FINAL EXERCISE REPORT

INDIAN POINT ENERGY CENTER FULL SCALE EXERCISE

Licensee: **Entergy**

Exercise Date: **September 14, 2010**

Report Date: **Nov. 30, 2011**

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

Table of Contents

I. EXECUTIVE SUMMARY 4
II. INTRODUCTION 5
III. EXERCISE OVERVIEW 7
A. Plume Emergency Planning Zone Description 7
B. Exercise Participants 8
C. Exercise Timeline 12
IV. EXERCISE EVALUATION AND RESULTS 14
A. Summary Results of Exercise Evaluation 14
B. Status of Jurisdictions Evaluated 21
1. NEW YORK STATE 23
1.1 Emergency Operations Center 23
1.2 Warning Point 24
1.3 Accident Assessment 24
1.4 Emergency Operations Facility 24
1.5 Joint Information Center 25
1.6 Emergency Alert Station - Station WHUD-FM 25
1.7 State of New York Call Center 25
2. RISK JURISDICTIONS 26
2.1 ORANGE COUNTY 26
2.1.1 Orange County Emergency Operations Center 26
2.1.2 Orange County Warning Point 27
2.1.3 Orange County Accident Assessment 27
2.1.4 Orange County Field Monitoring Team 1 27
2.1.5 Orange County Field Monitoring Team 2 28
2.1.6 Orange County General Population Reception Center (Newburg Free Academy April 28, 2010) 28
2.1.7 Orange County Traffic and Access Control 1 28
2.1.8 Orange County Traffic and Access Control 2 29
2.1.9 Orange County Special Population Bus Company (Monroe-Woodbury Co. October 14, 2010) 29
2.1.10 Orange County School Interviews (Highland Falls Intermediate School October 14, 2010) 29
2.1.11 Orange County School Bus Company (West Point Tours October 14, 2010) 30
2.1.12 Orange County - MS-1 Drill (St. Lukes Cornwall Hospital- May 28, 2009 30

2.2 PUTNAM OUNTY 31
2.2.1 Putnam County Emergency Operations Center 31
2.2.2 Putnam County Warning Point 31
2.2.3 Putnam County Accident Assessment 32
2.2.4 Putnam County Field Monitoring Team A 32
2.2.5 Putnam County Field Monitoring Team B 32
2.2.6 Putnam County – General Population Reception Center (George Fisher Middle School May 25, 2010) 33
2.2.7 Putnam County – General Population Reception Center Reception Center (Carmel High School –September 2, 2009 and May 24, 2010) 33
2.2.8 Putnam County - Medical MS-1 Drill Putnam County Hospital / Carmel Ambulance May 12, 2010) 35
2.2.9 Putnam County – Traffic and Access Control 1 35
2.2.10 Putnam County – Traffic and Access Control 2 35
2.2.11 Putnam County - Emergency Worker PMC (Carmel Fire Dept, Nov. 16, 2010) 36

2.3 ROCKLAND COUNTY 37
2.3.1 Rockland County Emergency Operations Center 37
2.3.2 Rockland County Warning Point 37
2.3.3 Rockland County Accident Assessment 37
2.3.4 Rockland County Field Monitoring Team 1 38
2.3.5 Rockland County Field Monitoring Team 2 38
2.3.6 Rockland County – Special Population Bus Company Interviews 38
(Chestnut Ridge – January 11, 2010; Student Bus January 7, 2010)
2.3.7 Rockland County – School Bus Company Interviews 39
(Chestnut Ridge –January 11, 2010; Student Bus January 7, 2010)
2.3. 8 Rockland County – General Population Bus Company Interviews 39
(Chestnut Ridge –January 11, 2010; Student Bus January 7, 2010) 39
2.3.9 Rockland County – School Interviews (Nyack: Valley Cottage ES; North Rockland and 39
Willow Grove MS; East Ramapo Rockland Work Site Daycare; Ramapo Robin Hill Nursery School - March 25, 2010; Clarkstown - Woodglen ES - May 11, 2010)
2.3.10 Rockland County Traffic and Access Control 1 40
2.3.11 Rockland County – Traffic and Access Control 2 40
2.3.12 Rockland County Emergency Worker PMC (Rockland County Sewer District, September 25, 2008) 40

2.4 WESTCHESTER COUNTY 42
2.4.1 Westchester County Emergency Operations Center 42
2.4.2 Westchester County Warning Point 42
2.4.3 Westchester County Accident Assessment 42
2.4.4 Westchester County Field Monitoring Team 1 43
2.4.5 Westchester County Field Monitoring Team 2 43
2.4.6 Westchester County Traffic Control Point 1 44
2.4.7 Westchester County Traffic Control Point 2 44
2.4.8 Westchester County – Medical Drill (Westchester Medical Center – October 28, 2010 44

2.4.9 Westchester County – Special Population Bus Company Interviews (Royal Coach 45
Feb.25, 2010, White Plains Bus – May 27, 2010, Mile Square Bus June 3, 2010)
2.4.10 Westchester County – School Bus Company Interviews (White Plains 45
Bus – May 27, 2010, Mile Square Bus June 3, 2010)
2.4.11 Westchester County – Public Call Center 45
2.4.12 Westchester County - (Medical Services Transport - Trans/Care Ambulance.....46
November 5, 2009)
2.4.13 Westchester County – School Interviews - (Yorktown Central School District, ... 46
Brookside Elementary School, Crompond, Mildred E. Strong Middle School
Mohansic Elementary School, Yorktown Alternative High School, December 2, 2010
2.4.14 Westchester County – Day Care Interviews - (All Aboard Child Education Center, ... 47
Lakeland Children's Center, Aunt Bessie's Open Door, Peekskill Head Start
Bright Beginnings Pre-School, Rosenthall JCC of Northern Westchester
Chappaqua Children's Workshop, The Seed Day Care Center, Childrenspace
Preschool, Young Wonders, Early Learning Center at Fieldhome, Westchester ARC/Childrens
School for Early Development at St. Ann's Ossining, Holy Name of Mary Montessori School,
December 16, 2010)

3. SUPPORT JURISDICTION..... 47

3.1 Bergen County – Emergency Operations Center..... 47

APPENDIX 1. ACRONYMS AND ABBREVIATIONS 46
APPENDIX 2. EXERCISE EVALUATORS AND TEAM LEADERS..... 50
APPENDIX 3. EXERCISE OBJECTIVES AND EXTENT OF PLAY 53
APPENDIX 4. 2010 INDIAN POINT ENERGY CENTER EXERCISE SCENARIO..... 93
APPENDIX 5. PLANNING ISSUES..... 95

LIST OF TABLES

TABLE 1. Exercise Time Line.....13

TABLE 2. Summary of Results of Exercise Evaluation..... 15

I. EXECUTIVE SUMMARY

On September 14, 2010 an exercise was conducted in the plume exposure pathway emergency planning zone (EPZ) around the Indian Point Energy Center (IPEC). The exercise was evaluated by Federal Emergency Management Agency (FEMA) Region II. The purpose of the exercise was to demonstrate and assess the level of State and local preparedness in responding to a radiological emergency. The exercise was 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**:** Day Cares**;** 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 no new Areas Requiring Corrective Actions (ARCAs) identified; six prior ARCA’s were resolved at the time of demonstration and one resolved by plan change. Two outstanding prior ARCA remains unresolved.

II. Introduction

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

44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of Tribal, 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 Radiological Emergency Response Plans (RERPs) and procedures developed by State and local governments;

- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;

- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated 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 Health and Human Services,
- U.S. Department of Transportation,
- U.S. Department of Agriculture,
- U.S. Department of the Interior, and
- U.S. Food and Drug Administration.

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

A REP exercise was conducted on September 14, 2010 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 involving the Indian Point Energy Center. The purpose of this exercise report is to present the exercise results and findings on the performance of the off-site response organizations (OROs) 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 FEMA Region II Technological Hazards Branch Chief and RAC Chairperson and approved by the Regional Administrator.

These reports are provided to the NRC and participating States. State and local governments used the findings contained in these reports for the purposes of planning, training, and improving emergency response capabilities.

The criteria used in the FEMA evaluation process are contained in the following:

- NUREG – 0654-REP-1, REV 1, “Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” November 1980.
- Interim Radiological Emergency Preparedness (REP) Manual, August 2002

Section III of this report, "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway emergency planning zone (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.

Section IV of this report, "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, recommended corrective actions, and the Tribal, State, and local governments’ schedule of corrective actions for each identified exercise issue and (2) descriptions of ARCAs assessed during previous exercises and resolved at this exercise, including the corrective action demonstrated as well as ARCAs assessed during previous exercises and scheduled for demonstration at this exercise which remain unresolved.

The final sections of the report are comprised of the appendices and tables. The appendices contain the following supplementary information: acronyms and abbreviations, exercise evaluators and team leaders, exercise evaluation area criteria and Extent-of-Play agreement, and a summary of the exercise scenario. The tables contain the Exercise Time Line, along with the summary results of the exercise evaluation.

III. EXERCISE OVERVIEW

Contained in this section are data and basic information relevant to the September 14, 2010 exercise held to test the offsite emergency response capabilities in the area surrounding the Indian Point Energy Center (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 and West Mountains to the 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 2 exercise on September 14, 2010.

STATE OF NEW YORK

New York State Correctional Services
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 Labor
New York State Department of Taxation and Finance
New York State Department of Transportation
New York State Division of Criminal Justice Services
New York State Division of Military and Naval Affairs
New York State Education Department
New York State Energy Research and Development Authority
New York State Office for People with Developmental Disabilities
New York State Office for the Aging
New York State Office of Emergency Management
New York State Office of Fire Prevention and Control
New York State Office of General Services
New York State Office of Mental Health
New York State Office of Parks, Recreation, and Historic Preservation
New York State Police
New York State Public Service Commission
New York Thruway Authority

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 Deputy Commissioner for 911
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 Radio Amateur Civil Emergency Services
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 County Department of Health
Rockland County Department of Highways
Rockland County Department of Hospitals
Rockland County Department of Planning

Rockland County Department of Public Transportation
Rockland County Department of Social Services
Rockland County Division Environmental Resources
Rockland County Emergency Medical Services
Rockland County Executive's Office
Rockland County Facilities Management
Rockland County Fire and Emergency Management
Rockland County Fire Training Center
Rockland County Legislature
Rockland County Liaison Officer
Rockland County Management Information Systems
Rockland County Mental Health Department
Rockland County Office of Consumer Protection, Weights, and Measures
Rockland County Planning Board
Rockland County Sewer District, Sparkill
Rockland County Sheriff

Westchester County
Westchester County Attorney's Office
Westchester County Clerk's Office
Westchester County Department of Corrections
Westchester County Department of Environmental Facilities
Westchester County Department of Finance
Westchester County Department of Health
Westchester County Department of Human Resources
Westchester County Department of Law
Westchester County Department of Mental Health
Westchester County Department of Parks and Recreation
Westchester County Department of Public Safety
Westchester County Department of Public Works
Westchester County Department of Senior Services
Westchester County Department of Social Services
Westchester County Department of Transportation
Westchester County Executive Office
Westchester County Office of Emergency Services
Westchester County Office of the Disabled
Westchester County Police Department
Westchester County Probation Department
Westchester County Public Information

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
Stoney Point Police Department
Yorktown Police Department

Bergen County

Bergen County Hazardous Materials Personnel
Bergen County Office of Emergency Management

Private/Volunteer Organizations

American Red Cross
Entergy
Radio Amateur Civil Emergency Services (RACES)
Westchester Emergency Communication Association
The Salvation Army
WHUD Radio Station staff
Putnam Emergency & Amateur Repeater League (PEARL)

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 September 14, 2010. Also included are times notifications were made to the participating jurisdictions/functional entities.

TABLE 1. EXERCISE TIMELINE

September 14, 2010 – Indian Point Energy Center

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken							
		State EOC	JIC	EAS Station	Putnam Co. EOC	Rockland Co. EOC	Westchester Co. EOC	Orange Co. EOC	Bergen Co. EOC
Alert	0836	0839	0850	0917	0857	0850	0846	0852	0908
Site Area Emergency	1054	N/A	1100	N/A	1057	1058	1058	1059	1106
General Emergency	1101	1104	1105	1104	1104	1104	1104	1105	1125
Simulated Rad. Release Started	1246	1253	1250	N/A	1252	1251	1246	1300	1315
Simulated Rad. Release Terminated	1439	1434	1440	N/A	1437	1435	1436	1437	1441
Facility Declared Operational	0902	0914	0945	N/A	0940	0930	0955	0945	0915
Declaration of State of Emergency Local	N/A	N/A	1145	N/A	1106	1106	1100	1145	1140
State	N/A	1222	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Exercise Terminated	1507	1506	1510	N/A	1506	1509	1507	1504	1506
Early Precautionary Actions – Parks closed, rail traffic suspended, early dismissal of schools, shelter livestock	N/A	0915	0915	N/A	0919	0921	0921	0916	1120
"Heads Up" Siren Activation	N/A	0923	0923	N/A	0923	0923	0923	0923	0945
"Heads Up" EAS Message	N/A	0927	0927	0927	0927	0927	0927	0927	0948
1st Protective Action Decision **Shelter:** None **Evacuate:** Areas in **Westchester County**; Buchanan, Cortland, Croton on Hudson, Montrose, Peekskill, Verplank. **Rockland County** ; Bear Mountain & Harriman State Park, Jones Point, Stoney Point, Tompkins Cove. **Orange County**: Bear Mountain and Harriman State Park, Highland Falls, Highlands	N/A	1118	1118	N/A	1118	1118	1118	1118	1118
1st Siren Activation	N/A	1121	1121	N/A	1121	1121	1121	1121	1121
1st EAS Message	1125	1125	1125	1125	1125	1125	1125	1125	N/A
2nd Protective Action Decision **Shelter:** None **Evacuate**: Areas in **Westchester County**; Buchanan, Cortland, Croton on Hudson, Montrose, Peekskill, Verplank. In addition Somers West of Route 18 and Yorktown **Rockland County:** Bear Mountain & Harriman State Park, Jones Point, Stoney Point, Tompkins Cove. **Orange County**: Bear Mountain and Harriman State Park, Highland Falls, Highlands	N/A	1321	1321	N/A	1321	1321	1321	1321	1321
2nd Siren Activation	N/A	1324	1324	N/A	1324	1324	1324	1324	1324
2nd EAS Message	N/A	1328	1328	N/A	1328	1328	1328	1328	1328
3rd Protective Action Decision **Shelter**: None **Evacuate**: Areas in **Westchester County** ; Buchanan, Cortland, Croton on Hudson, Montrose, Peekskill, Verplank**. In addition;** Somers West of Route 18 and Yorktown **Rockland County:** Bear Mountain & Harriman State Park, Jones Point, Stoney Point, Tompkins Cove. **Orange County**: Bear Mountain and Harriman State Park, Highland Falls, Highlands. **In addition;** Town of Cornwall South of Angola, Town of Tuxedo, Village of Harriman East of Thruway, Village of Woodbury East of Thruway and Town of Highlands excluding Highland falls.	N/A	1449	1449	N/A	1449	1449	1449	1449	1449
KI Administration Decision Emergency Workers		1118	1110	N/A	1111	1118	1104	1118	1118
General Public in Evacuated Areas	N/A	1118	N/A	N/A	N/A	N/A	1104	N/A	N/A

V. 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 September 14, 2010 exercise 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

SITE
Indian Point

DATE
14-Sep-10

	EMERGENCY OPNS MANAGEMENT					PROTECTIVE ACTION DECISION-MAKING						PROTECTIVE ACTION IMPLEMENTATION									FIELD MEASUREMENT & ANALYSIS					EMERG NOTIF & PUBLIC INFO				SUPPORT OPN/FACILITIES			
	Mobilization	Facilities	Direction & Control	Communications Equipment	Equipment & Supplies to Support Operations	Emergency Worker Exposure Control	Rad Assmt PARs Based on Avail Information	Rad Assmt PADs for General Public	Prot Action Decisions for Special Population's	Rad Assmt & Decision Making for Ingest Exposure	Rad Assmt & Dec Making for Relo/Re-entry/& Return	Implementation of Emergency Wrkr Exposure Control	Implementation of KI Decision	Implementation of PADs for Special Population's	Implementation of PADs for Schools	Implementation of Traffic Access & Control	Impediments to Evac & Traf are Identified & Resolved	Implementation of Ingestion Pathway Decisions	Impl of IP Decisions Show Strat & Instr Material	Impl of Relocation/Re-entry/Return Decisions	Plume Phase Measurement & Analysis Equip	Plume Phase Field Measurement & Analysis Mgmt	Plume Phase Fld Measurements & Analysis Proced	Post Plume Phase Field Measurements & Sampling	Laboratory Operations	Activation of Prompt Alert & Notification	Activation Prompt Alert & Notif 15 Min (Fast Breaker)	Activation Prompt Alert & Notif in Exception Areas	Emerg Info & Instructions for the Public & Media	Monitoring/Decon/Registration of Evacuees & EWs	Monitoring & Decon of Emerg Worker Equipment	Temporary Care of Evacuees	Trans & Treatment of Contam Injured Individuals
	1a1	1b1	1c1	1d1	1e1	2a1	2b1	2b2	2c1	2d1	2e1	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1	4a1	4a2	4a3	4b1	4c1	5a1	5a2	5a3	5b1	6a1	6b1	6c1	6d1
LOCATION - State of New York																																	
EOC	M		M	M	M			M	M					M												A			M				
Warning Point	M			M	M																												
Accident Assesment						M	M																										
Call Center	M		M	M	M																								M				
Joint Information Center	M		M	M	M																					M							
Emergency Alert Station				M																						M							
Emergency Operations Facility	M		M	M	M							M	M																				

M - Met (No Deficiency or ARCA(s) Assessed and no Unresolved ARCAs from Prior Exercises
N - Not Demonstrated as Scheduled (Reason Explained in Section IV.B)
D - Deficiency
D1 Deficiency Assessed and Subsequently Corrected

A - ARCA(s) Assessed or Unresolved ARCA(s) from Prior Exercises

SITE
Indian Point

DATE
14-Sep-10

	Mobilization	Facilities	Direction & Control	Communications Equipment	Equipment & Supplies to Support Operations	Emergency Worker Exposure Control	Rad Assmt PARs Based on Avail Information	Rad Assmt PADs for General Public	Prot Action Decisions for Special Population's	Rad Assmt & Decision Making for Ingest Exposure	Rad Assmt & Dec Making for Relo/Re-entry/& Return	Implementation of Emergency Wrkr Exposure Control	Implementation of KI Decision	Implementation of PADs for Special Population's	Implementation of PADs for Schools	Implementation of Traffic Access & Control	Impediments to Evac & Traf are Identified & Resolved	Implementation of Ingestion Pathway Decisions	Impl of IP Decisions Show Strat & Instr Material	Impl of Relocation/Re-entry/Return Decisions	Plume Phase Measurement & Analysis Equip	Plume Phase Field Measurement & Analysis Mgmt	Plume Phase Fld Measurements & Analysis Proced	Post Plume Phase Field Measurements & Sampling	Laboratory Operations	Activation of Prompt Alert & Notification	Activation Prompt Alert & Notif 15 Min (Fast Breaker)	Activation Prompt Alert & Notif in Exception Areas	Emerg Info & Instructions for the Public & Media	Monitoring/Decon/Registration of Evacuees & EWs	Monitoring & Decon of Emerg Worker Equipment	Temporary Care of Evacuees	Trans & Treatment of Contam Injured Individuals
	EMERGENCY OPNS MANAGEMENT					PROTECTIVE ACTION DECISION-MAKING						PROTECTIVE ACTION IMPLEMENTATION									FIELD MEASUREMENT & ANALYSIS					EMERG NOTIF & PUBLIC INFO				SUPPORT OPN/FACILITIES			
	1a1	1b1	1c1	1d1	1e1	2a1	2b1	2b2	2c1	2d1	2e1	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1	4a1	4a2	4a3	4b1	4c1	5a1	5a2	5a3	5b1	6a1	6b1	6c1	6d1
LOCATION - Westchester County																																	
EOC	M		M	M	M			M	M					M	M	M	M									M		M	M				
Accident Assesment						M	M															M											
Field Monitoring Team 1	M			M								M	M								M		M										
Field Monitoring Team 2	M			M								M	M								M		M										
MS-1 Drill												M	M																	M			M
Traffic Control Point 1												M	M			M																	
Traffic Control Point 2												M	M			M																	
Westchester Public Call Center				M	M																								M				
School Bus Company Interviews												M	M		M																		
School Interviews															M																		
Public Call Center	M			M	M																								M				
Warning Point				M	M																					M							

M - Met (No Deficiency or ARCA(s) Assessed and no Unresolved ARCAs from Prior Exercises
N - Not Demonstrated as Scheduled (Reason Explained in Section IV.B)
D - Deficiency
D1 Deficiency Assessed and Subsequently Corrected

A - ARCA(s) Assessed or Unresolved ARCA(s) from Prior Exercises

SITE
Indian Point

DATE
14-Sep-10

	Mobilization	Facilities	Direction & Control	Communications Equipment	Equipment & Supplies to Support Operations	Emergency Worker Exposure Control	Rad Assmt PARs Based on Avail Information	Rad Assmt PADs for General Public	Prot Action Decisions for Special Population's	Rad Assmt & Decision Making for Ingest Exposure	Rad Assmt & Dec Making for Relo/Re-entry/& Return	Implementation of Emergency Wrkr Exposure Control	Implementation of KI Decision	Implementation of PADs for Special Population's	Implementation of PADs for Schools	Implementation of Traffic Access & Control	Impediments to Evac & Traf are Identified & Resolved	Implementation of Ingestion Pathway Decisions	Impl of IP Decisions Show Strat & Instr Material	Impl of Relocation/Re-entry/Return Decisions	Plume Phase Measurement & Analysis Equip	Plume Phase Field Measurement & Analysis Mgmt	Plume Phase Fld Measurements & Analysis Proced	Post Plume Phase Field Measurements & Sampling	Laboratory Operations	Activation of Prompt Alert & Notification	Activation Prompt Alert & Notif 15 Min (Fast Breaker)	Activation Prompt Alert & Notif in Exception Areas	Emerg Info & Instructions for the Public & Media	Monitoring/Decon/Registration of Evacuees & EWs	Monitoring & Decon of Emerg Worker Equipment	Temporary Care of Evacuees	Trans & Treatment of Contam Injured Individuals
	EMERGENCY OPNS MANAGEMENT					PROTECTIVE ACTION DECISION-MAKING						PROTECTIVE ACTION IMPLEMENTATION									FIELD MEASUREMENT & ANALYSIS					EMERG NOTIF & PUBLIC INFO				SUPPORT OPN/FACILITIES			
	1a1	1b1	1c1	1d1	1e1	2a1	2b1	2b2	2c1	2d1	2e1	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1	4a1	4a2	4a3	4b1	4c1	5a1	5a2	5a3	5b1	6a1	6b1	6c1	6d1
LOCATION - Rockland County																																	
EOC	M		M	M	M				M					M	M	M	M									M		M	M				
Accident Assesment						M	M					M																					
Field Monitoring Team 1	M			M								M									M		M										
Field Monitoring Team 2	M			M								M	M								M		M										
School Bus Interviews												M	M		M																		
Special Population Bus Co. Interviews												M	M	M																			
General Population Bus Company												M	M		M																		
School Interviews															M																		
Traffic Control Point 1												M	M			M																	
Traffic Control Point 2												M	M			M																	
Emergency Worker PMC												M	M																	M	M		
Warning Point	M			M	M																												
Medical Transport												A																					

M - Met (No Deficiency or ARCA(s) Assessed and no Unresolved ARCAs from Prior Exercises
N - Not Demonstrated as Scheduled (Reason Explained in Section IV.B)
D - Deficiency
A - ARCA(s) Assessed or Unresolved ARCA(s) from Prior Exercises

SITE
Indian Point

DATE
14-Sep-10

	EMERGENCY OPNS MANAGEMENT					PROTECTIVE ACTION DECISION-MAKING						PROTECTIVE ACTION IMPLEMENTATION									FIELD MEASUREMENT & ANALYSIS					EMERG NOTIF & PUBLIC INFO				SUPPORT OPN/FACILITIES			
	Mobilization	Facilities	Direction & Control	Communications Equipment	Equipment & Supplies to Support Operations	Emergency Worker Exposure Control	Rad Assmt PARs Based on Avail Information	Rad Assmt PADs for General Public	Prot Action Decisions for Special Population's	Rad Assmt & Decision Making for Ingest Exposure	Rad Assmt & Dec Making for Relo/Re-entry/& Return	Implementation of Emergency Wrkr Exposure Control	Implementation of KI Decision	Implementation of PADs for Special Population's	Implementation of PADs for Schools	Implementation of Traffic Access & Control	Impediments to Evac & Traf are Identified & Resolved	Implementation of Ingestion Pathway Decisions	Impl of IP Decisions Show Strat & Instr Material	Impl of Relocation/Re-entry/Return Decisions	Plume Phase Measurement & Analysis Equip	Plume Phase Field Measurement & Analysis Mgmt	Plume Phase Fld Measurements & Analysis Proced	Post Plume Phase Field Measurements & Sampling	Laboratory Operations	Activation of Prompt Alert & Notification	Activation Prompt Alert & Notif 15 Min (Fast Breaker)	Activation Prompt Alert & Notif in Exception Areas	Emerg Info & Instructions for the Public & Media	Monitoring/Decon/Registration of Evacuees & EWs	Monitoring & Decon of Emerg Worker Equipment	Temporary Care of Evacuees	Trans & Treatment of Contam Injured Individuals
	1a1	1b1	1c1	1d1	1e1	2a1	2b1	2b2	2c1	2d1	2e1	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1	4a1	4a2	4a3	4b1	4c1	5a1	5a2	5a3	5b1	6a1	6b1	6c1	6d1
LOCATION - Orange County																																	
EOC	M		M	M	M			M	M					M			M									M		M					
Warning Point	M			M	M																												
Accident Assesment						M																M											
Field Monitoring Team 1	M			M								M	M								M												
Field Monitoring Team 2	M			M								M	M																				
General Population Reception Center												M	M																	M			
Traffic Control Point 1												M	M			M																	
Traffic Control Point 2												M	M			M																	
School Interviews															M																		
School Bus Company												M	M		M																		
Special Population Bus Company												M	M	M																			
Emergency Worker PMC												M																					

M - Met (No Deficiency or ARCA(s) Assessed and no Unresolved ARCAs from Prior Exercises
N - Not Demonstrated as Scheduled (Reason Explained in Section IV.B)
D - Deficiency
A - ARCA(s) Assessed or Unresolved ARCA(s) from Prior Exercises

SITE
Indian Point

DATE
14-Sep-10

	EMERGENCY OPNS MANAGEMENT					PROTECTIVE ACTION DECISION-MAKING						PROTECTIVE ACTION IMPLEMENTATION									FIELD MEASUREMENT & ANALYSIS					EMERG NOTIF & PUBLIC INFO				SUPPORT OPN/FACILITIES			
	Mobilization	Facilities	Direction & Control	Communications Equipment	Equipment & Supplies to Support Operations	Emergency Worker Exposure Control	Rad Assmt PARs Based on Avail Information	Rad Assmt PADs for General Public	Prot Action Decisions for Special Population's	Rad Assmt & Decision Making for Ingest Exposure	Rad Assmt & Dec Making for Relo/Re-entry/& Return	Implementation of Emergency Wrkr Exposure Control	Implementation of KI Decision	Implementation of PADs for Special Population's	Implementation of PADs for Schools	Implementation of Traffic Access & Control	Impediments to Evac & Traf are Identified & Resolved	Implementation of Ingestion Pathway Decisions	Impl of IP Decisions Show Strat & Instr Material	Impl of Relocation/Re-entry/Return Decisions	Plume Phase Measurement & Analysis Equip	Plume Phase Field Measurement & Analysis Mgmt	Plume Phase Fld Measurements & Analysis Proced	Post Plume Phase Field Measurements & Sampling	Laboratory Operations	Activation of Prompt Alert & Notification	Activation Prompt Alert & Notif 15 Min (Fast Breaker)	Activation Prompt Alert & Notif in Exception Areas	Emerg Info & Instructions for the Public & Media	Monitoring/Decon/Registration of Evacuees & EWs	Monitoring & Decon of Emerg Worker Equipment	Temporary Care of Evacuees	Trans & Treatment of Contam Injured Individuals
	1a1	1b1	1c1	1d1	1e1	2a1	2b1	2b2	2c1	2d1	2e1	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1	4a1	4a2	4a3	4b1	4c1	5a1	5a2	5a3	5b1	6a1	6b1	6c1	6d1
LOCATION - Putnam County																																	
EOC	M		M	M	M			M	M					M	M	M	M									M		M	M				
Accident Assesment						M	M															M											
Field Monitoring Team A	M			M								M	M								M		M										
Field Monitoring Team B	M			M								M	M								M		M										
General Population Reception Center					M							M	M																	M			
Medical Services Drill												M	M																				M
Traffic Control Point 1												M	M			M																	
Traffic Control Point 2												M	M			M																	
Emergency Worker PMC												M	M																	M	M		
Warning Point	M			M	M																												

M - Met (No Deficiency or ARCA(s) Assessed and no Unresolved ARCAs from Prior Exercises
N - Not Demonstrated as Scheduled (Reason Explained in Section IV.B)
D - Deficiency

A - ARCA(s) Assessed or Unresolved ARCA(s) from Prior Exercises

SITE
Indian Point

DATE
14-Sep-10

	EMERGENCY OPNS MANAGEMENT					PROTECTIVE ACTION DECISION-MAKING						PROTECTIVE ACTION IMPLEMENTATION									FIELD MEASUREMENT & ANALYSIS					EMERG NOTIF & PUBLIC INFO				SUPPORT OPN/FACILITIES			
	Mobilization	Facilities	Direction & Control	Communications Equipment	Equipment & Supplies to Support Operations	Emergency Worker Exposure Control	Rad Assmt PARs Based on Avail Information	Rad Assmt PADs for General Public	Prot Action Decisions for Special Population's	Rad Assmt & Decision Making for Ingest Exposure	Rad Assmt & Dec Making for Relo/Re-entry/& Return	Implementation of Emergency Wrkr Exposure Control	Implementation of KI Decision	Implementation of PADs for Special Population's	Implementation of PADs for Schools	Implementation of Traffic Access & Control	Impediments to Evac & Traf are Identified & Resolved	Implementation of Ingestion Pathway Decisions	Impl of IP Decisions Show Strat & Instr Material	Impl of Relocation/Re-entry/Return Decisions	Plume Phase Measurement & Analysis Equip	Plume Phase Field Measurement & Analysis Mgmt	Plume Phase Fld Measurements & Analysis Proced	Post Plume Phase Field Measurements & Sampling	Laboratory Operations	Activation of Prompt Alert & Notification	Activation Prompt Alert & Notif 15 Min (Fast Breaker)	Activation Prompt Alert & Notif in Exception Areas	Emerg Info & Instructions for the Public & Media	Monitoring/Decon/Registration of Evacuees & EWs	Monitoring & Decon of Emerg Worker Equipment	Temporary Care of Evacuees	Trans & Treatment of Contam Injured Individuals
	1a1	1b1	1c1	1d1	1e1	2a1	2b1	2b2	2c1	2d1	2e1	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1	4a1	4a2	4a3	4b1	4c1	5a1	5a2	5a3	5b1	6a1	6b1	6c1	6d1
LOCATION - Bergen County																																	
EOC	M	M	M	M	M										M	M																	

M - Met (No Deficiency or ARCA(s) Assessed and no Unresolved ARCAs from Prior Exercises
N - Not Demonstrated as Scheduled (Reason Explained in Section IV.B)
D - Deficiency

A - ARCA(s) Assessed or Unresolved ARCA(s) from Prior Exercises

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 ARCAs 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 ARCAs assessed during previous exercises which were resolved in this exercise and the corrective actions demonstrated.

- **Prior ARCAs - Unresolved** - Description of ARCAs 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 offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant."

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

- **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 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.b.1

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAS - RESOLVED: NONE

f. PRIOR ARCAS - UNRESOLVED: ONE

ISSUE: 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 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 Country 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.

CORRECTIVE ACTION SCHEDULE: Correction of this issue will be verified at the next federally - evaluated biennial exercise.

1.2 Warning Point

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

1.2 Accident Assessment

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

1.4 Emergency Operations Facility

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

1.5 Joint Information Center

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAS – RESOLVED:** NONE

f. **PRIOR ARCAS – UNRESOLVED:** NONE

1.6 Emergency Alert Station - Station WHUD-FM

a. **MET:** 1.d.1, 5.a.1

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

1.7 State of New York Call Center

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2. RISK JURISDICTIONS

2.1 ORANGE COUNTY

2.1.1 Orange 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, 5.b.1

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAS - RESOLVED:** ONE

PRIOR ISSUE: 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 where 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

"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.

CORRECTIVE ACTION DEMONSTRATED: The news bulletins posted on the NY Alert web site were accurately posted. The evacuation locations were not divided into sections, nor displayed in a different font or style. All evacuation locations for the four risk counties were displayed in the same format. This closes ARCA 32-08-5a1-A-02.

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

2.1.2 Orange County Warning Point

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.1.3 Orange County Accident Assessment

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.1.4 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. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.1.5 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. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.1.6 Orange County – General Population Reception Center – (Newburg Free Academy – April 28, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.1.7 Traffic and Access Control 1

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

2.1.8 Orange County Traffic and Access Control 2

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

2.1.9 Orange County Special Population Bus Company – (Monroe – Woodbury Bus Co. October 14, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.1.10 Orange County School Interview – (Highland Falls Intermediate School October 14, 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

2.1.11 Orange County School Bus Company – (West Point Tours, October 14, 2010)

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

2.1.12 Orange County - Medical Services Hospital (St Lukes Cornwall Hospital - 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

22.2 PUTNAM COUNTY

2.2.1 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, 5.b.1

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAS - RESOLVED: ONE

ISSUE: 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.

CORRECTIVE ACTION DEMONSTRATED: In response to Issue 32-08-5.b.1-A-04 the county developed and logged 4 EAS Follow on News Bulletins correlating the Alert, and General Emergency declarations. An additional follow-on message was generated updating the general public that the County Executive was currently monitoring the situation and would advise the resident with any new information; that Putnam County schools inside the 10 mile Emergency Planning Zone (EPZ) had been relocated and the remaining schools outside the EPZ were dismissed early; that field monitoring teams were in the field; and that police, fire, and Emergency Medical Services (EMS) were on standby. The final follow-up message informed the general public that a release of radioactive material from the Indian Point Energy Center was occurring. Each of the follow-on news releases were successfully documented in the NY Alert System in accordance with the Putnam County Radiological Response Plan.

f. PRIOR ARCAS - UNRESOLVED: NONE

2.2.2 Putnam County Warning Point

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

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. **PRIOR ARCAS - RESOLVED: N**ONE

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

2.2.3 Putnam County Accident Assessment

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.2.4 Putnam County Field Monitoring Team A

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.2.5 Putnam County Field Monitoring Team B

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAS - RESOLVED: N**ONE

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

2.2.6 Putnam County – General Population Reception Center (George Fisher Middle School – May 25, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.2.7 Putnam County – General Population Reception Center Reception Center (Carmel High School –September 2, 2009 Registration Only and May 24, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

e. **PRIOR ARCAS - RESOLVED:** 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.

CORRECTIVE ACTION DEMONSTRATED: The Deputy Commissioner, Putnam County Bureau of Emergency Services requested retraining and the opportunity to re-demonstrate the operation of the Reception Center at Carmel High School. On May 11, 2010, FEMA conducted an assistance visit to assist with the re-training of Reception Center staff. One subject matter expert from FEMA assisted two representatives from NYSEMO in conducting "hands-on" re-training of the reception center staff at Carmel High School. Training topics included: exposure control; monitoring of evacuees; proper set-up and use of the decontamination facilities and contamination limits and how to apply them. The training was well-received by the volunteers who staff the facility.

On May 24, 2010 at 1630, in an evaluated out-of-sequence demonstration, Putnam County successfully re-demonstrated the ability to operate the Reception Center at Carmel High School. This re-demonstration was only required to cover the monitoring and decontamination of evacuees. However, exposure control was also re-demonstrated and was evaluated. The staff consisted of members of RACES, the Medical Reserve Corp., and the Putnam County Health Department. No issues were identified as a result of this re-demonstration.

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."

CORRECTIVE ACTION DEMONSTRATED: The Deputy Commissioner, Putnam County Bureau of Emergency Services requested retraining and the opportunity to re-demonstrate the operation of the Reception Center at Carmel High School. On May 11, 2010, FEMA conducted an assistance visit to assist with the re-training of Reception Center staff. One subject matter expert from FEMA assisted two representatives from NYSEMO in conducting "hands-on" re-training of the reception center staff at Carmel High School. Training topics included: exposure control; monitoring of evacuees; proper set-up and use of the decontamination facilities and contamination limits and how to apply them. The training was well-received by the volunteers who staff the facility.

2.2.8 Putnam County – Medical MS-1 Drill (Putnam Hospital Center/Carmel Ambulance – May 12, 2010)

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

2.2.9 Putnam County Traffic and Access Control 1

a. **MET:** NONE

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** THREE

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

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

CONDITION: This interview did not take place due to a real life emergency involving the Sheriff's Department, and will be rescheduled for the next federally graded exercise.

2.2.10 Putnam County – Traffic and Access Control 2

a. **MET:** 3.a.1, 3.b.1, 3.d1

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.2.11 Putnam County – Emergency Worker Personnel Monitoring Center (Carmel Fire Dept. November 16, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.3 ROCKLAND COUNTY

2.3.1 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, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.1

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.3.2 Rockland County Warning Point

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.3.3 Rockland County Accident Assessment

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.3.4 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. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

f. **PRIOR ARCAS - 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. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.3.6 Rockland County Special Population Bus Company Interviews (Chestnut Ridge – January 11, 2010; Student Bus January 7, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.3. 7 Rockland County – School Bus Company Interviews(Chestnut Ridge – January 11, 2010; Student Bus January 7, 2010)

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

2.3. 8 Rockland County – General Population Bus Company Interviews(Chestnut Ridge – January 11, 2010; Student Bus January 7, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.3.9 Rockland County – School Interviews (Nyack: Valley Cottage ES; North Rockland and Willow Grove MS; East Ramapo Rockland Work Site Daycare; Ramapo Robin Hill Nursery School - March 25, 2010; Clarkstown - Woodglen ES - May 11, 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

2.3.10 Rockland County Traffic and Access Control 1

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

2.3.11 Rockland County – Traffic and Access Control 2

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

2.3.12 Rockland County – Emergency Worker Personnel Monitoring Center (Rockland County Sewer District September 25, 2010)

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:** ONE

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.

CORRECTIVE ACTION SCHEDULE: Low range dosimeters will be verified at the next demonstration and evaluation of the South Orangetown Ambulance Corps, or during a FEMA Staff Assistance Visit before the next federally – evaluated biennial exercise.

2.4 WESTCHESTER COUNTY

2.4.1 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, 3.c.1, 3. c.2, 3.d.1, 3.d.2, 5.a.1 5.a.3, 5.b.1

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAS - RESOLVED: NONE

f. PRIOR ARCAS - UNRESOLVED: NONE

2.4.2 Westchester County Warning Point

a. MET: 1.a.1, 1.d.1, 1.e.1, 5.a.1

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAS - RESOLVED: NONE

f. PRIOR ARCAS - UNRESOLVED: NONE

2.4.3 Westchester County Accident Assessment

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

b. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. PRIOR ISSUES - UNRESOLVED: NONE

e. NOT DEMONSTRATED: NONE

f. PRIOR ARCAS - RESOLVED: ONE

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

ISSUE: 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.

CORRECTIVE ACTION DEMONSTRATED: The collection of four air samples and the fact that at 1257, the Westchester County dose assessors received an IPEC Radiological Emergency Data Form Part 2 defining the measured noble gas and iodine release rates and the noble gas to iodine ratio closes the previous ARCA number 32-08-4.a.2-A-09.

f. PRIOR ARCAS - UNRESOLVED: NONE

2.4.4 Westchester 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. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAS - RESOLVED: NONE

f. PRIOR ARCAS - UNRESOLVED: NONE

2.4.5 Westchester 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. DEFICIENCY: NONE

c. AREAS REQUIRING CORRECTIVE ACTION: NONE

d. NOT DEMONSTRATED: NONE

e. PRIOR ARCAS - RESOLVED: NONE

f. PRIOR ARCAS - UNRESOLVED: NONE

2.4.6 Westchester County Traffic Control Point 1

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

2.4.7 Westchester County Traffic Control Point 2

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

2.4.8 Westchester County – Medical Drill (Westchester Medical Center – October 28, 2010)

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

b. **DEFICIENCY:** NONE

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

d. **NOT DEMONSTRATED:** NONE

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

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

2.4.9 Westchester County – Special Population Bus Company Interviews (Royal Coach – Feb.25, 2010, White Plains Bus – May 27, 2010, Mile Square Bus June 3, 2010)

a. **MET:** 3.a.1, 3.b.1, 3.c.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 Interviews (White Plains Bus – May 27, 2010, Mile Square Bus June 3, 2010)

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

2.4.11 Westchester County – Public Call Center

a. **MET:** 1.a.1, 1.d.1, 1.e.1, 5.b.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 - (Medical Services Transport- Trans Care Ambulance Service 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: ONE

ISSUE NO: 75-06-3.a.1-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.

CORRECTIVE ACTION DEMONSTRATED: The Transcare Ambulance Service is no longer referenced in the Westchester County Radiological Emergency Response Plan and will no longer be used to transport injured emergency workers. Therefore ARCA 75-06-3a1-A-12 is closed.

f. PRIOR ISSUES - UNRESOLVED: NONE

2.4.13 Westchester County – School Interviews - (Yorktown Central School District, Brookside Elementary School, Crompond, Mildred E. Strong Middle School, Mohansic Elementary School, Yorktown Alternative High School, December 2, 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

2.4.14 Westchester County – Daycare Interviews - (All Aboard Child Education Center, Lakeland Children's Center, Aunt Bessie's Open Door, Peekskill Head Start, Bright Beginnings Pre-School, Rosenthall JCC of Northern Westchester, Chappaqua Children's Workshop, The Seed Day Care Center, Childrenspace Preschool, Young Wonders, Early Learning Center at Fieldhome, Westchester ARC / Children's School for Early Development at St. Ann's Ossining, Holy Name of Mary Montessori School, December 16, 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

3. SUPPORT JURISDICTION

3.1 Bergen County – Emergency Operations Center

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

APPENDIX 1. ACRONYMS AND ABBREVIATIONS

ACP	Access Control Point
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Service
BOCES	Board of Cooperative Educational Services
CFR	Code of Federal Regulations
CPM	Counts Per Minute
DHS	Department of Homeland Security
DOE	U.S. Department of Energy
DOH	Department of Health
DOT	U.S. Department of Transportation
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMS	Emergency Medical Service
EMO	Emergency Management Organization
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPA	U.S. Environmental Protection Agency
EPZ	Emergency Planning Zone
ERPA	Emergency Response Planning Area
EWPMC	Emergency Worker Personnel Monitoring Center
FDA	U.S. Food and Drug Administration
FEMA	Federal Emergency Management Agency
GE	General Emergency
ICF	ICF Consulting, Inc.
IPEC	Indian Point Energy Center
JNC	Joint News Center
KI	Potassium Iodide
MIDAS	Meteorology Information and Dose Assessment System
mR	milliRoentgen
MRP-DAS	Meteorological Radiological Plant Data System

NOUE	Notification of Unusual Event
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	
NYS	New York State
NYSEMO	New York State Emergency Management Office
OCEOC	Orange County Emergency Operations Center
ORO	Offsite Response Organization
PAR	Protective Action Recommendation
PCEOC	Putnam County Emergency Operations Center
PIO	Public Information Officer
PMC	Personnel Monitoring Center
PSC	New York State Public Service Commission
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
RCEOC	Rockland County Emergency Operations Center
REA	Radiological Emergency Treatment Area
RECS	Radiological Emergency Communications System
REP	Radiological Emergency Preparedness
REPP	Radiological Emergency Preparedness Plan
RERP	Radiological Emergency Response Plan
RETA	Radiological Emergency Treatment Area
SAE	Site Area Emergency
SEMO	State Emergency Management Office
SEOC	State Emergency Operations Center
TCP	Traffic Control Point
TDD	Telephone Device for the Deaf
TEDE	Total Effective Dose
TL	Team Leader
TLD	Thermoluminescent Dosimeter
USDA	U.S. Department of Agriculture
WCEOC	Westchester County Emergency Operations Center

APPENDIX 2. EXERCISE EVALUATORS and TEAM LEADERS

LOCATION	EVALUATOR	AGENCY
EXERCISE OVERSITE	R. Thomson Chair, Regional Assistance Committee	FEMA
STATE OF NEW YORK		
New York State Emergency Operations Center	Kevin Reed (TL) Patricia Mason Laura Forrest	FEMA FEMA FEMA
New York State Warning Point	Patricia Mason	FEMA
Indian Point Emergency Operations Facility	Doug Tifft	NRC
New York State Accident Assessment	James Hickey	ICF
Indian Point Joint Information Center	Rick Kinard	FEMA Region III
Indian Point Joint Information Center Briefings	Deborah Bell	ICF
Indian Point Joint Information Center - Media Monitoring	Patricia Tenorio	FEMA HQ
Indian Point EAS Station WABC State of New York Call Center	Miriam Weston Rosemary Samsel	FEMA ICF
ORANGE COUNTY		
Orange County - Warning Point	Sara Gelves	FEMA
Orange County Emergency Operations Center	William Cullen (TL) Sara Gelves Gary Goldberg Sam Nelson	FEMA FEMA ICF ICF
Orange County Accident Assessment	Kenneth Wierman	FEMA HQ
Orange County - Field Monitoring Team 1	Michael Howe	FEMA HQ
Orange County - Field Monitoring Team 2	Raymond Wood	ICF
Orange County - General Population Reception Center - Newburgh Free Academy *	Dave Stuenkel Ron Biernacki	ICF ICF
Orange County Traffic Control Point 1	Carl Wentzell	ICF
Orange County Traffic Control Point 2	Carl Wentzell	ICF
PUTNAM COUNTY		
Putnam County - Warning Point	Michele Sturman	FEMA
Putnam County Emergency Operations Center	Mabel Santiago (TL) Michael Shuler Michele Sturman Cheryl Weaver	FEMA FEMA Region III FEMA ICF
Putnam County Accident Assessment	Korky Dulgerian	FEMA
Putnam County - Field Monitoring Team Alpha	Earl Shollenberger	ICF
Putnam County - Field Monitoring Team Bravo	Michael DeBonis	USEPA
Putnam County - General Population Reception Center - George Fischer Middle School *	Ron Biernacki Gary Goldberg	ICF ICF

Putnam County - General Population Reception Center - Carmel High School *	Ron Biernacki Gary Goldberg	ICF ICF
Putnam County Traffic Control Point 2	Robert Duggleby	ICF
Putnam County Traffic Control Point	Robert Duggleby	ICF
ROCKLAND COUNTY		
Rockland County Emergency Operations Center	Chris Cammarata(TL) Paul Anderson Todd Sniffin Larry Visniesky	FEMA FEMA Region IX ICF ICFI
Rockland County - Warning Point	Paul Anderson	FEMA Region IX
Rockland County Accident Assessment	Joe Keller	ICF
Rockland County - Field Monitoring Team 1	Nidal Azzam	EPA
Rockland County - Field Monitoring Team 2	Ronald Biernacki	ICF
Rockland County – Transportation Dependant Bus Company - Chestnut Ridge Transit *	Korky Dulgerian	FEMA
Rockland County - General Population Bus Company - Student Bus Company *	Mabel Santiago	FEMA
Rockland County - School Interview - Rockland Work Site Day Care *	Bill Cullen	FEMA
Rockland County - School Interview - Robin Hill Nursery School *	Bill Cullen	FEMA
Rockland County - School Interview - Valley Cottage School *	Bill Cullen	FEMA
Rockland County - School Interview - Willow Grove Middle School	Bill Cullen	FEMA
Rockland County - School Interview - Woodglen Elementary School *	Mabel Santiago Chris Cammarata	FEMA FEMA
Rockland County Traffic Control Point	Danny Loomis	ICF
Rockland County Traffic Control Point 2	Danny Loomis	
WESTCHESTER COUNTY		
Westchester County - Warning Point	John Flynn	ICF
Westchester County Emergency Operations Center	Brian Hasemann Scott Hallett Russell Fox Richard McPeak	FEMA FEMA HQ FEMA ICF
Westchester County Accident Assessment	Daryl Thome	ICF
Westchester County - Field Monitoring Team HD-1	Jeanette Eng	EPA
Westchester County - Field Monitoring Team HD-2	Michael Leal	ICF
Westchester County Call Center	Robert Noecker	ICF
Westchester County - School Bus Company – Mile Square School Bus *	Mabel Santiago	FEMA
Westchester County - School Bus Company -	Mabel Santiago	FEMA

White Plains School Bus *		
Westchester County - School Interview - Royal Coach *	Mabel Santiago	FEMA
Westchester County Traffic Control Point	Rebecca Fontenot	FEMA HQ
Westchester County Traffic Control Point 2	Rebecca Fontenot	FEMA HQ
BERGEN COUNTY		
Bergen County Emergency Operations Center	Kent Tosch (TL) Meg Swearingen	ICF ICF

*Out of Sequence Demonstration

APPENDIX 3:

EXERCISE OBJECTIVES AND EXTENT OF PLAY

FINAL

OFFSITE EXTENT OF PLAY

FOR THE

SEPTEMBER 14, 2010

INDIAN POINT ENERGY CENTER – UNIT 2

FULL-PARTICIPATION EXERCISE

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 <u>not</u> applicable to EOC/JIC/EOF demonstrations during the September 14, 2010 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

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:

- There is a new EOC in Bergen County. This is the only facility to be evaluated under this criterion.

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:

- A back up to commercial telephones or radios will be demonstrated between the State and four Risk County EOCs as per the County REP Plan. Back-up means may include RACES, cell, satellite, VOIP phones, email, etc. The State Controller, along with the FEMA evaluator, will prompt this demonstration during an agreed upon time during the exercise.

- 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 (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.

- General Atomics electronic dosimeters are calibrated every 3 years as per manufacturers' specifications.

- No equipment (e.g., barriers, traffic cones, signs, etc.) will be deployed to the field *with the exception of Field teams, 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)

<u>Extent-of-Play Agreement:</u>

- 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.

- General Atomics electronic dosimeters are calibrated every 3 years as per manufacturers' specifications.

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 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:

Jurisdiction	Extent-of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
Westchester County	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.	**(X)**			

Jurisdiction	Extent-of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
Rockland County	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.	**(X)**			
Orange County	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.	**(X)**			
Putnam County	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.	**(X)**			

NON-INSTITUTIONALIZED MOBILITY IMPAIRED INDIVIDUALS

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
Westchester County	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. The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator at the EOC.	**(X)**			
Rockland County	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. The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator 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
Orange County	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. The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator at the EOC.	**(X)**			
Putnam County	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. The procedure to contact non-institutionalized mobility-impaired individuals will be discussed with the federal evaluator at the EOC.	**(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.

FIELD ACTIVITIES:

EVACUATION OF TRANSPORTATION DEPENDENT POPULATION

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
Westchester County	Bus companies will be interviewed as per the Offsite Extent-of-Play Activities Schedule. Each company will provide a supervisor/ dispatcher and 5 - 10% (minimum of 2) of that company's drivers for interviews.			**(X)**	Group interviews requested
Rockland County	Bus companies will be interviewed as per the Offsite Extent-of-Play Activities Schedule. Each company will provide a supervisor/ dispatcher and 5 - 10% (minimum of 2) of that company's drivers for interviews.			**(X)**	Group interviews requested
Orange County	Bus companies will be interviewed, procedures will be reviewed and equipment will be inspected. Each company will provide a supervisor/ dispatcher and at least 5-10% (minimum of 2) of that company's drivers for interview.			**(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
Putnam County	Bus companies will be interviewed, procedures will be reviewed and equipment will be inspected. Each company will provide a supervisor/ dispatcher and 5-10% (minimum of 2) of that company's drivers for interview.			**(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 exercise, there will be initial contact with the schools and transportation providers (telephone call or auto-dialer) 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 supervisor/dispatcher and 5-10% (minimum of 2) of that company's drivers for interview.

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 – The County will schedule interviews with public schools which were not visited by FEMA as a part of the 2008 IPEC exercise. The County will also work cooperatively with New York State to schedule a group interview with non-public schools and/or day care providers within the Westchester County EPZ.

    - 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
Westchester County	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)**		
Rockland County	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
Orange County	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)**		
Putnam County	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 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)

<u>Extent-of-Play Agreement:</u>

- 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 2010. 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. 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)**			
	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.

Jurisdiction	Extent-of-Play	In Sequence With Exercise	Out of Sequence; Day of Exercise	Out of Sequence; NOT Day of Exercise	Comments
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:

- The preparation and transmission of EAS Follow-On News Releases (at least 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.

- Westchester County 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 at the Alternate

EOC in White Plains (~6 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 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.

- Outside activities (vehicle monitoring/decon) may be demonstrated at different dates/times from inside activities (personnel monitoring and decon, social services, etc.)

- 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 (1µCi 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.

- 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 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 Rockland County. The other counties will not demonstrate EWPMCs for this exercise.

- 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:

- There are no new centers or configuration changes to existing centers. This criterion will not be evaluated in this exercise.

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.

2010 INDIAN POINT ENERGY CENTER EXERCISE SCENARIO

Entergy Nuclear Northeast
Indian Point Energy Center Unit 2 FEM/NRC Exercise
September 14, 2010

Exercise Commences:

0830 - Operations Drill Team assumes the Watch.

0830 - Inadvertent turbine trip and a failure of automatic Reactor trip signal occurs. Operations will attempt to manually trip the reactor and will be successful.

0845 - An Alert should be declared based on EAL 1.1.1 "Any failure of and automatic trip signal to reduce power range < 5% and manual trip is successful".

Site assembly alarms will not be sounded. Emergency Response Facilities will be requested to be activated with exercise participants only and protected area non-essential personnel will remain in their work locations. Accountability will be simulated.

0945 - Bus 3A de-energizes due to ground fault.

1100 - 1045 Chemistry sample returns with the coolant Dose Equivalent Iodine (DE I) reading -330 UCi/cc.

1130 - LOCA occurs. 23 FCU goes out of service due to closing coil failure on the breaker and 22 Spray Pump goes out of service due to winding short on the motor. Containment isolation valve 201 is mechanically bound and will not close on Containment Isolation signal. During implementation of E-1 Loss of Reactor or Secondary Coolant, the operators will attempt to reset the Containment Isolation Signal and will need to use the key bypass switches to reset the signal. Once the Containment Isolation signal is reset Containment Isolation valve 1228 will open and Instrument Air will be established to containment. Letdown isolation valve LCV-459 and Letdown Orifice isolation valve 200C will open. Attempts to isolate valves from the Control Room will not be successful.

Note: LOCA to occur when RCS temperature reaches 520 degrees even if time has not been reached. This may change time for declaration.

1145 - GE should be declared based on EAL 4.1.4 "Confirmed Phase "8" isolation signal following confirmed LOCA with less than minimum containment cooling safeguards equipment operating, Table 4.3 AND any indicators of fuel clad loss, Table 4.1".

1205 - Radiation Monitors R2, R7 and *R25/26* begin to increase. *R25/26* will continue to increase to 2250 *R/hr*.

1245 - A break in the Letdown line between valves 201 and 202 will result in an RCS leak outside Containment into the Primary Auxiliary Building. Plant Vent Radiation Monitor R27 readings reach 518 *ci/s* (6750 cpm) indicating an airborne release in progress above federal limits.

1430 - Release is terminated by either 200C or LCV-459 being successfully isolated.

1530 - After consultation with the Offsite Exercise Controller Organization, the Exercise will end after all objectives have been given ample opportunity for demonstration by BOTH onsite and offsite responders.

APPENDIX 5.

PLANNING ISSUES

NEW YORK STATE

ISSUE NO: 32-10-5.b.1-P-01

ISSUE: A process does not currently exist to address incomplete or inaccurate information posted on the JIC website.

RECOMMENDATION: Modify the section on page 6 of the Indian Point Joint Information Center Plan, "News Releases and Media Advisories/Deleting Press Releases" to include the actions the NY State Office of Emergency Management needs to take when a press release containing incomplete or inaccurate information has been posted to the JIC website, to include specific clarification as to why the release was deleted and any new and/or revised information.

ORANGE COUNTY

ISSUE NO: 32-10-4.a.3-P-02

ISSUE: Procedure 22, Field Radiological Monitoring Revised 7/10, Paragraph IV B 2 a) (1) and paragraph IV C 2 f), refer to the plume boundary being defined by an RO-20 meter reading of 1-2 mR/hr. Though a team reading 1-2 mR/hr on their instruments may very well be immersed in the plume, it may also be receiving that exposure from shine while being below or horizontal to the plume. The teams' instructions to take open window and closed window readings before, during, and after air sampling will indicate whether or not the team was within the plume. However, the team does not have instructions in the plan to compare the readings to assure that the plume is being sampled. As Procedure 22 is currently written, the answer to any questions verifying that a Field Team is actually sampling within the plume is null.

RECOMMENDATION: The plan should state a criterion and instruct the teams to use that criterion that assures that the sampling point is in the plume. As an example, the plan could specify that the open window reading should exceed the closed window reading by a certain percentage.

ISSUE NO: 32-10-4.a.3-P-04

ISSUE: Procedure 22 in the Orange County Radiological Emergency Response Plan contains on page 22-10 a reference to the Field Monitoring Air Sampling Sequence Form. This is, according to the note containing the reference, the form upon which the air sample results are to be recorded. No such form was available to Orange County Field Monitoring Team 2, and the team leader was not aware that any such form existed. All data was recorded on the Monitoring Data Log form, which was more than adequate for the purpose. The reference to the nonexistent form should be removed from Procedure 22.

RECOMMENDATION: Change the text in Procedure 22, Section IV.C.3.b)(4)(d) to reference the Orange County Monitoring Data Log rather than the Air Sampling Sequence Form.

ISSUE NO: 32-10-2.b.1-P-05

ISSUE: Projected doses were incorrectly calculated by staff in the Orange County Emergency Operations Center (OCEOC) using the manual method detailed on Form #14 Assessment Worksheet No. 2 of Procedure 21 of the Orange County Radiological Emergency Response Plan (OCRERP).

RECOMMENDATION: Modify Procedure 21 of the Orange County Radiological Emergency Response Plan, Assessment Worksheet Number 2 Form #14, page 21-2 to clarify "Note 2" and remove Table K2 since information on this table is not used on this Form.

ISSUE NO: 32-10-3.c.2-P-06

ISSUE: There are students in the Cornwall CSD and the Monroe Woodbury CSD, the John S. Burke Catholic High School and the Orange Ulster BOCES who live inside the EPZ but go to schools that are outside the EPZ. When the Orange County portion of the EPZ was evacuated these students were retained at their schools to be picked up by their parents. Further conversation with the Schools Coordinator indicated that such retention would be the case for any such evacuation. Also parents had received information to this effect from their children's school and would be informed by media broadcasts during such an event, were it to occur. However, the 2009- 2010 Orange County Indian Point Emergency Guide tells parents that many schools have plans in place for parents to pick up students before they are relocated and to check with the principal of one's children's schools about such plans. It also has a box with orange background, which states, "The school reception center for Orange County is South Jr. High School, 33-63 Monument St. Newburgh, NY. Refer to the foldout map for more information. TV and Radio broadcasts will keep you informed about the relocation of students to the school reception center." But it does not indicate that students living inside the EPZ going to schools outside it will be retained at their school for pick up. This could lead to confusion by some parents as to the proper action to take.

RECOMMENDATION: Add information in the Orange County Indian Point Emergency Guide orange box that all students at schools outside the EPZ will be retained at their schools.

ISSUE NO: 32-10-3.d.1-P-07

ISSUE: The TCPs are to be set up at SAE according to the Procedure 2 Law Enforcement 4.6.1.2. "The Sheriff, in conjunction with the State Police and local Police Departments, will order the establishment of traffic control checkpoints at the following locations to prevent unnecessary traffic from entering the 10-mile EPZ (see Table 7A of Appendix H)." There are twenty TCPs in this table. Establishment of these TCPs involves from 3 to 16 cones at 18 checkpoints, and 8 barricades and a sign at the other two. At least some of these supplies are supposed to be provided by the Orange County Department of Public Works. However, their procedure is not quite consistent with the above. Procedure 7 Public Works 5. SAE 5.1.3 "The County Commissioner of Public Works will make available to law enforcement agencies any requested resources that can be spared (e.g. equipment, barricades etc.) to support the establishment of traffic control points.

“Rather than wait for the request the barricades, at least, should be put in place at SAE or EAS message, whichever is earlier. Cones, if needed could be provided to the police at their departments to take into the field. This procedure should also cite Table 7A. There are 10 Access Control Points to the EPZ (Table 7B of Appendix H) Six of these are also TCPs. The ten ACPs require 51 barriers and 3 signs. There is a reference to access control along the evacuation route (Table 2 of Appendix H). However, that table makes no reference to ACPs. These are to be established in the event of an evacuation according to both the police and DPW procedures. With the barricades and signs to be provided if requested according to the DPW evacuation procedure (General Evacuation Procedure 1.A.3). Waiting for these requests, which would occur as the ACPs began to be staffed would delay their effectiveness. Additional ACPs along the evacuation route are mentioned in both the Law Enforcement and Public Works procedures but none are noted in the table cited above.

RECOMMENDATION: Plan should be changed so that police are provided with enough cones to establish TCPs at Alert. If needed, cones can be dispatched to Police stations and the Sheriff's Department to be deployed to TCPs by officers assigned. The two TCPs requiring barricades and signs should be referenced in Procedure 7, Public Works, to be deployed at SAE or the first EAS message, whichever comes first. Earlier setup up could unduly alarm the public. Once these are deployed, then barricades for the ACPs should be deployed at least to the six that are also TCPs. Certainly all ACP barricades should be deployed at GE so that the ACPs can be quickly activated in the event of an evacuation. ACPs along the evacuation route are mentioned but none are noted in the Table cited. This should be rectified by citing these ACPs, omitting the reference, or stating they will be set up along the route based on circumstances.

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

ISSUE: 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.

CORRECTIVE ACTION DEMONSTRATED: Procedure 24, Exposure Control, revised 5/10, no longer assigns sole responsibility for dosimetry issuance to the Field Team Supervisor. Procedure 22, Field Radiological Monitoring, revised 5/10, directs the field team members to obtain an exposure control packet and provides direction for checking and for documenting personal dosimetry usage. This was adequately demonstrated on September 14, 2010.

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

ISSUE: 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 counts per minute (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.

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

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

ISSUE: 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.

CORRECTIVE ACTION DEMONSTRATED: Procedure IP 1018 is no longer used. Rather, the hospital has a new procedure. The new procedure, Management of the Radioactively Contaminated Patient, St Luke’s- Cornwall Hospital, revised 11/2010, specifies the contamination limit as 300 cpm above background.

ISSUE NO: 32-08-6.d.1-P-04

ISSUE: 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.

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

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.

CORRECTIVE ACTION DEMONSTRATED: 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.

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

ISSUE: 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.

RECOMMENDATION: The procedure needs revision to include guidance on use of dosimetry, administrative dose limits, and designating 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.

PUTNAM COUNTY

ISSUE NO: 32-10-6.a.1-P-09

ISSUE: When the Emergency Worker Personnel Center (EWPMC), Monitoring Station staff member detected contamination of 1000 cpm on the emergency workers jacket, he said he would send him to the Decontamination Station. Then after looking at nearby "contaminated materials" garbage can, he added that he may ask the emergency worker to remove his jacket and place it in the "contaminated materials" garbage cans and re-monitor the emergency worker.

RECOMMENDATION: It is recommended that the EWPMC procedure be revised to remove the "contaminated materials" garbage can near the monitoring station. Contaminated materials may be brought to the Decontamination Station to be disposed.

ISSUE: 32-10-6.a.1-P-10

CONDITION: The EWPMC staff said they would bag the dosimeters and exposure records form, but they were uncertain as TO what to do with them when they referred to Procedure 4.5.

RECOMMENDATION: Modify Procedure 4, Sections 4.4, 4.5 and / or 4.9 so they are consistent and don't cause any confusion for the EWPMC staff.

ISSUE: 32-10-6.a.1-P12

CONDITION: At the male personnel decontamination point, when contamination levels were "detected" on the head and shoulders, the evacuee was directed to the sink instead of the shower. Generally, the sink should only be use to decontaminate the hands and forearms.

RECOMMENDATION: Revise Procedure 3 to be clearer with respect to when to use the sink and when to use the shower. The sink should only be used for decontamination of the hands and forearms.

ROCKLAND COUNTY

ISSUE NO: 32-10-3.b.1-P-11

ISSUE: Procedure No. DOH-11, Section 3.2 which states that "Detailed records of drug administration must be kept on the individual's Radiation Exposure Card" was not implemented because there is no such location on the Exposure Card to note time and amount of KI ingested.

RECOMMENDATION: It is recommended that the Exposure Card be revised to be consistent with the Procedure. At a minimum, the exposure cards should have the following information: the amount ingested, the name of person ingesting the KI, and date and time of KI ingestion.

ISSUE NO: 32-10-3.b.1-P-12

ISSUE: The Dose Assessment Team Leader (DATL) announced that a list would be circulated to all

staff in the RCEOC for them to sign indicating that they would ingest KI. In accordance with the Extent-of Play agreement ingestion of KI was to be simulated. The DATL also announced that those choosing not to ingest KI should notify her individually. For demonstration purposes a sleeve of KI and copy of the informational material was distributed to the RCEOC staff. While the activities described above are adequate, there is no requirement in the current Rockland County Plan and Procedures to document the ingestion of KI by the staff in the RCEOC which is within the 10-mile EPZ.

RECOMMENDATION: Develop a form to document who ingested KI and when and include the use of this form in the appropriate DOH procedure. It is suggested that the individual TLD serial number be included with the individual's name.

ISSUE NO: 32-10-4.a.2-P-13

ISSUE: Procedure DOH-5, Attachment 4, page 22 of 36 states that the field team is in the plume if the reading at the sampling site is two times background or higher. This statement is potentially incorrect. The plume may be elevated at the sampling site and the shine may cause the ambient reading to be greater than twice background. This also holds for a plume horizontally displaced from the sampling site.

RECOMMENDATION: Replace statement in Procedure DOH-5, Attachment 4, page 22 of 36 with a statement that includes making the decision that an air sample is appropriate if the open window reading is greater that the closed window reading by some percentage.

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

ISSUE: 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.

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.

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

ISSUE: 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."

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

WESTCHESTER COUNTY

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

ISSUE: 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.

CORRECTIVE ACTION DEMONSTARTED: This criterion was re-evaluated on 09/14/10. During the exercise, the Westchester county staff was effectively notified.

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

ISSUE: 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

CORRECTIVE ACTION DEMONSTRATED: Procedure 5, Department of Transportation, revised 08/06/10, now references a Dosimeter of Legal Record (DLR), which is the appropriate term for the new permanent record dosimetry.

ISSUE NO: 32-08-3.a.1-P-18

ISSUE: 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 direct reading 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.

CORRECTIVE ACTION DEMONSTRATED: Procedure 5, Department of Transportation, Attachment 1, revised 08/06/10, now gives the option of providing Bus Drivers either 0-5R and 0-200R Direct Reading Dosimeters (DRSs) or a single 0-20R DRD. However, Procedure 3.3 has been similarly revised and now also gives the option of using a single 0-20R DRD.