan Hlavaty-LaPosa Sam Nelson	FEMA ICF
Orange County Accident Assessment	Dave Stuenkel	ICF
Orange County - Field Monitoring Team 1	Ronald Bonner	ICF
Orange County - Field Monitoring Team 2	Mario Vigliani	
Orange County - General Population Reception Center - Middletown High School	Ronald Biernacki Sam Nelson	ICF ICF
Orange County - General Population Bus Company - West Point Tours	Mabel Santiago	FEMA
Orange County School Bus Company - West Point Tours- Highland Falls	Mabel Santiago	FEMA
Orange County - School Interview - Fort Montgomery Elementary School	*William Cullen	FEMA
Orange County - Congregate Care Center - Middletown High School	Sam Nelson	ICF
Orange County - Medical Services Transport - Cornwall Volunteer Ambulance Corps.	Brian Hasemann	FEMA
Orange County - Medical Services Hospital - St Lukes Cornwall Hospital	Deborah Blunt	ICF
Orange County Traffic Control Point	Robert Host	ICF
Orange County - Emergency Worker Personnel Monitoring Center - Orange-Ulster Boces	*Brian Hasemann Ron Biernacki	FEMA ICF
Putnam County - Warning Point	Michele Sturman	FEMA
Putnam County Emergency Operations Center	Mark Dalton Alejandro Fernandez *Mabel Santiago Michele Sturman	ICF ICF FEMA FEMA
Putnam County Accident Assessment	Marynette Herndon	ICF
Putnam County - Field Monitoring Team Alpha	Richard Smith	ICF
Putnam County - Field Monitoring Team Bravo	Louis Sosler	ICF
Putnam County- General Population Reception Center - Carmel High School	Korky Dulgerian Patricia Mason	FEMA FEMA
Putnam County - School Reception Center - Kent Primary School	Korky Dulgerian	FEMA

Putnam County - General Population Bus Company - Haldane Central School District	*Korky Dulgerian	FEMA
Putnam County - School Bus Company - Haldane Central School District	*Korky Dulgerian	FEMA
Putnam County - School Interview - Haldane Central School District	*William Cullen	FEMA
Putnam County - School Interview - Noahs Ark Nursery School	Mabel Santiago	FEMA
Putnam County - School Interview - Putnam Valley Day Care	Mabel Santiago	FEMA
Putnam County - School Interview - St Phillips Nursery School	Chris Cammarata	FEMA
Putnam County - Medical Services Transport - Carmel Volunteer Ambulance Company	Gary Goldberg	ICF
Putnam County - Medical Services Hospital - Putnam Hospital Center	Deborah Blunt	ICF
Putnam County Traffic Control Point	Mark Dalton	ICF
Rockland County - Warning Point	*Korky Dulgerian	FEMA
Rockland County Emergency Operations Center	Korky Dulgerian Dave Petta Kim Wood	FEMA ICF ICF
Rockland County Accident Assessment	Daryl Thome	ICF
Rockland County - Field Monitoring Team 1	Mke Hammond	ICF
Rockland County - Field Monitoring Team 2	Michael Leal	FDA
Rockland County - General Population Reception Center - Pearl River High School	Alan Bevan Dave Petta	ICF
Rockland County - General Population Bus Company - Clarkstown Central School District	*William Cullen	FEMA
Rockland County - General Population Bus Company - East Ramapo Central School District	*Korky Dulgerian	FEMA
Rockland County - School Bus Company - Clarkstown Central School District	*William Cullen	FEMA
Rockland County - School Bus Company - East Ramapo Central School District	*Korky Dulgerian	FEMA
Rockland County - Medical Services Transport - Spring Hill Ambulance Corps	Bart Ray	ICF
Rockland County - Medical Services Hospital - Good Samaritan Hospital	Ronald Biernacki	ICF
Rockland County Traffic Control Point	Kim Wood	ICF
Rockland County - Emergency Worker Personnel Monitoring Center	Ronald Biernacki Dave Petta	ICF ICF
Westchester County - Warning Point	John Flynn	ICF
White Plains Control Cell	Richard McPeak	ICF
Westchester County Emergency Operations Center	Michael Burriss *William Cullen Sonia Eischen Terry Sheehan	ICF FEMA ICF DOT
Westchester County Accident Assessment	Joe Keller	ICF
Westchester County - Field Monitoring Team HD-1	Jeanette Eng	EPA
Westchester County - Field Monitoring Team HD-2	Ronald Biernacki	ICF
Westchester County Call Center	Rosemary Samsel	ICF
Westchester County - General Population Bus Company - Chappaqua Bus	*Korky Dulgerian	FEMA
Westchester County - School Bus Company - Briarcliff Manor School District	Mabel Santiago	FEMA
Westchester County - School Bus Company - Chappaqua Bus	*Korky Dulgerian	FEMA

Westchester County - School Bus Company - Hendrick Hudson Bus	Chris Cammarata	FEMA
Westchester County - School Bus Company - Lakeland Bus	Mabel Santiago	FEMA
Westchester County - School Interview - Anne M Dorner Middle School	*Patricia Mason	FEMA
Westchester County - School Interview - Roosevelt Education Center	*Patricia Mason	FEMA
Westchester County - School Interview - Yorktown Heights Center	*Korky Dulgerian	FEMA
Westchester County - School Interview - Briarcliff High School	*Chris Cammarata	FEMA
Westchester County - School Interview - Briarcliff Middle School	*Chris Cammarata	FEMA
Westchester County - School Interview - Brookside Elementary School Ossining	*Patricia Mason	FEMA
Westchester County - School Interview - Carrie E Tompkins Elementary School	*Korky Dulgerian	FEMA
Westchester County - School Interview - Claremont Elementary School	*Patricia Mason	FEMA
Westchester County - School Interview - Croton Harmon High School	*Korky Dulgerian	FEMA
Westchester County - School Interview - Fox Meadow School	*Korky Dulgerian	FEMA
Westchester County - School Interview - Hillcrest Elementary School	*Patricia Mason	FEMA
Westchester County - School Interview - Oakside Elementary School	*Patricia Mason	FEMA
Westchester County - School Interview - Ossining High School	*Patricia Mason	FEMA
Westchester County - School Interview - Park Early Childhood Center	*Patricia Mason	FEMA
Westchester County - School Interview - Peekskill High School	*Patricia Mason	FEMA
Westchester County - School Interview - Peekskill Middle School	*Patricia Mason	FEMA
Westchester County - School Interview - Pierre Van Cortlandt Middle School	*Korky Dulgerian	FEMA
Westchester County - School Interview - Pines Bridge School	*Korky Dulgerian	FEMA
Westchester County - School Interview - Seven Bridges Middle School	*Korky Dulgerian	FEMA
Westchester County - School Interview - Todd Elementary School	*Chris Cammarata	FEMA
Westchester County - School Interview - Walden School	*Korky Dulgerian	FEMA
Westchester County - School Interview - West Orchard Elementary School	*Korky Dulgerian	FEMA
Westchester County - School Interview - Woodside Elementary School	*Patricia Mason	FEMA
Westchester County - School Interview - Yorktown Central High School	*Korky Dulgerian	FEMA
Westchester County - Medical Services Transport - Trans Care Ambulance Service	Ronald Biernacki	ICF
Westchester County - Medical Services Hospital - Westchester Medical Center	Korky Dulgerian	FEMA
Westchester County Traffic Control Point	Terry Sheehan	DOT
Bergen County Emergency Operations Center	*Chris Cammarata Glenn Kinnear	FEMA ICF
* Team Leader		

## Appendix 3



# **FINAL**

## **OFFSITE EXTENT-OF-PLAY**

### **FOR THE**

#### **DECEMBER 3, 2008**

##### **INDIAN POINT ENERGY CENTER – UNIT 3**

##### **FULL-PARTICIPATION EXERCISE**

## TABLE OF CONTENTS

Table of Contents.....	i
Extent-Of-Play Ground Rules.....	1
Extent-Of-Play.....	3

# EXTENT-OF-PLAY GROUND RULES



## **EXTENT-OF-PLAY GROUND RULES**

- **REAL LIFE EMERGENCIES TAKE PRIORITY OVER EXERCISE PLAY.**
- The Scenario Development Team will develop the “Exercise” free play messages. The State Controller will inject these messages for action as agreed upon.
- “Optional” messages will be developed and inserted to facilitate EOC participation.
- The Scenario Development Team will develop “Exercise” free play messages for Public Inquiry conducted at the New York State Tax and Finance Call Center in Albany, NY and at the Westchester County Alternate Emergency Operations Center/MOB in White Plains, NY. Public Inquiry messages will be injected to the two call centers by a control cell(s).
- The Scenario Development Team will develop “Exercise” free play messages for Media Inquiry. Media Inquiry messages will be injected to the State and county EOCs by a control cell(s).
- The State Controller will provide radiological data for any radiological field activities (e.g., Field Teams, Emergency Worker Personnel Monitoring Centers, Reception Centers, etc.).
- According to REP Program Strategic Review Initiative 1.5, “During tabletop exercises, drills and other demonstrations conducted out-of-sequence from an integrated exercise, if FEMA and the offsite response organizations (ORO) agree, the FEMA Evaluator may have the participants re-demonstrate an activity that is determined to be not satisfactorily demonstrated. Immediate correction of issues in an integrated exercise is authorized only if it would not be disruptive and interrupt the flow of the exercise and affect other Evaluation Areas.” This initiative is not applicable to EOC/JIC/EOF demonstrations during the December 3, 2008 exercise.
- The following criteria, which deal with ingestion pathway, relocation, re-entry and return, post-plume phase and lab operations, will not be demonstrated:
  - 2.d.1
  - 2.e.1
  - 3.e.1
  - 3.e.2
  - 3.f.1
  - 4.b.1
  - 4.c.1
- Additionally, criterion 5.a.2 for the activation of the prompt alert and notification system will not be demonstrated.

# EXTENT OF PLAY

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

### **Sub-element 1.a – Mobilization**

**Criterion 1.a.1:** OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (NUREG-0654, A.4; D.3, 4; E.1, 2; H.4)

### **WARNING POINTS**

#### **Extent-of-Play Agreement:**

- The latest quarterly revised call lists will be provided at the Federal/State evaluators briefing session the day before the exercise, if requested by FEMA. The lists will contain the business telephone numbers only.

### **EOCs**

#### **Extent-of-Play Agreement:**

- State liaisons will be pre-positioned in the area and will arrive at County EOCs 30 minutes after receiving notification to activate via pager or other means.
- Licensee Technical Liaisons will be pre-positioned in the area and will arrive at the State and county EOCs 30 minutes after receiving notification to activate via pager or other means.

### **EOF**

#### **Extent-of-Play Agreement:**

- State liaisons will be pre-positioned in the area and will arrive at the EOF 30 minutes after receiving notification to activate via pager or other means.

## **JIC**

### **Extent-of-Play Agreement:**

- State JIC Staff will be pre-positioned in the area and will arrive at the JIC no sooner than 30 minutes after receiving notification to activate via pager or other means.

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

### **Sub-element 1.b – Facilities**

**Criterion 1.b.1:** Facilities are sufficient to support the emergency response.  
(NUREG-0654, H.3)

#### **Extent-of-Play Agreement:**

- This criterion will be evaluated for the following facilities only:
  - Orange County EOC, Wells Farm Rd., Goshen, NY
  - NYS EOC, Bldg. 22, Albany, NY

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

### **Sub-element 1.c - Direction and Control**

**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. (NUREG-0654, A.1.d; A.2.a., b.)

#### **Extent-of-Play Agreement:**

- The State Controller will inject “Exercise” messages for action as agreed upon.

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

### **Sub-element 1.d – Communications Equipment**

**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. (NUREG-0654, F.1, 2).

#### **Extent-of-Play Agreement:**

- The use of RACES as a back up to commercial telephones or radios will be demonstrated between the State and four Risk County EOCs only.
- An alternate to the Executive Hotline may be used to coordinate protective action decisions (PADs) among the Risk Counties and State if needed.

## EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

### Sub-element 1.e – Equipment and Supplies to Support Operations

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

#### **Extent-of-Play Agreement:**

- Maps and displays will vary with each facility and may include hard copy printouts and listings and electronic displays.
- The instruments that are used for field monitoring are the RO-20 or RO-2A (Gamma and Beta-mR/hr or R/hr) or equivalent and RM-14 (Gamma and Beta – CPM) or equivalent.
- Field team equipment is calibrated by IPEC’s RP Department. An internal IPEC requirement provides for calibration of this equipment every six months. Therefore, the calibration sticker for this equipment shows a “calibration due date” which reflects the six month calibration schedule. The instruments are considered calibrated as long as the current date is within one year of the calibration date.
- No equipment (e.g., barriers, traffic cones, signs, etc.) will be deployed to the field *with the exception of Reception Centers and EWPMCs*.



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

### **Sub-element 2.a – Emergency Worker Exposure Control**

**Criterion 2.a.1:** OROs use a decision-making process, considering relevant factors and appropriate coordination, to insure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654, J.10.e, f; K.4)

#### **Extent-of-Play Agreement:**

- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

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

### **Sub-element 2.b. Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency**

**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. (NUREG-0654, I.8, 10 and Supplement 3).

#### **Extent-of-Play Agreement:**

- In the event of a simulated radiological release, the licensee field teams will obtain plume centerline data.

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

### **Sub-element 2.b. Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency**

**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). (NUREG-0654, J.9, 10.f, m).

#### **Extent-of-Play Agreement:**

- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

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

### **Sub-element 2.c - Protective Action Decisions Consideration for the Protection of Special Populations**

**Criterion 2.c.1:** Protective action decisions are made, as appropriate, for special population groups. (NUREG-0654, J.9, J.10.d, e)

#### **Extent-of-Play Agreement:**

- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

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

### **Sub-element 3.a – Implementation of Emergency Worker Exposure Control**

**Criterion 3.a.1:** The OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. (NUREG-0654, K.3.a, b)

#### **Extent-of-Play Agreement:**

- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

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

### **Sub-element 3.b – Implementation of KI Decision**

**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 is maintained. (NUREG-0654, J.10. e)

#### **Extent-of-Play Agreement:**

- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.
- The post distribution of KI to the public will also be discussed at reception centers when demonstrated as per the Offsite Extent-of-Play Activities Schedule.

## EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

### Sub-element 3.c – Implementation of Protective Actions for Special Populations

**Criterion 3.c.1:** Protective action decisions are implemented for special populations other than schools within areas subject to protective actions. (NUREG-0654, J.10.c, d, g).

## **EOC ACTIVITIES:**

### **TRANSPORTATION DEPENDENT POPULATION**

#### **Extent-of-Play Agreement:**

- During the December 3, 2008 exercise, there will be initial contact with the transportation providers (telephone call) by the Transportation Coordinator. Initial contacts will be actual and some follow-up contacts may be simulated. All calls will be logged at each EOC.

### **NOTIFICATION OF HEARING IMPAIRED**

#### **Extent-of-Play Agreement:**

<b>Jurisdiction</b>	<b>Extent-of-Play</b>	<b>In Sequence With Exercise</b>	<b>Out of Sequence; Day of Exercise</b>	<b>Out of Sequence; NOT Day of Exercise</b>	<b>Comments</b>
<b>Westchester County</b>	The hearing-impaired list will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.  The procedure to contact hearing-impaired individuals will be discussed with the federal evaluator at the EOC.	<b>(X)</b>			

<b>Jurisdiction</b>	<b>Extent of Play</b>	<b>In Sequence With Exercise</b>	<b>Out of Sequence; Day of Exercise</b>	<b>Out of Sequence; NOT Day of Exercise</b>	<b>Comments</b>
<b>Rockland County</b>	<p>The hearing-impaired list will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.</p> <p>The procedure to contact hearing-impaired individuals will be discussed with the federal evaluator at the EOC.</p>	<b>(X)</b>			
<b>Orange County</b>	<p>The hearing-impaired list will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.</p> <p>The procedure to contact hearing-impaired individuals will be discussed with the federal evaluator at the EOC.</p>		<b>(X)</b>		
<b>Putnam County</b>	<p>The hearing-impaired list will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.</p> <p>The procedure to contact hearing-impaired individuals will be discussed with the federal evaluator at the EOC.</p>	<b>(X)</b>			



## **NON-INSTITUTIONALIZED MOBILITY IMPAIRED INDIVIDUALS**

### **Extent-of-Play Agreement:**

<b>Jurisdiction</b>	<b>Extent-of-Play</b>	<b>In Sequence With Exercise</b>	<b>Out of Sequence; Day of Exercise</b>	<b>Out of Sequence; NOT Day of Exercise</b>	<b>Comments</b>
<b>Westchester County</b>	<p>The list of non-institutionalized mobility-impaired will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.</p> <p>The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator at the EOC.</p>	(X)			
<b>Rockland County</b>	<p>The list of non-institutionalized mobility-impaired will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.</p> <p>The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator at the EOC.</p>	(X)			

Jurisdiction	Extent of Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
<b>Orange County</b>	<p>The list of non-institutionalized mobility-impaired will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.</p> <p>The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator at the EOC.</p>		(X)		
<b>Putnam County</b>	<p>The list of non-institutionalized mobility-impaired will be available for review at the county EOC. This list will be reviewed but not copied or retained by the Federal evaluator.</p> <p>The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator at the EOC.</p>	(X)			

## **SPECIAL FACILITIES**

### **Extent-of-Play Agreement:**

- During the exercise, there will be initial contact with the special facilities (telephone call). Initial contacts will be actual and some follow-up contacts may be simulated. All calls will be logged at each EOC.

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## **FIELD ACTIVITIES:**

### **EVACUATION OF TRANSPORTATION DEPENDENT POPULATION**

#### **Extent-of-Play Agreement:**

<b>Jurisdiction</b>	<b>Extent-of-Play</b>	<b>In Sequence With Exercise</b>	<b>Out of Sequence; Day of Exercise</b>	<b>Out of Sequence; NOT Day of Exercise</b>	<b>Comments</b>
<b>Westchester County</b>	Bus companies will be interviewed as per the Offsite Extent-of-Play Activities Schedule. Each company will provide a dispatcher and 5 - 10% (minimum of 2) of that company's drivers for interviews. A State Controller will provide the bus routes to be discussed to the dispatcher for the briefing of drivers.			(X)	
<b>Rockland County</b>	Bus companies will be interviewed as per the Offsite Extent-of-Play Activities Schedule. Each company will provide a dispatcher and 5 - 10% (minimum of 2) of that company's drivers for interviews. A State Controller will provide the bus routes to be discussed to the dispatcher for the briefing of drivers.			(X)	Group interviews requested

Jurisdiction	Extent-of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
<b>Orange County</b>	Bus companies will be interviewed, procedures will be reviewed and equipment will be inspected. Each company will provide a dispatcher and at least 5-10% (minimum of 2) of that company's drivers for interview. A State Controller will provide the bus routes to be discussed to the dispatcher for the briefing of drivers.			(X)	West Point Tours (Vails Gate and Highland Falls) interviews completed 2/7/08.
<b>Putnam County</b>	Bus companies will be interviewed, procedures will be reviewed and equipment will be inspected. Each company will provide a dispatcher and 5-10% (minimum of 2) of that company's drivers for interview. A State Controller will provide the bus routes to be discussed to the dispatcher for the briefing of drivers.			(X)	Putnam County proposes to demonstrate with school administrator, dispatcher and driver(s).  Also proposes interviews of General Population and School Bus concurrently.

## **NOTIFICATION OF HEARING IMPAIRED**

### **Extent-of-Play Agreement:**

- There will be no actual notification of hearing-impaired individuals during the exercise.

## **EVACUATION OF NON-INSTITUTIONALIZED MOBILITY IMPAIRED INDIVIDUALS**

### **Extent-of-Play Agreement:**

- There will be no actual dispatch of vehicles for transport of non-institutionalized mobility-impaired individuals.
- There will be no actual contact of non-institutionalized mobility-impaired individuals identified on the list.

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

### **Sub-element 3.c – Implementation of Protective Actions for Special Populations**

**Criterion 3.c.2:** OROs/School officials implement protective actions for schools. (NUREG-0654, J.10.c, d, g).

### **EOC ACTIVITIES:**

#### **Extent-of-Play Agreement:**

- During the December 3, 2008 exercise, there will be initial contact with the schools and transportation providers (telephone call) by the School and Transportation Coordinators. Initial contacts will be actual and some follow-up contacts may be simulated. All calls will be logged at each EOC.

### **FIELD ACTIVITIES:**

#### **EVACUATION OF SCHOOL POPULATIONS**

#### **Extent-of-Play Agreement:**

- Bus companies will be interviewed as per the Offsite Extent-Of-Play Activities Schedule.
- Each company will provide a dispatcher and 5-10% (minimum of 2) of that company's drivers for interview.
- A State Controller will provide the bus routes to be discussed to the bus dispatcher for the briefing of drivers.

#### **SCHOOL INTERVIEWS**

#### **Extent-of-Play Agreement:**

- The minimum number of schools/licensed day care providers/private schools (one school per district) to be interviewed per the Offsite Extent-Of-Play Activities Schedule is as follows:
  - Westchester County – 10 schools
  - Rockland County – 5 schools
  - Orange County – 1 school
  - Putnam County – 3 schools

- Additional interviews of schools and school reception centers (baseline evaluations 2008-2013) will be conducted as agreed to by FEMA, NYSEMO and each county EMO.
- Interviews for schools within the same district may be conducted with school administrators at a scheduled district meeting.

## EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

### Sub-element 3.d. – Implementation of Traffic and Access Control

**Criterion 3.d.1:** Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654, J.10.g, j)

### TRAFFIC AND ACCESS CONTROL POINTS (TCPs and ACPs)

#### Extent-of-Play Agreement:

Jurisdiction	Extent-of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
<b>Westchester County</b>	There will be two (2) interviews of law enforcement officials to discuss how to activate TCPs/ACPs. Each designated law enforcement agency will provide one (1) officer. The State Controller will provide a free play message to select the TCP/ACP assigned to that agency to be discussed. The interviews will take place at the EOC.		(X)		
<b>Rockland County</b>	There will be two (2) interviews of law enforcement officials to discuss how to activate TCPs/ACPs. Each designated law enforcement agency will provide one (1) officer. The State Controller will provide a free play message to select the TCP/ACP assigned to that agency to be discussed. The interviews will take place at the EOC.		(X)		



Jurisdiction	Extent of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
<b>Orange County</b>	There will be two (2) interviews of law enforcement officials to discuss how to activate TCPs/ACPs. Each designated law enforcement agency will provide one (1) officer. The State Controller will provide a free play message to select the TCP/ACP assigned to that agency to be discussed. The interviews will take place at the EOC.		(X)		
<b>Putnam County</b>	There will be two (2) interviews of law enforcement officials to discuss how to activate TCPs/ACPs. Each designated law enforcement agency will provide one (1) officer. The State Controller will provide a free play message to select the TCP/ACP assigned to that agency to be discussed. The interviews will take place at the EOC.		(X)		

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

### **Sub-element 3.d. – Implementation of Traffic and Access Control**

**Criterion 3.d.2:** Impediments to evacuation are identified and resolved. (NUREG-0654, J.10.k).

### **IMPEDIMENTS TO EVACUATION**

#### **Extent-of-Play Agreement:**

- Each of the four 10-mile plume exposure pathway EPZ counties is to demonstrate the organizational ability to deal with at least two (2) impediments to evacuation.
- The State Controller will inject “Exercise” messages for action as agreed upon.
- No equipment (Barriers, Traffic cones, Signs, etc.) will be deployed to the field.
- This demonstration will not involve the dispatch of a police or other emergency vehicle to the scene of a simulated impediment. Initial contact of resource providers will be actual and some follow-up contacts may be simulated. All calls will be logged at each EOC.

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

### **Sub-element 4.a – Plume Phase Field Measurements and Analyses**

**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. (NUREG-0654, H.10; I.7, 8, 9)

### **FIELD MONITORING TEAMS**

#### **Extent-of-Play Agreement:**

- The monitoring teams will not be suited up in anti-contamination clothing. However, the clothing will be available for inspection. The initial use of gloves will be demonstrated.
- Field team equipment is calibrated by IPEC's RP Department. An internal IPEC requirement provides for calibration of this equipment every six months. Therefore, the calibration sticker for this equipment shows a "calibration due date" which reflects the six month calibration schedule. The instruments are considered calibrated as long as the current date is within one year of the calibration date.

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

### **Sub-element 4.a – Plume Phase Field Measurements and Analyses**

**Criterion 4.a.2:** Field teams are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654, H.12; I.8, 11; J.10.a)

#### **Extent-of-Play Agreement:**

- In the event of a simulated radiological release, the licensee field teams will obtain plume centerline data.

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

### **Sub-element 4.a – Plume Phase Field Measurements and Analyses**

**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. (NUREG-0654, I.9).

### **FIELD MONITORING TEAMS**

#### **Extent-of-Play Agreement:**

- Each EPZ County will dispatch two (2) radiological monitoring teams. Each team will be supplied with a State Controller and FEMA evaluator.
- The monitoring teams will not be suited up in anti-contamination clothing. However, the clothing will be available for inspection. The initial use of gloves will be demonstrated.
- Each team will take at least six (6) ambient radiation measurements (including background measurements) and at least two (2) air samples. All teams must take the air samples as though they were in the presence of the plume including County teams that may not be impacted by the plume. If necessary, an inject message from the State Controller may be used to complete the taking of all six measurements prior to the end of the exercise.
- The use of silver zeolite cartridges will be simulated and charcoal cartridges will be used. However, the silver zeolite cartridges will be available at dispatch point of kit.
- There will be no actual packaging or transport of samples to the laboratory. EOC staff will be questioned only regarding means of transportation of air samples to a central point and the location of the laboratory. Field teams will demonstrate how to obtain air samples during the exercise and will be questioned only regarding the procedures for the pick-up point of air samples and chain of custody.
- Eating, drinking, and smoking will be allowed after concurrence of the FEMA evaluator.

## EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

### Sub-element 5.a – Activation of the Prompt Alert and Notification System

**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. (10 CFR Part 50, Appendix E.IV.D & NUREG-0654, E.5, 6, 7)

#### **Extent-of-Play Agreement:**

- There will be no actual sounding of sirens and no actual broadcasting of EAS messages. The Indian Point siren system will be tested during 2008. FEMA will be invited to observe the tests at those times.
- To demonstrate the procedures for siren activation, all counties will conduct an actual “Silent” test (no siren sounding) in conjunction with an EAS message broadcast (simulated) during the exercise.
- One (1) complete alerting and notification sequence will be evaluated. This sequence will include simulation of siren activation, preparation and transmission of a simulated EAS message to the LP-1 radio station, and preparation and transmission of a simulated EAS Follow-On News Bulletin or Release to the LP-1 radio station, **both of which contain protective actions**. Therefore, there will be actual telephone contact with the radio station for one (1) simulated EAS message **which contains protective actions**. Contact with the radio station for all other EAS messages may be simulated.
- Airing of the all EAS messages will be simulated.
- Regular programming responsibilities of the radio station may preclude participation at the time of the issuance of the simulated EAS message.
- All simulated EAS messages will be available via the JIC website.

## EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

### Sub-element 5.a – Activation of the Prompt Alert and Notification System

**Criterion 5.a.3:** 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. (NUREG-0654, E. 6, Appendix 3.B.2.c).

#### Extent-of-Play Agreement:

- To demonstrate the procedures for siren activation, all counties will conduct an actual “Silent” test (no siren sounding) in conjunction with an EAS message broadcast (simulated) during the exercise.
- The results of the initial “Silent” test will be used to discuss backup alerting by the telephone call-out system for sirens that have been simulated to fail. Subsequent silent tests if conducted by the counties will not be evaluated.
- An inject message(s) to simulate siren failures will be used if no sirens appear to have failed on the “Silent” test.
- Demonstration of this criterion will be limited to two (2) actual “Silent” test failures or two (2) simulated siren failures per county.

Jurisdiction	Extent-of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
Westchester County	EOC discussion only, after “Silent” test.	(X)			
	The county's telephone call-out system will be demonstrated to notify an area impacted by a simulated siren failure.	(X)			A small test group will be used for demonstration.

Rockland County	EOC discussion only, after “Silent” test.	(X)			
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Jurisdiction	Extent of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
	The county's telephone call-out system will be demonstrated to notify an area impacted by a simulated siren failure.	(X)			A small test group will be used for demonstration.
Orange County	EOC discussion after "Silent" test.	(X)			
	The county's telephone call-out system will be demonstrated to notify an area impacted by a simulated siren failure.		(X)		A small test group will be used for demonstration.
Putnam County	EOC discussion after "Silent" test.	(X)			
	The county's telephone call-out system will be demonstrated to notify an area impacted by a simulated siren failure.	(X)			A small test group will be used for demonstration.



## **EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION**

### **Sub-element 5.b – Emergency Information and Instructions for the Public and the Media**

**Criterion 5.b.1:** 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.c).

### **PUBLIC INSTRUCTION AND EMERGENCY INFORMATION**

#### **Extent-of-Play Agreement:**

- Four (4) simulated EAS Follow-On News Releases (one for each county, if applicable) **following an EAS message containing protective actions** may be actually distributed to the LP-1 EAS radio station via the JIC website. The EAS Follow-On News Releases from each county may not necessarily apply to the same EAS Message.
- West. Co. will also post News Releases (and EAS messages) to the county “Exercise” website.
- All simulated EAS Follow-On News Releases will be available to the media via the JIC website.

### **EMERGENCY INFORMATION**

#### **Extent-of-Play Agreement:**

- At least two (2) media briefings will be conducted and evaluated. The briefings to be evaluated will be selected by a State Controller with concurrence from the lead JIC FEMA evaluator. Preparation and scheduling activities for **all** media briefings will be conducted in accordance with the JIC procedures.
- Audio/Video conference links from the County EOCs to the JIC will be utilized for media briefings.

### **PUBLIC INQUIRY**

#### **Extent-of-Play Agreement:**

- The public inquiry function will be staffed for evaluation at two (2) locations: the New York State Tax and Finance Call Center in Albany (~6 people including a supervisor) and the Westchester County Public Inquiry Call Center in White Plains (~10 people including a supervisor).

- Inject messages will indicate false or misleading information to enable the public inquiry function to identify trends and false rumors at both locations.
- Coordination of trends and false information will be conducted on the PIO Coordination line.
- Media Monitoring will be conducted at the JIC.
- Callbacks from the NYS Tax and Finance Call Center in Albany may be simulated.

## EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

### Sub-element 6.a – Monitoring and Decontamination of Evacuees and Emergency Workers, and Registration of Evacuees

**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. (NUREG-0654, J.10.h; J.12; K.5.a)

#### Extent-of-Play Agreement:

- Reception centers will be demonstrated as per the offsite extent of play activities schedule. Additional reception centers will be evaluated (baseline evaluations 2008-2013) as agreed to by FEMA, NYSEMO and each county EMO.
- At least 1/3 of the required monitors will be present and at least six (6) simulated evacuees will be monitored.
- Initial personnel monitoring staff will be demonstrated as tabulated below. Staff will be provided to simulate evacuees.

Number of Persons for Initial Personnel Monitoring				
Category	Orange County	Rockland County	Westchester County	Putnam County
Radiological monitors for initial monitoring	3 (See Note 4)	3 (See Note 4)	3 (See Note 4)	2 (See Note 1)
Other Personnel	0 (See Note 5)	0 (See Note 2)	0 (See Note 5)	0 (See Note 3)
No. of Portal Monitors	2	2	2	1

*Note 1: One monitor for portal monitoring; one monitor for hand held monitoring.*

*Note 2: Evacuees will be monitored, then either given a "clean" card or directed to decontamination area.*

*Note 3: Evacuees will be monitored, then either hand-stamped clean or directed to decontamination area.*

*Note 4: Two monitors for portal monitoring and 1 monitor available for hand held monitoring .*

*Note 5: Evacuees will be monitored, then directed to a "clean" area or to decontamination area.*

- The number of decontamination personnel, vehicle monitoring/decon personnel and social services personnel demonstrating this criterion will be in accordance with each county's plans and procedures.
- Vehicle monitoring will be conducted in accordance with plans.
- There will be only a representative sample of supplies available at each facility.

- As necessary, decontamination techniques will be simulated. At the PMC, activities that may damage property (such as parking vehicle on grass) are to be simulated.
- The monitoring and decontamination teams will not be suited up in anti-contamination clothing. However, all required materials will be available for inspection. The initial use of gloves will be demonstrated.
- Reception Center floors may be covered with a representative sample of paper/plastic during this demonstration. However, all required materials will be available for inspection.
- One decon area will be set up and used to demonstrate both male and female decontamination technique by appropriate personnel.
- Portal monitors will be operated in accordance with each county's procedures. Portal monitors are checked with a check source to verify operability and the capability to meet the FEMA portal monitor standard (1 $\mu$ Ci Cs-137 at midline).
- Monitoring and decontamination capabilities for a school reception center (Rockland County only) will be demonstrated as per the Offsite Extent-of-Play Activities Schedule.

## EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

### Sub-element 6.b – Monitoring and Decontamination of Emergency Worker Equipment

**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. (NUREG-0654, K.5.b)

#### Extent-of-Play Agreement

- Emergency Worker Personnel Monitoring Centers (EWPMC) will be demonstrated as per the offsite extent-of-play agreement schedule.
- Each facility will demonstrate the following:
  - At least two (2) monitors for personnel decontamination (1 male and 1 female);
  - At least one (1) monitor for vehicle monitoring;
  - At least one (1) monitor for vehicle decontamination.
- The monitoring and decontamination teams will not to be suited up in anti-contamination clothing. However, all required materials will be available for inspection. The initial use of gloves will be demonstrated.
- Decontamination actions are to be simulated. At the PMC, activities that may damage property (such as parking vehicles on grass) are to be simulated.
- EWPMC floors may be covered with a representative sample of paper/plastic during this demonstration. However, all required materials will be available for inspection.
- One (1) portal monitor for personnel monitoring will be demonstrated by Westchester and Rockland Counties. Two (2) portal monitors for personnel monitoring will be demonstrated by Orange County.
- One decon area will be set up and used to demonstrate both male and female decontamination technique by appropriate personnel.
- The Portal monitor will be operated in accordance with each county's procedures. Portal monitors are checked with a check source to verify operability and the capability to meet the FEMA Portal Monitor standard (1 uCi Cs-137 at midline).

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

### **Sub-element 6.c - Temporary Care of Evacuees**

**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 (found in MASS CARE-Preparedness Operations, ARC 3031). 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. (NUREG-0654, J.10.h, J.12).

#### **Extent-of-Play Agreement:**

- This criterion will be demonstrated at the following facility only:
  - Orange Co. - Middletown H.S., Middletown, NY

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

### **Sub-element 6.d - Transportation and Treatment of Contaminated Injured Individuals**

**Criterion 6.d.1:** The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654, F.2; H.10; K.5.a, b; L.1, 4)

#### **Extent-of-Play Agreement:**

- MS-1 drills for the four EPZ counties will be conducted as per the Offsite Extent-Of-Play Activities Schedule.
- The use of flashing lights and sirens for exercise play is not required.

## Appendix 4

### ENTERGY NUCLEAR NORTHEAST INDIAN POINT ENERGY CENTER, UNIT 3 DECEMBER 3, 2008 FEMA/NRC Exercise

#### Initial Condition

Indian Point Unit 3 Nuclear Power Plant has been operating for the last 500 days at 100% power. Plant operations personnel are completing shift turnover. #32 480 volt emergency diesel generator (EDG) was taken out of service 48 hours ago for a malfunctioning governor. Maintenance work has been completed and the diesel has been running for 30 minutes as part of the post work test. Unit #3 will be required to start a plant shut down in 2 hours unless the test on #32 EDG passes. The 13.8kv/6.9 kV transformer to the Unit #3 13.8kv electrical bus shorted out 10 hours ago and was disconnected and denergized. The Unit #3 6.9kv bus emergency power diesel generator (Appendix R) needed to be taken out of service to allow work on the 13.8kv electrical bus. #33 safety Injection pump (SI Pump) is out-of-service for motor and electrical circuit breaker preventive maintenance. The Local Government Radio (LGR) is also out of service.

Meteorological Data is Pasquill Category: E. Wind Speed: 4.5 m/s. Wind Direction from 30 degrees. Skies are cloudy with a temperature of 35 degrees.

Indian Point Unit 2 Nuclear Power Plant has been operating for the last 200 days at 100% power. The only equipment out of service is the LGR.

#### Narrative Summary

Approximately 5 minutes after the new crew takes over the shift a Nuclear Plant Operator will call the simulator Central Control Room (CCR) and inform the crew that #32 480 volt emergency diesel generator (EDG) tripped and failed its retest. A plant shutdown will be required.

Soon after, a loss of offsite power will occur due to a fault on the station auxiliary transformer. Operators will identify entry conditions for procedure AOP-138KV-1, "Loss of Power to 6.9KV bus 5 and/or 6". While performing steps, the main generator and the turbine will trip. Operators will enter procedure E-0 "Reactor Trip or Safety Injection". The crew will be required to establish auxiliary feedwater flow to the steam generators. #31 480 volt emergency diesel generator (EDG) will initially start and then it will fail.

0800	0858	1120	1220	1335	1455	1555
INITIAL CONDITION	SITE AREA EMERGENCY DECLARED (EAL 6.1.4)	GENERAL EMERGENCY DECLARED (EAL 1.2.2)	RELEASE BEGINS	WINDSHIFT	RELEASE ENDS	EXERCISE ENDS



**ENTERGY NUCLEAR NORTHEAST  
INDIAN POINT ENERGY CENTER, UNIT 3  
DECEMBER 3, 2008  
FEMA/NRC Exercise**

After auxiliary feedwater flow is established to the steam generators, #3 emergency diesel generator will trip (shut down). Unit #3 will now have a total loss of all power, normal and back up. Unit #3 Operators will enter procedure ECA-0.0, "Loss of All AC Power." A **Site Area Emergency** should be declared, based on Emergency Action Level (EAL) 6.1.4 "Loss of All AC Power > 15 minutes and inability to power required core cooling systems".

The reactor coolant pump (RCP) seals begin to fail due to loss of electrical power.

A 3500 gallon per minute loss of reactor coolant (LOCA) occurs.

OSC field teams will be successful in restoring #3 emergency diesel generator. After power is restored the operators will take actions to restore make up water (charging flow) to the reactor coolant system. The field team will be dispatched to align the refueling water storage tank (RWST) to the charging pump suction. (Charging flow will not be established before red path core cooling conditions exist.) Operators will complete required actions in procedure ECA-0.0 and transition to procedure ECA-0.2 "Loss of All AC Power Recovery with SI Required."

Operators will attempt to start #31 safety injection pump; however it will trip automatically. The control room will dispatch operators to investigate. The reactor vessel level indicating system (RVLIS) begins to decrease below 33% and reactor core exit temperatures (CETs) increase greater than 715°. This would indicate the fuel is not being cooled and is overheating. This condition results in a Red Path in core cooling. Actions to reduce temperature less than 715° will be unsuccessful. Conditions for a **General Emergency** (GE) will exist and a GE should be declared based upon EAL 1.2.2 "Red Path Core Cooling and Functional restoration actions taken and procedures not effective within 15 minutes".

To facilitate the objectives of a site radiological release, the radiation detectors in the vapor containment building (R25/26) will be ramped from 1R to 800R and radiation monitors R2 and R7 will fail high. This will allow simulation of significant core damage.

Approximately 3 minutes after the GE is declared, alignment to the RWST will be successful. Operators will start a charging pump and NPOs will be successful in

0800	0858	1120	1220	1335	1455	1555
INITIAL CONDITION	SITE AREA EMERGENCY DECLARED (EAL 6.1.4)	GENERAL EMERGENCY DECLARED (EAL 1.2.2)	RELEASE BEGINS	WINDSHIFT	RELEASE ENDS	EXERCISE ENDS

**ENTERGY NUCLEAR NORTHEAST  
INDIAN POINT ENERGY CENTER, UNIT 3  
DECEMBER 3, 2008  
FEMA/NRC Exercise**

returning #31 safety injection (SI) pump to service. Operators will complete the required actions for power restoration and transition to procedure FR C-1, "Inadequate Core Cooling". OSC field teams will be successful in restoring #31 emergency diesel generator. Simulator CCR should start #31 residual heat removal (RHR) and #32 safety injection (SI) pumps. Within 1 minute after they start, both will trip on overcurrent. These pumps will not be repaired. Core cooling flow will be limited throughout the exercise to preclude operators from establishing cold leg recirculation.

A monitored radiological release from containment occurs. The release will be detected by rising levels on plant vent radiation monitors R-14 and R-27. The source of the release will be from a failed containment penetration for post accident containment venting.

Meteorological data will change causing additional Protective Action Recommendations (PARs) to be generated. Meteorological data will change to WS = 4.5 m/s, WD from 150°, and Pasquill = E.

Radioactive release will be stopped by the Repair and Corrective Action team being successful in repairing containment penetration.

OSC field teams will be successful in restoring #32 EDG. Simulator CCR should start #32 Containment Spray Pump, #32 RHR pump, and #35 Fan Cooler Unit.

After consultation with the Onsite and Offsite Exercise Controller Organization and determination that all objectives have been given ample opportunity for demonstration by BOTH onsite and offsite responders, the Exercise will end.

0800	0858	1120	1220	1335	1455	1555
INITIAL CONDITION	SITE AREA EMERGENCY DECLARED (EAL 6.1.4)	GENERAL EMERGENCY DECLARED (EAL 1.2.2)	RELEASE BEGINS	WINDSHIFT	RELEASE ENDS	EXERCISE ENDS

# APPENDIX 5

## PLANNING ISSUES

### 1. Orange County - Field Monitoring Team 2

**ISSUE NO:** 32-08-3.b.1-P-01

**CONDITION:** While appropriate KI was available for use by emergency workers, the issuance of KI to FMTs was not in accordance with the current requirements of Procedure 24, "Exposure Control." This procedure also does not accurately reflect the intended manner of distribution of dosimetry and KI at the new Orange County EOC. Specifically, according to Procedure 24, Steps 5.2.1 and 5.2.5, issuance of dosimetry and KI to workers is the sole responsibility of the Emergency Worker Supervisor. However, current protocol at the Orange County EOC is for FMTs to deploy directly to the new EOC and begin inventory and operational checks without necessarily interfacing with an emergency worker supervisor. In this exercise, the RACES Team members assigned to the FMTs were performing the functions of dosimetry and KI issuance. However issuance of dosimetry or KI by anyone other than the Field Team supervisor is a deviation from Procedure 24 requirements. The RACES personnel did not use or have an appropriate procedure to accomplish this task and while dosimetry was appropriately provided to Team 1, KI was not.

When questioned about KI prior to dispatch, Team 1 technical members recalled that the KI was stored in a cabinet and they proceeded to obtain sufficient KI to take to the field. It is not clear whether this would have been accomplished had the question not been asked, however the existing exposure control Procedure 24, as implemented without the field team supervisor, did not drive KI issuance by the RACES support personnel. Other KI responsibilities, including providing instructions for continued use after initial authorization to take it, and instruction on the potential allergic reactions, were also not accomplished during issuance of KI or during the FMT briefing by the Field Team Coordinator. Lastly, the Form 3, Individual Radiation Exposure Record Form does not include a place to record KI expiration, although Procedure 22 - "Field Radiological Monitoring," Step 4.2.3 requires the Field Teams to record the KI expiration date on the form. Since

Procedure 22 does not address RACES team member tasks and KI issuance was being done by RACES personnel and not technical team members using Procedure 22 for operational checks, this step in the procedure was never performed and the expiration date was not recorded on the Form 3 for team 1.

**POSSIBLE CAUSE:** Field Team Supervisor is no longer expected to engage with field teams at the time of inventory and operational checks and prior to dispatch. As such, the procedural steps for dosimetry and KI issuance assigned to this position were not completed.

**REFERENCE:** NUREG-0654, J.10 e.,f.

**EFFECT:** Field Teams could inadvertently be deployed to the field without KI in their possession and without adequate instruction as to side effects and use requirements in the days following an emergency.

**RECOMMENDATION:** Revise procedures to reflect proper issuance of dosimetry and KI. Also consider inclusion of KI tablets in field team kits.

## **2. Orange County - Field Monitoring Team 2**

**ISSUE NO:** 32-08-4.a.1-P-02

**CONDITION:** During the RM-14 operability check, neither the procedural instruction nor other mechanism (equipment label, etc) specified an acceptable range of readings needed to ensure the equipment was indeed operational and suitable for field use. In order to be properly tested for operability, a given instrument reading must fall within both a lower and upper range of values specific to the source being used. However Procedure 22, "Field Radiological Monitoring," states only that the Cs-137 check source must read greater than 10,000 cpm. No upper level is provided for which a higher reading would also indicate an equipment malfunction and no specific source is identified. The source provided in the kit delivered only 9000 cpm and the team then borrowed a check source from another kit and found that the instrument response with this source was well over the required 10000 cpm. No upper range was evaluated since the procedure (or other instruction) did not specify one.

**POSSIBLE CAUSE:** The procedures are not adequate in assuring the operability of the RM-14.

**REFERENCE:** NUREG 0654 H.10

**EFFECT:** Equipment may pass operational test but still be defective due to insufficient testing criteria.

**RECOMMENDATION:** Update procedures for operational checks of equipment to include upper ranges specific to each source.

### **3. Orange County - Medical Services Hospital - St Lukes Cornwall Hospital**

**ISSUE NO:** 32-08-6.d.1-P-03

**CONDITION:** Use of the 44-9 probe with the Ludlum Model 14 survey meter should utilize the counts-per-minute (cpm) scale for detection of contamination. This is inconsistent with the contamination decision criteria designated in the hospital procedure, which provides action levels in mR/hr. The procedure specifies survey action levels of less than 0.05 mR/hr as background, 0.005-100 mR/hr as contamination, and greater than 100 mR/hr as heavy contamination.

**POSSIBLE CAUSE:** The procedure addresses risk in terms of radiation risk from exposure, rather than determining contamination level.

**REFERENCE:** NUREG-0654 K.5.a, FEMA-REP-22: Contamination Monitoring Guidance for Portable Instruments used for Radiological Emergency Response to Nuclear Power Plant Accidents.

**EFFECT:** Counts-per-minute is the proper unit for instrument readings when measuring beta-gamma emitting surface contamination. For purposes of accuracy and technical appropriateness, the proper scale should be utilized.

**RECOMMENDATION:** It is recommended that Procedure IP 1018 be revised to use decontamination decision criteria for individuals in cpm, consistent with FEMA-REP-22.

#### **4. Orange County - Medical Services Transport Cornwall Volunteer Ambulance Corps.**

**ISSUE NO:** 32-08-6d1-P-04

**CONDITION:** The crew from the Cornwall Volunteer Ambulance Corps and staff at the St. Luke's Cornwall Hospital were unaware of the procedure that requires the ambulance crew to report to an Orange County Emergency Worker Personnel Monitoring Center (EWPMC) if found to be contaminated after monitoring by hospital staff.

**POSSIBLE CAUSE:** Lack of training and ambiguity in how the procedure is written.

**REFERENCE:** F.2; H.10; K.5.a,b; L.1; L.4, Orange County RERP July 2006, Attachment 9: "Guidelines for the Treatment and Transport of Potentially Contaminated Injured People", Section III, Paragraph B, Page 10-23.

**EFFECT:** If ambulance crew members are decontaminated and treated at the hospital instead of a dedicated County Emergency Worker Personnel Monitoring Center, this will take up space and hospital staff time that will be needed at the hospital Radiation Emergency Area (REA) for the treatment of the general public that may have been contaminated.

**CORRECTIVE ACTION DEMONSTRATED:** In Attachment 9, Under Section III, Paragraph B, on page 10-23 in the Orange County RERP, it reads as follows:

B. For Rescue-Squad personnel:

1. Hospital personnel will perform a survey of clothing, ambulance, etc. upon arrival at the hospital before undertaking further activity.
2. If contaminated, discard clothing in container marked "Radioactive"
3. All rescue-squad personnel that are found to be contaminated should report to an activated Orange County Emergency Worker Personnel Monitoring Center.

This procedure needs more clarity on what actions is to take place on part of hospital staff and ambulance crew after the patient is discharged into the hospital's care. The procedure should state under what circumstances if any, that ambulance crew members are to be decontaminated and treated at the hospital, or "must" report to a EWPMC instead of "should". The removal of contaminated clothing by ambulance crew members at the hospital and the sending them to a EWPMC may not be feasible due to weather conditions and temperatures, and what the clothing requirements are of the Rescue Squad. The Orange County Radiological Officer has agreed with this recommendation and has revised the procedure accordingly. The updated procedure has been reviewed and approved by FEMA.

## **5. Rockland County - Field Monitoring Team 2**

**ISSUE NO:** 32-08-3.b.1-P-05

**CONDITION:** One Rockland County Field Monitoring Team 2 (RC FMT2) team member commented that she was allergic and could not take KI. When the team was instructed by the Field Team Coordinator (FTC) to take KI the other RC FMT2 team members took their KI (simulated) and notified the FTC that they had done so. The FTC was not advised that one team member was unable to take KI.

**POSSIBLE CAUSE:** County of Rockland, Office of Fire and Emergency Services procedure DOH-7, "Field Monitoring Team Coordinator," Paragraph 5.4.11, only requires the FTC to ensure that all field teams have been instructed to take KI when the decision has been made for it to be taken. The procedure does not provide guidance in the event that a field team member is unable to take KI. County of Rockland, Office of Fire and Emergency Services procedure DOH-8, "Potassium Issue and Use," Paragraph 5.8, requires emergency workers to record how much and when KI was taken but does not require reporting when an individual is unable to take KI.

**REFERENCE:** NUREG 0654 J.10.e

**EFFECT:** Not knowing that a field team member has not taken KI, the Field

Team Coordinator could direct the team into an area, or direct the team to stay in an area, where the individual could receive excess thyroid dose.

**RECOMMENDATION:** Procedures should be updated to require emergency workers to report taking, or not taking, KI when instructed to do so.

Procedures should also include guidance for emergency worker coordinators to take appropriate measures when an emergency worker is unable to take KI.

## **6. Rockland County Emergency Operations Center**

**ISSUE NO:** 32-08-2.b.2-P-06

**CONDITION:** The Rockland County Radiological Emergency Preparedness Plan, Section III, Rev. 07/08, page III-25, Table III-1, states that when the projected dose to the population is 25 rem committed dose equivalent (CDE) to the thyroid from radioiodine, then the recommended action is to administer stable iodine.

The projected 25 rem thyroid CDE to warrant the recommendation to ingest KI is consistent with the U.S. Food and Drug Administration (FDA) guidance found in the U.S. Environmental Protection Agency Manual of Protective Action Guides and Protective Actions for Nuclear Emergencies, 1992, EPA-400-R-92-001. However, this guidance has been superseded by the FDA Guidance: "Potassium Iodide as a Thyroid Blocking Agent in Radiation Emergencies," November 2001. This guidance recommends the ingestion of KI as a function of age and projected thyroid CDE. It includes the recommendation to ingest KI for:

Children from birth to 18 years (<70 kg in weight): > 5 rem thyroid CDE

Pregnant or lactating women: > 5 rem thyroid CDE

Adults 18 through 40: > 10 rem thyroid CDE

Adults over 40: > 500 rem thyroid CDE

Also, the policy in Table III-1 is not consistent with the Rockland County Procedure, DOH-8 "Potassium Iodide Issue and Use," Rev 07/08, page 3, that states, "...upon declaration of a General Emergency by the licensee, a recommendation to evacuate and take KI would be made simultaneously."



**POSSIBLE CAUSE:** Failure of the Rockland County Radiological Emergency Preparedness Plan to use the most current FDA guidance for recommending KI for the public and the Rockland County Radiological Emergency Preparedness Plan is not consistent with the DOH-8 procedure.

**REFERENCE:** NUREG 0654 J.10.e; Rockland County Plan, Rev. 07/08, page III-25, Table III-1; and DOH-8.

**EFFECT:** The difference between Table III-1 and DOH-8 could result in confusion for the decision makers. Also, using the outdated projected 25 rem thyroid CDE as the trigger for recommending KI for members of the public between birth and 40 years old subjects those individuals to an increased thyroid cancer risk.

**RECOMMENDATION:** Modify the county plan to be consistent with DOH-8 and the current FDA guidance on the projected thyroid CDE that warrants the ingestion of KI by the public.

## **7. Westchester County - Field Monitoring Team HD-1**

**ISSUE NO:** 32-08-4.a.3-P-07

**CONDITION:** IP-3.2, Attachment 5 "Conduct of an Air Sample" Step 3.0 directed the Field Monitoring Teams to take a 10 cubic feet air sample and referred the reader to Attachment 6 (Air Sampler Model H-809C) for air sampler run times. However, Attachment 6 contained no run times for obtaining a 10 cubic feet air sample at different flow rates. For the two air samples taken, the flow rates were 0.9 and 0.8 cubic feet per minute (cfm), less than calibration flow rate of 1 cfm. When the EOC was informed of this, Field Monitoring Team HD-1 was instructed to continue to use 10 minutes as the sampling time because the air sampler was calibrated for 1 cfm and to not adjust the time duration.

**POSSIBLE CAUSE:** IP-3.2 was revised 8/08 and run time information was eliminated from Attachment 6. When contacted, the WC EOC instructed HD-1 to continue to use 10 minutes as the sampler run time even if the flow rate is not exactly 1 cfm.

**REFERENCE:** NUREG-0654 I.9; Westchester County Radiological Emergency Response Plan, Implementation Procedure IP-3.2 "Field Monitoring Team" Attachments 5 and 6.

**EFFECT:** For this exercise, there was no effect because Field Monitoring Team HD-1 was not in the plume when they took their air samples; hence all their measurements were background. However, if the team were in the plume and the air sampler flow rate differed from the calibrated rate, then using a fixed sampling time (10 minutes) would result in a total air volume sampled to be higher or lower than 10 cubic feet that would be used in performing iodine dose calculations.

**RECOMMENDATION:** Either revise Attachment 5 of IP-3.2 to instruct the Field Monitoring Teams to record and transmit the air sampler flow rate observed when using a fixed sampling duration or revise Attachment 6 of IP-3.2 to provide the sampling durations (run times) needed to obtain a fixed sampling volume of air of 10 cubic feet.

## **8. Westchester County - Field Monitoring Team HD-1**

**ISSUE NO:** 32-08-4.a.3-P-08

**CONDITION:** Information was not marked on the envelopes for the air samples as per SOP IP- 3.2 "Field Monitoring Teams". Steps 7.0, 9.0, 10.0, 11.0, and 14.0 of Attachment 5 "Conduct of an Air Sample" directed that the following be marked on the Air Sample Data Collection Envelopes:

**Envelope Containing the Particulate Filter**

Filter Gross CPM, Filter Background CPM, Net Filter CPM and  
Filter Envelope Contact Dose Rate

**Envelope Containing the Cartridge**

Higher of the Cartridge Gross CPM through envelope and  
Cartridge Net CPM

**Instead the following were marked:**

**Envelope Containing the Particulate Filter**

Date, Team, Sampling location, Filter sample, start and stop times of the air sample and CPM (unknown if gross, background or net).

**Envelope Containing the Cartridge**

Date, Team, Sample location, Cartridge sample, start and stop times of the air sample and CPM for front and back of envelope containing cartridge.

**POSSIBLE CAUSE:** Steps 7.0 through 15.0 of IP-3.2 were not followed for recording information on the Air Sample Data Collection Envelopes. Although SOP IP-3.2 Attachment 5 identified what should be marked on the envelope, the envelopes provided were blank 5x7-inch brown envelopes. Without a pre-printed label or information/data template for the envelope, it made it difficult for Field Monitoring Team HD-1 to correctly fill in the information required by Attachment 5 to be recorded on the envelopes.

**REFERENCE:** NUREG-0654 I.9; Westchester County Radiological Emergency Response Plan, Implementation Procedure IP-3.2 "Field Monitoring Team" and Attachment 5 "Conduct of an Air Sample."

**EFFECT:** For this exercise, there was no effect because Field Monitoring Team HD-1 was not in the plume when air sampling was performed; hence all their filter and cartridge measurements were background. However, if HD-1 were sampling in the plume, there would be incomplete field information provided to inform the sample recipient of the potential envelope content when the sample envelopes are transferred to the courier or to the sample custodian at the Westchester County Emergency Worker Decontamination Center,. More importantly, the information required by Attachment 5 to be recorded on the envelopes does not provide key information such as date, location of sampling, time of sampling which HD-1 did write on the envelopes. As written, the recipient of the sample would have no idea of the sampling locations unless Attachment 7 of IP-3.2 accompanied the sample envelopes.

**RECOMMENDATION:** Consider revising IP-3.2 Attachment 5 to include a form or label for the sample envelope to prompt for the information/data that should be recorded. Consider revising Attachment 5 to include recording other key data to be attached to the sample envelope or require a copy of Attachment 7 to accompany the envelope.

## **9. Westchester County - Medical Services Hospital - Westchester Medical Center**

**ISSUE NO:** 32-08-6.d.1-P-09

**CONDITION:** A number of activities were observed that would be improved by procedure enhancements at the hospital. Because the Lead Controller had the wrong telephone number for the hospital, the hospital was not notified of the patient being enroute. A security officer stationed outside did not inform the drill participants that the ambulance had arrived. In addition, when surveys were conducted in the REA, the probe on the radiation detector (E-520) was not covered. Finally, although the Radiological Safety Physicist stationed outside did a good job reminding the hospital crew to read dosimeters every 15 minutes, a poster containing similar information should be used in case this individual is not present

**POSSIBLE CAUSE:** Some activities have not been captured in the hospital procedure.

**REFERENCE:** NUREG 0654, L.1

**EFFECT:** Although a significant problem is not likely to occur if this issue is not addressed, the processes at the hospital might be improved if they are. For example, a patient may not wait as long outside if the security officer is aware that he must notify hospital staff that an expected ambulance has arrived. Also, covering a radiation detector probe would most likely prevent it from becoming contaminated. Finally, a poster with dosimeter requirements and action levels may prevent personnel from forgetting to read their DRD's or exceeding a dose limit.

**RECOMMENDATION:** Revise the hospital procedure to require covering the detector probe prior to conducting radiological surveys. The procedure should include having the security person stationed outside inform hospital staff when an ambulance is waiting outside with a patient. Also, although the Radiological Safety Physicist stationed outside did a good job reminding the hospital crew to read dosimeters every 15 minutes, a poster containing similar information would be useful in case this individual is not present.

## **10. Westchester County - Warning Point**

**ISSUE NO:** 32-08-1.a.1-P-10

**CONDITION:** The Emergency Operations Center (EOC) activation list provided to the evaluator to demonstrate quarterly updating was not the same list that was used during the exercise.

**POSSIBLE CAUSE:** The activation list utilized during the drill had not been replaced with the updated list.

**REFERENCE:** NUREG-0654/FEMA-REP-1, E.1, E.2

**EFFECT:** No negative consequences occurred. Only one phone contact is necessary to activate the EOC and the list had five of the seven correct names.

**RECOMMENDATION:** Replace the list in the WP with the updated activation list.

## **11. Westchester County - School Bus Company - Hendrick Hudson Bus**

**ISSUE NO:** 32-08-3.a.1-P-20

**CONDITION:** The inventory at the School Bus Garage no longer has TLDs. Instead the TLDs were replaced with a newer technology OSL permanent record dosimeter. The new inventory is not accurately documented in Westchester County's Plan.

**POSSIBLE CAUSE:** A possible cause for the deviation between the plan and the inventory of the bus garage is that the plan may not have been updated since the issuance of the newly calibrated dosimeters to the bus garage.

**REFERENCE:** NUREG-0654 FEMA-REP 1 Rev. 1 Part II Section K Westchester County Radiological Emergency Plan for the Indian Point Energy Center Procedure 5 – DOT, Attachment 1

**EFFECT:** The equipment issued to the emergency workers are not the same as described in the plan.

**RECOMMENDATION:** It is recommended to update the plan to reflect the new dosimeters in inventory.

## **12. Westchester County - School Bus Company - Hendrick Hudson Bus**

**ISSUE NO:** 32-10-3.a.1-P-18

**CONDITION:** Hendrick Hudson Bus Company did not have proper dosimeters as described in the “Westchester County Radiological Emergency Plan for the Indian Point Energy Center”. The bus company had 50 Arrow-Tech, Model 730 directreading dosimeters with a range of 0-20R. Procedures 3 and 5 of the Westchester County Radiological Emergency Plan call for a 0-5R dosimeter and a 0-200R dosimeter to be issued.

**POSSIBLE CAUSE:** Someone changed the type of dosimeters in inventory despite what is described in the plan.

**REFERENCE:** NUREG-0654 FEMA-REP 1 Rev. 1 Part II Section K Westchester County radiological Emergency Plan for the Indian Point Energy Center Procedure 3.3 – Radiological Officer, Attachment 7.

**EFFECT:** If an emergency worker was working in a Life Saving or Protection of Large Populations capacity, they may not be able to monitor their total dose since equipment being issued only goes up to 20R.

**RECOMMENDATION:** Replace inventory with 0-5R and 0-200R dosimeters that are described in the Westchester County Radiological Emergency Plan for the Indian Point Energy Center,” or update the plan to reflect current inventory. The plan should address methods of monitoring above in case emergency workers are conducting life saving operations or protection of large populations.