



# Indian Point Energy Center

## After Action Report

Radiological Emergency Preparedness Exercise

U.S. Department of Homeland Security

Federal Emergency Management Agency, Region 2

Exercise Date: November 15, 2022

Published: May 15, 2023



**FEMA**

This page intentionally left blank

## Table of Contents

<b>Executive Summary.....</b>	<b>1</b>
<b>Section 1: Exercise Overview .....</b>	<b>2</b>
1.1 Exercise Details .....	2
1.2 Exercise Planning Team Leadership .....	2
1.3 Participating Organizations .....	3
<b>Section 2: Exercise Design Summary .....</b>	<b>5</b>
2.1 Exercise Purpose and Design.....	5
2.2 Exercise Core Capabilities and Objectives .....	6
2.3 Exercise Scenario .....	7
<b>Section 3: Analysis of Capabilities .....</b>	<b>11</b>
3.1 Exercise Evaluation and Results .....	11
3.2 Summary Results of Exercise Evaluation by Venue .....	11
<b>Section 4: Conclusion .....</b>	<b>14</b>
<b>Appendix A: Exercise Timeline .....</b>	<b>15</b>
<b>Appendix B: Exercise Key Leaders and Evaluators.....</b>	<b>17</b>
<b>Appendix C: Extent of Play Agreement.....</b>	<b>21</b>
<b>EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT.....</b>	<b>24</b>
Sub-element 1.a – Mobilization .....	24
<b>EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT.....</b>	<b>26</b>
Sub-element 1.b – Facilities.....	26
<b>EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT.....</b>	<b>27</b>
Sub-element 1.c – Direction and Control .....	27
<b>EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT.....</b>	<b>28</b>
Sub-element 1.d – Communications Equipment .....	28
<b>EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT.....</b>	<b>30</b>

Sub-element 1.e – Equipment and Supplies to Support Operations.....	30
<b>EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING .....</b>	<b>32</b>
Sub-element 2.a – Emergency Worker Exposure Control.....	32
<b>EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING .....</b>	<b>33</b>
Sub-element 2.b – Radiological Assessment, and Protective Action Recommendations, and Precautionary and/or Protective Action Decisions for the Plume Phase of the Emergency .....	33
<b>EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING .....</b>	<b>34</b>
Sub-element 2.b – Radiological Assessment, and Protective Action Recommendations, and Precautionary and/or Protective Action Decisions for the Plume Phase of the Emergency .....	34
<b>EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING .....</b>	<b>35</b>
Sub-element 2.c – Precautionary and/or Protective Action Decision Considerations for the Protection of Persons with Disabilities and Access/ Functional Needs .....	35
<b>EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING .....</b>	<b>36</b>
Sub-element 2.d – Radiological Assessment and Decision Making for the Ingestion Exposure Pathway .....	36
<b>EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING .....</b>	<b>37</b>
Sub-element 2.e – Radiological Assessment and Decision Making Concerning Post-Plume Phase Relocation, Reentry, and Return.....	37
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION.....</b>	<b>38</b>
Sub-element 3.a – Implementation of Emergency Worker Exposure Control.....	38
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION.....</b>	<b>39</b>
Sub-element 3.b – Implementation of KI Decision for Institutionalized Individuals and the General Public .....	39
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION.....</b>	<b>40</b>
Sub-element 3.c – Implementation of Precautionary and/or Protective Actions for Persons with Disabilities and Access/Functional Needs .....	40
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION.....</b>	<b>41</b>
Sub-element 3.c – Implementation of Precautionary and/or Protective Actions for Persons with Disabilities and Access/Functional Needs .....	41
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION.....</b>	<b>42</b>
Sub-element 3.d – Implementation of Traffic and Access Control .....	42
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION.....</b>	<b>43</b>

Sub-element 3.d – Implementation of Traffic and Access Control .....	43
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION .....</b>	<b>44</b>
Sub-element 3.e – Implementation of Ingestion Pathway Decisions .....	44
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION .....</b>	<b>45</b>
Sub-element 3.e – Implementation of Ingestion Pathway Decisions .....	45
<b>EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION .....</b>	<b>46</b>
Sub-element 3.f – Implementation of Post-Plume Phase Relocation, Reentry, and Return Decisions .....	46
<b>EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS.....</b>	<b>47</b>
Sub-element 4.a – Plume Phase Field Measurements and Analyses .....	47
<b>EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS.....</b>	<b>48</b>
Sub-element 4.a – Plume Phase Field Measurements and Analyses .....	48
<b>EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS.....</b>	<b>49</b>
Sub-element 4.a – Plume Phase Field Measurements and Analyses .....	49
<b>EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS.....</b>	<b>51</b>
Sub-element 4.b – Post-Plume Phase Field Measurements and Analyses.....	51
<b>EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS.....</b>	<b>52</b>
Sub-element 4.c – Laboratory Operations.....	52
<b>EVALUATION AREA 5: EMERGENCY NOTIFICATION &amp; PUBLIC INFORMATION.....</b>	<b>53</b>
Sub-element 5.a – Activation of the Prompt Alert and Notification System.....	53
<b>EVALUATION AREA 5: EMERGENCY NOTIFICATION &amp; PUBLIC INFORMATION.....</b>	<b>54</b>
Sub-element 5.a – Activation of the Prompt Alert and Notification System.....	54
<b>EVALUATION AREA 5: EMERGENCY NOTIFICATION &amp; PUBLIC INFORMATION.....</b>	<b>55</b>
Sub-element 5.b – Subsequent Emergency Information and Instructions for the Public and the Media .....	55
<b>EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES .....</b>	<b>56</b>
Sub-element 6.a – Monitoring, Decontamination, and Registration of Evacuees.....	56
<b>EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES .....</b>	<b>57</b>
Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles .....	57
<b>EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES .....</b>	<b>58</b>

Sub-element 6.c – Temporary Care of Evacuees .....	58
<b>EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES .....</b>	<b>59</b>
Sub-element 6.d – Transportation and Treatment of Contaminated Injured Individuals ....	59
<b>Appendix D: Exercise Issues .....</b>	<b>60</b>

# Executive Summary

A Limited Participation Plume Phase Exercise was conducted on November 15, 2022, in the plume exposure pathway emergency planning zone (EPZ) around the Indian Point Energy Center (IPEC). The limited nature of the exercise was the result of two considerations. The most important factor was that the last operating reactor at IPEC, Unit 3, was powered down on April 30, 2021, and the site decommissioning process was well underway. This resulted in a much lower overall risk from any event which might create a hazard to persons or property outside the site boundary. Notwithstanding such reduced risk, the EPZ was and is still in effect as of this writing while petitions from the site owner and operator to eliminate the EPZ are pending before the U.S. Nuclear Regulatory Commission. A secondary reason to limit the scope of the exercise was the ongoing threat, though greatly reduced from its extent during the IPEC 2022 exercise, from the Covid-19 pandemic. This latter consideration led to more of the exercise demonstrations being conducted out of sequence (OOS) than would be the case in the absence of pandemic concerns but fewer than was the case in 2020, prior to the release of vaccines and other mitigating measures which have greatly reduced, though not eliminated, the threat from Covid-19.

The exercise was evaluated by the U.S. Department of Homeland Security, Federal Emergency Management Agency (DHS/FEMA) Region 2. The purpose of the exercise was to demonstrate and assess the level of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures.

The most recent previous federally evaluated exercise at this site was conducted on November 17, 2020. The qualifying emergency preparedness exercise for Indian Point Energy Center was conducted on March 3, 1982.

FEMA wishes to acknowledge the efforts of the many individuals in the State of New York,

Orange County, Putnam County, Rockland County, and Westchester County who participated in this exercise.

This report contains the draft evaluation of the biennial exercise and out-of-sequence activities in Orange, Putnam, Rockland, and Westchester counties: Day Cares and School Interviews; Emergency Worker Decontamination Centers; General and Special Population Bus Companies; School Bus Companies; Traffic Control Points; and Medical Services Drills.



# Section 1: Exercise Overview

## 1.1 Exercise Details

### Exercise Name

- 2022 Indian Point Exercise

### Type of Exercise

- Limited Participation Exercise

### Exercise Date

- November 15, 2022

### Program

- U.S. Department of Homeland Security, Federal Emergency Management Agency, Radiological Emergency Preparedness (REP) Program

### Scenario Type

- Plume

### Locations

- See the extent-of-play agreement in Appendix C for exercise locations.

### Mission

- Response

## 1.2 Exercise Planning Team Leadership

**Susan D.C. O'Neill**

FEMA Region 2

Regional Assistance Committee (RAC) Chair

One World Trade Center, 52<sup>nd</sup> Floor

New York, New York, 10007

202-309-4554

Susan.ONeill@fema.dhs.gov



**Michael DeBonis**

Site Specialist

One World Trade Center, 52<sup>nd</sup> Floor

New York, New York 10007

202-706-3149

Michael.DeBonis@fema.dhs.gov

**Gary Machina**

NY State POC

New York State Office of Emergency Management

Exercise Director

1200 Washington Ave, Building 22

Albany, New York, 12226

518-292-2256

GMachina@dhse.ny.gov

**Craig Delamater**

Licensee POC

Holtec Decommissioning International

Indian Point Energy Center

450 Broadway

Buchanan, New York, 10511

914-254-7055

C.Delamater@Holtec.com

## 1.3 Participating Organizations

- New York State (NYS) participated in this exercise, but was not evaluated, since NYS was evaluated for the 2021 Nine Mile Point Exercise.
- Holtec Decommissioning International also participated in this exercise but, as a matter of federal law and regulation, is evaluated only by the U.S. Nuclear Regulatory Commission and not by FEMA.
- Other participating organizations by Exercise locations:

### Putnam County EOC

- Putnam County Department of Health
- Putnam County Emergency Services
- Putnam County Highway Department
- Putnam County Sheriff's Department
- Putnam County Social Services
- Putnam County Haldane Central School District

### **Westchester County EOC**

- Westchester County Executive Office
- Westchester County OEM
- Westchester County Department of Emergency Services
- Westchester County Department of Health
- Westchester County Department of Law
- Westchester County Department of Public Safety
- Westchester County Department of Public Works
- Westchester County Police Department

### **Orange County EOC**

- Orange County Executive
- Orange County Attorney (2)
- Orange County Department of Emergency Services
- Orange County Commissioner of Public Health
- Orange County Emergency Management
- NYS DHSES

### **Rockland County EOC**

- Rockland County Department of Health
- Rockland County Highway Department
- Rockland County Office of Emergency Services
- Rockland County Sheriff's Office

# Section 2: Exercise Design

## Summary

### 2.1 Exercise Purpose and Design

Formal submission of the Radiological Emergency Response Plans for the Indian Point Nuclear Power Plants to FEMA Region 2 by New York State and involved local jurisdictions occurred on July 15, 1981. Formal approval of the Radiological Emergency Response Plans was granted by FEMA on February 1, 1985, under 44 CFR 350.

A REP exercise was conducted on November 15, 2022, by FEMA Region 2 to assess the capabilities of the State and local emergency preparedness organizations in implementing their Radiological Emergency Response Plans 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 offsite response organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with final determinations made by the FEMA Region 2 RAC Chairperson and approved by the Regional Administrator.

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

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980.
- "Radiological Emergency Preparedness: Exercise Evaluation Methodology," published in the Federal Register on September 12, 2001, and revised April 25, 2002, and contained in the Interim REP Program Manual (January 2016)

Section 1 of this report, entitled "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

Section 3 of this report, entitled "Analysis and Capabilities," presents detailed information on the demonstration of applicable exercise evaluations at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. Table 3.1, titled, "Summary of Exercise Evaluation" is a tabular representation of exercise criteria.

Section 3 also contains: (1) descriptions of all Level 1 and Level 2 Findings assessed during this exercise, recommended corrective actions, and the State and local governments' schedule of

corrective actions for each identified exercise issue and (2) descriptions of unresolved Findings assessed during previous exercises and the status of the OROs' efforts to resolve them.

## 2.2 Exercise Core Capabilities and Objectives

Core capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. Using the Homeland Security Exercise and Evaluation Program methodology, the exercise objectives meet the Radiological Emergency Preparedness Program requirements and encompass the emergency preparedness evaluation areas.

The core capabilities scheduled for demonstration during this exercise were:

**Operational Coordination:** Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.

**Environmental Response/Health and Safety:** Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities.

**Mass Care Services:** Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies.

**Operational Communications:** Ensure the capacity for timely communications in support of security, situational awareness, and operations by any and all means available, among and between affected communities in the impact area and all response forces.

**Public Health, Healthcare, and Emergency Medical Services:** Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical, and behavioral health support, and products to all affected populations.

**Situational Assessment:** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.

**Intelligence and Information Sharing:** Provide timely, accurate, and actionable information resulting from the planning, direction, collection, exploitation, processing, analysis, production, dissemination, evaluation, and feedback of available information concerning physical and cyber threats to the United States, its people, property, or interests; the development, proliferation, or use of weapons of mass destruction (WMDs); or any other matter bearing on U.S. national or homeland security by local, state, tribal, territorial, Federal, and other stakeholders. Information sharing is the ability to exchange intelligence, information, data, or knowledge among government or private sector entities, as appropriate.

**Public Information and Warning:** Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard, as well as the actions being taken and the assistance being made available, as appropriate.

**Critical Transportation:** Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

These core capabilities, when successfully demonstrated, meet the exercise objectives.

These objectives encompass the Radiological Emergency Preparedness Program requirements and are based on the negotiated extent-of-play.

## 2.3 Exercise Scenario

### Initial Conditions:

- Unit 2 Spent fuel pool Temperature: 88 °F
- Unit 3 Spent Fuel Pool Temperature: 91 °F

### Equipment OOS

- No safety equipment is currently out of service
- All equipment needed to maintain the Spent Fuel Pool level and temperatures remain Satisfactory

### Work in progress

- Fuel Moves in progress in the Unit 3 Fuel Storage Building (FSB)
- Installation of Steel brackets (welding) for the Hi Lift crane in the Unit 3 FSB is scheduled after the fuel moves.
- Reactor vessel segmentation continues in both Units

### Initial MET Data

- Wind speed: 2.0 meters per second
- Wind direction: From 350 degrees
- Pasquill Category: G

There are no weather advisories for today. Currently, it is partly sunny, with temperatures reaching a high of 51 degrees.

**Basic Scenario Timeline (Real-Time)**

~0820	Drill window opens.
~0823	The Unit 3 Control Room feels vibrations in the floor, and they receive a subsequent alarm on the SDF panel which shows “Seismic Event Occurred” alarm.
~0824	The Unit 3 Shift Manager checks the peak shock annunciator at the entry door of the Control Room and determines that an Amber light is illuminated, confirming that there has been a seismic event. The Unit 3 Shift Manager calls the Unit 2 Control Room to confirm that there were vibrations felt and to further discuss the actions that will need to be taken.
~0825	The Shift Manager calls for the Communicator to come to the Control Room.
~0826	The Team conducting fuel moves in the Unit 3 Fuel Storage Building place the crane over the spent fuel pool into a safe condition.
~0827	The Unit 3 Shift Manager requests that the Unit 2 Shift Manager send out the Everbridge notification and requests the full Emergency Response Organization respond.
~0830	Non-Certified Operators have been dispatched in accordance with AOP-Seismic-1 to conduct rounds to determine if any safety systems have been damaged. There will be no reports of damage sustained due to the earthquake.
~0838	The Unit 3 Shift Manager declares a Notification of an Unusual Event (NUE) based on EAL HU1.1 Seismic event identified by any two of the following: <ul style="list-style-type: none"> <li>▪ Earthquake felt in plant by a consensus of Control Room Operators</li> <li>▪ Unit 3 “Seismic Event Occurred” alarm or any amber peak shock annunciator is lit</li> <li>▪ National Earthquake Information Center confirms event</li> </ul>
~0853	Notifications to the Offsite Response Organizations have been made stating that an NUE has been declared at Indian Point. The Part 1 form states that there is no release in progress.
~0910	The Team that was conducting the fuel moves requests to check the recent fuel move due to the earthquake. They believe that the bundle may not have fully seated into the rack. The Shift Manager approves the request and asks for an update.
~0921	The station experiences an aftershock, which causes a failure to MCC-37 (Breaker) that supplies power to the fuel handling crane. The fuel assembly is now elevated in the pool and the crew cannot move the crane. A hoist cable will snap causing the fuel assembly to fall on the racks near the cask pit. The

	assembly sustains significant damage and the crew reports bubbling in the pool, near where the assembly landed. The dosimeters of the crew will begin alarming.
~0923	Radiation monitors will begin increasing in the FSB and the Control Room is working to restore power to the bridge crane for the workers to evacuate the building. Radiation Monitor R-5 begins climbing and now reads ~50 m/Rem/Hour. Radiation Monitor R-27 is also climbing and reads 2.6 E+4 $\mu$ Ci/sec.
~0927	The Non-Certified Operator resets the breaker for the bridge crane and the crew over the spent fuel pool can evacuate.
~0928	All Facilities are staffed and operational.
~0938	R-27 now reads 6.0 E+6 $\mu$ Ci/sec and R-5 reads 500 mRem/hr. (above high alarm). Based on the R-27 values and R-5 being in high alarm, this T=0 for the ALERT.
~0940	Upon Staffing, the TSC is informed of the damage sustained to the Spent fuel and begin developing a plan to mitigate the accident. The team begins looking into B.5.b procedures to mitigate the accident.
~0950	<p>The TSC has developed a plan mitigate the accident in the Spent Fuel Pool. The TSC can use a variety of procedures and guidelines to mitigate the accident:</p> <ul style="list-style-type: none"> <li>▪ 0-SOP-ESP-002 “Emergency Contingency Plan”</li> <li>▪ 0-AOP-SEC-3 “Event Contingency Actions”</li> <li>▪ 3-AOP-SF-1 “Fuel Damage or Loss of SFP/Refueling Cavity Level”</li> <li>▪ SOP-4.3.1 “Spent Fuel Pit Cooling” <ul style="list-style-type: none"> <li>○ B.5.b Mitigating strategies</li> </ul> </li> </ul> <p>NOTE: The Control Room maintains the Non-Certified Operators until a Site Area Emergency is declared.</p>
~0953	The Unit 3 Shift Manager declares an ALERT based on either AA1.1 “Any valid gaseous monitor reading >Table A-1 column Alert for greater than 15 minutes” or AA2.1 “Damage to irradiated fuel or loss of water level (uncovering irradiated fuel outside the reactor vessel) that causes a valid high alarm on any of the following radiation monitors: R-5 Fuel Storage Building Area Monitor.”
~1008	Notifications to the Offsite Response Organizations have been made stating that an ALERT has been declared at Unit 3. The Part 1 form states that there is currently a release in progress above tech specs.
~1130	The repair and corrective team reports back to the TSC/OSC that they have set up pumps and hoses to spray onto the Spent Fuel Pool.
~1138	The Team is successful in mitigating the accident and R-27 begins lowering.



~1200	Terminate Drill with concurrence of New York State.
-------	---

## Section 3: Analysis of Capabilities

### 3.1 Exercise Evaluation and Results

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the 11/15/2022 Indian Point Exercise.

Each jurisdiction and functional entity was evaluated based on the demonstration of core capabilities, capability targets, critical tasks, and the underlying Radiological Emergency Preparedness criteria as delineated in the Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual dated January 2016. Exercise criteria are listed by number, and the demonstration status of those criteria are indicated by the use of the following terms:

- Met (M): No Findings assessed and no unresolved Findings from prior exercises.
- Level 1 (L1) Finding: An observed or identified inadequacy of organizational performance in an exercise that could cause a determination 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 (NPP).
- Level 2 (L2) Finding: An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety.
- Plan (P) Issue: An observed or identified inadequacy in the offsite response organizations' (ORO's) emergency plan/implementing procedures, rather than that of the ORO's performance.
- N: Not demonstrated

### 3.2 Summary Results of Exercise Evaluation by Venue

DATE: November 15, 2022 SITE: Indian Point Energy Center - NY  M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated	Mobilization	Facilities	Direction and Control	Communications Equipment	Equipment and Supplies to Support Operations
Emergency Operations Management	1a1	1b1	1c1	1d1	1e1
Emergency Operations Facility - Indian Point - Emergency Operations Facility	M		M	M	M
Westchester County Field Monitoring Team (FMT) – Field Monitoring Team	M	Clic		M	M
Orange County EOC - Risk County EOC	M		M	M	M
Orange County, NY Warning Point - Warning Point	M			M	M

Putnam County EOC - Risk County EOC	M		M	M	M
Putnam County Warning Point - Warning Point	M			M	M
Rockland County EOC - Risk County EOC	M		M	M	M
Rockland County Emergency Operations Center - Warning Point	M			M	M
Westchester County EOC - Risk County EOC	M		M	M	M
Westchester County Dose Assessment - Technical Assessment			M		<a href="#">Click</a>
Westchester County Warning Point - Warning Point	M			M	M
Indian Point Energy Center 2020 Exercise Virtual Joint Information Center - Joint	M			M	M

<div>DATE: November 15, 2022</div> <div>SITE: Indian Point Energy Center - NY</div> <div>M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</div>	Emergency Worker Exposure Control	Dose Assessment & PARs & PADS for the Emergency Event		PADs for the Protection of persons with disabilities and access/functional needs	Radiological Assessment and Decision-making for the Ingestion Exposure Pathway	Radiological Assessment & Decision-making Concerning Post-Plume Phase Relocation, Reentry, and Return
Protective Action Decision-Making	2a1	2b1	2b2	2c1	2d1	2e1
Orange County EOC - Risk County EOC			M	M		
Putnam County EOC - Risk County EOC			M	M		
Rockland County EOC - Risk County EOC			M	M		
Westchester County EOC - Risk County EOC			M	M		
Westchester County Dose Assessment - Technical	M	M				

<div>DATE: November 15, 2022</div> <div>SITE: Indian Point Energy Center - NY</div> <div>M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</div>	Implementation of Emergency Worker Exposure Control	Implementation of KI Decision for Institutionalized Individuals and the Public	Implementation of Protective Actions for persons with disabilities and access/functional needs		Implementation of Traffic and Access Control		Implementation of Ingestion Exposure Pathway Decisions		Implementation of Post-Plume Phase Relocation, Reentry, and Return Decisions
Protective Action Implementation	3a1	3b1	3c1	3c2	3d1	3d2	3e1	3e2	3f1
Westchester County Field Monitoring Team - FMT	M								
Rockland County Good Samaritan Hospital - Medical	M								
Rockland County EOC - Medical Services - Transport	M								
Westchester County EOC - Risk County EOC	M	M	M	M					
Hendrick Hudson School District Bus Driver Interviews	M		M						
Westchester County April 17, 2021, Daycares				M					
Westchester County October 16, 2021, Daycares				M					
Westchester County April 16, 2022, Daycares				M					

<p>DATE: November 15, 2022 SITE: Indian Point Energy Center - NY</p> <p>M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Plume Phase Field Measurement and Analyses			Post Plume Phase Field Measurements and Sampling	Laboratory Operations
Field Measurements and Analyses	4a1	4a2	4a3	4b1	4c1
Westchester County Field Monitoring Team - FMT			M		
Westchester County Dose Assessment - Technical Assessment		M			

<p>DATE: November 15, 2022 SITE: Indian Point Energy Center - NY</p> <p>M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Activation of the Prompt Alert and Notification System				Emergency Information and Instructions for the Public and the Media
Emergency Notification and Public Information	5a1	5a2	5a3	5a4	5b1
Indian Point Energy Center 2020 Exercise Virtual Joint Information Center - Joint					M

<p>DATE: November 15, 2022 SITE: Indian Point Energy Center - NY</p> <p>M: Met, L1: Level 1 Issue, L2: Level 2 Issue, P: Plan Issue, N: Not Demonstrated</p>	Monitoring, Decontamination, and Registration of Evacuees	Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles	Temporary Care of Evacuees	Transportation and Treatment of Contaminated Injured Individuals
Emergency Notification and Public Information	6a1	6b1	6c1	6d1
Rockland County Good Samaritan Hospital - Medical Services - Hospital				M
Rockland County EOC - Medical Services - Transport				M

## Section 4: Conclusion

Overall, the exercise was a success. Based on the partial results of the exercise, the offsite radiological emergency response plans and preparedness for the State of New York and the affected local jurisdiction are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency. Therefore, 44 CFR Part 350 approval of the offsite radiological emergency response plans and preparedness for the State of New York, site-specific to the Indian Point Energy Center, will remain in effect.

# Appendix A: Exercise Timeline

DATE AND SITE: November 15, 2022 – Indian Point Energy Center

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action Was Taken							
		EOF	JIC	Orange County	Putnam County	Rockland County	Westchester County		
NOUE	0836	N/A	0852	0839	0839	0839	0842		
Alert	0942	N/A	0950	0947	0944	0952	0950		
Site Area Emergency		N/A	N/A	N/A	N/A	N/A	N/A		
General Emergency		N/A	N/A	N/A	N/A	N/A	N/A		
Simulated Rad. Release Started	0942	N/A	N/A	0947	0944	0952	0951		
Simulated Rad. Release Terminated	1130	N/A	N/A	1130	1130	1130	1130		
Facility Declared Operational		0931	0924	0920	0915	0845	1000		
Declaration of State of Emergency		N/A	N/A	N/A	N/A	N/A	N/A		
Exercise Terminated		1133	1135	1133	1133	1133	1133		
Early Precautionary Actions:		N/A	N/A	N/A	N/A	N/A	N/A		

<b>"Heads Up" Siren Activation</b>								
<b>"Heads Up" EAS Message</b>								
<b>1st Protective Action Decision</b>								
<b>Shelter:</b>	N/A	N/A	N/A	N/A	N/A	N/A		
<b>Evacuate:</b>								
<b>1st Siren Activation</b>	N/A	N/A	N/A	N/A	N/A	N/A		
<b>1st EAS or EBS Message</b>	N/A	N/A	N/A	N/A	N/A	N/A		
<b>2nd Protective Action Decision</b>								
<b>Shelter:</b>	N/A	N/A	N/A	N/A	N/A	N/A		
<b>Evacuate:</b>								
<b>2nd Siren Activation</b>	N/A	N/A	N/A	N/A	N/A	N/A		
<b>2nd EAS or EBS Message</b>	N/A	N/A	N/A	N/A	N/A	N/A		
<b>KI Administration Decision:</b>	N/A	N/A	N/A	N/A	N/A	N/A		



# Appendix B: Exercise Key Leaders and Evaluators

**Regional Assistance Committee (RAC) Chair:** Susan O'Neill

**Site Specialist:** Michael DeBonis

Location / Venue	Evaluation Team	Core Capabilities
Emergency Operations Facility - Indian Point - Emergency Operations Facility	Brian Thomas	Prevention - Operational Coordination, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Operational Coordination, Response - Public Health, Healthcare, and Emergency Medical Services, Response - Situational Assessment, Recovery - Operational Coordination
NY Field Monitoring Team - Field Monitoring Team	Michael DeBonis	Prevention - Operational Coordination, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Operational Coordination, Response - Public Health, Healthcare, and Emergency Medical Services, Recovery - Operational Coordination
Orange County EOC - Risk County EOC	Christopher Cammarata	Prevention - Intelligence and Information Sharing, Prevention - Operational Coordination, Protection - Intelligence and Information Sharing, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational

Location / Venue	Evaluation Team	Core Capabilities
		Communications, Response - Operational Coordination, Response - Public Health, Healthcare, and Emergency Medical Services, Response - Situational Assessment, Recovery - Operational Coordination
Orange County, NY Warning Point - Warning Point	Christopher Cammarata	Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Public Health, Healthcare, and Emergency Medical Services
Putnam County EOC - Risk County EOC	Miriam Weston	Prevention - Intelligence and Information Sharing, Prevention - Operational Coordination, Protection - Intelligence and Information Sharing, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Operational Coordination, Response - Public Health, Healthcare, and Emergency Medical Services, Response - Situational Assessment, Recovery - Operational Coordination
Putnam County Warning Point - Warning Point	Miriam Weston	Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Public Health, Healthcare, and Emergency Medical Services
Rockland County EOC - Risk County EOC	George Hogan III	Prevention - Intelligence and Information Sharing, Prevention - Operational Coordination, Protection - Intelligence and Information Sharing, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Operational Coordination, Response - Public Health,

Location / Venue	Evaluation Team	Core Capabilities
		Healthcare, and Emergency Medical Services, Response - Situational Assessment, Recovery - Operational Coordination
Rockland County Emergency Operations Center - Warning Point	George Hogan III	Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Public Health, Healthcare, and Emergency Medical Services
Westchester County EOC - Risk County EOC	Kevin Malone	Prevention - Intelligence and Information Sharing, Prevention - Operational Coordination, Prevention - Public Information and Warning, Protection - Intelligence and Information Sharing, Protection - Operational Coordination, Protection - Public Information and Warning, Mitigation - Operational Coordination, Mitigation - Public Information and Warning, Response - Critical Transportation, Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Operational Coordination, Response - Public Health, Healthcare, and Emergency Medical Services, Response - Public Information and Warning, Response - Situational Assessment, Recovery - Operational Coordination, Recovery - Public Information and Warning
Westchester County Dose Assessment - Technical Assessment	Kevin Robinson	Prevention - Intelligence and Information Sharing, Prevention - Operational Coordination, Protection - Intelligence and Information Sharing, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Operational Communications, Response - Operational Coordination, Response - Situational Assessment, Recovery - Operational Coordination

Location / Venue	Evaluation Team	Core Capabilities
Westchester County Warning Point - Warning Point	Alonzo McSwain	Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Public Health, Healthcare, and Emergency Medical Services
Indian Point Energy Center 2020 Exercise Virtual Joint Information Center - Joint Information Center	Michele Sturman	Prevention - Public Information and Warning, Protection - Public Information and Warning, Mitigation - Public Information and Warning, Response - Environmental Response/Health and Safety, Response - Mass Care Services, Response - Operational Communications, Response - Public Health, Healthcare, and Emergency Medical Services, Response - Public Information and Warning, Recovery - Public Information and Warning
Rockland County Good Samaritan Hospital - Medical Services - Hospital	Narvaez Stinson	Prevention - Operational Coordination, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Operational Coordination, Response - Public Health, Healthcare, and Emergency Medical Services, Recovery - Operational Coordination
Rockland County EOC - Medical Services - Transport	Brian Hasemann	Prevention - Operational Coordination, Protection - Operational Coordination, Mitigation - Operational Coordination, Response - Environmental Response/Health and Safety, Response - Operational Coordination, Response - Public Health, Healthcare, and Emergency Medical Services, Recovery - Operational Coordination

# Appendix C: Extent of Play Agreement



**OFFSITE EXTENT-OF-PLAY**

**FOR THE**

**NOVEMBER 15, 2022**

**INDIAN POINT ENERGY CENTER**

**LIMITED-PARTICIPATION EXERCISE**

## **EXTENT-OF-PLAY DOCUMENT CONTENTS**

Extent-Of-Play Ground Rules

Extent-Of-Play

Exercise Issues (Level 2 Findings)

# 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 Controllers will inject these messages for action as agreed upon.
- “Optional” messages may be developed and inserted to facilitate EOC participation.
- The State Controllers 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 Manual (page 171), “During the exercise, an evaluator who notes that an ORO did not correctly demonstrate activities for a particular criterion advises the appropriate controller of the issue. Participants may re- demonstrate an activity that the ORO or FEMA determined was not performed satisfactorily only when the correction would not interrupt the flow of the exercise. The controller or other ORO personnel will re-train the staff that performed the criterion activity incorrectly. Upon completion of the training, those staff will re- demonstrate the criterion activity. If the ORO demonstrates that activity adequately, the AAR will record the issue, but a follow-on statement will describe the corrective action demonstrated.” Re-demonstrations of any activity will be discussed and agreed upon between the State Controller and FEMA Evaluator as practicable for all activities/locations evaluated.
- **New York State (NYS) will be participating in this exercise, but will not be evaluated, since NYS was evaluated for the 2021 Nine Mile Point Exercise.**



# 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/FEMA-REP-1, A.1.a,e; A.3,4; C.1,4,6; D.4; E.1,2; H.3,4).

#### Warning Points

##### Extent-of-Play Agreement

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

#### Emergency Operation Centers (EOCs)

##### Extent-of-Play Agreement

- The Four Counties' exercise staff may be pre-positioned near their EOCs, in the vicinity of those facilities.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

#### Command Rooms

##### Extent-of-Play Agreement

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

#### Emergency Operations Facility (EOF)

##### Extent-of-Play Agreement

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

#### Field Monitoring Team (FMT)

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by one Westchester County FMT only, during the Out of Sequence drill on Wednesday, 10/5/2022.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

### **Joint Information Center (JIC)**

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

- The JIC facility in Hawthorne will not be used by NYS/counties for this exercise, and the PIO Coordination Line will be used to coordinate between PIO areas.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## 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/FEMA-REP-1, G.3.a; H.3; J.10.h; J.12; K.5.b).*

#### Extent-of-Play Agreement

- There are no new facilities for this criterion to be evaluated for this exercise.

## 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/FEMA-REP-1, A.1.d; A.2.a,b; A.3; C.4,6).

#### Command Rooms

##### Extent-of-Play Agreement

- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.
- The State Controller may inject “Exercise” free play messages at selected ORO locations for action as agreed upon.

#### Emergency Operation Centers (EOCs)

##### Extent-of-Play Agreement

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

#### Emergency Operations Facility (EOF)

##### Extent-of-Play Agreement

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

#### Joint Information Center (JIC)

##### Extent-of-Play Agreement

- The JIC facility in Hawthorne will not be used by NYS/counties for this exercise, and the PIO Coordination Line will be used to coordinate between PIO areas.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## 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/FEMA-REP-1,F.1,2).*

#### Warning Points

##### Extent-of-Play Agreement

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

#### Emergency Operation Centers (EOCs)

##### Extent-of-Play Agreement

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

#### Command Rooms

##### Extent-of-Play Agreement

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

#### Emergency Operations Facility (EOF)

##### Extent-of-Play Agreement

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

#### Field Monitoring Team (FMT)

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by one Westchester County FMT only, during the Out of Sequence drill on Wednesday, 10/5/2022.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

#### Joint Information Center (JIC)

##### Extent-of-Play Agreement

- The JIC facility in Hawthorne will not be used by NYS/counties for this exercise, and the PIO Coordination Line will be used to coordinate between PIO areas.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

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

**Criterion 1.e.1:** *Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG- 0654/FEMA-REP-1, H.7,10; I.7,8,9; J.10.a,b,e; J.11,12; K.3.a, K.5.b).*

#### Command Rooms

##### Extent-of-Play Agreement

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

#### Emergency Operation Centers (EOCs)

##### Extent-of-Play Agreement

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

#### Emergency Operations Facility (EOF)

##### Extent-of-Play Agreement

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

#### Dose Assessment

##### Extent-of-Play Agreement

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

#### Field Monitoring Team (FMT)

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by one Westchester County FMT only, during the Out of Sequence drill on Wednesday, 10/5/2022.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

#### Joint Information Center (JIC)

##### Extent-of-Play Agreement



- The JIC facility in Hawthorne will not be used by NYS/counties for this exercise, and the PIO Coordination Line will be used to coordinate between PIO areas.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## EVALUATION AREA 2: PRECAUTIONARY AND/OR 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 ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides (PAGs). (NUREG-0654/FEMA- REP-1, C.6; f; K.3.a; K.4).

#### Dose Assessment

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by Westchester County Dose Assessment, only.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING

### Sub-element 2.b – Radiological Assessment, and Protective Action Recommendations, and Precautionary and/or Protective Action Decisions for the Plume Phase of the Emergency

**Criterion 2.b.1:** *Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3).*

#### Dose Assessment

#### Extent-of-Play Agreement

- This Criterion will be demonstrated by Westchester County Dose Assessment, only.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING

### Sub-element 2.b – Radiological Assessment, and Protective Action Recommendations, and Precautionary and/or Protective Action 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 precautionary and/or protective action decisions for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1,A.3; C.4,6; D.4; J.9; J.10.e,f,m).*

#### Command Rooms

#### Extent-of-Play Agreement

- This Criterion will only be evaluated within the Four Counties, if demonstrated by the counties due to exercise play.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING

### Sub-element 2.c – Precautionary and/or Protective Action Decision Considerations for the Protection of Persons with Disabilities and Access/ Functional Needs

**Criterion 2.c.1:** *Precautionary and/or protective action decisions (PADs) are made, as appropriate, for groups of persons with disabilities and access/functional needs. (NUREG-0654/FEMA-REP-1, D.4; J.9, J.10.d,e).*

#### Command Rooms

#### Extent-of-Play Agreement

- This Criterion will only be evaluated within the Four Counties, if demonstrated by the counties due to exercise play.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

## EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING

### Sub-element 2.d – Radiological Assessment and Decision Making for the Ingestion Exposure Pathway

**Criterion 2.d.1:** *Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO planning criteria. (NUREG 0654-FEMA-REP-1, A.3; C.1,4; D.4; J.9,11).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## EVALUATION AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING

### Sub-element 2.e – Radiological Assessment and Decision Making Concerning Post-Plume Phase Relocation, Reentry, and Return

**Criterion 2.e.1:** *Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures. (NUREG 0654/FEMA- REP-1, I.10; J.9; K.3.a; M.1).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## 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, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained. (NUREG-0654FEMA-REP-1, J.10.e; K.3.a, b; K.4).*

#### Dose Assessment

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by Westchester County Dose Assessment, only.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

#### Field Monitoring Team (FMT)

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by one Westchester County FMT only, during the Out of Sequence drill on Wednesday, 10/5/2022.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.



## EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

### Sub-element 3.b – Implementation of KI Decision for Institutionalized Individuals and the General Public

**Criterion 3.b.1:** *KI and appropriate instructions are made available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals and the general public is maintained. (NUREG- 0654/FEMA- REP-1, J.10.e,f).*

#### Command Room

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by the Westchester County Command Room, only, and based on exercise play.
- 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.c – Implementation of Precautionary and/or Protective Actions for Persons with Disabilities and Access/Functional Needs

**Criterion 3.c.1:** *Precautionary and/or protective action decisions are implemented for people with disabilities and those with access/functional needs other than schools within areas subject to protective actions. (NUREG-0654/FEMA-REP-1,J.10.c,d,e,g).*

#### Command Room

#### Extent-of-Play Agreement

- This Criterion will be demonstrated by the Westchester County Command Room, only, and based on exercise play.
- 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.c – Implementation of Precautionary and/or Protective Actions for Persons with Disabilities and Access/Functional Needs

**Criterion 3.c.2:** OROs/School officials implement precautionary and/or protective actions for schools. (NUREG-0654/FEMA-REP-1, J.10.c,d,e,g).

#### Command Room

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by the Westchester County Command Room, only, and based on exercise play.
- 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.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-FEMA- REP-1, A.3; C.1,4; J.10.g, j).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## 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/FEMA-REP-1, J.10.k).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

### Sub-element 3.e – Implementation of Ingestion Pathway Decisions

**Criterion 3.e.1:** *The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion pathway exposure pathway emergency planning zone for implementation of protective actions. (NUREG-0654/FEMA-REP-1, A.3;C.1,4; J.11).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

### Sub-element 3.e – Implementation of Ingestion Pathway Decisions

**Criterion 3.e.2:** *Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural products. (NUREG- 0654/FEMA-REP-1, G.1; J.9,11).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

### Sub-element 3.f – Implementation of Post-Plume Phase Relocation, Reentry, and Return Decisions

**Criterion 3.f.1:** *Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10.j; J.12;K.5.b; M.1,3).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE



## EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

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

#### *Criterion 4.a.1:*

NOT USED

## EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

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

**Criterion 4.a.2:** Field teams (only one) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654/FEMA- REP-1, C.1; H.12; I.7,8,11; J.10.a).

#### Dose Assessment

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by Westchester County Dose Assessment, only.
- All activities will be based on the OROs' plans and procedures as they would in an actual emergency.

#### Field Monitoring Team (FMT)

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by one (1) Westchester County Field Monitoring Team (FMT) only, during the Out of Sequence drill on Wednesday, 10/5/2022.

## 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/FEMA- REP-1, C.1; H.12; I.8,9; J.10.a).*

#### Field Monitoring Team (FMT)

##### Extent-of-Play Agreement

- This Criterion will be demonstrated by one (1) Westchester County Field Monitoring Team (FMT) only, during the Out of Sequence drill on Wednesday, 10/5/2022.
- At least one county field monitoring team member will demonstrate proper donning, usage, and removal of protective clothing at the respective dispatch location at an appropriate time. If necessary, an inject message from the State Controller may be used to complete this demonstration prior to the end of the exercise. The team will not be suited up in protective clothing after leaving the dispatch location. Additional protective clothing supplies will be available for inspection.
- The team will take two (2) ambient radiation measurements (including background measurements) and two (2) air sample as time permits. The team must take the air samples as though they were in the presence of the plume. If necessary, an inject message from the State Controller may be used to complete the taking of two (2) measurements and two (2) air samples 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 for inspection.
- 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 rendezvous point and the location of the State 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.
- Contamination control techniques will be demonstrated and discussed. The initial use of gloves by all teams will be demonstrated.

- The team will not be dispatched into the field. The team will only discuss the movement to a low background area to count the air samples as the teams will not be dispatched into the field.

## EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

### Sub-element 4.b – Post-Plume Phase Field Measurements and Analyses

**Criterion 4.b.1:** *The field teams (two or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision making. (NUREG-0654/FEMA-REP-1, C.1; I.8; J.11).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

### Sub-element 4.c – Laboratory Operations

**Criterion 4.c.1:** *The laboratory is capable of performing required radiological analyses to support protective action decisions. (NUREG-0654/FEMA-REP-1,C.1,3; J.11).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## 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 REP guidance. (NUREG- 0654/FEMA-REP-1, E.5,6,7).

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## 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 a reasonable time following detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654/FEMA-REP-1, E.6; Appendix 3.B.2.c).

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE



## EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

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

*Criterion 5.b.1: OROs provide accurate subsequent emergency information and instructions to the public and news media in a timely manner. (NUREG- 0654/FEMA- REP-1, E.5,7; G.3.a; G.4.a,c).*

#### Public Instruction and Emergency Information

##### Extent-of-Play Agreement

- Only one (1) news release from each of the Four Counties will be prepared for evaluation.

#### Emergency Information

##### Extent-of-Play Agreement

- No media briefings will be conducted.

#### Public Inquiry

##### Extent-of-Play Agreement

- Public Inquiry and Media Monitoring staff will be provided by licensee personnel.
- Inject messages will indicate false or misleading information to enable the public inquiry function to identify a minimum of two (2) trends or false rumors.

#### Media Inquiry

##### Extent-of-Play Agreement

- Only two (2) media calls to the Media Inquiry line will be demonstrated.

## EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

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

**Criterion 6.a.1:** *The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA- REP-1, A.3; C.4; J.10.h; J.12).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

### Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles

**Criterion 6.b.1:** *The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654, K.5.a,b).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

## 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. 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/FEMA-REP-1, J.10.h; J.12).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING 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/FEMA-REP-1, F.2; H.10; K.5.a,b; L.1,4).*

#### Extent-of-Play Agreement

NOT DEMONSTRATED DURING THIS EXERCISE

# Appendix D: Exercise Issues

## EXERCISE ISSUES (LEVEL 2 FINDINGS)

### NEW YORK STATE

#### EMERGENCY OPERATIONS CENTER

- None

#### EMERGENCY OPERATIONS FACILITY

- None

#### JOINT INFORMATION CENTER

- None

#### EMERGENCY ALERT STATION (WHUD)

- None

#### NYS CALL CENTER

- None

### WESTCHESTER COUNTY

- None

### ORANGE COUNTY

- None

### PUTNAM COUNTY

- None

### ROCKLAND COUNTY

- None

### BERGEN COUNTY (NJ)

- None

END OF REPORT