Seabrook Station

After Action Report/ Improvement Plan

Exercise Date - May 05, 2010

Radiological Emergency Preparedness (REP) Program

FEMA

Published

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Seabrook Station

After Action Report/Improvement Plan

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EXECUTIVE SUMMARY

On May 5, 2010, the U.S. Department of Homeland Security (DHS), Preparedness Directorate, National Preparedness Division, Radiological Emergency Preparedness (REP), Federal Emergency Management Agency (FEMA) Region I conducted an exercise in the 10-mile plume exposure pathway emergency planning zone (EPZ) around the Seabrook Nuclear Power Station. Interviews and out-of-sequence demonstrations for schools, other special facilities, and reception, monitoring, and decontamination centers (as outlined in this report) were conducted within 60 days of the exercise. The purpose of the exercise and out-of-sequence activities was to assess the level of State and local preparedness in responding to a radiological emergency. This 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.

DHS wishes to acknowledge the efforts of the many individuals in The State of New Hampshire, The Commonwealth of Massachusetts, local communities, and private and volunteer organizations that 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. Cooperation and teamwork of all the participants were evident during this exercise.

This report contains the final evaluation of the biennial exercise and the out-of-sequence activities.

The State and local organizations, except where noted in this report, demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were NO Deficiencies; four (4) Areas Requiring Corrective Action (ARCA) identified as a result of this exercise, three(3) of which were redemonstrated during the exercise. All ARCAs but one (1) from previous exercises were resolved during the 2010 exercise or during the Combined Functional Drills preceding the exercise.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name
Seabrook Station

Type of Exercise
Plume

Exercise Date
May 05, 2010

Program
Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type
Radiological Emergency

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Seabrook Station exercise:

State Jurisdictions

STATE OF NEW HAMPSHIRE

NH STATE EMERGENCY OPERATIONS CENTER

New Hampshire Bureau of Emergency Medical Services
New Hampshire Civil Air Patrol
New Hampshire Department of Agriculture
New Hampshire Department of Education
New Hampshire Department of Environmental Services
New Hampshire Department of Safety, Homeland Security and Emergency Management
New Hampshire Department of Health and Human Services
New Hampshire Department of Safety Emergency Communications
New Hampshire Fire Academy
New Hampshire Fish and Game Department
New Hampshire Law Enforcement
New Hampshire National Guard
New Hampshire Public Utilities Commission

New Hampshire State Police
NH EMERGENCY OPERATIONS FACILITY
New Hampshire Division of Public Health Services
New Hampshire Homeland Security and Emergency Management Liaisons
NH INCIDENT FIELD OFFICE
New Hampshire Department of Public Health Services
New Hampshire Department of Resources and Economic Development
State of Maine Liaison(s)
NH STATE POLICE COMMUNICATIONS CENTER
New Hampshire State Police Communication Center
ROCKINGHAM COUNTY DISPATCH CENTER (SIREN ACTIVATION)
Rockingham County, Office of the Sherriff, Electronic Services Division, Communications Center
NH JOINT INFORMATION CENTER
NH FIELD MONITORING TEAMS #1 and #2
New Hampshire Department of Information Technology
COMMONWEALTH OF MASSACHUSETTS
MA STATE EMERGENCY OPERATIONS CENTER
Massachusetts Emergency Management Agency
Massachusetts State Police
MA EMERGENCY OPERATIONS FACILITY
Massachusetts Department of Public Health
MASSACHUSETTS REGION I EOC
Massachusetts Emergency Management Agency
Massachusetts Department of Transportation
Massachusetts Department of Mental Health
Massachusetts State Police
MA FIELD MONITORING TEAMS #1 and #2
Massachusetts Department of Public Health, Radiation Control Program
New England Emergency Medical Services
Risk Jurisdictions
NEW HAMPSHIRE RISK JURISDICTIONS
BRENTWOOD EOC
Brentwood Emergency Response Organization

Brentwood Board of Selectmen
Brentwood Fire Department
Brentwood Police Department

EAST KINGSTON EOC
East Kingston Board of Selectmen
East Kingston Building Inspector
East Kingston Fire Department
East Kingston Emergency Management Agency
East Kingston Emergency Medical Services
East Kingston Police Department

EXETER EOC
Exeter Emergency Management
Exeter Fire Department
Exeter Parks and Recreation Department
Exeter Police Department
Exeter Public Works Department
Exeter Hospital
Phillips Exeter Academy

GREENLAND EOC
Greenland Board of Selectmen
Greenland Emergency Operations Center
Greenland Dispatch
Greenland Emergency Management
Greenland Fire Department
Greenland Police Department
Greenland Volunteer Fire Department
Greenland Utility Department

HAMPTON EOC
Hampton Board of Selectmen
Hampton Fire Department
Hampton Health Department
Hampton Police Department
Hampton Public Works Department

HAMPTON FALLS EOC

Hampton Falls Board of Selectmen
Hampton Falls Fire and Rescue
Hampton Falls Police Department
Hampton Falls Administrative Staff
Hampton Falls Transportation Department

KENSINGTON EOC
Kensington Office of Emergency Management
Kensington Police Department
Kensington Town Selectmen
Kensington Volunteer Fire Department

KINGSTON EOC
Kingston Board of Selectmen
Kingston Citizen Corps
Kingston Community Emergency Response Team (CERT)
Kingston Emergency Management
Kingston Fire Department
Kingston Health Department
Kingston Highway Department
Kingston Police Department
Kingston Transportation Department
Sanborn Regional School District

NEWCASTLE EOC
New Castle Board of Selectmen
New Castle Fire Department

NEWFIELDS EOC
New Castle Police Department
Newfields Board of Selectman
Newfields Fire Department
Newfields Police Department

NEWTON EOC
Newton Emergency Management
Newton Fire Department
Newton Highway Department
Newton Police Department

Newton Board of Selectman

NORTH HAMPTON EOC

North Hampton Fire and Rescue Department

North Hampton Police Department

North Hampton Public Works Department

PORTSMOUTH EOC

Portsmouth Fire Department

Portsmouth Health Department

Portsmouth Human Resources Department

Portsmouth Police Department

Portsmouth Public Works Department

Portsmouth School Department

RYE EOC

Rye Emergency Management Agency

Rye Fire Department

Rye Police Department

Rye Public Works Department

SEABROOK EOC

Seabrook Board of Selectman

Seabrook Code Enforcement

Seabrook Department of Public Works

Seabrook Emergency Management Agency

Seabrook Fire Department

Seabrook Police Department

Seabrook Water Department

SOUTH HAMPTON EOC

South Hampton Police Department

South Hampton Fire Department

STRATHAM EOC

Stratham Office of Emergency Management

Stratham Police Department

Stratham Town Administration

Stratham Volunteer Fire Department/Emergency Medical Services

MASSACHUSETTS RISK JURISDICTIONS

AMESBURY EOC
- Amesbury Department of Public Works
- Amesbury Emergency Management
- Amesbury Fire Department
- Amesbury Harbor Master
- Amesbury Municipal Official
- Amesbury Police Department

MERRIMAC EOC
- Merrimac Fire Department
- Merrimac Emergency Management
- Merrimac Police Department
- Merrimac Police Dispatch Center
- Merrimac Public Works Department

NEWBURY EOC
- Byfield Fire Department
- Newbury Department of Public Works
- Newbury Emergency Management
- Newbury Fire Department
- Newbury Police Department

NEWBURYPORT EOC
- Newburyport Emergency Management
- Newburyport Department of Public Works
- Newburyport Fire Department
- Newburyport Harbor Master
- Newburyport Police Department

SALISBURY EOC
- Salisbury Board of Selectmen
- Salisbury Emergency Management

SalisburyFire Department
- Salisbury Police Department
- Salisbury Public Works Department

WEST NEWBURY EOC
- West Newbury Board of Health
- West Newbury Board of Selectmen

- West Newbury Emergency Management Agency
- West Newbury Fire Department
- West Newbury Highway Department
- West Newbury Police Department
- West Newbury Utilities/Water Department

Private Organizations

- Amateur Radio Emergency Services (ARES)
- Massachusetts Bay American Red Cross
- North Massachusetts American Red Cross
- Port City Amateur Radio Club
- Radio Amateur Communication Emergency Service (RACES)
- Red Cross
- Rockingham County Radio Amateur Civilian Emergency Services (RACES)
- Seabrook Station
- Support City Amateur Radio Club
- University of New Hampshire

Federal Jurisdictions

- Federal Emergency Management Agency
- United States Air Force
- United States Coast Guard

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The FEMA Region I evaluated the exercise on May 5, 2010, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERPs) and procedures to protect the public health and safety during a radiological emergency involving Seabrook Nuclear Power Station. The purpose of this report is to present the results and findings on the performance of the offsite response organizations (OROs) during a simulated radiological emergency in the HSEEP format.

2.2 Exercise Objectives, Capabilities and Activities

2.3 Scenario Summary

The exercise scenario was developed to evaluate the response of the exercise participants to a radiologically emergency. The scenario is listed in Appendix: Exercise Plan.

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 May 5, 2010, Plume Exercise, conducted to test the offsite emergency response capabilities of State and local governments in the Seabrook Nuclear Power Station 10-mile Emergency Planning Zone (EPZ).

Each jurisdiction and functional entity was evaluated on its demonstration of criteria contained in the exercise evaluation areas as outlined in the federal Register, Volume 67, No. 80 "FEMA - Radiological Emergency Preparedness: Exercise Evaluation Methodology" (April 25, 2002).

Detailed information on the evaluation area criteria and the extent-of-play agreements for the drill are included as appendices to this report.

3.2 Summary Results of Exercise Evaluation

The matrix presented in the table on following pages presents the status of all exercise evaluation area criteria that were scheduled for demonstration during the drill by all participating jurisdictions and functional entities. Exercise criteria are listed by number, and the demonstration status of those criteria are indicated by the use of the following letters:

M - Met (No Deficiency or ARCAs assessed and no unresolved ARCAs from prior exercise)
A - ARCAs assessed or unresolved ARCAs from previous exercises
D - Deficiency assessed
P - Plan Issues
N - Not Demonstrated

Table 3.1 - Summary of Exercise Evaluation (10 pages)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		NH SEOC	NH EOF	NH IFO	NH State Police	State Police Epping	Rockingham Dispatch	NH JIC	NH FMT-1	NH FMT-2	NH TSA	Brentwood EOC
Emergency Operations Management												
Mobilization	1a1	M	M	M	M			M	M	M		M
Facilities	1b1											
Direction and Control	1c1	M	M	M			M					M
Communications Equipment	1d1	M	M	M	M		M	M	M	M		M
Equip & Supplies to support operations	1e1	M	M	M	M		M	M	M	M		M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1	M	M									
Radiological Assessment and PARs	2b1	M	M	M								
Decisions for the Plume Phase -PADs	2b2	M										
PADs for protection of special populations	2c1	M										M
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1		M	M			M		M	M		M
Implementation of KI decision	3b1	M	M	M			M		M	M		M
Implementation of protective actions for special populations - EOCs	3c1	M		M								M
Implementation of protective actions for Schools	3c2	M		M								M
Implementation of traffic and access control	3d1	M		M								M
Impediments to evacuation are identified and resolved	3d2			M								M
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1								P	M		
Field Teams obtain sufficient information	4a2		M						M	M		
Field Teams Manage Sample Collection Appropriately	4a3								M	P		
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1	M					M					M
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1	M						M				M
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1											
Mon / decon of emergency worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 2/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		East Kingston EOC	Exeter EOC	Greenland EOC	Hampton EOC	Hampton Falls EOC	Kensington EOC	Kingston NH EOC	New Castle EOC	Newfields EOC	Newton EOC	North Hampton EOC
Emergency Operations Management												
Mobilization	1a1	M	M	M	M	M	M	M	M	M	M	M
Facilities	1b1											
Direction and Control	1c1	M	M	M	M	M	M	M	M	M	M	M
Communications Equipment	1d1	M	M	M	M	M	M	M	M	M	M	M
Equip & Supplies to support operations	1e1	M	M	M	M	M	M	M	M	M	M	M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	2c1	M	M	M	M	M	M	M	M	M	M	M
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1	M	M	M	M	M	M	M	M	M	M	M
Implementation of KI decision	3b1	M	M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1	M	M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M	M	M	M	M	M
Implementation of traffic and access control	3d1	M	M	M	M	M	M	M	M	M	M	M
Impediments to evacuation are identified and resolved	3d2	M	M	M	M	M	M	M	M	M	M	M
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1											
Field Teams obtain sufficient information	4a2											
Field Teams Manage Sample Collection Appropriately	4a3											
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1	M	M	M	M	M	M	M	M	M	M	M
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1	M	M	M	M	M	M	M	M	M	M	M
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1											
Mon / decon of emergency worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 3/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		Portsmouth EOC	Rye EOC	Seabrook EOC	South Hampton EOC	Stratham EOC	Dover EOC	Dover MS RC Ops	Dover MS RC Dosimetry	Dover MS RC Portal & Sec Mon	Dover MS RC Fem Decon	Dover MS RC Male Decon
Emergency Operations Management												
Mobilization	1a1	M	M	M	M	M		M				
Facilities	1b1					M						
Direction and Control	1c1	M	M	M	M	M		M				
Communications Equipment	1d1	M	M	M	M	A		M				
Equip & Supplies to support operations	1e1	M	M	M	M	A		M				
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	2c1	M	M	M	M	M						
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1	P	M	M	M	M			M		M	M
Implementation of KI decision	3b1	M	M	M	P	M						
Implementation of protective actions for special populations - EOCs	3c1	M	M	M	M	M						
Implementation of protective actions for Schools	3c2	M	M	M	M	M						
Implementation of traffic and access control	3d1	M	M	M	P	M						
Impediments to evacuation are identified and resolved	3d2	M	M	M	M	M						
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1											
Field Teams obtain sufficient information	4a2											
Field Teams Manage Sample Collection Appropriately	4a3											
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1	M	M	M	M	M						
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1	M	M	M	M	M						
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1									M	M	P
Mon / decon of emergency worker equipment	6b1									M		
Temporary care of evacuees	6c1											

Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 4/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		Dover MS RC KI	Dover MS RC Regn	Dover MS RC Vehicles	Manchester EOC	MMHS RC Ops	MMHS RC Dosimetry	Manchester MHS RC Monitoring	MMHS RC Fem Decon	MMHS Male Decon	MMHS RC KI	MMHS RC Regn
Emergency Operations Management												
Mobilization	1a1					M						
Facilities	1b1					M						
Direction and Control	1c1					M						
Communications Equipment	1d1					M						
Equip & Supplies to support operations	1e1					M						
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	2c1											
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1						M		M	M		
Implementation of KI decision	3b1											
Implementation of protective actions for special populations - EOCs	3c1											
Implementation of protective actions for Schools	3c2											
Implementation of traffic and access control	3d1			M								
Impediments to evacuation are identified and resolved	3d2											
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1											
Field Teams obtain sufficient information	4a2											
Field Teams Manage Sample Collection Appropriately	4a3											
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1											
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1											
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1		P					M	M	P		P
Mon / decon of emergency worker equipment	6b1			M				P				
Temporary care of evacuees	6c1											

Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 5/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		MMHS RC Vehicle	Lighthouse Christian Academy	Exeter Day School	Community School	Kaleidoscope Home Child Care	Robins Child Place	Fun After School	Sandbox Preschool	Bright Start Learning	Story Book Station Day School	Gateway Nursery and Preschool
Emergency Operations Management												
Mobilization	1a1		M	M	M	M	M	M	M	M	M	M
Facilities	1b1											
Direction and Control	1c1											
Communications Equipment	1d1											
Equip & Supplies to support operations	1e1											
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	2c1											
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1											
Implementation of KI decision	3b1		M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1											
Implementation of protective actions for Schools	3c2		M	M	M	M	M	M	M	M	M	M
Implementation of traffic and access control	3d1	M										
Impediments to evacuation are identified and resolved	3d2											
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1											
Field Teams obtain sufficient information	4a2											
Field Teams Manage Sample Collection Appropriately	4a3											
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1											
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1											
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1											
Mon / decon of emergency worker equipment	6b1	M										
Temporary care of evacuees	6c1											

Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 6/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		Nurture and Nature Childrens Center	Newton ME School	Agape School	Discovery Child Center	Little Blessings Child Care Center	Portsmouth Head Start	Learning Skills Academy	Seabrook Head Start	Acorn School Preschool	Timberland Childrens Center	MA SEOC
Emergency Operations Management												
Mobilization	1a1	M	M	M	M	M	M	M	M	M	M	M
Facilities	1b1											
Direction and Control	1c1											M
Communications Equipment	1d1											M
Equip & Supplies to support operations	1e1											M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											M
Radiological Assessment and PARs	2b1											M
Decisions for the Plume Phase -PADs	2b2											M
PADs for protection of special populations	2c1											M
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1											
Implementation of KI decision	3b1	M	M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1											M
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M	M	M	M	M	M
Implementation of traffic and access control	3d1											M
Impediments to evacuation are identified and resolved	3d2											M
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1											
Field Teams obtain sufficient information	4a2											
Field Teams Manage Sample Collection Appropriately	4a3											
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1											M
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1											M
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1											
Mon / decon of emergency worker equipment	6b1											

Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 7/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		MA SS EOF	MA R1 EOC	MA SS JIC	MA SS FMT-1	MA SS FMT-2	State Police Danvers	Amesbury EOC	Merrimac EOC	Newbury EOC	Newburyport EOC	Salisbury EOC
Emergency Operations Management												
Mobilization	1a1	M	M		M	M		M	M	M	M	M
Facilities	1b1											
Direction and Control	1c1	M	M				M	M	M	M	M	M
Communications Equipment	1d1	M	M		M	M	M	M	M	M	M	M
Equip & Supplies to support operations	1e1	M	M		M	M	M	M	M	M	M	M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1	M										
Radiological Assessment and PARs	2b1	M										
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	2c1											
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1	M			M	M		M	M	M	M	M
Implementation of KI decision	3b1	M			M	M		M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1		M					M	M	M	M	M
Implementation of protective actions for Schools	3c2		M					M	M	M	M	M
Implementation of traffic and access control	3d1		M					M	M	M	M	M
Impediments to evacuation are identified and resolved	3d2		M					M	M	M	M	M
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1				M	M						
Field Teams obtain sufficient information	4a2	M			M	M						
Field Teams Manage Sample Collection Appropriately	4a3				M	M						
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1											
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3											
Emergency information and instructions for the public and the media	5b1							M	M	M	M	M
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1											
Mon / decon of emergency worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 8/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		West Newbury EOC	MA TSA - Haverhill	MA: Amesbury LTSA	MA: Merrimac LTSA	MA: Newbury LTSA	MA: Newburyport LTSA	MA: Salisbury LTSA	MA: WNewbury LTSA	Amesbury E School	Amesbury H School
Emergency Operations Management											
Mobilization	1a1	M	M							M	M
Facilities	1b1		M								
Direction and Control	1c1	M	M								
Communications Equipment	1d1	M	M	M	M	M	M	M	M		
Equip & Supplies to support operations	1e1	M	M	M	M	M	M	M	M		
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	M	M								
Implementation of KI decision	3b1	M	M							M	M
Implementation of protective actions for special populations - EOCs	3c1	M	M								
Implementation of protective actions for Schools	3c2	M	M							M	M
Implementation of traffic and access control	3d1	M									
Impediments to evacuation are identified and resolved	3d2	M									
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1										
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3										
Emergency information and instructions for the public and the media	5b1	M									
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 3.1 - Summary of Exercise Evaluation (Continued. page 9/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		Amesbury Superintendent	Coastal Connections	Hillside Rest Home	Gov Acad H School	Triton Superintendent	Sweetsir E School	Newbury E School	Bright Horizons Child Care	Dare Family Svc	Brown E School
Emergency Operations Management											
Mobilization	1a1	M	M	M	M	M	M	M	M	M	M
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1										
Equip & Supplies to support operations	1e1										
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1										
Implementation of KI decision	3b1	M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1		M	M						M	
Implementation of protective actions for Schools	3c2	M			M	M	M	M	M		M
Implementation of traffic and access control	3d1										
Impediments to evacuation are identified and resolved	3d2										
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1										
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3										
Emergency information and instructions for the public and the media	5b1										
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 3.1 - Summary of Exercise Evaluation (Continued. page 10/10)

DATE: 2010-05-05 SITE: Seabrook Station, NH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		Knoll Edge Preschool	Newburyport Superintendent	River Valley School	YWCA Child Care	Salisbury E School	Childrens Castle Child Care	Page E School	Koinonia Preschool	Pentucket H School	Pentucket Superintendent
Emergency Operations Management											
Mobilization	1a1	M	M	M	M	M	M	M	M	M	M
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1										
Equip & Supplies to support operations	1e1										
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1										
Implementation of KI decision	3b1	M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M	M	M	M	M
Implementation of traffic and access control	3d1										
Impediments to evacuation are identified and resolved	3d2										
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1										
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3										
Emergency information and instructions for the public and the media	5b1										
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

3.3 Criteria Evaluation Summaries

3.3.1 Massachusetts Jurisdictions

3.3.1.1 Massachusetts State Emergency Operations Center

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

3.3.1.2 MA Seabrook Emergency Operations Facility

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

3.3.1.3 MA Region I EOC

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

ISSUE NO.: 57-10-1d1-A-09

CRITERION: At least two communications systems are available, at least one operates properly, and communication links are established with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654, F.1.,2.)

CONDITION: During the FEMA post exercise meeting, several MA EPZ communities (i.e.: Newbury and Newburyport) reported that Radio transmissions

from the R1 Communications room were not clear, hard to understand and sometimes cut-off during transmission. This was not recognized and was not brought forward by the communities as a problem during the exercise demonstration.

POSSIBLE CAUSE: A R1 Radio System may need repair.

REFERENCE: NUREG F.1, 2

EFFECT: Emergency Messages that are unclear can be misinterpreted and can delay proper action and/or response.

CORRECTIVE ACTION DEMONSTRATED: Modify Radio Operator SOP-11, RI Operational Tasks – Outgoing Messages; # 2, page 10 to include additional instructions: -- "When directed by the Region 1 Communications Officer, perform radio checks with the facilities and/or individuals to whom you are assigned and ensure that all messages are properly received and understood." Also ensure that the radio system is operational and compatible with other communication equipment in use. Redemonstration of this issue is required within 180 days of the exercise date. The redemostration date must be approved by FEMA Region 1 This issue was redemonstrated and closed on May 19th 2010

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

3.3.1.4 MA (SS) Joint Information Center

3.3.1.5 MA (SS) Field Monitoring Team-1

a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 4.a.1, 4.a.2, 4.a.3.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None

f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.6 MA (SS) Field Monitoring Team-2

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

3.3.1.7 Massachusetts TSA - Haverhill

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

3.3.1.8 MA: Amesbury LTSA

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

3.3.1.9 MA: Merrimac LTSA

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

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

3.3.1.10 MA: Newbury LTSA

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

3.3.1.11 MA: Newburyport LTSA

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

3.3.1.12 MA: Salisbury LTSA

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

3.3.1.13 MA: West Newbury LTSA

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

3.3.2 Risk Jurisdictions

3.3.2.1 MA State Police Troop A, Danvers

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

3.3.2.2 Amesbury Local EOC

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

3.3.2.3 Merrimac Local EOC

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None

f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.2.4 Newbury Local EOC

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

3.3.2.5 Newburyport Local EOC

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

ISSUE NO.: 57-10-1a1-A-10

CRITERION: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner.

CONDITION: Although the Newburyport Fire Department Dispatcher was having trouble understanding the initial notification message transmission from Massachusetts Emergency Management Agency (MEMA), he responded that the message was clear when MEMA polled those on the transmission. The dispatcher failed to request retransmission of the message and he did not telephone MEMA for clarification/verification. Since the Dispatcher did not hear that Seabrook Station declared an Alert Emergency Classification Level (ECL), he failed to accomplish his notifications as per the plan and procedures.

POSSIBLE CAUSE: The VHF Radio System transmission made by Massachusetts Emergency Management Agency (MEMA) was garbled and full of static. The dispatcher failed to request retransmission of the message via radio and he did not telephone MEMA for clarification/verification.

REFERENCE: NUREG-0654 E. Notification Methods and Procedures

1. Each organization shall establish procedures which describe mutually agreeable bases for notification of response organizations consistent with the emergency classification and action level scheme set forth in Appendix 1. These procedures shall include means for verification of messages.

EFFECT: Because the Dispatcher was unaware that an Alert had been declared at the Seabrook Station, he did not complete his assigned tasks for that ECL. Key personnel of the Newburyport Emergency Operations Center were not notified of the declaration.

CORRECTIVE ACTION DEMONSTRATED: A “timeout” was requested by the controller to conducted dispatcher training. The dispatcher was instructed to request that radio traffic be repeated when it was unclear. He was further instructed to contact MEMA via telephone for confirmation and/or clarification of messages.

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

3.3.2.6 Salisbury Local EOC

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

3.3.2.7 West Newbury Local EOC

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

3.3.2.8 Amesbury: Amesbury Elementary School

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

3.3.2.9 Amesbury: Amesbury High School

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

3.3.2.10 Amesbury: Amesbury Schools Superintendent

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

3.3.2.11 Amesbury: Coastal Connections

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

3.3.2.12 Amesbury: Hillside Rest Home

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

3.3.2.13 Byfield: The Governors Academy

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

3.3.2.14 Byfield: Triton Regional Schools Superintendent

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

3.3.2.15 Merrimac: Dr. Frederick N. Sweetsir Elementary School

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

3.3.2.16 Newbury: Newbury Elementary School

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

3.3.2.17 Newburyport: Bright Horizons

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

3.3.2.18 Newburyport: Dare Family Services

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

3.3.2.19 Newburyport: G.W. Brown Elementary School

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

3.3.2.20 Newburyport: Knoll - Edge Preschool

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

3.3.2.21 Newburyport: Newburyport Schools Superintendent

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

3.3.2.22 Newburyport: River Valley Charter School

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

3.3.2.23 Newburyport: YWCA - Schools Out

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

3.3.2.24 Salisbury: Salisbury Elementary School

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

3.3.2.25 West Newbury: Childrens Castle

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

3.3.2.26 West Newbury: Dr. John C. Page Elementary School

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

3.3.2.27 West Newbury: Koinonia Preschool

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

3.3.2.28 West Newbury: Pentucket Regional High School

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

3.3.2.29 West Newbury: Pentucket Schools Superintendent

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

3.3.3 New Hampshire Jurisdictions

3.3.3.1 NH State Emergency Operations Center

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

ISSUE NO.: 57-10-1c1-A-01

CRITERION: Key personnel with functional roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible.

CONDITION: The New Hampshire State Emergency Operations Center (SEOC) issued a precautionary transfer of all New Hampshire students within the 10 mile Emergency Planning Zone (EPZ) at 1118 by Form 300B, Report No. 4. The SEOC intended to issue the precautionary transfer order only to the schools located in the towns of Seabrook and Hampton Falls. The SEOC provided subsequent direction that rescinded the precautionary transfer order. This was formally issued by Form 300B, Report No. 5, at 1236. Some communities, however, (such as Exeter and Kingston) had already began student transfer when the direction to rescind the evacuation decision was issued.

While it is recognized that in an actual event there may have been a sufficient time interval to issue a correction to an incorrect 300B, there may not be such an interval in exercise play. Therefore, evaluators must base their findings on actual observations during exercise play. At 12:03, the Department of Education notified all the other SAUs in the EPZ to shelter in place. It is unclear if identified host communities reception centers (Dover and Manchester) were fully staffed and ready to accept students who would have been in route as a result of the ordered precautionary transfers. At least two communities were under the impression that the Manchester reception center was not open and ready to accept students and it appears that the SEOC was under the impression that both receptions centers were ready to accept students. Reception centers were characterized as “operational”, “on stand-by” or “activated”, which created a disconnect and resulted in some confusion. It is also noted that some communities did not try to deconflict confusing messages or information with the SEOC.

Information provided by Form 300B, which is the formal method of notification for local municipalities, was often not provided in a timely manner. For example, 300B Report No. 5 contained notification of the General Emergency that was declared at 1146, of which the SEOC was notified at 1151, was placed on WebEOC at 1236.

POSSIBLE CAUSE: There is no formal procedure for signing approval of Form

300B by the SEOC Emergency Director. Further, the paper copies of Form 300B and the WebEOC version of the form are not consistent in content. Although Procedure 4.0 HSEM Director or designee indicates Form 300B should be reviewed, an adequate review may not have been performed.

REFERENCE: NUREG-0654, A.1.d; A.2.a, b; Form 300-B, Status Report for Seabrook Station

EFFECT: Local municipalities, following the precautionary transfer of students protective action decision documented in Form 300B, transferred the students to a reception center that may not have been prepared to receive an influx of students. This could have caused confusion among both school officials and parents, since the parents of students, following the event status and information provided in Emergency Alert System broadcasts and other sources, would not have been informed of the actions taken by the local school system.

Local municipalities also may not have been aware of imminent siren sounding and necessary follow-up actions to be taken locally for the protection of public health and safety.

CORRECTIVE ACTION DEMONSTRATED: Ensure that procedural requirements for preparation and review of Form 300B are adequately conducted. Incorporate formal procedural requirements to assure that Form 300B and other information distributed by the SEOC are signed and approved. Ensure content of the paper and WebEOC versions of Form 300B are consistent (for example, see Radiological Release detail in item #8). Provide additional training for all EM directors in the EPZ to ensure that when there is confusion or uncertainty, the EM directors immediately communicate with their local liaisons or directly to the SEOC. Define the terminology that describes the status of a reception center to eliminate ambiguity. Redemonstration of the issuance of a 300B ordering a precautionary student transfer is required within 75 calendar days of the exercise date, no later than July 20, 2010. The redemonstration date must by approved by FEMA Region 1.

REDEMONSTRATION: The State of New Hampshire successfully redemonstrated the issuance of a properly executed 300Bform with appropriate precautionary

actionas duly reviewed and approved on July 14, 2010, in the New Hampshire State EOC.

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

3.3.3.2 NH Emergency Operations Facility

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

3.3.3.3 NH Incident Field Office

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

ISSUE NO.: 57-08-3a1-?-A-01

ISSUE: issue redemonstrated in 2008

CORRECTIVE ACTION DEMONSTRATED: Successfully redemonstrated in Exercise 2008.

ISSUE NO.: 57-08-3c1-A-02

ISSUE: The Special Needs Liaison assigned to the New Hampshire IFO failed to perform an operational test on the TDD as outlined in the State's RERP, Section 15. When requested to perform the operational check, it took the Liaison more than 30 minutes to operationally check the unit; however, when the operational check was completed through correspondence with the National TDD contact support, the return message was in Spanish.

CORRECTIVE ACTION DEMONSTRATED: As demonstrated in Combined Functional Drill #1 on February 10, 2010:
The previous equipment used for TDD has been replaced. The telephone number contacted for the test is now 9-1-1 Dispatch. A new procedure is in place for testing the equipment. The Special Needs Liaison conducted a successful test of the equipment.

g. PRIOR ISSUES - UNRESOLVED: None

3.3.3.4 NH State Police Communications Center

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

3.3.3.5 State Police Troop A, Epping ACT/TCP

3.3.3.6 Rockingham County Dispatch Center

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

ISSUE NO.: 57-08-1e1-?-A-03

ISSUE: Dosimetry kits are stored at the Rockingham County Dispatch Center (RCDC) and are changed out annually by the New Hampshire Office of Emergency Management (NHOEM). The inventory list of the kits on hand indicated that the kits were last changed out on 10/16/07 and therefore overdue for replacement. Quarterly leak rate checks required for the CD V-138 Direct Reading Dosimeters) DRDs were last conducted on 7/9/08 and are overdue for completion.

CORRECTIVE ACTION DEMONSTRATED: corrected at CFD

g. PRIOR ISSUES - UNRESOLVED: None

3.3.3.7 NH Joint Information Center

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

3.3.3.8 NH Field Monitoring Team-1

a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 4.a.2, 4.a.3.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 4.a.1.

ISSUE NO.: 57-10-4a1-P-02

CRITERION: Field teams are equipped to perform field measurements of direct radiation exposure (cloud & ground shine) and to sample airborne radioiodine and particulates (NUREG-0654, H.10., I.8., 9., 11.)

CONDITION: The NH Monitoring Teams' procedures in Section 2 address

Instrument Checks for 5 survey instruments, 3 of which were used during the exercise. The instruments used were the Eberline 140, the CDV 718A and the RO-2. The other instruments were the RM-14, the PIC 6 and the CDV 700. The procedure for the instruments has the following statement: "verify that the meter responds to a Cs-137 check source". This statement does not satisfy the source check requirement of REP 14 that there be "a procedure for checking the performance of all monitoring instruments against an appropriate reading or range of readings for an identified check source." Since the CFD 2, the NH Monitoring Teams have implemented a verbal procedure for source checking the instruments, which was demonstrated. However, due to the lack of a written procedure, the operator had difficulty performing the verbal procedure. The check source used in the verbal procedure was an 8 microcurie Cs-137 source in a plastic dish. Each instrument had a sticky note attached with an expected reading. However, the operator did not know whether to measure the source with the cover on or off, and whether to have the source in contact with the detector.

POSSIBLE CAUSE: There are no procedures to conduct operational checks of instruments before use in the field.

REFERENCE: NUREG-0654, H.10; I.7, 8, 9 and FEMA REP 14, Objective 6.

EFFECT: If radiation detection equipment is not operationally checked before use, data may not be reliable and Protective Action Decisions may be either too restrictive or not restrictive enough.

RECOMMENDATION: The monitoring team's procedures should incorporate the necessary requirement for and step-by-step procedure for checking the performance of all monitoring instrument against an appropriate reading or range of readings for an identified check source.

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

3.3.3.9 NH Field Monitoring Team-2

a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 4.a.1, 4.a.2.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 4.a.3.

ISSUE NO.: 57-10-4a3-P-03

CRITERION: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams must 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.8., 9., 11)

CONDITION: Current field team procedures do not require teams to perform radiation surveys during air sampling to ensure that the plume has not shifted during air sampling. During the practice drills it was recommended that the field team procedure (Chapter 4, section 4.4) should be revised to require teams to conduct radiation surveys before, during and at the end of the air sampling period. During the exercise it was observed that the teams did implement the recommendation, but that the procedures were not changed to reflect the new survey procedure.

POSSIBLE CAUSE: There was not enough time to change the procedures before the exercise.

REFERENCE: NUREG-0654; I. 9, REP 14/15; Objectives 6.4, 6.5, 8.3, 8.5, 8.6.

EFFECT: Without performing radiation surveys before, during, and after the air sampling sequence, there is no way to verify plume immersion and, hence, the validity of the air sample. Erroneous air sample results (too low) could result in a lack of public protective actions.

RECOMMENDATION: Revise the procedures to reflect the new survey methodology as described under the “Condition” section.

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

3.3.3.10 NH Transportation Staging Area

3.3.4 Risk Jurisdictions

3.3.4.1 Brentwood Local EOC

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

3.3.4.2 East Kingston Local EOC

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

ISSUE NO.: 57-08-1e1-?-A-04

ISSUE: open issue from 2008 report

CORRECTIVE ACTION DEMONSTRATED: Ad demonstrated on the Combined Functional Drill #1, on February 10, 2010:
One of four CDV-700s available at East Kingston EOC was past due on its calibration.

On the date of the Dress Rehearsal 2/10/10 ten CDV-700s were available for use and all ten are within the calibration date of 2013.

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.3 Exeter Local EOC

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

ISSUE NO.: 57-06-5b1-A-02

ISSUE: The Exeter Emergency Operations Center issued an untimely news release that misinformed the public on important information concerning student status, and didn't correct it in a timely manner.

CORRECTIVE ACTION DEMONSTRATED:

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.4 Greenland Local EOC

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

3.3.4.5 Hampton Local EOC

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None

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

3.3.4.6 Hampton Falls Local EOC

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

ISSUE NO.: 57-06-1c1-A-03

ISSUE: At 1150, the Hampton Falls EOC received a page from the Rockingham County Dispatch Center (RCDC) elevating the ECL to General Emergency (GE). At 1152, the Selectmen met with the EMD and Fire Chief to discuss the sounding of the Public Alert and Notification System (PANS). At 1158, the PANS was activated (simulated) by the Fire Chief at the request of the Selectmen. Additionally, there was no message associated with the siren PANS sounding. There was no coordination with the State of New Hampshire Division of Fire Safety and Emergency Management (DFSEM) on the sounding of the PANS. At 1230, the Hampton Falls EOC received confirmation of State activated siren sounding at 1216.

CORRECTIVE ACTION DEMONSTRATED: corrected during CFD

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.7 Kensington Local EOC

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

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.8 Kingston NH Local EOC

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

3.3.4.9 New Castle Local EOC

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

3.3.4.10 Newfields Local EOC

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

ISSUE NO.: 57-06-3c1-A-04

ISSUE: When the Newfields EOC staff opened their special needs packet, even though it said do not open, they found that it was old and had not been updated, and that the special needs information was obsolete.

CORRECTIVE ACTION DEMONSTRATED: corrected during CFD

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.11 Newton Local EOC

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

ISSUE NO.: 57-08-1e1-?-A-05

ISSUE: At Newton EOC, inappropriate dosimeters, with a range of 0-200R were placed in dosimetry kits for use in the Town of Newton. The procedures require that a low range 0-200mR and a high range 0-20R dosimeter be placed in the kits. The 20R dosimeters were in the kits. With no low range dosimeter, it would be difficult for the emergency workers to measure personal exposure and determine their turn back values.

CORRECTIVE ACTION DEMONSTRATED: corrected during CFD

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.12 North Hampton Local EOC

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

ISSUE NO.: 57-08-1e1-?-A-07

ISSUE: combined with 3.a.1 and 3.b.1 for issue A-07

CORRECTIVE ACTION DEMONSTRATED: As demonstrated in the Combined

Functional Drill #1 on February 10, 2010:
The RADEF Officer's training and completion of TOWN OF NORTH HAMPTON EMERGENCY RESPONSE PROCEDURES 3.6 DEPUTY FIRE CHIEF -- RADEF Vol. 32 Rev. 14 ensured a complete demonstration of the RADEF duties in the extent of play. At Alert ECL, the RADEF Officer reviewed and zeroed all dosimetry equipment and prepared necessary paperwork for issuance of dosimetry and potassium iodide (KI). At Site Emergency ECL, the EOC Staff (emergency workers) were briefed on the use of dosimetry, TLDs and KI prior to the need to dispatch other EWs into the EPZ.

ISSUE NO.: 57-06-3c1-?-05

ISSUE: The Special Needs List identifying those people within the Town of North Hampton
requiring special needs (notification of emergency, special transportation, etc.) was dated 8/16/04, at least two revisions out of date.

CORRECTIVE ACTION DEMONSTRATED: corrected at CFD

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.13 Portsmouth Local EOC

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.c.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 3.a.1.

ISSUE NO.: 57-10-3a1-P-04

CRITERION: OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers IAW plans and procedures. Emergency workers periodically and at the end of each mission read and record dosimeter reading. (NUREG-0654, K.3)

CONDITION: Following RADEF Officer distribution of dosimetry kits to the

Emergency Operations Center (EOC) staff, his emergency worker briefing was inadequate.

POSSIBLE CAUSE: The RERP for the City of Portsmouth does not require the RADEF Officer to brief the emergency workers. The RADEF Officer's procedure refers to the NHRERP Procedure for Issuing Dosimetry and KI, Volume 8, Section 10.7, which also does not require an emergency worker briefing.

REFERENCE: NUREG-0654 FEMA-REP-1, Revision 1 K.3.a, K.3.b

EFFECT: The emergency workers could have gone on missions without knowing the proper information for protecting themselves from radiation exposure.

RECOMMENDATION: The RERP for the City of Portsmouth and the NHRERP Revision 14 need to require the RADEF Officer to perform an emergency worker brief after issuing dosimetry. The required briefing should cover: zeroing direct-reading dosimeters, checking the direct-reading dosimeters periodically during an emergency response, recording the readings of the direct-reading dosimeters on exposure record(s), radiation exposure limits and turn-back values, proper use of permanent record dosimeters, and where and to whom to return their dosimetry at the conclusion of the emergency or mission. This briefing should occur in conjunction with the issuance of emergency worker cards to ensure all emergency workers are aware of the procedures.

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

3.3.4.14 Rye Local EOC

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

g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.15 Seabrook Local EOC

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

3.3.4.16 South Hampton Local EOC

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.c.1, 3.a.1, 3.c.1, 3.c.2, 3.d.2, 5.a.1, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 3.b.1, 3.d.1.

ISSUE NO.: 57-10-3b1-P-05

CRITERION: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the admin of KI for emergency workers and institutionalized individuals (not general public) is maintained. (NUREG-0654, E.7., J.10.e.f.)

CONDITION: The current version of the Dosimetry-KI Report Form 305A (Rev 14) does not contain the correct number of days to record the ingestion of KI by emergency workers. Rev 14 of the form indicates 10 days for KI ingestion, although Volume 8 of the NH RERP, Dosimetry and KI issuance instructions call for only four days of ingestion. The older Rev 13 of Form 305A, which is still in circulation in some communities, includes the correct record of ingestion for four days.

POSSIBLE CAUSE: Unknown

REFERENCE: NUREG-0654 E.7, J.10 e, f, NH RERP Volume 8 and Local Municipality Volumes 21-37.

EFFECT: Indication of 10 days of KI ingestion with a supply of only four days for each worker could create confusion and concern that they were not issued sufficient quantities of the prophylaxis to adequately protect them.

RECOMMENDATION: Revise Dosimetry-KI Report Form 305A with 4 days of KI ingestion and replace all versions of the form that have a ten day ingestion record. This recommendation applies to all OROs.

ISSUE NO.: 57-10-3d1-P-06

CRITERION: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel (NUREG-0654, J.10.g.j.k.)

CONDITION: Issue: 57-10-3d1-?-
Planning Issue

CONDITION:
There are discrepancies in the NH Radiological Emergency Response Plan (RERP) as to proper delegation of primary organizational responsibility for implementing traffic control in South Hampton. Volume 41 of the NHRERP, NH Traffic Management Manual states that the State Police have primary responsibility for staffing Traffic Control Points (TCPs) in South Hampton and assigns State resources for this function. This was done because South Hampton has a part time Police Department and cannot ensure adequate resources will be available to staff TCPs during an emergency. However, Volume 36 of the NHRERP , Table 1.6-1 and the South Hampton Police Chief procedure assign traffic control as a local police responsibility, including a step for the local Police Chief to Dispatch his officers to the TCPs.

POSSIBLE CAUSE: Failure to review NHRERP Volume 41 and Volume 36 for possible conflicts and disconnects.

REFERENCE: NUREG-0654, K.3, Volume 36 and 41 of the NH RERP

EFFECT: There may be a duplication of resources and lack of coordination between South Hampton Fire Department and New Hampshire State Police drawing Law Enforcement assets from other vital missions.

RECOMMENDATION: Revise Volume 36 to ensure there is adequate law enforcement support to staff TCPs in Southampton and ensure consistency between state and local plans. Once plans are updated, provide additional training to state and local police to ensure they understand the provisions of the plan.

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

3.3.4.17 Stratham Local EOC

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

ISSUE NO.: 57-10-1e1-A-08

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

CONDITION: Incorrect survey meters (CD V-700s) were used by the Town. The Town used their transportation accident monitoring kit rather than instruments that were issued to the Town specifically for REP. Calibration standards are different for CD V-700 instruments if they are used in a REP situation (annual calibration) versus every four years for transportation accident monitoring. Because the Town used the CD V-700s from the transportation accident monitoring kit in a REP situation, the instruments were not calibrated for use in 2010.

POSSIBLE CAUSE: Transportation accident monitoring kits and REP monitoring instrumentation may not have been clearly delineated.

REFERENCE: NUREG-0654, H.10; FEMA-REP-22, Contamination Monitoring Guidance for Portable Instruments Used For Radiological Emergency Response to Nuclear Power Plant Accidents (page 4); Federal Register: April 25, 2002 (Volume 67, Number 80) Extent of Play, Criterion 1.e.1 (page 20591)

EFFECT: Use of CD V-700 survey meters not calibrated annually could result in inaccurate exposure rate and exposure measurements. Accurate exposure rate and exposure measurements are necessary to ensure doses to emergency workers do not exceed dose limits.

RECOMMENDATION: Store the transportation accident monitoring kits separately from the REP monitoring instrumentation to ensure the correct instruments are used.

c. DEFICIENCY: None
d. PLAN ISSUES: 1.e.1.

ISSUE NO.: 57-10-1e1-P-07

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

CONDITION: No provision has been provided in the plans and/or procedures to ensure that the control permanent record dosimeter (PRD) included with the PRDs is not exposed to radiation fields experienced by emergency workers in the emergency operations center (EOC) from a passing radioactive plume or deposition of radioactivity.

POSSIBLE CAUSE: Persons writing the plans and procedures may have been unaware of the inclusion of the control PRD with the dosimetry kits and the subsequent need to shield or remove the control PRD from radiation fields experienced by the emergency workers. Person at the New Hampshire Homeland Security and Emergency Management (HSEM) sending out the dosimetry kits to local EOCs may have been unaware that plans and procedures didn’t include provisions to shield or remove the control PRD from radiation fields experienced by

the emergency workers.

REFERENCE: NUREG-0654, K.3.A

EFFECT: The purpose of the control PRD is to allow for subtraction of the dose measured by all the PRDs from the natural background radiation prior to their issuance to emergency workers. If the control PRD is not shielded or removed from radiation from a plume or deposition, the resulting correction would result in an underestimation of the doses received by the emergency workers.

RECOMMENDATION: Revise the plans and/or procedures and make necessary arrangements to either shield the control PRD in a suitable container or remove the control PRD after emergency workers are issued dosimetry. If it is determined that a single control PRD in the state capital is adequate, the control PRDs in the local communities should be removed. This recommendation applies to all OROs.

e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: 1.b.1.

ISSUE NO.: 57-08-1b1-?-A-08

ISSUE: The Stratham EOC has a large room where key emergency operation staff members work in their roles and carry out their responsibilities. This room was practically bare of furnishings, except for a couple of bookcases, a small table, and EOC displays. EOC staff assisted with bringing tables and chairs into the room to set up working section for staff to work and sit. A floor plan was accurate to where furnishings should be positioned; furnishings were not in place.

CORRECTIVE ACTION DEMONSTRATED: Copy of Purchase Order was provided prior to May 5, 2010, exercise documenting fulfillment of furniture order. Recommend closing this Issue.

g. PRIOR ISSUES - UNRESOLVED: 1.d.1.

ISSUE NO.: 57-06-1d1-A-06

ISSUE: The Stratham EOC had only two active telephone lines for all incoming and out going calls. These two lines served the 22 people signed into the EOC who were making out going calls. It was discovered no calls could come into the EOC. As a fix one line was designated as an incoming line and one as an outgoing line. However, there were still individuals who tried to call in and, unknown to the EOC, were never able to get through to the EOC.

REASON UNRESOLVED:

3.3.4.18 Brentwood: Lighthouse Christian Academy

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

3.3.4.19 Exeter: Exeter Day School

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

3.3.4.20 Greenland: Community School of SAU-50

a. MET: 1.a.1, 3.b.1, 3.c.2.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None

f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.4.21 Greenland: Kaleidoscope Home Child Care

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

3.3.4.22 Hampton Falls: Robins Child Place Incorporation

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

3.3.4.23 Hampton: Fun After School Program

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

3.3.4.24 Hampton: Sandbox Preschool

a. MET: 1.a.1, 3.b.1, 3.c.2.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None

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

3.3.4.25 Kingston: Bright Start Early Learning Center

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

3.3.4.26 Kingston: Story Book Station Day School

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

3.3.4.27 Newfields: Gateway to Learning Nursery and Preschool

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

3.3.4.28 Newfields: Nurture and Nature Childrens Center

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

3.3.4.29 Newton: Newton Memorial Elementary School

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

3.3.4.30 Portsmouth: Agape School

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

3.3.4.31 Portsmouth: Discovery Child Enrichment Center

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

3.3.4.32 Portsmouth: Little Blessings Child Care Center

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

3.3.4.33 Portsmouth: Portsmouth Head Start

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

3.3.4.34 Rye: Learning Skills Academy

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

3.3.4.35 Seabrook: Seabrook Head Start

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

3.3.4.36 Stratham: Acorn School

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

3.3.4.37 Stratham: Timberland Childrens Center

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

3.3.5 Support Jurisdictions

3.3.5.1 Dover Local EOC

3.3.5.2 Dover MS Reception Center Operations

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

3.3.5.3 Dover MS Reception Center Dosimetry

a. MET: 3.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None

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

3.3.5.4 Dover MS Reception Center Portal & Secondary Monitoring

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

3.3.5.5 Dover MS Reception Center Female Mon/Decon

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

3.3.5.6 Dover MS Reception Center Male Mon/Decon

a. MET: 3.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 6.a.1.

ISSUE NO.: 57-10-6a1-P-17

CRITERION: 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., K.5.b)

CONDITION: Inability of reception center staff to mop contaminated droppings in all travel ways designated for evacuees and emergency workers.

POSSIBLE CAUSE: The Dover reception center plan does not address the need for mopping travelways used by evacuees and emergency workers.

REFERENCE: NUREG-0654

EFFECT: By not periodically checking designated travelways for radiological contamination and mopping such contamination off the travelways creates a likelyhood of spreading contamination throughout the facility.

RECOMMENDATION: Provide reception center staff with a sufficient number of commercial/industrial sized brooms and sufficient supplies of maslin cloths to cover the brooms to be used as mops.

ISSUE NO.: 57-10-6a1-P-18

CRITERION: 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., K.5.b)

CONDITION: Confusing procedure for determining background readings.
Procedures
Calls for using mR rather than counts per minute (CPM). Radiation detection at reception centers and at other activities is only to detect radiation.

POSSIBLE CAUSE: Background determination procedure as stated in Volume 8, Rev 14, section 10.6-5, is in Millerim per hour (mR) rather than counts per minute (CPM). All radiation detection conducted at reception centers is read as counts per minute.

REFERENCE: New Hampshire Volume 8, Rev 14, Section; 10.6-5

EFFECT: Procedure as written is confusing to operators of survey meters. The process as written could lead to confusion and could also result in an improper radiation reading

RECOMMENDATION: Change the procedures as stated below:

1. Leave as stated
2. Leave as stated
3. Leave as stated
4. Probe must be at least waist level
5. With headphones on count the number of clicks for at least thirty seconds, multiply by four the result is background (sample: 4 counts @ 15 seconds X 4 =16 CPM)
6. Record measurement and post on sign in open of work area as it must be subtracted from all radiation measurements to obtain true and accurate readings.

NOTE: Delete or replace picture of survey meter to reflect the sample reading as stated above.

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

3.3.5.7 Dover MS Reception Center KI Decision

3.3.5.8 Dover MS Reception Center Registration

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

ISSUE NO.: 57-10-6a1-P-19

CRITERION: 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., K.5.b)

CONDITION: At the Dover Middle School Reception Center Registration & Rendezvous, copies of the Student Registration Log in use were from Vol.8, Rev. 6. The first page of these forms was identical to the Rev. 14 version. However, no instructions, as detailed in Rev. 14 as part of this form, were available. All other paper forms used by other stations referenced no Form or Rev number.

POSSIBLE CAUSE: The staff may have been using up old copies of the forms, or did not receive forms designating the new revision number

REFERENCE: NH RERP, Rev. 14, Volume 8, Forms Section
NUREG-0654, J.10.h.; J.12

EFFECT: Rev. 14 is the standard for forms and information. The copies being used contained no instructions, which could have been used for on-the-spot training. Inconsistency in plans & procedures could lead to miscommunication and confusion in evacuee information management.

RECOMMENDATION: Distribute and/or ensure that all forms and procedures are Rev. 14, including the instructions.

ISSUE NO.: 57-10-6a1-P-20

CRITERION: 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., K.5.b)

CONDITION: The Dover Middle School Reception Center Registration & Rendezvous Team Coordinator was unaware of how student transfers would be handled.

POSSIBLE CAUSE: Since the Coordinator was new to the role, this could be a result of insufficient training.

REFERENCE: NHRERP, Rev. 14, Volume 8, p5.12-4
NUREG-0654, J.10.h.; J.12

EFFECT: Not being ready to execute the plan for handling student transfers would cause confusion, possibly risking the security of the students under the responsibility of the Reception Center.

RECOMMENDATION: Provide additional training for Team Coordinator and his/her back-ups.

ISSUE NO.: 57-10-6a1-P-21

CRITERION: 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., K.5.b)

CONDITION: The Dover Middle School Reception Center Registration & Rendezvous did not have a designated land-line for incoming messages. The ability to receive incoming messages was not demonstrated.

POSSIBLE CAUSE: Unknown.

REFERENCE: NH RERP, Rev. 14, Vol.8, p5.12-3. ("There will be a dedicated phone line for incoming calls seeking information about possible registrants;...")
NUREG-0654, J.10.h.; J.12

EFFECT: Chain of message management with those outside the R&R would not be possible. Separated families and groups would not be able to communicate.

RECOMMENDATION: (1) Install readily available land line,
or
(2) Change Plan & Procedures to possibility of using dedicated mobile phone for incoming messages.

ISSUE NO.: 57-10-6a1-P-22

CRITERION: 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., K.5.b)

CONDITION: The Dover Middle School Reception Center Registration & Rendezvous did not provide referral to congregate care facilities. No station was set-up or stafffed.

POSSIBLE CAUSE: The American Red Cross did not participate in the Rendezvous & Registration area exercise.

REFERENCE: NH RERP, Rev. 14, Vol. 8, p5.12-7 ("The ARC will have representatives at both the reception center and the mass-care shelters.") NUREG-0654, J.10.h.; J.12

EFFECT: Evacuees' needs for food and shelter would not be accommodated as required.

RECOMMENDATION: Ensure that letters of agreement with American Red Cross (or other dependable organization) are in place to provide temporary food and shelter to evacuees and to demonstrate such in exercises,
-or-
Adopt State management of such facilities.

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

3.3.5.9 Dover MS Reception Center Vehicle Mon/Decon

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

3.3.5.10 Manchester Local EOC

3.3.5.11 Manchester MHS Reception Center Operations

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

3.3.5.12 Manchester MHS Reception Center Dosimetry

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

3.3.5.13 Manchester MHS Reception Center Portal & Secondary Monitoring

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

ISSUE NO.: 57-10-6b1-P-23

CRITERION: 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)

CONDITION: Rev 14, Vol 8, sec 10.9-1 calls for an individual whose hands have been found to be contaminated at secondary monitoring to be wrapped in plastic prior to proceeding to decon, however: this was not done.

POSSIBLE CAUSE: Lack of training and unawareness of plans/procedures.

REFERENCE: NUREG 0654 K.5.b

EFFECT: Possible spread of contamination throughout the reception center as well as unknowingly contaminating the emergency workers in the decon area.

RECOMMENDATION: Additional training as well as a review of plans and procedures.

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

3.3.5.14 Manchester MHS Reception Center Female Decon

a. MET: 3.a.1, 6.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None

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

3.3.5.15 Manchester MHS Reception Center Male Mon/Decon

a. MET: 3.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 6.a.1.

ISSUE NO.: 57-10-6a1-P-11

CRITERION: 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., K.5.b)

CONDITION: Emergency workers working in monitoring and decontamination areas are unaware of the requirement to collect/recover and process dosimetry from emergency workers being processed through monitoring and decontamination .

POSSIBLE CAUSE: Lack of specific procedure(s) in New Hampshire Volume 8 RERP Plan/procedures on the collection/recovery of dosimetry from emergency workers.

REFERENCE: New Hampshire Volume 8, Rev 14, Sections; 5.6-4, 5.8/5.9.

EFFECT: No attention was being paid to dosimetry around the necks of emergency workers. Dosimetry could be contaminated as the emergency worker had been determined to be contaminated. And without recovery of dosimetry the emergency worker cold continue to take those instruments home and cross contaminated him/her-self of family members.

RECOMMENDATION: The note in section 5.6-4,9 might be added to sections 5.8 and 5.9 along with specific instructions on recovery and handling of dosimetry from emergency workers or institute a procedure as indicated below. Somewhere in

Volume 8, Section 5.8 Supervisor Portal Monitoring and Section 5.9 Supervisor Secondary Monitoring a procedure for the recovery, packaging and labeling and possible decontamination procedures of emergency worker dosimetry. The reception center radiological officer would recover items to return dosimetry to the issuing community or if needed decontaminate that dosimetry for immediate use.

ISSUE NO.: 57-10-6a1-P-12

CRITERION: 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., K.5.b)

CONDITION: Confusing procedure for determining background readings.
Procedures
Calls for using mR rather than counts per minute (CPM). Radiation detection at reception centers and at other activities is only to detect radiation.

POSSIBLE CAUSE: Background determination procedure as stated in Volume 8, Rev 14, section 10.6-5, is in Millerim per hour (mR) rather than counts per minute (CPM). All radiation detection conducted at reception centers is read as counts per minute.

REFERENCE: New Hampshire Volume 8, Rev 14, Section; 10.6-5

EFFECT: Procedure as written is confusing to operators of survey meters. The process as written could lead to confusion and could also result in an improper radiation reading

RECOMMENDATION: Change the procedures as stated below:

1. Leave as stated
2. Leave as stated
3. Leave as stated

4. Probe must be at least waist level
5. With headphones on count the number of clicks for at least thirty seconds, multiply by four the result is background (sample: 4 counts @ 15 seconds X 4 =16 CPM)
6. Record measurement and post on sign in open of work area as it must be subtracted from all radiation measurements to obtain true and accurate readings.

NOTE: Delete or replace picture of survey meter to reflect the sample reading as stated above.

ISSUE NO.: 57-10-6a1-P-13

CRITERION: 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., K.5.b)

CONDITION: No procedure for mopping walkways potentially contaminated by evacuees and emergency workers.

POSSIBLE CAUSE: Lack of specific procedure(s) in New Hampshire Volume 8, sections 5.9-5, 9 and 5.10-3, 5, RERP Plan/procedures on the covering of floor walkways.

REFERENCE: New Hampshire Volume 8, Rev 14, Sections; 5.9-5, 5.10-3, 5

EFFECT: Lack of a specific procedure of checking floor contamination and procedures to minimize cross contamination could cause major contamination issues.

RECOMMENDATION: Besides covering walkways flooring there is a need for a process to mop floors and floor covering to clean up contaminated material that may have dropped onto the floors where evacuees and emergency workers have been walking. Suggest that the mopping procedure be added to sections Volume 8, Rev 14, Sections; 5.9-5, 5.10-3, 5.

Although Swiffer mops and pads were provided for this drill a more efficient operation can be achieved through the procurement of large 24 inch or large commercial push brooms and then add maslin cloth covering which is available in the supply trailer for the reception center.

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

3.3.5.16 Manchester MHS Reception Center KI Decision

3.3.5.17 Manchester MHS Reception Center Registration

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

ISSUE NO.: 57-10-6a1-P-14

CRITERION: 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., K.5.b)

CONDITION: At the Manchester MHS RC, copies of the Student Registration Log in use were from Vol.8, Rev. 6. These forms were identical to the first page of the Rev. 14 version of the Form 130B, but did not include Instructions, as referenced in Rev. 14. All other paper forms in use do not designate a Form or Rev number.

POSSIBLE CAUSE: Staff were using up old copies, but may not have received the Rev. 14 forms.

REFERENCE: NH RERP, Rev. 14., Vol 8, Forms Section

EFFECT: Rev. 14 is the standard for forms and information. The copies being used contained no instructions, which could have been used for on-the-spot training.

Inconsistency in plans & procedures could lead to miscommunication and confusion in evacuee information management.

RECOMMENDATION: Distribute and/or ensure that all forms and procedures are Rev. 14, including the instructions.

ISSUE NO.: 57-10-6a1-P-15

CRITERION: 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., K.5.b)

CONDITION: At the Manchester MHS RC, there was no designated land-line for incoming messages in the Registration & Rendezvous Area. The ability to receive incoming messages was not demonstrated.

POSSIBLE CAUSE: On interview, it was stated that an available line would be pulled into the area, if needed.

REFERENCE: NH RERP, Rev. 14, Vol.8, p5.12-3. ("There will be a dedicated phone line for incoming calls seeking information about possible registrants;...")

EFFECT: Chain of message management with those outside the R&R would not be possible. Separated families and groups would not be able to communicate.

RECOMMENDATION: (1) Install readily available land line,
or
(2) Change Plan & Procedures to possibility of using dedicated mobile phone for incoming messages.

ISSUE NO.: 57-10-6a1-P-16

CRITERION: 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., K.5.b)

CONDITION: NH does not provide/operate congregate care centers, but will direct evacuees to available mass care shelters operated by the American Red Cross. At the Manchester MHS RC, no provision for such referrral was demonstrated.

POSSIBLE CAUSE: The American Red Cross representatives were in the building, but did not participate in the Rendezvous & Registration area exercise.

REFERENCE: NH RERP, Rev. 14, Vol. 8, p5.12-7 ("The ARC will have representatives at both the reception center and the mass-care shelters.")

EFFECT: Evacuees' needs for food and shelter would not be accommodated as required.

RECOMMENDATION: Ensure that letters of agreement with American Red Cross (or other dependable organization) are in place to provide temporary food and shelter to evacuees and to demonstrate such in exercises, or adopt State management of such facilities.

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

3.3.5.18 Manchester MHS Reception Center Vehicle Mon/Decon

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

g. PRIOR ISSUES - UNRESOLVED: None

SECTION 4: CONCLUSION

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 57-10-6a1-P-17	**Criterion: 6a1**
ISSUE: Inability of reception center staff to mop contaminated droppings in all travel ways designated for evacuees and emergency workers.	
RECOMMENDATION: Provide reception center staff with a sufficient number of commercial/industrial sized brooms and sufficient supplies of maslin cloths to cover the brooms to be used as mops.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-18	**Criterion: 6a1**
ISSUE: Confusing procedure for determining background readings. Procedures Calls for using mR rather than counts per minute (CPM). Radiation detection at reception centers and at other activities is only to detect radiation.	
RECOMMENDATION: Change the procedures as stated below: 1. Leave as stated 2. Leave as stated 3. Leave as stated 4. Probe must be at least waist level 5. With headphones on count the number of clicks for at least thirty seconds, multiply by four the result is background (sample: 4 counts @ 15 seconds X 4 =16 CPM) 6. Record measurement and post on sign in open of work area as it must be subtracted from all radiation measurements to obtain true and accurate readings. NOTE: Delete or replace picture of survey meter to reflect the sample reading as stated above.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-19	**Criterion: 6a1**
ISSUE: At the Dover Middle School Reception Center Registration & Rendezvous, copies of the Student Registration Log in use were from Vol.8, Rev. 6. The first page of these forms was identical to the Rev. 14 version. However, no instructions, as detailed in Rev. 14 as part of this form, were available. All other paper forms used by other stations referenced no Form or Rev number.	
RECOMMENDATION: Distribute and/or ensure that all forms and procedures are Rev. 14, including the instructions.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-20	**Criterion: 6a1**
ISSUE: The Dover Middle School Reception Center Registration & Rendezvous Team Coordinator was unaware of how student transfers would be handled.	
RECOMMENDATION: Provide additional training for Team Coordinator and his/her back-ups.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-21	**Criterion: 6a1**
ISSUE: The Dover Middle School Reception Center Registration & Rendezvous did not have a designated land-line for incoming messages. The ability to receive incoming messages was not demonstrated.	
RECOMMENDATION: (1) Install readily available land line, or (2) Change Plan & Procedures to possibility of using dedicated mobile phone for incoming messages.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-22	**Criterion: 6a1**
ISSUE: The Dover Middle School Reception Center Registration & Rendezvous did not provide referral to congregate care facilities. No station was set-up or stafffed.	
RECOMMENDATION: Ensure that letters of agreement with American Red Cross (or other dependable organization) are in place to provide temporary food and shelter to evacuees and to demonstrate such in exercises, -or- Adopt State management of such facilities.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-11	**Criterion: 6a1**
ISSUE: Emergency workers working in monitoring and decontamination areas are unaware of the requirement to collect/recover and process dosimetry from emergency workers being processed through monitoring and decontamination .	
RECOMMENDATION: The note in section 5.6-4,9 might be added to sections 5.8 and 5.9 along with specific instructions on recovery and handling of dosimetry from emergency workers or institute a procedure as indicated below. Somewhere in Volume 8, Section 5.8 Supervisor Portal Monitoring and Section 5.9 Supervisor Secondary Monitoring a procedure for the recovery, packaging and labeling and possible decontamination procedures of emergency worker dosimetry. The reception center radiological officer would recover items to return dosimetry to the issuing community or if needed decontaminate that dosimetry for immediate use.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-12	**Criterion: 6a1**
ISSUE: Confusing procedure for determining background readings. Procedures Calls for using mR rather than counts per minute (CPM). Radiation detection at reception centers and at other activities is only to detect radiation.	
RECOMMENDATION: Change the procedures as stated below: 1. Leave as stated 2. Leave as stated 3. Leave as stated 4. Probe must be at least waist level 5. With headphones on count the number of clicks for at least thirty seconds, multiply by four the result is background (sample: 4 counts @ 15 seconds X 4 =16 CPM) 6. Record measurement and post on sign in open of work area as it must be subtracted from all radiation measurements to obtain true and accurate readings. NOTE: Delete or replace picture of survey meter to reflect the sample reading as stated above.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-13	**Criterion: 6a1**
ISSUE: No procedure for mopping walkways potentially contaminated by evacuees and emergency workers.	
RECOMMENDATION: Besides covering walkways flooring there is a need for a process to mop floors and floor covering to clean up contaminated material that may have dropped onto the floors where evacuees and emergency workers have been walking. Suggest that the mopping procedure be added to sections Volume 8, Rev 14, Sections; 5.9-5, 5.10-3, 5. Although Swiffer mops and pads were provided for this drill a more efficient operation can be achieved through the procurement of large 24 inch or large commercial push brooms and then add maslin cloth covering which is available in the supply trailer for the reception center.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6b1-P-23	**Criterion: 6b1**
ISSUE: Rev 14, Vol 8, sec 10.9-1 calls for an individual whose hands have been found to be contaminated at secondary monitoring to be wrapped in plastic prior to proceeding to decon, however: this was not done.	
RECOMMENDATION: Additional training as well as a review of plans and procedures.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-14	**Criterion: 6a1**
ISSUE: At the Manchester MHS RC, copies of the Student Registration Log in use were from Vol.8, Rev. 6. These forms were identical to the first page of the Rev. 14 version of the Form 130B, but did not include Instructions, as referenced in Rev. 14. All other paper forms in use do not designate a Form or Rev number.	
RECOMMENDATION: Distribute and/or ensure that all forms and procedures are Rev. 14, including the instructions.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-15	**Criterion: 6a1**
ISSUE: At the Manchester MHS RC, there was no designated land-line for incoming messages in the Registration & Rendezvous Area. The ability to receive incoming messages was not demonstrated.	
RECOMMENDATION: (1) Install readily available land line, or (2) Change Plan & Procedures to possibility of using dedicated mobile phone for incoming messages.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-6a1-P-16	**Criterion: 6a1**
ISSUE: NH does not provide/operate congregate care centers, but will direct evacuees to available mass care shelters operated by the American Red Cross. At the Manchester MHS RC, no provision for such referrral was demonstrated.	
RECOMMENDATION: Ensure that letters of agreement with American Red Cross (or other dependable organization) are in place to provide temporary food and shelter to evacuees and to demonstrate such in exercises, or adopt State management of such facilities.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-4a1-P-02	**Criterion: 4a1**
ISSUE: The NH Monitoring Teams' procedures in Section 2 address Instrument Checks for 5 survey instruments, 3 of which were used during the exercise. The instruments used were the Eberline 140, the CDV 718A and the RO-2. The other instruments were the RM-14, the PIC 6 and the CDV 700. The procedure for the instruments has the following statement: "verify that the meter responds to a Cs-137 check source". This statement does not satisfy the source check requirement of REP 14 that there be "a procedure for checking the performance of all monitoring instruments against an appropriate reading or range of readings for an identified check source." Since the CFD 2, the NH Monitoring Teams have implemented a verbal procedure for source checking the instruments, which was demonstrated. However, due to the lack of a written procedure, the operator had difficulty performing the verbal procedure. The check source used in the verbal procedure was an 8 microcurie Cs-137 source in a plastic dish. Each instrument had a sticky note attached with an expected reading. However, the operator did not know whether to measure the source with the cover on or off, and whether to have the source in contact with the detector.	
RECOMMENDATION: The monitoring team's procedures should incorporate the necessary requirement for and step-by-step procedure for checking the performance of all monitoring instrument against an appropriate reading or range of readings for an identified check source.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-4a3-P-03	**Criterion: 4a3**
ISSUE: Current field team procedures do not require teams to perform radiation surveys during air sampling to ensure that the plume has not shifted during air sampling. During the practice drills it was recommended that the field team procedure (Chapter 4, section 4.4) should be revised to require teams to conduct radiation surveys before, during and at the end of the air sampling period. During the exercise it was observed that the teams did implement the recommendation, but that the procedures were not changed to reflect the new survey procedure.	
RECOMMENDATION: Revise the procedures to reflect the new survey methodology as described under the "Condition" section.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-3a1-P-04	**Criterion: 3a1**
ISSUE: Following RADEF Officer distribution of dosimetry kits to the Emergency Operations Center (EOC) staff, his emergency worker briefing was inadequate.	
RECOMMENDATION: The RERP for the City of Portsmouth and the NHRERP Revision 14 need to require the RADEF Officer to perform an emergency worker brief after issuing dosimetry. The required briefing should cover: zeroing direct-reading dosimeters, checking the direct-reading dosimeters periodically during an emergency response, recording the readings of the direct-reading dosimeters on exposure record(s), radiation exposure limits and turn-back values, proper use of permanent record dosimeters, and where and to whom to return their dosimetry at the conclusion of the emergency or mission. This briefing should occur in conjunction with the issuance of emergency worker cards to ensure all emergency workers are aware of the procedures.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-3b1-P-05	**Criterion: 3b1**
ISSUE: The current version of the Dosimetry-KI Report Form 305A (Rev 14) does not contain the correct number of days to record the ingestion of KI by emergency workers. Rev 14 of the form indicates 10 days for KI ingestion, although Volume 8 of the NH RERP, Dosimetry and KI issuance instructions call for only four days of ingestion. The older Rev 13 of Form 305A, which is still in circulation in some communities, includes the correct record of ingestion for four days.	
RECOMMENDATION: Revise Dosimetry-KI Report Form 305A with 4 days of KI ingestion and replace all versions of the form that have a ten day ingestion record. This recommendation applies to all OROs.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-3d1-P-06	**Criterion: 3d1**
ISSUE: Issue: 57-10-3d1-?- Planning Issue CONDITION: There are discrepancies in the NH Radiological Emergency Response Plan (RERP) as to proper delegation of primary organizational responsibility for implementing traffic control in South Hampton. Volume 41 of the NHRERP, NH Traffic Management Manual states that the State Police have primary responsibility for staffing Traffic Control Points (TCPs) in South Hampton and assigns State resources for this function. This was done because South Hampton has a part time Police Department and cannot ensure adequate resources will be available to staff TCPs during an emergency. However, Volume 36 of the NHRERP , Table 1.6-1 and the South Hampton Police Chief procedure assign traffic control as a local police responsibility, including a step for the local Police Chief to Dispatch his officers to the TCPs.	
RECOMMENDATION: Revise Volume 36 to ensure there is adequate law enforcement support to staff TCPs in Southampton and ensure consistency between state and local plans. Once plans are updated, provide additional training to state and local police to ensure they understand the provisions of the plan.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-06-1d1-A-06	**Criterion: 1d1**
ISSUE: The Stratham EOC had only two active telephone lines for all incoming and out going calls. These two lines served the 22 people signed into the EOC who were making out going calls. It was discovered no calls could come into the EOC. As a fix one line was designated as an incoming line and one as an outgoing line. However, there were still individuals who tried to call in and, unknown to the EOC, were never able to get through to the EOC.	
RECOMMENDATION: Allow EOC staff access to additional lines located in the adjacent library and police station or install additional phone lines. SCHEDULE OF CORRECTIVE ACTION: New Hampshire will work with Stratham in order to identify additional phone lines that may be available to support Stratham's EOC.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-1e1-A-08	**Criterion: 1e1**
ISSUE: Incorrect survey meters (CD V-700s) were used by the Town. The Town used their transportation accident monitoring kit rather than instruments that were issued to the Town specifically for REP. Calibration standards are different for CD V-700 instruments if they are used in a REP situation (annual calibration) versus every four years for transportation accident monitoring. Because the Town used the CD V-700s from the transportation accident monitoring kit in a REP situation, the instruments were not calibrated for use in 2010.	
RECOMMENDATION: Store the transportation accident monitoring kits separately from the REP monitoring instrumentation to ensure the correct instruments are used.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 57-10-1e1-P-07	**Criterion: 1e1**
ISSUE: No provision has been provided in the plans and/or procedures to ensure that the control permanent record dosimeter (PRD) included with the PRDs is not exposed to radiation fields experienced by emergency workers in the emergency operations center (EOC) from a passing radioactive plume or deposition of radioactivity.	
RECOMMENDATION: Revise the plans and/or procedures and make necessary arrangements to either shield the control PRD in a suitable container or remove the control PRD after emergency workers are issued dosimetry. If it is determined that a single control PRD in the state capital is adequate, the control PRDs in the local communities should be removed. This recommendation applies to all OROs.	
CORRECTIVE ACTION DESCRIPTION:	
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT:	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

APPENDIX B: EXERCISE TIMELINE

The Exercise Timeline presents the time at which key events and activities occurred during the Seabrook Nuclear Power Station exercise on May 5, 2010 (plume exposure). Also included are times that notifications were made to the participating jurisdictions/functional entities.

Table 1 - Exercise Timeline
DATE: 2010-05-05, SITE: Seabrook Station, NH

Emergency Classification Level or Event	Time Utility Declared	NH SEOC	NH EOF	NH IFO	NH State Police	Rockingham Dispatch	NH JIC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0813	0823	N/A	N/A	0823	0828	0829
Site Area Emergency	1002	1008	1004	1018	1007	1017	1004
General Emergency	1146	1155	1148	1201	1154	1200	1149
Simulated Rad. Release Started	1130	1140	1138	1138	N/A	N/A	1140
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0908	0909	1010	N/A	N/A	1008
Declaration of State of Emergency		1010	1041	1017	N/A	1045	1028
Exercise Terminated		1300	1302	1302	1300	1300	1300
Early Precautionary Actions: Beaches and Parks Closed		1013	1059	1024	N/A	N/A	1018
Early Precautionary Actions: Traffic and Access Control Points		1041	1059	1057	N/A	1045	N/A
Early Precautionary Actions: Animals on Stored Feed		1041	1059	1057	N/A	1045	1059
Early Precautionary Actions: School Transfer		1041	1059	1057	N/A	1045	1053
Early Precautionary Actions: PanAm Rail Cease Operations in 10-mile EPZ		N/A	N/A	1128	N/A	N/A	N/A
1st Protective Action Decision:		N/A	N/A	1057	1039	N/A	1053
1st Siren Activation		1051	1051	1051	1051	1051	1053
1st EAS Message		1054	1054	1054	1054	1054	1053
2nd Protective Action Decision:		1211	1224	1237	N/A	N/A	1214
2nd Siren Activation		1223	1224	1223	1223	1223	1214
2nd EAS Message		1226	1227	1226	1226	1226	1214
3rd Protective Action Decision:		N/A	N/A	N/A	N/A	N/A	1246
3rd Siren Activation		1249	N/A	1249	N/A	1249	1246
3rd EAS Message		1252	N/A	1252	N/A	1252	1246
KI Administration Decision:		1215	1224	1236	N/A	1222	1256

Table 1 - Exercise Timeline
DATE: 2010-05-05, SITE: Seabrook Station, NH

Emergency Classification Level or Event	Time Utility Declared	Brentwood EOC	East Kingston EOC	Exeter EOC	Greenland EOC	Hampton EOC	Hampton Falls EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0813	0837	0834	0830	0827	0828	0828
Site Area Emergency	1002	1017	1020	1018	1016	1015	1016
General Emergency	1146	1200	1201	1200	1158	1201	1201
Simulated Rad. Release Started	1130	1235	1231	1226	1158	1201	1236
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0930	0910	0905	0900	0918	0906
Declaration of State of Emergency		1216	N/A	1020	N/A	N/A	1018
Exercise Terminated		1302	1300	N/A	1300	1300	1302
Early Precautionary Actions: Beaches and Parks Closed		1007	1030	1013	1030	1015	1054
Early Precautionary Actions: Traffic and Access Control Points		1056	1123	1118	N/A	N/A	1000
Early Precautionary Actions: Animals on Stored Feed		1122	1123	1118	N/A	N/A	1000
Early Precautionary Actions: School Transfer		1122	1123	1118	N/A	N/A	1000
Early Precautionary Actions: PanAm Rail Cease Operations in 10-mile EPZ		N/A	N/A	N/A	N/A	N/A	N/A
1st Protective Action Decision:		1235	N/A	1226	1121	1101	1044
1st Siren Activation		1051	1051	1051	1051	1051	1051
1st EAS Message		1054	1054	1054	1054	1054	1054
2nd Protective Action Decision:		N/A	N/A	1241	1235	1220	1217
2nd Siren Activation		1223	1223	1223	1223	1223	1223
2nd EAS Message		1228	1226	1226	1225	1226	1227
3rd Protective Action Decision:		N/A	N/A	N/A	N/A	N/A	N/A
3rd Siren Activation		N/A	1249	N/A	N/A	1249	1249
3rd EAS Message		1252	1252	1241	1252	1252	1251
KI Administration Decision:		1235	1231	1224	1235	1235	1236

Table 1 - Exercise Timeline
DATE: 2010-05-05, SITE: Seabrook Station, NH

Emergency Classification Level or Event	Time Utility Declared	Kensington EOC	Kingston NH EOC	New Castle EOC	Newfields EOC	Newton EOC	North Hampton EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0813	0828	0830	0829	0835	0831	0831
Site Area Emergency	1002	1018	1015	1018	1012	1023	1020
General Emergency	1146	1201	1203	1201	1201	1204	1205
Simulated Rad. Release Started	1130	1235	1217	1220	1240	1246	1220
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0912	0919	0906	0920	0843	0905
Declaration of State of Emergency		N/A	1012	N/A	N/A	1034	1125
Exercise Terminated		1304	1300	1301	1300	1300	1301
Early Precautionary Actions: Beaches and Parks Closed		N/A	N/A	1040	1057	1054	N/A
Early Precautionary Actions: Traffic and Access Control Points		1135	1200	1132	1057	1059	1116
Early Precautionary Actions: Animals on Stored Feed		1135	1200	1132	1057	1059	1116
Early Precautionary Actions: School Transfer		1135	1200	1132	1057	1059	1116
Early Precautionary Actions: PanAm Rail Cease Operations in 10-mile EPZ		N/A	N/A	N/A	N/A	N/A	N/A
1st Protective Action Decision:		1235	1217	1235	1236	1129	1205
1st Siren Activation		1051	1051	1051	1051	1051	1054
1st EAS Message		1054	1054	1054	1054	1054	1057
2nd Protective Action Decision:		N/A	N/A	N/A	N/A	1059	N/A
2nd Siren Activation		1223	1223	1223	1223	1223	1223
2nd EAS Message		1226	1226	1226	1226	1226	1227
3rd Protective Action Decision:		N/A	N/A	N/A	N/A	N/A	N/A
3rd Siren Activation		1249	1249	1249	1249	1249	1249
3rd EAS Message		1252	1252	1252	1252	1252	1252
KI Administration Decision:		1235	1235	1235	1236	1240	1220

Table 1 - Exercise Timeline
DATE: 2010-05-05, SITE: Seabrook Station, NH

Emergency Classification Level or Event	Time Utility Declared	Portsmouth EOC	Rye EOC	Seabrook EOC	South Hampton EOC	Stratham EOC	MA SEOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0813	0832	0828	0831	0830	0836	0828
Site Area Emergency	1002	1019	1017	1015	1015	1027	1015
General Emergency	1146	1205	1200	1202	1201	1230	1151
Simulated Rad. Release Started	1130	1218	1202	1238	1237	1230	1140
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0916	0900	0900	0927	0911	0845
Declaration of State of Emergency		1218	N/A	1129	1143	1058	0925
Exercise Terminated		1300	1300	1300	1300	1300	1300
Early Precautionary Actions: Beaches and Parks Closed		N/A	1011	1030	N/A	1029	0955
Early Precautionary Actions: Traffic and Access Control Points		1055	1057	1100	1122	1120	1021
Early Precautionary Actions: Animals on Stored Feed		1055	1057	1100	1122	1120	1021
Early Precautionary Actions: School Transfer		1055	1122	1100	1122	1120	1021
Early Precautionary Actions: PanAm Rail Cease Operations in 10-mile EPZ		N/A	N/A	1124	N/A	N/A	N/A
1st Protective Action Decision:		1120	1122	1100	1237	1230	1039
1st Siren Activation		1051	1051	1051	1051	1051	1051
1st EAS Message		1054	1054	1054	1051	1054	1054
2nd Protective Action Decision:		N/A	1219	1221	N/A	1258	1214
2nd Siren Activation		1223	1223	1223	1220	1223	1224
2nd EAS Message		1226	1226	1226	1220	1226	1227
3rd Protective Action Decision:		N/A	1230	1300	N/A	N/A	1240
3rd Siren Activation		1249	1249	1249	1250	1249	1249
3rd EAS Message		1252	1252	1252	1250	1252	1252
KI Administration Decision:		1235	1219	1238	1237	1233	1214

Table 1 - Exercise Timeline
DATE: 2010-05-05, SITE: Seabrook Station, NH

Emergency Classification Level or Event	Time Utility Declared	MA SS EOF	MA R1 EOC	Amesbury EOC	Merrimac EOC	Newbury EOC	Newburyport EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0813	N/A	0831	0834	0837	0833	0831
Site Area Emergency	1002	1004	1006	1005	1005	1012	1008
General Emergency	1146	1148	1206	1217	1212	1211	1208
Simulated Rad. Release Started	1130	1138	1150	1152	1157	1152	1140
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0909	0900	0852	0855	0906	0900
Declaration of State of Emergency		0925	0925	0927	0930	0930	0927
Exercise Terminated		1302	1300	1300	1300	1300	1300
Early Precautionary Actions: Beaches and Parks Closed		0955	0955	0957	N/A	1006	1002
Early Precautionary Actions: Traffic and Access Control Points		1054	1021	1008	1006	1012	1002
Early Precautionary Actions: Animals on Stored Feed		1054	1021	1044	1006	1012	1002
Early Precautionary Actions: School Transfer		1054	1021	1008	1006	1012	1002
Early Precautionary Actions: PanAm Rail Cease Operations in 10-mile EPZ		N/A	N/A	N/A	N/A	N/A	N/A
1st Protective Action Decision:		1212	N/A	1222	1215	1211	1024
1st Siren Activation		1051	1051	1045	1047	1051	1051
1st EAS Message		1054	1054	1045	1047	1054	1054
2nd Protective Action Decision:		N/A	N/A	N/A	N/A	1222	N/A
2nd Siren Activation		1224	1224	1222	1215	1224	1224
2nd EAS Message		1227	1227	1222	1215	1227	1227
3rd Protective Action Decision:		N/A	N/A	N/A	N/A	N/A	N/A
3rd Siren Activation		N/A	1249	N/A	N/A	1249	1249
3rd EAS Message		N/A	1252	N/A	N/A	1252	1252
KI Administration Decision:		1152	1214	1217	1215	1222	1147

Table 1 - Exercise Timeline
DATE: 2010-05-05, SITE: Seabrook Station, NH

Emergency Classification Level or Event	Time Utility Declared	Salisbury EOC	West Newbury EOC
Unusual Event	N/A	N/A	N/A
Alert	0813	0835	0835
Site Area Emergency	1002	1010	1005
General Emergency	1146	1217	1210
Simulated Rad. Release Started	1130	1217	1146
Simulated Rad. Release Terminated	N/A	N/A	N/A
Facility Declared Operational		0854	0900
Declaration of State of Emergency		0934	0932
Exercise Terminated		1301	1300
Early Precautionary Actions: Beaches and Parks Closed		1029	0957
Early Precautionary Actions: Traffic and Access Control Points		1010	N/A
Early Precautionary Actions: Animals on Stored Feed		1010	N/A
Early Precautionary Actions: School Transfer		1010	N/A
Early Precautionary Actions: PanAm Rail Cease Operations in 10-mile EPZ		N/A	N/A
1st Protective Action Decision:		N/A	1215
1st Siren Activation		1051	1051
1st EAS Message		1054	1054
2nd Protective Action Decision:		1217	N/A
2nd Siren Activation		1224	1224
2nd EAS Message		1227	1227
3rd Protective Action Decision:		1240	N/A
3rd Siren Activation		1249	N/A
3rd EAS Message		1252	N/A
KI Administration Decision:		1217	1215

APPENDIX C: EXERCISE EVALUATORS AND TEAM LEADERS

DATE: 2010-05-05, SITE: Seabrook Station, NH

LOCATION	EVALUATOR	AGENCY
NH State Emergency Operations Center	Gary Goldberg Harold Spedding Ray Wood	ICFI ICFI ICFI
NH Emergency Operations Facility	Jon Fox *Reggie Rodgers	ICFI ICFI
NH Incident Field Office	Terry Blackmon Bob Duggleby	ICFI ICFI
NH State Police Communications Center	Clark Cofer	ICFI
State Police Troop A, Epping ACT/TCP		
Rockingham County Dispatch Center	*Alejandro Fernandez	ICFI
NH Joint Information Center	*Don Carlton Henry Christiansen	FEMA - RI ICFI
NH Field Monitoring Team-1	Jim Hickey	ICFI
NH Field Monitoring Team-2	Ron Biernacki	ICFI
NH Transportation Staging Area		
Massachusetts State Emergency Operations Center	Onalee Grady-Erickson Dave Petta Debra Schneck	ICFI ICFI ICFI
MA Seabrook Emergency Operations Facility	Michael Henry Lou Sosler	ICFI ICFI
MA Region I EOC	Brian Hasseman Roy Smith	FEMA - RII ICFI
MA (SS) Joint Information Center		
MA (SS) Field Monitoring Team-1	Tony Honnellio	EPA
MA (SS) Field Monitoring Team-2	*Marcy Campbell	ICFI
Massachusetts TSA - Haverhill	*Melissa Savilonis	FEMA - RI
MA: Amesbury LTSA	*Melissa Savilonis	FEMA - RI
MA: Merrimac LTSA	*Melissa Savilonis	FEMA - RI
MA: Newbury LTSA	*Melissa Savilonis	FEMA - RI
MA: Newburyport LTSA	*Melissa Savilonis	FEMA - RI
MA: Salisbury LTSA	*Melissa Savilonis	FEMA - RI
MA: West Newbury LTSA	*Melissa Savilonis	FEMA - RI
Brentwood Local EOC	Nick Lowe Rob Noecker	ICFI ICFI
East Kingston Local EOC	Bud Iannazzo *Al Lookabaugh	ICFI ICFI
Exeter Local EOC	*Deb Bell Walt Gawlak	ICFI ICFI
Greenland Local EOC	Roger Jobe David Kayen	ICFI ICFI
Hampton Local EOC	*James McClanahan Nathalie Valley	ICFI ICFI
Hampton Falls Local EOC	Marynette Herndon Michael Petullo	ICFI ICFI
Kensington Local EOC	*Gary Bolender Karl Fippinger	ICFI ICFI
Kingston NH Local EOC	Richard Grundstrom Carl McCoy	ICFI ICFI

New Castle Local EOC	Paul Ringheiser *Bruce Swiren	ICFI ICFI
Newfields Local EOC	Kent Tosch Robert Vork	ICFI ICFI
Newton Local EOC	Ronald Bonner Lenora Borchardt David White	ICFI ICFI ICFI
North Hampton Local EOC	Thomas Gahan Dan Prevo Dave Seebart	ICFI ICFI ICFI
Portsmouth Local EOC	Nicholas DePierro *Rebecca Fontenot	ICFI FEMA - HQ
Rye Local EOC	Patti Gardner James Purvis	FEMA - HQ FEMA - HQ
Seabrook Local EOC	*Rosemary Samsel John Wills	ICFI ICFI
South Hampton Local EOC	*Deborah Blunt Mario Vigliani	ICFI ICFI
Stratham Local EOC	Eric Carter Patricia Foster Clayton Spangenberg Dave Stuenkel	ICFI FEMA - RI ICFI ICFI
Brentwood: Lighthouse Christian Academy	*Melissa Savilonis	FEMA - RI
Exeter: Exeter Day School	*Melissa Savilonis	FEMA - RI
Greenland: Community School of SAU-50	*Melissa Savilonis	FEMA - RI
Greenland: Kaleidoscope Home Child Care	*Melissa Savilonis	FEMA - RI
Hampton Falls: Robins Child Place Incorporation	*Melissa Savilonis	FEMA - RI
Hampton: Fun After School Program	*Melissa Savilonis	FEMA - RI
Hampton: Sandbox Preschool	*Melissa Savilonis	FEMA - RI
Kingston: Bright Start Early Learning Center	*Melissa Savilonis	FEMA - RI
Kingston: Story Book Station Day School	*Melissa Savilonis	FEMA - RI
Newfields: Gateway to Learning Nursery and Preschool	*Melissa Savilonis	FEMA - RI
Newfields: Nurture and Nature Childrens Center	*Melissa Savilonis	FEMA - RI
Newton: Newton Memorial Elementary School	*Melissa Savilonis	FEMA - RI
Portsmouth: Agape School	*Melissa Savilonis	FEMA - RI
Portsmouth: Discovery Child Enrichment Center	*Melissa Savilonis	FEMA - RI
Portsmouth: Little Blessings Child Care Center	*Melissa Savilonis	FEMA - RI
Portsmouth: Portsmouth Head Start	*Melissa Savilonis	FEMA - RI
Rye: Learning Skills Academy	*Melissa Savilonis	FEMA - RI
Seabrook: Seabrook Head Start	*Melissa Savilonis	FEMA - RI
Stratham: Acorn School	*Melissa Savilonis	FEMA - RI
Stratham: Timberland Childrens Center	*Melissa Savilonis	FEMA - RI
MA State Police Troop A, Danvers	*Melissa Savilonis	FEMA - RI
Amesbury Local EOC	Joe Lischinsky *Sam Nelson	ICFI ICFI
Merrimac Local EOC	Clark Duffy Lawrence Visniesky	ICFI ICFI
Newbury Local EOC	*Mark Dalton Sean Howley	ICFI ICFI
Newburyport Local EOC	James Greer Robert Swartz	ICFI FEMA - RI

Salisbury Local EOC	*Ernie Boaz Thomas Hegele	ICFI ICFI
West Newbury Local EOC	Richard McPeak Stephen Watts	ICFI ICFI
Amesbury: Amesbury Elementary School	*Melissa Savilonis	FEMA - RI
Amesbury: Amesbury High School	*Melissa Savilonis	FEMA - RI
Amesbury: Amesbury Schools Superintendent	*Melissa Savilonis	FEMA - RI
Amesbury: Coastal Connections	*Melissa Savilonis	FEMA - RI
Amesbury: Hillside Rest Home	*Melissa Savilonis	FEMA - RI
Byfield: The Governors Academy	*Melissa Savilonis	FEMA - RI
Byfield: Triton Regional Schools Superintendent	*Melissa Savilonis	FEMA - RI
Merrimac: Dr. Frederick N. Sweetsir Elementary School	*Melissa Savilonis	FEMA - RI
Newbury: Newbury Elementary School	*Melissa Savilonis	FEMA - RI
Newburyport: Bright Horizons	*Melissa Savilonis	FEMA - RI
Newburyport: Dare Family Services	*Melissa Savilonis	FEMA - RI
Newburyport: G.W. Brown Elementary School	*Melissa Savilonis	FEMA - RI
Newburyport: Knoll - Edge Preschool	*Melissa Savilonis	FEMA - RI
Newburyport: Newburyport Schools Superintendent	*Melissa Savilonis	FEMA - RI
Newburyport: River Valley Charter School	*Melissa Savilonis	FEMA - RI
Newburyport: YWCA - Schools Out	*Melissa Savilonis	FEMA - RI
Salisbury: Salisbury Elementary School	*Melissa Savilonis	FEMA - RI
West Newbury: Childrens Castle	*Melissa Savilonis	FEMA - RI
West Newbury: Dr. John C. Page Elementary School	*Melissa Savilonis	FEMA - RI
West Newbury: Koinonia Preschool	*Melissa Savilonis	FEMA - RI
West Newbury: Pentucket Regional High School	*Melissa Savilonis	FEMA - RI
West Newbury: Pentucket Schools Superintendent	*Melissa Savilonis	FEMA - RI
Dover Local EOC		
Dover MS Reception Center Operations	*Melissa Savilonis	FEMA - RI
Dover MS Reception Center Dosimetry	Helen Laforge	FEMA - RI
Dover MS Reception Center Portal & Secondary Monitoring	Ingrid Bruns	FEMA - RI
Dover MS Reception Center Female Mon/Decon	Taneeka Hollins	FEMA - RI
Dover MS Reception Center Male Mon/Decon	Robert Swartz	FEMA - RI
Dover MS Reception Center KI Decision		
Dover MS Reception Center Registration	Patricia Foster	FEMA - RI
Dover MS Reception Center Vehicle Mon/Decon	Don Carlton	FEMA - RI
Manchester Local EOC		
Manchester MHS Reception Center Operations	Helen Laforge *Melissa Savilonis	FEMA - RI FEMA - RI
Manchester MHS Reception Center Dosimetry	Helen Laforge	FEMA - RI
Manchester MHS Reception Center Portal & Secondary Monitoring	Ingrid Bruns John Rice	FEMA - RI FEMA - RI
Manchester MHS Reception Center Female Decon	Taneeka Hollins	FEMA - RI
Manchester MHS Reception Center Male Mon/Decon	Robert Swartz	FEMA - RI
Manchester MHS Reception Center KI Decision		
Manchester MHS Reception Center Registration	Patricia Foster	FEMA - RI
Manchester MHS Reception Center Vehicle Mon/Decon	Don Carlton	FEMA - RI
* Team Leader		

APPENDIX D: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AAC	Accident Assessment Center
APD	Amesbury Police Department
ARES	Amateur Radio Emergency Services
CDV	Civil Defense Victoreen
CERT	Community Emergency Response Team
DAC	Dose Assessment Coordinator
DLR	Dosimetry Life Record
DMS	Dover Middle School
DRD	Direct Reading Dosimeter
EAS	Emergency Alert System
ECL	Emergency Classification Level
ED	Emergency Director
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMS	Emergency Management Services
EOC	Emergency Operations Center
EOF	Emergency Operation Facility
EOP	Emergency Operations Plan
EPI	Emergency Public Information
EPZ	Emergency Planning Zone
ERDS	Emergency Response Data System
ERO	Emergency Response Organization
ES	Elementary School
ESF	Emergency Support Function
EW	Emergency Workers
FD	Fire Department
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FTC	Field Team Coordinator
GE	General Emergency
GETS	Government Emergency Telecommunications Service
GM	Geiger- Muller
GPS	Global Positioning System
HSD	Human Services Director

HSEM	Homeland Security Emergency Management
ICC	Incident Command Center
IFO	Incident Field Office
JIC	Joint Information Center
JPIC	Joint Public Information Center
LE	Law Enforcement
LLF	Local Liaison Facilitator
MC	Medical Coordinator
MEMA	Massachusetts Emergency Management Agency
MHS	Memorial High School
MS	Middle School
MSP	Massachusetts State Police
MTC	Monitoring Team Coordinator
NAS	Nuclear Alert System
NCFD	New Castle Fire Department
NCPC	New Castle Police Chief
NCPD	New Castle Police Department
NH	New Hampshire
NHMT	New Hampshire Monitoring Team
NHMTC	New Hampshire Monitoring Team Coordinator
NHSP	New Hampshire State Police
NHSRSO	New Hampshire State Radiation Safety Officer
NIAT	Nuclear Incident Advisory Team
NPD	Newbury Police Department
NPS	Nuclear Power Station
OP	Operations Plan
OSL	Optically Stimulated Luminescence
PAD	Protective Action Decision
PAG	Protective Action Guideline
PAR	Protective Action Recommendation
PC	Police Chief
PD	Police Department
PEA	Phillips Exeter Academy
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRD	Permanent Record Dosimeter
PW	Public Works
PWD	Public Works Director
RACES	Radio Amateur Civil Emergency Service
RC	Reception Center

RCDC	Rockingham County Dispatch Center
RCP	Radiation Control Program
RCPD	Radiation Control Program Director
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RHTA	Radiological Health Technical Advisor
RO	Radiological Officer
RSO	Radiation Safety Officer
SA	Siren Activations
SAE	Site Area Emergency
SAU	School Administrative Unit
SEOC	State Emergency Operations Center
SNC	Special Needs Coordinator
SNGS	Seabrook Nuclear Generating Station
SNL	Special Needs List
SNPS	Seabrook Nuclear Power Station
SOP	Standard Operating Procedure
SPOT	State Police Online Telecommunications
SS	Seabrook Station
TC	Transportation Coordinator
TCP	Traffic Control Points
TEDE	Total Effective Dose Equivalent
TLD	Thermo Luminescent Dosimeter
TO	Transportation Officer
TR	Transportation Representative
TSA	Transportation Staging Area
VFD	Volunteer Fire Department
VHF	Very High Frequency

APPENDIX E: EXERCISE PLAN

This appendix contains a summary of the simulated sequence of events used as the basis for invoking emergency response actions by OROs during the Seabrook Nuclear Power Station exercise on May 5, 2020.

The scenario was approved by the Federal Emergency Management Agency (FEMA) Region I March 2010. The summary presented in this appendix is a compilation of exercise scenario materials submitted by the Seabrook Nuclear Power Station.

Events at the plant site that are not pertinent to the ORO response have been omitted.

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER

Initial Conditions

The exercise date is assumed to be May 5, 2010.

On-site personnel are limited to the normal weekday complement. Current reactor power is 100%. Core parameters: Average Burnup = 10,225 MWD/MTU and Effective Full Power Days = 247. All plant parameters are normal except for those identified below.

Diesel Generator 1-DG-DG-1-B is tagged out. During a surveillance run yesterday, oil was observed to be leaking from the engine-driven inter-cooler pump (1-DG-P-231-B) tell tale leak off. The diesel generator was removed from service and work initiated to repair the oil leak. The inter-cooler pump, along with the associated jacket water cooling pump (1-DG-P-121-B), is presently disassembled. The diesel generator jacket water has been drained in support of this work. Inspection of the pump is complete and mechanics are preparing to reassemble and reinstall the pump. The diesel generator is expected to be returned to service around 11:00 p.m. tonight. Refer to **Mini-Scenario 6.1** for further information.

SIMULATOR: Establish the above initial conditions on the simulator. In addition:
1) Hang required tags
2) Turn on RDMS alarms
3) Establish other scenario event triggers as needed
4) Verify availability of radiological and meteorological data

It is a partly cloudy day with winds from the north northeast (25^{o}) at about 9 mph. Current temperature is 45° F.

In order to allow adequate time to assimilate this information and answer related questions, players will be provided with the scenario Initial Conditions on Friday, April 30.

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		Detailed Scenario Timeline	
~0730	H-00:30	Initial Conditions are provided to Simulator players.	ERO1
Upon Arrival		Initial conditions will be provided to non-Control Room personnel as they arrive at their assigned facilities.	ERO2
0800	H+00:00	Initial conditions established; exercise begins.	N/A
0805	H+00:05	A moderate earthquake occurs. The epicenter is located approximately 1 mile off the New Hampshire coast, almost due east from the town of Seabrook. The earthquake causes lateral accelerations at the site in excess of Operating Basis Earthquake (OBE) levels. The plant does not trip during this event. The Control Room receives several equipment vibration alarms. The 15-minute clock for the declaration of an Alert based on Initiating Condition HA1 begins now. **SIMULATOR:** Bring in VAS alarm, D5452 - SEISMIC EVENT IN PROGRESS. Also, bring in various equipment vibration alarms, e.g., RCP's, main turbine, etc. The Control Room receives indications that the Newington and Tewksbury 345kV lines are de-energized. The Skobie Pond 345 kV line remains energized and is the sole offsite power source. **SIMULATOR:** Enter malfunction to lose the Newington and Tewksbury offsite power lines. When the Control Room calls the PSNH load dispatcher, report that you are aware of the loss of the lines and that crews are being dispatched to investigate the cause. After 0900, any player contacting the PSNH load dispatch center or ISO New England may be informed of the following information. Tewksbury: A transmission tower supporting this line has collapsed; the failed tower is located in northwest Amesbury. The restoration of this line is not expected before 12:00 pm tomorrow (5/6/10).	ERO3 ERO4g ERO5

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER

Newington: Several transmission tower insulators associated with this line apparently failed during the earthquake. The failed insulators allowed wires to separate from the towers leading to line faults and automatic isolation. The affected tower is located in the Hampton estuary/marsh. Restoration of this line is projected to occur at approximately 12:30 p.m. today.

The line failures do not affect any communities in and around the Seacoast area.

**** IMPORTANT NOTE ****

As needed and depending upon their location, controllers should use the information in the table below to describe the earthquake, and nature of related effects, to the players.

Roads & Bridges - There is no impact to on-site or offsite roads and bridges, i.e., all roadways remain passable with no reduction in capacity.

Offsite Response Facilities - Power sources to offsite emergency operations centers and reception centers are not impacted, i.e., power remains available to these facilities.

Loss of Offsite Power & Security - There is no indication of intentional damage/sabotage at any failed tower/line location.

Tsunami – the quaking does not generate a tsunami.

Effects at a Distance

At the site - damage is limited to some broken windows and overturned loose objects. There are no other significant structural failures (e.g., collapsed buildings, broken pipes, etc.).

In Town of Seabrook - Modified Mercalli Intensity VII: Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or

badly designed structures; some chimneys broken. Noticed by persons driving cars.

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER

At 3 miles from Seabrook - Modified Mercalli Intensity VI: Felt by all, many frightened and run outdoors. Some heavy furniture moved; a few instances of fallen plaster and damaged chimneys. Damage slight.

At 10 miles from Seabrook - Modified Mercalli Intensity V: Felt by nearly everyone, many awakened. Some dishes, windows, and so on broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles, and other tall objects sometimes noticed. Pendulum clocks may stop.

At 30 miles from Seabrook - Modified Mercalli Intensity IV: During the day felt indoors by many, outdoors by few. At night some awakened. Dishes, windows, doors disturbed; walls make creaking sound. Sensation like heavy truck striking building. Standing automobiles rocked noticeably.

At 90 miles from Seabrook - Modified Mercalli Intensity III: Felt quite noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing automobiles may rock slightly. Vibration like passing of truck.

The Shift Manager will assess accident conditions and declare an **Alert** in accordance with Procedure ER 1.1, Classification of Emergencies, Initiating Condition HA1, EAL #1 - OBE Earthquake. The Shift Manager will assume the role of Short Term Emergency Director (STED) and direct implementation of Procedure ER 1.2, Emergency Plan Activation. The STED will turn over command and control responsibilities to the Site Emergency Director (SED).

The Technical Support Center will activate and perform subsequent duties in accordance with Procedure ER 3.1, TSC Operations. The SED maintains control of onsite response actions from the TSC.

The Operational Support Center will activate and perform subsequent duties in accordance with Procedure ER 3.2, OSC Operations.

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		The Emergency Operations Facility will activate and perform subsequent duties in accordance with Procedure ER 3.3, EOF Operations. The Response Manager assumes overall command and control of the Seabrook Station Emergency Response Organization. The Media Center will activate and perform subsequent duties in accordance with Procedure 3.5, Media Center Operations. Following Media Center activation, assigned controllers will use a series of messages as scripts to simulate media calls to members of the Media Center staff. Non-essential station personnel are evacuated and accountability is conducted. These activities, which will be simulated for this exercise, are controlled primarily from Guard Island in accordance with Security Procedure GN1332.00, Security Response to a Declared Radiological Emergency. The onsite assembly area at the Conference Center will activate and perform subsequent duties in accordance with Procedure ER 3.6, Assembly Area Operations. Activation will be simulated for this exercise as discussed in Section 1.0, ERO Objective I.7. Following the Alert declaration, assigned controllers should refer to **Mini-Scenario 6.2** for further information regarding simulation of PSNH and vendor interfaces.	
0820	H+00:20	If no emergency declaration has been made or is pending, the Shift Manager will be directed to declare an **Alert**.	ERO6c
After NWS is Contacted		This message provides forecasted meteorological information from the National Weather Service.	ERO7
When needed		This message will pass information from the US Geological Survey - National Earthquake Information Center (NEIC). Initial estimates from the NEIC put the earthquake magnitude at approximately 5.7 on the Richter scale. The NEIC may be contacted by the Control Room following an earthquake in accordance with VPRO D5452.	ERO8
0830	H+01:30	A small leak develops on a Reactor Coolant System (RCS) piping weld inside Containment (connection of cold leg to	ERO9g

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		Reactor Coolant Pump 1-RC-P-1-B). The initial leak rate is 15 gpm and will slowly increase to 90 gpm. The Control Room will initiate a plant shutdown. **SIMULATOR:** Enter RCS leak malfunction; leak rate equals 15 gpm. Ramp leak rate up to 90 gpm over 85 minutes. Adjust leak rate as needed to preclude a reactor trip or safety injection.	
0900	H+01:00	**SIMULATOR:** Call the Control Room as the Load Dispatcher and report the cause of the loss of the Tewksbury and Newington lines (as described above), and provide projected restoration times.	N/A
0955	H+1:55	An earthquake aftershock occurs. The epicenter is located approximately 1.5 miles southeast from the town of Seabrook. There is also a sudden and significant increase in RCS activity; this increase will become apparent to the players when the 1000 radiological data set is provided. In describing the aftershock effects to the players, controllers should use the same information as that provided for the 0805 earthquake. **SIMULATOR:** Bring in VAS alarm, D5452 - SEISMIC EVENT IN PROGRESS. Also, bring in various equipment vibration alarms, e.g., RCP's, main turbine, etc.	ERO10 ERO11
		The RCS leak rate rapidly increases to 1,500 gpm; this exceeds an RCS Barrier Potential Loss EAL. The reactor is tripped and Safety Injection (SI) is initiated. **SIMULATOR:** Set leak rate to ~1,500 gpm; 1 minute ramp.	ERO12g
1000	H+02:00	Containment dose rates exceed 95 R/hr; this exceeds a Fuel Clad Barrier Loss EAL and a RCS Barrier Loss EAL. The 15-minute clock for the declaration of a Site Area Emergency based on Initiating Condition FS1 begins now. The SED will assess accident conditions and declare a **Site Area Emergency** in accordance with Procedure ER 1.1, Classification of Emergencies, Initiating Condition FS1.	N/A

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		Based on current conditions, and associated procedural requirements, Seabrook Station should not issue any Protective Action Recommendations (PARs) at this time.	
1015	H+02:15	If no new emergency declaration has been made or is pending, the SED will be directed to declare a **Site Area Emergency**.	ERO13c
When needed		This message will pass information from the NEIC. Initial estimates from the NEIC put the earthquake aftershock magnitude at approximately 5.4 on the Richter scale. The NEIC may be contacted by the Control Room following an earthquake in accordance with VPRO D5452.	ERO14
1020+/-	H+02:20 +/-	Pump 1-SI-P-6-B Pump trips due to overcurrent lockout caused by a failure of the lubricating oil pump. Refer to **Mini-Scenario 6.3** for further information. **SIMULATOR:** Enter malfunction to trip B SI Pump. VAS alarm D4543 should be displayed.	ERO15g
1045	H+2:45	An earthquake aftershock occurs. The epicenter is located approximately 2 miles south-southeast from the town of Seabrook. In describing the aftershock effects to the players, controllers should use the same information as that provided for the 0805 earthquake. **SIMULATOR:** Bring in VAS alarm, D5452 - SEISMIC EVENT IN PROGRESS. Also, bring in various equipment vibration alarms, e.g., RCP's, main turbine, etc. The Control Room receives indications that the Skobie Pond 345kV line is de-energized; all offsite power sources to Seabrook Station are lost. After 1105, any player contacting the PSNH load dispatch center or ISO New England may be informed that several offsite protective relays associated with this line apparently tripped during the second earthquake. Power restoration is projected to occur at approximately 12:30 p.m. today. The line failure does not affect any communities in and around the Seacoast area. **SIMULATOR:** Enter malfunction to lose the Skobie Pond offsite power line. When the Control Room calls the PSNH load dispatcher, report that you are aware of the loss of the	ERO16 ERO17g ERO18

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		line and that crews are being dispatched to investigate the cause. Diesel Generator 1-DG-DG-1A starts and begins the loading sequence for Emergency Bus E5 (A train). With the loss of offsite power and the simultaneous unavailability of 1-DG-DG-1B, there is no AC power to Emergency Bus E6 (B train). Controllers should refer to **Mini-Scenario 6.4** to determine emergency response facility equipment affected by the loss of Emergency Bus E6. Lost equipment indications should be passed along to players as appropriate to their attempts to use the equipment. The loss of offsite power to MCC-152 and all power to US-63 (for greater than 30 seconds), will result in a start signal to the Supplemental Emergency Power System (SEPS). In order to allow greater free play, operators will be allowed to utilize SEPS to power selected B Train safety-related loads unless a decision is made to start 1-CBS-P-9-B (B Train Containment Building Spray). If a start of this pump is imminent or occurs, the SEPS engines will trip on high temperature due to a loss of power to the cooling fans. Refer to **Mini-Scenario 6.5.** **SIMULATOR:** Monitor operator decisions and actions related to SEPS. If a start is anticipated or attempted for 1-CBS-P-9-B, enter malfunction to trip SEPS. Suggested VAS alarms include D8290, D8291, D8292 and D8293.	
When needed		This message will pass information from the NEIC. Initial estimates from the NEIC put the earthquake aftershock magnitude at approximately 5.2 on the Richter scale. The NEIC may be contacted by the Control Room following an earthquake in accordance with VPRO D5452.	ERO19
1105	H+03:05	**SIMULATOR:** Call the Control Room as the Load Dispatcher and report that several offsite protective relays associated with this line apparently tripped during the second earthquake. Crews are inspecting the relays, and looking for any line damage or faults. Power restoration is projected to occur at approximately 12:30 p.m. today.	N/A
1130	H+03:30	The Control Room receives indications of a sudden and	ERO20g

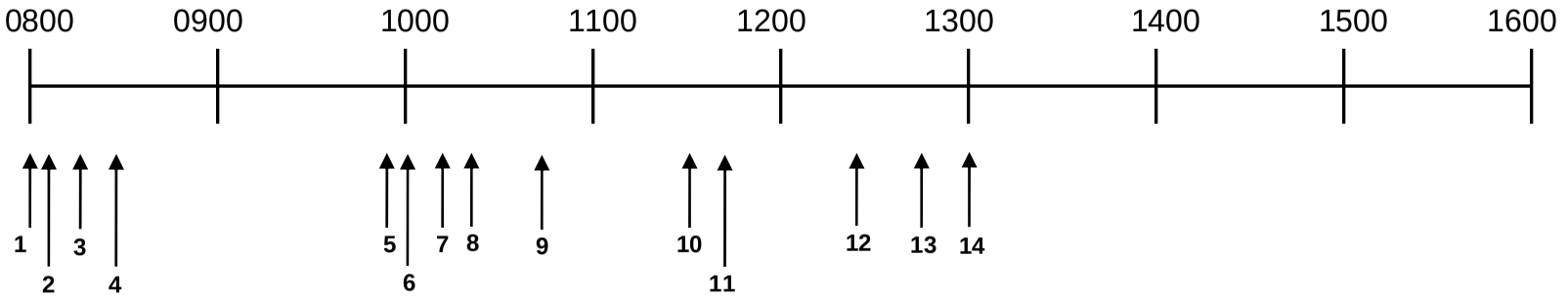
REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		significant increase in the reactor coolant system leak rate (i.e., a large break Loss of Coolant Accident).	
		SIMULATOR – Modify the previous RCS leak malfunction to maximum 175,000 gpm. No ramp.	
		In the event of an automatic or manual Containment Spray Actuation Signal, the A Train Containment Building Spray (CBS) Pump, 1-CBS-P-9-A, trips due to a faulty over-current relay. Refer to **Mini-Scenario 6.6** for further information. With the simultaneous unavailability of the B Train CBS pump, there is no Containment Building Spray at this time.	
		SIMULATOR: Enter malfunction to trip 1-CBS-P-9-A.	
		A leak from containment to the containment enclosure area develops through a pre-existing and unidentified source. The pathway will allow a radiological release from the containment atmosphere, through the Enclosure Air Handling (EAH) system and unit vent, to the environment. A Wide Range Gas Monitor (WRGM) Hi Alarm is received at this time indicating that a radiological release to the environment is in progress.	N/A
		There are two potential upgrade paths to the General Emergency; 1) The SED determines that a containment barrier loss has occurred as evidenced by a radiological release from the plant vent, OR 2) the SED determines that a containment barrier potential loss has occurred after confirming that both CBS trains are inoperable, and containment pressure is greater than 18 psig.[1]	
		With respect to the 15-minute classification clock, the limiting (first) event occurs at 1130 when containment pressure exceeds 18 psig and no CBS pumps are available. Therefore, clock will start at 1130.	
		The SED will assess accident conditions and declare a **General Emergency** in accordance with Procedure ER 1.1, Classification of Emergencies, Initiating Condition FG1.	

[1] Although less likely, it is possible that the SED could determine a containment barrier loss has occurred based on a rapid unexplained decrease in containment pressure. This outcome is contingent upon simulator performance.

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		Based on current conditions, and associated procedural requirements, Seabrook Station should issue the following PARs at this time. **CLOSE**: Salisbury Beach, Plum Island Beach and Parker River National Wildlife Refuge. **SHELTER:** In New Hampshire; ERPAs C, D, F and G. In Massachusetts; ERPA E. **EVACUATE:** In New Hampshire; Seabrook Beach, Hampton Beach, and ERPA A. In Massachusetts; ERPA B.	
1145	H+03:45	If no new emergency declaration has been made or is pending, the Site Emergency Director will be directed to declare a **General Emergency**. **CAUTION:** Based on scenario validation runs, and expected operator and simulator response, the suction source for ECCS pumps is expected to swap-over from the RWST to the containment sumps sometime between 1200 and 1215. The scenario radiological data is structured to reflect this expectation (e.g., RHR pump room readings are significantly increased in the 1215 data set). If for some reason swapover occurs before 1200 or after 1215, the Drill Manager will advise the appropriate controllers to adjust radiological data as necessary.	ERO21c
1220	H+04:20	The Skobie Pond 345 kV line is returned to service; offsite power is now available to the station. **SIMULATOR:** Clear malfunction for loss of the Skobie Pond offsite power line. Call the Control Room as the Load Dispatcher and report that the Skobie Pond line is available. Upon restoration of power to Emergency Bus E6, it is expected that Control Room operators will place B Train Emergency Core Cooling Systems into service.	N/A
1245	H+04:45	The Newington 345 kV line is returned to service. **SIMULATOR:** Clear malfunction for loss of the Newington offsite power line. Call the Control Room as the	N/A

REAL TIME	ELAPSED TIME	DETAILED SCENARIO DESCRIPTION	MESSAGE NUMBER
		Load Dispatcher and report that the Newington line is available.	
1300	H+05:00	Exercise play is terminated as directed by the Exercise Manager. Emergency response facility managers are directed to begin deactivation and restoration of their respective facilities. Controllers will commence critiques at each emergency response facility.	ERO22

2010 EXERCISE
ERO EVENT TIMELINE



1. Initial Conditions established. Plant at 100% power. 1-DG-DG-1-B OOS for maintenance.
2. Richter 5.7 earthquake occurs in the vicinity of Seabrook. Vibration alarms but no plant trip. Loss of Newington and Tewksbury 345 kV lines.
3. Alert declared based on Initiating Condition HA1, EAL #1 - OBE Earthquake.
4. 15 gpm RCS leak to containment. Leak rate increases to 90 gpm over 85 minutes.
5. Strong aftershock occurs. Increased RCS activity and leak rate (1,500 gpm).
6. Containment dose rate exceeds 95 R/hr.
7. Site Area Emergency declared based on Initiating Condition FS1.
8. The B Train Safety Injection (SI) pump trips.
9. Strong aftershock occurs. Loss of Skobie Pond 345 kV line and total LOOP. 1-DG-DG-1-A and SEPS starts.
10. Large break LOCA. Failure of A Train CBS. Radiological release from the plant vent.
11. General Emergency declared based on Initiating Condition FG1.
12. Skobie Pond 345 kV line returned to service.
13. Newington 345 kV line returned to service.
14. Exercise terminated; begin critiques.

APPENDIX F: NEW HAMPSHIRE & MASSACHUSETTS EXTENT OF

NEW HAMPSHIRE EXTENT OF PLAY

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to alert, notify, and mobilize emergency personnel and to activate and staff emergency facilities.

> ***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)***

EXTENT OF PLAY
Responsible OROs should demonstrate the capability to receive notification of an emergency situation from the licensee, verify the notification, and contact, alert, and mobilize key emergency personnel in a timely manner. At each facility, a roster and/or procedures indicating 24-hour staffing capability for ***key*** *positions (those emergency personnel necessary to carry out critical functions), as indicated in the plan and/or procedures, should be provided to the evaluator* ***(demonstration of a shift change is not required).*** *In addition, responsible OROs should demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations. Activation of facilities should be completed in accordance with the plan and/or procedures. Pre-positioning of emergency personnel is appropriate, in accordance with the extent of play agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. Further, pre-positioning of staff for out-of-sequence demonstrations is appropriate in accordance with the extent of play agreement.*

NEW HAMPSHIRE EXTENT OF PLAY

Emergency facilities will be alerted in accordance with the NHRERP. Those facilities that are to participate in the exercise will mobilize accordingly. Rosters for relief shifts will be available in each participating facility. Those facilities that are not participating will acknowledge receipt of notification, but will take no further action. Controllers will simulate facilities not participating.

Each participating facility will demonstrate its capabilities in accordance with this Evaluation Area. Facilities participating are the: STATE EOC, EOF, IFO, JIC, Municipal EOCs: BRENTWOOD,

EAST KINGSTON, EXETER, GREENLAND, HAMPTON, HAMPTON FALLS, KENSINGTON, KINGSTON, NEW CASTLE, NEWFIELDS, NEWTON, NORTH HAMPTON, PORTSMOUTH, RYE, SEABROOK, SOUTH HAMPTON, STRATHAM, ROCHESTER (host EOC) DOVER (host EOC) and MANCHESTER (host EOC). Reception Centers in Manchester and Dover will participate out of sequence DPHS Monitoring Teams will pre-stage. Equipment inventory will be demonstrated out of sequence.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Sub-element 1.b – Facilities

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs have facilities to support the emergency response.

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

EXTENT OF PLAY
Facilities will only be specifically evaluated for this criterion if they are new or have substantial changes in structure or mission. Responsible OROs should demonstrate the availability of facilities that support the accomplishment of emergency operations. Some of the areas to be considered are: adequate space, furnishings, lighting, restrooms, ventilation, backup power and/or alternate facility (if required to support operations). Facilities must be set up based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless otherwise indicated in the extent of play agreement.

NEW HAMPSHIRE EXTENT OF PLAY

None

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 57-08-1.b.1-A-08

Condition: *The Stratham EOC was a large room where key emergency operation staff members work in their roles and carry out their responsibilities. This room was practically bare of furnishings, except for a couple of bookcases, a small table, and EOC displays. EOC staff assisted with bringing tables and chairs into the room to set up working section for staff to work and sit. A floor plan was accurate to where furnishings should be positioned; furnishings were not in place.*

Possible Cause: *The EOC is in a new location on the second floor of the newly built Stratham Fire Department. Furniture has not been set in place.*

References:
- *NUREG-0654, H.3*
- *NHRERP Volume 20/Revision 13, "Seabrook Station Local Radiological Emergency Response Plan," Section 3.4, "Preparedness Responsibilities"*
- *NHRERP Volume 37/Revision 13, "Stratham Plan Information and Implementing Procedures," Section 1.5, "Emergency Preparedness Responsibilities"*

Effect: *Key staff did not have a workstation from which to carry out their functions. They had to set up tables to create their workstation.*

Recommendation: *Obtain sufficient furnishings and equipment to support the emergency response.*

Sub-element 1.c – Direction and Control

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs have the capability to control their overall response to an emergency.

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., 2.a., b.)

EXTENT OF PLAY
All activities associated with direction and control must be performed based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless otherwise indicated in the extent of play agreement.

NEW HAMPSHIRE EXTENT OF PLAY

Participating state and local facilities will demonstrate their ability to direct and control emergency operations in accordance with the NHRERP.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Sub-element 1.d – Communications Equipment

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should establish at least two reliable communication systems to ensure communications with key emergency

personnel at locations such as the following: appropriate contiguous governments within the emergency planning zone (EPZ), Federal emergency response organizations, the licensee and its facilities, emergency operations centers (EOC), and field teams.

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
Communications systems will only be evaluated for this criterion if there have been substantial changes in equipment or mission, unless a communications breakdown adversely impacts the exercise.

Communications equipment and procedures for facilities and field units should be used as needed for the transmission and receipt of exercise messages. All facilities

NEW HAMPSHIRE EXTENT OF PLAY

Pursuant to the NHRERP, facilities participating in this exercise will demonstrate their primary and a back up communications systems. Other communications systems and capabilities may also be used.

DPHS Field Monitoring Teams will also demonstrate a primary and a back up communications system.

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 57-08-1.d.1-A-09

Condition: *The Stratham EOC has a Communications Room where the communication emergency operation staff members carry out their responsibilities. There was minimal communication equipment in place. Communication staff brought their own radio equipment, including an antenna, to make communication capabilities outside of Stratham successful.*

Possible Cause: *All radio equipment is not obtained and in place.*

References:
- *NUREG-0654, H.3*
- *NHRERP Volume 20/Revision 13, "Seabrook Station Local Radiological Emergency Response Plan," Section 3.4, "Preparedness Responsibilities"*
- *NHRERP Volume 37/Revision 13, "Stratham Plan Information and Implementing Procedures," Section 1.5, "Emergency Preparedness Responsibilities"*

Effect: *Communication staff brought some their own equipment in to make communication capabilities outside of Stratham a success. If they had not, they would not have had back up radios and an antenna to communicate successfully.*

Recommendation: *Obtain and install Stratham EOC radio equipment and antenna.*

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs have emergency equipment and supplies adequate to support the emergency response.

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

EXTENT OF PLAY
Equipment within the facility(ies) should be sufficient and consistent with the role assigned to that facility in the ORO's plans and/or procedures in support of emergency operations. Use of maps and displays is encouraged.

Sufficient quantities of appropriate direct-reading and permanent record dosimetry should be available for issuance to all categories of emergency workers that could be deployed from that facility. Appropriate ***direct-reading dosimeters should allow individual(s) to read the administrative reporting limits and exposure limits contained in the ORO's plans and procedures.***

Dosimeters should be inspected for electrical leakage at least annually and replaced, if necessary. ***CDV-138s, due to their documented history of electrical leakage problems, should be inspected for electrical leakage at least quarterly and replace if necessary.*** *This leakage testing will be verified during the exercise, through the documentation submitted in the Annual Letter of Certification, or through a staff assistance visit.*

Responsible OROs should demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers, as indicated on rosters; institutionalized individuals, as indicated in capacity lists for facilities; and, where stipulated by the plan and/or procedures, members of the general public (including transients) within the plume pathway EPZ.

Quantities of dosimetry and KI available and storage location(s) will be confirmed by physical inspection at storage location(s) or through documentation of current inventory submitted during the exercise or provided in the Annual Letter of Certification submission. Available supplies of KI should be within the expiration date indicated on KI bottles or blister packs. As an alternative, a letter from the drug manufacturer should be available that documents a formal extension of the KI expiration date.

At locations where traffic and access control personnel are deployed, appropriate equipment (e.g., vehicles, barriers, traffic cones and signs, etc.) should be available or their availability described.

NEW HAMPSHIRE EXTENT OF PLAY

Pursuant to the NHRERP, facilities participating in this exercise will demonstrate that their equipment, maps, displays, dosimetry, potassium iodide (KI) and other supplies are adequate and sufficient to support the emergency response.

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 57-08-1.e.1-A-03

Condition: *Dosimetry kits are stored at the Rockingham County Dispatch Center (RCDC) and are changed out annually by the New Hampshire Division of Homeland Security and Emergency Management (NH HSEM). The inventory list of the kits on hand indicated that the kits were last changed out on 10/16/07 and therefore overdue for replacement. Quarterly leak rate checks required for the CD V-138 Direct Reading Dosimeters (DRDs) were last conducted on 7/9/08 and were overdue for completion.*

Possible Cause: *An individual assigned this role for many years had recently retired and the current RCDC Radiological Officer anticipated that all DRDs were to be replaced in October 2008 by NHOEM as part of the annual replacement process and the latest quarterly check was not necessary.*

References: *NUREG-0654, H.10 and K.3.a*

Effect: *Dosimetry was issued that could have inaccurately measured radiological dose received by emergency workers.*

Recommendation: *The dosimetry kits stored at the RCDC should be replaced with documented, leak-checked dosimetry as soon as possible. Train the new Rockingham County Radiological Officer to stress the importance of conducting quarterly leak rate testing of the CD V-138 DRDs.*

Corrective Action Demonstrated: *Dosimetry was obtained from the Rockingham County Staging Mobile Trailer, which is normally stored at the Rockingham County Complex adjacent to the RCDC.*

ISSUE: 57-08-1.e.1-A-04

Condition: *One of the four CDV-700s available at the East Kingston Emergency Operations Center (EOC) was past due on its calibration. The sticker on the CDV-700 indicated that it was last calibrated in March 2001 and was due for calibration in March 2005. The other three CDV-700s had been calibrated in March 2005 and are due for calibration in March 2009.*

Possible Cause: *When the other three CDV-700s were taken for calibration the fourth one was either left behind or the sticker on the CDV-700 was not updated.*

References:
- *NUREG-0654, H.7 and H.10*
- *NHRERP Volume 22/Revision 13, "East Kingston Plan Information and Implementing Procedures," Section 3.6, "Emergency Procedures – RADEF Officer"*

Effect: *The CDV-700 could provide incorrect readings because it may be out of calibration.*

Recommendation: *Ensure that all survey instruments are calibrated.*

ISSUE: 57-08-1.e.1-A-05

Condition: *At the Newton EOC, inappropriate dosimeters, with a range of 0-200 R were placed in dosimetry kits for use in the Town of Newton. The procedures require that a low range 0-200 mR and a high range 0-20 R dosimeter be placed in the kits. The 20 R dosimeters were in the kits.*

Possible Cause: *The older civil defense dosimeters with a 0-20 R range have not been removed from the city's inventory. The city staff did not understand that the units were no longer usable for REP dosimetry.*

References:
- *NUREG-0654, K.3.a , K.3.b*
- *NHRERP Volume 1/Revision 13, "New Hampshire Radiological Emergency Response Plan," Section 2.7, "Radiological Exposure Control"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.0, "Dosimetry Equipment and Procedures"*

Effect: *Since the dosimetry kit would not have a low range dosimeter, the emergency worker would not have an accurate low range reading capability. The result could be unnecessary exposure and an inability to determine initial reporting values.*

Recommendation: *Replace the inappropriate dosimeters with the correct 0-200 mR dosimeters. Remove the 0-200 R dosimeters from the facility.*

ISSUE: 57-08-1.e.1/3.a.1/3.b.1-A-07

Condition: *The North Hampton EOC RADEF function of inventory of radiation support equipment, issuing of dosimetry, KI, and briefing of emergency workers was not performed in accordance with the plans and extent of play and impacted other criterion.*

Possible Cause: *The North Hampton EOC RADEF position was not filled during the exercise and there was no one trained or available to perform this function.*

References:
- *NUREG-0654, H.7, 10; J.10.e, f; K, 3.a., b., 4*
- *NHRERP Volume 1/Revision 13, "New Hampshire Radiological Emergency Response Plan," Section 2.7, "Radiological Exposure Control"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.0, "Dosimetry Equipment and Procedures"*

Effect: *The absence of the North Hampton EOC RADEF Officer emergency responder position did not allow the demonstration of inventory of radiation support equipment, issue of dosimetry, KI, and briefing of emergency workers that permit implementation of emergency personnel protection.*

Recommendation: *Additional North Hampton EOC emergency response personnel should be trained to perform the RADEF Officer responsibilities.*

ISSUE: 57-08-1.e.1-A-10

Condition: *The dosimeters (both of the Direct Reading Dosimeters and the TLD) issued at the Manchester County Reception/Monitoring/Decontamination Center at Southside Middle School were due for leak testing or exchange on 7/1/2008.*

Possible Cause: *The responsible organization did not ensure that the dosimetry had been properly inspected, inventoried or operationally checked per the annual requirements.*

References:
- *NUREG-0654, H.10; K.3.a*
- *NHRERP Volume 1/Revision 13, "New Hampshire Radiological Emergency Response Plan," Section 2.7, "Radiological Exposure Control"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.0, "Dosimetry Equipment and Procedures"*

Effect: *The dosimeters may not have operated properly and, therefore, the exposure and dose received by a worker would have been incorrect.*

Recommendation: *Inspect and replace the dosimeters as necessary.*

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.a – Emergency Worker Control

INTENT
This sub-element is derived from NUREG-0654, which provides that an ORO have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place as specified in the ORO's plans and procedures to authorize emergency worker exposure limits to be exceeded for specific missions. Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration Total Effective Dose Equivalent or organ-specific limits) identified in the ORO's plans and procedures.

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, K.4.)

EXTENT OF PLAY
OROs authorized to send emergency workers into the plume exposure pathway EPZ should demonstrate a capability to meet the criterion based on their emergency plans and procedures. Responsible OROs should demonstrate the capability to make decisions concerning the authorization of exposure levels in excess of pre-authorized levels and to the number of emergency workers receiving radiation dose above pre-authorized levels.

As appropriate, OROs should demonstrate the capability to make decisions on the distribution and administration of KI, as a protective measure, based on the ORO's Plan and/or procedures or projected thyroid dose compared with the established protective action guides (PAGs) for KI administration.

NEW HAMPSHIRE EXTENT OF PLAY

This Evaluation Area will be demonstrated in accordance with the NHRERP by appropriate facilities that participate in the exercise. Protective action decision-making occurs at the New Hampshire EOC. The state decision making team coordinates their activity with Massachusetts. Recommended protective actions are transmitted to each municipal EOC from the state EOC.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

INTENT
This sub-element is derived from NUREG-0654, which indicates that OROs have the capability to independently project integrated dose from exposure rates or other information and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation. OROs base these choices on protective action guides (PAGs) from the ORO's plans and procedures, or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (e.g. other affected OROs), availability of appropriate in-place shelter, weather conditions, evacuation time estimates, and situations that create higher than normal risk from evacuation.

> ***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., 11. and Supplement 3.)***

EXTENT OF PLAY
During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO should demonstrate the capability to use appropriate means, described in the plan and/or procedures, to develop protective action recommendations (PARs) for decision-makers based on available information and recommendations from the licensee and field monitoring data, if available.

When the licensee provides release and meteorological data, the ORO also considers these data. The ORO should demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PARs appropriate to the scenario. In all cases, calculation of projected dose should be demonstrated. Projected doses should be related to quantities and units of the PAGs to which they will be compared. PARs should be promptly transmitted to decision-makers in a prearranged format.

Differences greater than a factor of 10 between projected doses by the licensee and the ORO should be discussed with the licensee with respect to the input data and assumptions used, the use of different models, or other possible reasons. Resolution of these differences should be incorporated into the PAR if timely and appropriate. The ORO should demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

NEW HAMPSHIRE EXTENT OF PLAY

This Evaluation Area will be demonstrated in accordance with the NHRERP at the State EOC in the context of the exercise scenario. A variety of accident assessment models may be used, such as: Rascal, Raddos, and PHAAP.

The state decision-making team will evaluate the recommendations of the accident assessment team and develop appropriate protective action decisions. Municipal organizations will be notified and respond in accordance with their plans and procedures according to the recommended protective action. The New Hampshire decision making team will discuss its decisions with the Massachusetts decision making team and coordinate the joint public notification process. The decision to use or not to use KI for emergency workers , institutionalized individuals and the public will be demonstrated at the State EOC.

Protective action decisions will be made in accordance with the NHRERP. Field monitoring data will be provided to state accident assessment personnel by Field teams via the EOF. This activity will occur out of sequence. The data will be available for consideration by the assessors and used to formulate appropriate strategic decisions with respect to the subsequent deployment and coordination of field monitoring resources at their disposal.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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.m.)

EXTENT OF PLAY
OROs should have the capability to make both initial and subsequent PADs. They should demonstrate the capability to make initial PADs in a timely manner appropriate to the situation, based on notification from the licensee, assessment of plant status and releases, and PARs from the utility and ORO staff.

The dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. The decision-makers should demonstrate the capability to change protective actions as appropriate based on these projections. If the ORO has determined that KI will be used as a protective measure for the general public under off-site plans, then the ORO should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for the general public to supplement shelter and evacuation protective actions. This decision should be based on the ORO's plan and/or procedures or projected thyroid dose compared with the established PAG for KI administration.

The KI decision-making process should involve close coordination with appropriate assessment and decision-making staff. If more than one ORO is involved in decision-making, OROs should

communicate and coordinate PADs with affected OROs. OROs should demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.

NEW HAMPSHIRE EXTENT OF PLAY

This activity will be demonstrated by the accident assessment team in coordination with DPHS and HSEM decision makers at the State EOC.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to determine protective action recommendations, including evacuation, sheltering and use of potassium iodide (KI), if applicable, for special population groups (e.g., hospitals, nursing homes, correctional facilities, schools, licensed day care centers, mobility impaired individuals, and transportation dependent individuals). Focus is on those special population groups that are (or potentially will be) affected by a radiological release from a nuclear power plant.

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

EXTENT OF PLAY
Usually, it is appropriate to implement evacuation in areas where doses are projected to exceed the lower end of the range of PAGs, except for situations where there is a high-risk environment or where high-risk groups (e.g., the immobile or infirm) are involved: In these cases, examples of factors that should be considered are weather conditions, shelter availability, Evacuation Time Estimates, availability of transportation assets, risk of evacuation vs. risk from the avoided dose, and precautionary school evacuations. In situations were an institutionalized population cannot be evacuated, the administration of KI should be considered by the OROs.

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

NEW HAMPSHIRE EXTENT OF PLAY

The ability and resources to implement protective actions for special populations will be demonstrated in accordance with the NHRERP at the state and municipal EOCs. Each municipal EOC will simulate calls to special needs populations per their special needs call lists and arrange for appropriate resources to meet the special needs. Controller messages will simulate requests for

assistance from the general public beyond the special needs call list. The dispatch of resources and response to requests for assistance will be simulated.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate protective action guides (PAGs), and make timely, appropriate protective action decisions to mitigate exposure from the ingestion pathway. During an accident at a nuclear power plant, a release of radioactive material may contaminate water supplies and agricultural products in the surround areas. Any such contamination would likely occur during the plume phase of the accident, and depending on the nature of the release could impact the ingestion pathway for weeks or years.

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, I.8., J.11)

EXTENT OF PLAY
It is expected that the ORO will take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans and procedures. Often such precautionary actions are initiated by the OROs based on criteria related to the facility's emergency classification levels (ECL). Such action may include recommendations to place milk animals on stored feed and to use protected water supplies. The ORO should use its procedures (for example, development of a sampling plan) to assess the radiological consequences of a release on the food and water supplies. The ORO assessment should include the evaluation of the radiological analyses of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas, the characterization of the releases from the facility, and the extent of areas potentially impacted by the release.

During this assessment, OROs should consider the use of agricultural and watershed data within the 50-mile EPZ. The radiological impacts on the food and water should then be compared to the appropriate ingestion PAGs contained in the ORO's plan and/or procedures. (The plan and/or procedures may contain PAGs based on specific dose commitment criteria or based on criteria as recommended by current Food and Drug Administration guidance.) Timely and appropriate recommendations should be provided to the ORO decision-makers group for implementation decisions. As time permits, the ORO may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO should demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information available. Any such decisions should be communicated and to the extent practical, coordinated with neighboring and local OROs.

OROs should use Federal resources, as identified in the Federal Radiological Emergency Response Plan (FRERP), and other resources (e.g., compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating.

NEW HAMPSHIRE EXTENT OF PLAY

This exercise is limited to plume exposure pathway activity.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Sub-element 2.e – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return.

INTENT
The sub-element is derived from NUREG-0654, which provides that OROs have the capability to make decisions on relocation, re-entry, and return of the general public. These decisions are essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a commercial nuclear power plant.

> ***Criterion 2.e.1: Timely relocation, re-entry, 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, A.1.b., I.10., M)***

EXTENT OF PLAY
Relocation: *OROs should demonstrate the capability to estimate integrated dose in contaminated areas and to compare these estimates with PAGs, apply decision criteria for relocation of those individuals in the general public who have not been evacuated but where projected doses are in excess of relocation PAGs and control access to evacuated and restricted areas. Decisions are made for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs. Determination of areas to be restricted should be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates vs. the PAGs and field samples of vegetation and soil analyses.*

Re-entry*: Decisions should be made regarding the location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to temporarily enter the evacuated area to perform specific tasks or missions.*

Examples of control procedures are the assignment of or checking for, direct reading and non direct-reading dosimeters for emergency workers; questions regarding the individual's objectives and locations expected to be visited and associated time frames; availability of maps and plots of radiation exposure rates; advice on areas to avoid; and procedures for exit including: monitoring of individuals, vehicles, and equipment, decision criteria regarding decontamination; and proper disposition of emergency worker dosimeters and maintenance of emergency worker radiation exposure records.

Responsible OROs should demonstrate the capability to develop a strategy for authorized re-entry of individuals into the restricted zone, based on established decision criteria. OROs should demonstrate the capability to modify those policies for security purposes (e.g., police patrols), for maintenance of essential services (e.g., fire protection and utilities), and for other critical functions. They should demonstrate the capability to use decision making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for the farm animals or secure machinery for storage), or to retrieve important possessions. Coordinated policies for access and exposure control should be developed among all agencies with roles to perform in the restricted zone. OROs should demonstrate the capability to establish polices for provision of dosimetry to all individuals allowed to re-enter the restricted zone. The extent that OROs need to develop policies on re-entry will be determined by scenario events.

***Return**: Decisions are to be based on environmental data and political boundaries or physical/geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area that is based on the relocation PAG.*

Other factors that the ORO should consider are, for example: conditions that permit the cancellation of the emergency classification level and the relaxation of associated restrictive measures, basing return recommendations (i.e., permitting populations that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis) on measurements of radiation from ground deposition; and the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are: medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.

NEW HAMPSHIRE EXTENT OF PLAY

This exercise is limited to plume exposure pathway activity.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

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

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimeters and permanent record dosimeters; provide for direct-reading dosimeters to be read at appropriate frequencies by emergency workers; maintain a radiation dose record for each emergency worker; and provide for establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of protective action guides, always applying the ALARA (As Low As is Reasonably Achievable) principle as appropriate.

> ***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.)***

EXTENT OF PLAY

OROs should demonstrate the capability to provide appropriate direct-reading and permanent record dosimetry, dosimetry chargers, and instructions on the use of dosimetry to emergency workers. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows individual(s) to read the administrative reporting limits (that are pre-established at a level low enough to consider subsequent calculation of Total Effective Dose Equivalent) and maximum exposure limits (for those emergency workers involved in life saving activities) contained in the OROs plans and procedures.

Each emergency worker should have the basic knowledge of radiation exposure limits as specified in the ORO's plan and/or procedures. Procedures to monitor and record dosimeter readings and to manage radiological exposure control should be demonstrated.

During a plume phase exercise, emergency workers should demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker should report accumulated exposures during the exercise as indicated in the plans and procedures. OROs should demonstrate the actions described in the plan and/or procedures by determining whether to replace the worker, to authorize the worker to incur additional exposures or to take other actions.

If scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed and at what exposure levels. Emergency workers may use any available resources (e.g. written procedures and/or co-workers) in providing responses.

Although it is desirable for all emergency workers to each have a direct-reading dosimeter, there may be situations where team members will be in close proximity to each other during the entire mission and adequate control of exposure can be effected for all members of the team by one dosimeter worn by the team leader. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers, and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area. It should be noted that, even in these situations, each team member must still have their own permanent record dosimeter.

Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must re-enter an evacuated area following or during the plume passage, should be limited to the lowest radiological exposure commensurate with completing their missions.

NEW HAMPSHIRE EXTENT OF PLAY

The RADEF Officer in each facility will issue appropriate dosimetry in accordance with the NHRERP. The following facilities will demonstrate their ability to meet this criteria: LOCAL EOCs: BRENTWOOD, EAST KINGSTON, EXETER, GREENLAND, HAMPTON, HAMPTON FALLS, KENSINGTON, KINGSTON, NEW CASTLE, NEWFIELDS, NEWTON, NORTH HAMPTON, PORTSMOUTH, RYE, SEABROOK, SOUTH HAMPTON, STRATHAM, and DPHS Field Team. Troop A and NH DOT will demonstrate at IFO by sending reps there.

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 54-08-3.a.1-A-01

Condition: *At the NHIFO, inappropriate dosimeters, with a range of 0-200R were placed in dosimetry kits for use in Kingston. The procedure requires a low range 0-200 mR and a high range 0-20 R dosimeters be placed in the kits. The 20 R dosimeters were in the kit. With no low range dosimeter, it would be difficult for the emergency worker to measure personal exposure and determine their turn back values.*

Possible Cause: *The older civil defense dosimeters, with a 0-200 R range, were in the NHIFO dosimetry cabinet in a box along with the correct dosimeters. Without looking inside the device it is not immediately apparent that the device does not meet either the low or high range requirements. The dosimetry clerk charged the device and checked it but did not notice that the units that were measured were in Roentgen (R) not milli-Roentgen (mR).*

References:

- *NUREG-0654, K.3.a , K.3.b*
- *NHRERP Volume 1/Revision 13, "New Hampshire Radiological Emergency Response Plan," Section 2.7, "Radiological Exposure Control"*

- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.0, "Dosimetry Equipment and Procedures"*

Effect: *Since the kit would not have had a low range dosimeter, the emergency worker would not have had an accurate low-range reading. The result could be unnecessary exposure and an inability to determine turn back values.*

Recommendation: *Remove the 0-200R dosimeters from the facility so that they will not inadvertently be used.*

Corrective Action Demonstrated: *The dosimetry clerk was informed of the error and replaced the inappropriate dosimeters with the correct 0-200 mR dosimeters. The 0-200 R dosimeters were removed from the facility.*

ISSUE: 57-08-3.a.1-A-06

Condition: *Inadequate dosimetry briefing to emergency workers by RADEF/Health Officer at the Newton EOC.*

Possible Cause: *Insufficient training for the RADEF/Health Officer.*

References:
- *NUREG-0654, K.3.a , K.3.b*
- *NHRERP Volume 1/Revision 13, "New Hampshire Radiological Emergency Response Plan," Section 2.7, "Radiological Exposure Control"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.0, "Dosimetry Equipment and Procedures"*

Effect: *Emergency workers did not understand how to read their dosimetry and what the readings meant. This could have resulted in possible overexposure of workers.*

Recommendation: *RADEF/ Health Officer should receive training in the use of dosimetry. Written briefing notes should be developed to ensure that the RADEF/Health Officer includes all pertinent information in the briefing. These notes could be handed out to the emergency workers.*

Corrective Action Demonstrated: *On-site training was conducted by a HazMat technician for the RADEF/Health Officer. After the training the RADEF/Health Officer conducted a briefing for the emergency workers. Two emergency workers were interviewed; they understood what the dosimetry was for and how to read the Direct Reading Dosimeters.*

ISSUE: 57-08-1.e.1/3.a.1/3.b.1-A-07

Condition: *The North Hampton EOC RADEF function of inventory of radiation support equipment, issuing of dosimetry, KI, and briefing of emergency workers was not performed in accordance with the plans and extent of play and impacted other criterion.*

Possible Cause: *The North Hampton EOC RADEF position was not filled during the exercise and there was no one trained or available to perform this function.*

References:
- *NUREG-0654, H.7, 10; J.10.e, f; K, 3.a., b., 4*
- *NHRERP Volume 1/Revision 13, "New Hampshire Radiological Emergency Response Plan," Section 2.7, "Radiological Exposure Control"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.0, "Dosimetry Equipment and Procedures"*

Effect: *The absence of the North Hampton EOC RADEF Officer emergency responder position did not allow the demonstration of inventory of radiation support equipment, issue of dosimetry, KI, and briefing of emergency workers that permit implementation of emergency personnel protection.*

Recommendation: *Additional North Hampton EOC emergency response personnel should be trained to perform the RADEF Officer responsibilities.*

ISSUE: 57-08-3.a.1-A-11

Condition: *The Radiological Officer at the Manchester County, Southside Middle School Reception, Monitoring and Decontamination Center did not thoroughly brief Emergency Workers when issuing dosimetry. He omitted pertinent information such as reporting limits and the purpose of and differences in the dosimeters.*

Possible Cause: *The Radiological Officer may not have been properly trained on how to brief Emergency Workers when issuing dosimetry.*

References:
- *NUREG-0654, O.4.c; O.5; K.3.a, b*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.7, "Procedure for Issuing Dosimetry and KI"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.8, "Emergency Worker Information"*
- *NH Annual Letter of Certification, January 31, 2008; Section 2 and Section 5*

Effect: *Emergency Workers would not be able to determine their exposure and report it appropriately.*

Recommendation: *Ensure that training for Radiological Officers is conducted on the appropriate procedures for issuing dosimetry and providing emergency worker information.*

ISSUE: 57-08-3.a.1-A-13

Condition: *The Radiological Officer at the Rochester Middle School Reception, Monitoring and Decontamination Center did not thoroughly brief Emergency Workers when issuing dosimetry. He omitted pertinent information such as reporting limits and the purpose of and differences in the dosimeters.*

Possible Cause: *The Radiological Officer may not have been properly trained on how to brief Emergency Workers when issuing dosimetry.*

References:
- *NUREG-0654, O.4.c; O.5; K.3.a, b*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.7, "Procedure for Issuing Dosimetry and KI"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.8, "Emergency Worker Information"*
- *NH Annual Letter of Certification, January 31, 2008; Section 2 and Section 5*

Effect: *Emergency Workers would not be able to determine their exposure and report it appropriately.*

Recommendation: *Ensure that training for Radiological Officers is conducted on the appropriate procedures for issuing dosimetry and providing emergency worker information.*

Sub-element 3.b – Implementation of KI Decision

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide radioprotective drugs for emergency workers, institutionalized individuals, and, if in the plan and/or procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to emergency workers and institutionalized individuals, the provision of KI to the general public is an ORO option, reflected in ORO's plans and procedures. Provisions should include the availability of adequate quantities, storage, and means of the distribution of radioprotective drugs.

Criterion 3.b.1: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained. (NUREG-0654, E. 7., J. 10. e., f.)

EXTENT OF PLAY
OROs should demonstrate the capability to make KI available to emergency workers, institutionalized individuals, and, where provided for in the ORO plan and/or procedures, to members of the general public. OROs should demonstrate the capability to accomplish distribution of KI consistent with decisions made.

Organizations should have the capability to develop and maintain lists of emergency workers and institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. The ingestion of KI recommended by the designated ORO health official is voluntary.

*For evaluation purposes, the actual ingestion of KI is **not** necessary. OROs should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those advised to take it. If a recommendation is made for the general public to take KI, appropriate information should be provided to the public by the means of notification specified in the ORO's plan and/or procedures. Emergency workers should demonstrate the basic knowledge of procedures for the use of KI whether or not the scenario drives the use of KI. This can be accomplished by an interview with the evaluator.*

NEW HAMPSHIRE EXTENT OF PLAY

The capability to issue KI to emergency workers will be demonstrated at appropriate state and local facilities. The RADEF officer at each facility (including RCDC, Troop A, and DPHS Field Teams will talk through the issuing process. No KI will be ingested. Quantities of KI are stored at local EOCs, EPZ nursing homes and hospitals and the IFO. Schools in SAU 16 and SAU 50 have been issued KI. Calls to institutions will be simulated.

A decision that the public should be notified of a recommendation that emergency workers ingest KI may be demonstrated at the State EOC (scenario dependant); with the subsequent development, distribution, and simulated broadcast of an appropriate EPI message. These activities will occur at the State EOC.

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 57-08-1.e.1/3.a.1/3.b.1-A-07

Condition: *The North Hampton EOC RADEF function of inventory of radiation support equipment, issuing of dosimetry, KI, and briefing of emergency workers*

was not performed in accordance with the plans and extent of play and impacted other criterion.

Possible Cause: *The North Hampton EOC RADEF position was not filled during the exercise and there was no one trained or available to perform this function.*

References:
- *NUREG-0654, H.7, 10; J.10.e, f; K, 3.a., b., 4*
- *NHRERP Volume 1/Revision 13, "New Hampshire Radiological Emergency Response Plan," Section 2.7, "Radiological Exposure Control"*
- *NHRERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 10.0, "Dosimetry Equipment and Procedures"*

Effect: *The absence of the North Hampton EOC RADEF Officer emergency responder position did not allow the demonstration of inventory of radiation support equipment, issue of dosimetry, KI, and briefing of emergency workers that permit implementation of emergency personnel protection.*

Recommendation: *Additional North Hampton EOC emergency response personnel should be trained to perform the RADEF Officer responsibilities.*

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to implement protective action decisions, including evacuation and/or sheltering, for all special populations. Focus is on those special populations that are (or potentially will be) affected by a radiological release from a nuclear power plant.

Criterion 3.c.1: Protective action decisions are implemented for special populations other than schools within areas subject to protective actions.- (NUREG-0654, E.7., J.9., 10.c.d.e.g.)

EXTENT OF PLAY
Applicable OROs should demonstrate the capability to alert and notify (e.g., provide protective action recommendations and emergency information and instructions) special populations (hospitals, nursing homes, correctional facilities, mobility impaired individuals, transportation dependent, etc). OROs should demonstrate the capability to provide for the needs of special populations in accordance with the ORO's plans and procedures. Contact with special populations and reception facilities may be actual or simulated, as agreed to in the Extent of Play. Some contacts with transportation providers should be actual, as negotiated in the extent of play. All actual and simulated contacts should be logged.

NEW HAMPSHIRE EXTENT OF PLAY

The response of transportation resources will be simulated. State EOC, IFO and local transportation resource personnel will demonstrate their capability to coordinate and dispatch appropriate transportation resources with the support of a control cell during the plume phase exercise. The State EOC will make the initial call to transportation providers as well as subsequent calls to a control cell. Calls to special facilities are demonstrated in the local EOCs. A TDD/Relay Operator capability will be demonstrated.

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 57-08-3.c.1-A-02

Condition: *The Special Needs Liaison assigned to the New Hampshire IFO failed to perform an operational test on the TDD as outlined in the State's RERP, Section 15. When requested to perform the operational check, it took the Liaison more than 30 minutes to operationally check the unit; however, when the operational check was completed through correspondence with the National TDD contact support, the return message was in Spanish.*

Possible Cause: *The liaison failed to follow procedures as outlined in the RERP. Additionally, the liaison had not familiarized himself with the TDD unit and had not operated it at that location.*

References:
- *NUREG-0654, J.10.d*
- *NHRERP Volume 5/Revision 13, "Seabrook Station Implementing Procedures – Governor's Office and DFSEM," Section 15.0, "DFSEM Special Needs Liaison Emergency Response Procedures"*

Effect: *Lack of a proper operational check and the inability of the liaison to operate the TDD could have caused undue delay to providing support to the hearing-impaired population within the Seabrook Station's Emergency Planning Zone.*

Recommendation: *The Special Needs Liaison, as well as alternate personnel, should be trained on the use of RERP procedures checklists and the operation of the TDD.*

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

EXTENT OF PLAY
Applicable OROs should demonstrate the capability to alert and notify all public school systems/districts, licensed day care centers, and participating private schools within the emergency

planning zone of emergency conditions that are expected to or may necessitate protective actions for students.

In accordance with plans and/or procedures, OROs and/or officials of participating public and private schools and licensed day care centers should demonstrate the capability to make and implement prompt decisions on protective actions for students. Officials should demonstrate that the decision making process for protective actions considers (e.g., either accepts automatically or gives heavy weight to) protective action recommendations made by ORO personnel, the ECL at which these recommendations are received, preplanned strategies for protective actions for that ECL, and the location of students at the time (e.g., whether the students are still at home, en route to the school, or at the school).

Implementation of protective actions should be completed subject to the following provisions: At least one school in a school system or district within the EPZ, as appropriate, needs to demonstrate the implementation of protective actions. The implementation of canceling the school day, dismissing early, or sheltering should be simulated by describing to evaluators the procedures that would be followed.

If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to reception centers, congregate care centers, or host schools may actually be demonstrated or accomplished through an interview process.

If accomplished through an interview process, appropriate school personnel including decision making officials (e.g., superintendent/principal, transportation director/bus dispatcher), and at least one bus driver (and the bus driver's escort, if applicable) should be available to demonstrate knowledge of their role(s) in the evacuation of school children.

Communications capabilities between school officials and the buses, if required by the plan and/or procedures, should be verified.

Officials of the participating school(s) or school system(s) should demonstrate the capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the media on the status of protective actions for schools.

NEW HAMPSHIRE EXTENT OF PLAY

Notification of schools and special facilities will be demonstrated at the State EOC and IFO and at each municipal EOC.

Protective Action Decisions for schools are made at the State EOC. Selected special facilities in each municipality will be interviewed out of sequence, regarding the implementation of local emergency procedures.

Calls will be made to each School Administrative Unit (SAU) and each school to verify transportation resource requirements. Calls will be made to transportation providers to verify

resource capabilities. Default values will be used in determining resource requirements. The dispatch of transportation resources to schools will be simulated.

School Administrative Units located within the Seabrook Station EPZ are: SAU 16; Brentwood, East Kingston, Exeter, Stratham, Newfields Kensington. SAU 17; Newton, Kingston. SAU 21; Hampton, Hampton Falls, North Hampton, South Hampton, Seabrook. SAU 50; Greenland, Rye, New Castle. SAU 52; Portsmouth

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs have the capability to implement protective action plans, including relocation and restriction of access to evacuated/sheltered areas. This sub-element focuses on selecting, establishing, and staffing of traffic and access control points and removal of impediments to the flow of evacuation traffic.

> ***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., k.)***

EXTENT OF PLAY
OROs should demonstrate the capability to select, establish, and staff appropriate traffic and access control points consistent with protective action decisions (for example, evacuating, sheltering, and relocation), in a timely manner. OROs should demonstrate the capability to provide instructions to traffic and access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled. Traffic and access control staff should demonstrate accurate knowledge of their roles and responsibilities. This capability may be demonstrated by actual deployment or by interview in accordance with the extent of play agreement.

In instances where OROs lack authority necessary to control access by certain types of traffic (rail, water, and air traffic), they should demonstrate the capability to contact the State or Federal agencies with authority to control access.

NEW HAMPSHIRE EXTENT OF PLAY

Municipal police will be asked to describe their traffic control plan for their jurisdiction at the municipal EOC. New Hampshire State Police Troop A will describe the state access control plan at the IFO in Newington.

These demonstrations will occur during plume exposure pathway phase of the exercise at times to be coordinated between facility controllers and FEMA evaluators.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

EXTENT OF PLAY
OROs should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments, such as wreckers, need not be demonstrated; however, all contacts, actual or simulated should be logged.

NEW HAMPSHIRE EXTENT OF PLAY

NH Department of Transportation and State Police personnel at the IFO will discuss the resources to remove impediments as part of the traffic and access control briefing.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to implement protective actions, based on criteria recommended by current Food and Drug Administration guidance, for the ingestion pathway emergency planning zone (IPZ), the area within an approximate 50-mile radius of the nuclear power plant. This sub-element focuses on those actions required for implementation of protective actions.

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. NUREG-0654, J.9., 11.)

EXTENT OF PLAY
Applicable OROs should demonstrate the capability to secure and utilize current information on the locations of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the ingestion pathway EPZ. OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

NEW HAMPSHIRE EXTENT OF PLAY

This exercise is limited to plume exposure pathway activity.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654, E.5., 7., J.9, 11.)

EXTENT OF PLAY
Development of measures and strategies for implementation of ingestion pathway zone (IPZ) protective actions should be demonstrated by formulation of protective action information for the general public and food producers and processors. This includes the capability for the rapid reproduction and distribution of appropriate reproduction-ready information and instructions to pre-determined individuals and businesses. OROs should demonstrate the capability to control, restrict or prevent distribution of contaminated food by commercial sectors. Exercise play should include demonstration of communications and coordination between organizations to implement protective actions. However, actual field play of implementation activities may be simulated.

For example, communications and coordination with agencies responsible for enforcing food controls within the IPZ should be demonstrated, but actual communications with food producers and processors may be simulated.

NEW HAMPSHIRE EXTENT OF PLAY

This exercise is limited to plume exposure pathway activity.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Sub-element 3.f – Implementation of Relocation, Re-entry, and Return Decisions

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should demonstrate the capability to implement plans, procedures, and decisions for relocation, re-entry, and return. Implementation of these decisions is essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a commercial nuclear power plant.

Criterion 3.f.1: Decisions regarding controlled re-entry of emergency workers and relocation and return of the public are coordinated with appropriate organizations and implemented. (NUREG-0654, M.1. 3.)

EXTENT OF PLAY

Relocation: *OROs should demonstrate the capability to coordinate and implement decisions concerning relocation of individuals, not previously evacuated, to an area where radiological contamination will not expose the general public to doses that exceed the relocation PAGs. OROs should also demonstrate the capability to provide for short-term or long-term relocation of evacuees who lived in areas that have residual radiation levels above the PAGs.*

Areas of consideration should include the capability to communicate with OROs regarding timing of actions, notification of the population of the procedures for relocation, and the notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their homes due to high levels of contamination. OROs should also demonstrate the capability to communicate instructions to the public regarding relocation decisions.

Re-entry: *OROs should demonstrate the capability to control re-entry and exit of individuals who need to temporarily re-enter the restricted area, to protect them from unnecessary radiation exposure and for exit of vehicles and other equipment to control the spread of contamination outside the restricted area. Monitoring and decontamination facilities will be established as appropriate.*

Examples of control procedure subjects are: (1) the assignment of, or checking for, direct-reading and non-direct-reading dosimeters for emergency workers; (2) questions regarding the individuals' objectives and locations expected to be visited and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; and procedures for exit, including monitoring of individuals, vehicles, and equipment, decision criteria regarding contamination, proper disposition of emergency worker dosimeters, and maintenance of emergency worker radiation exposure records.

Return: *OROs should demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs should demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.*

Communications among OROs for relocation, re-entry, and return may be simulated; however all simulated or actual contacts should be documented. These discussions may be accomplished in a group setting.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

NEW HAMPSHIRE EXTENT OF PLAY

This exercise is limited to plume exposure pathway activity.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

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

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to deploy field teams with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to measure airborne radioiodine in the presence of noble gases and to measure radioactive particulate material in the airborne plume. In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. This does not imply that plume exposure projections should be made from the field data. Adequate equipment and procedures are essential to such field measurement efforts.

> ***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.8., 9., 11.)***

EXTENT OF PLAY

Field teams should be equipped with all instruments and supplies necessary to accomplish their mission. This should include instruments capable of measuring gamma exposure rates and detecting the presence of beta radiation. These instruments should be capable of measuring a range of activity and exposure, including radiological protection/exposure control of team members and detection of activity on the air sample collection media, consistent with the intended use of the instrument and the ORO's plans and procedures. An appropriate radioactive check source should be used to verify proper operational response for each low range radiation measurement instrument (less than 1 R/hr) and for high range instruments when available. If a source is not available for a high range instrument, a procedure should exist to operationally test the instrument before entering an area where only a high range instrument can make useful readings.

NEW HAMPSHIRE EXTENT OF PLAY

For the purposes of this exercise, two NH DPHS radiological monitoring teams will be pre-staged. The kits will be sealed with dated custody tape. If the custody tape is intact, the teams will take the kits as is without need to inventory. Each team will source check their instruments and do a radio check, then deploy to the EOF. Radiological kits will be inventoried out of sequence.

Upon arrival at the EOF the teams will join the scenario in real time if teams arrive prior to an alert declaration they will wait for the declaration at the EOF, otherwise they will be deployed by the New Hampshire field team coordinator per the scenario. The New Hampshire field team controllers will have to control this activity carefully.

A FEMA evaluator will observe the teams activities at the DPHS office and return to the State EOC after the teams have departed for the EOF. FEMA field team evaluators will meet up with the field teams at the EOF. Charcoal filter cartridges will simulate use of Silver Zeolite filter media. Simulated cartridges will be prepared for transportation to the EOF for analysis. The monitoring data will be collected by Accident Assessment Team.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

EXTENT OF PLAY
Responsible OROs should demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.
Field measurements are needed to help characterize the release and to support the adequacy of implemented protective actions or to be a factor in modifying protective actions. Teams should be directed to take measurements in such locations, at such times to provide information sufficient to characterize the plume and impacts.

If the responsibility to obtain peak measurements in the plume has been accepted by license field monitoring teams, with concurrence from OROs, there is no requirement for these measurements to be repeated by State and local monitoring teams. If the license teams do not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all field teams (licensee, federal, and ORO) is essential. Coordination concerning transfer of samples, including a chain-of-custody form, to a radiological laboratory should be demonstrated.

OROs should use Federal resources as identified in the Federal Radiological Emergency Response Plan (FRERP), and other resources (e.g., compacts, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

NEW HAMPSHIRE EXTENT OF PLAY

In accordance with the NHRERP, field monitoring teams pick up their equipment and are dispatched from DPHS Headquarters in Concord by the DPHS Accident Assessment Team. Upon their arrival at the EOF, or while en-route, monitoring teams may receive assignments from the joint state/utility monitoring team dispatcher, who is located in the EOF. The joint state/utility monitoring team dispatcher coordinates the activity of state and utility monitoring teams. The DPHS EOF RHTA, in coordination with the joint monitoring team dispatcher, is responsible for coordinating the monitoring teams' strategy. This coordination occurs at the EOF in Newington. This activity will occur real time out of sequence.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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.8. 9., 11.)

EXTENT OF PLAY
Field teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates to the field team coordinator, dose assessment, or other appropriate authority. If samples have radioactivity significantly above background, the appropriate authority should consider the need for expedited laboratory analyses of these samples. OROs should share data in a timely manner with all appropriate OROs. The methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO plan and/or procedures.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g., compacts, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

NEW HAMPSHIRE EXTENT OF PLAY

Each of the deployed monitoring teams will demonstrate the implementation of their procedures for taking measurements and collecting particulate samples at one location selected by accident assessment team via the joint monitoring team dispatcher.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to assess the actual or potential magnitude and locations of radiological hazards in the ingestion emergency planning zone (IPZ) and for relocation, re-entry and return measures.

This sub-element focuses on the collection of environmental samples for laboratory analyses that are essential for decisions on protection of the public from contaminated food and water and direct radiation from deposited materials.

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

EXTENT OF PLAY
The ORO field teams should demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support re-entry, relocation, and return decisions. When resources are available, the use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO's plan and/or procedures.

Ingestion pathway samples should be secured from agricultural products and water. Samples in support of relocation and return should be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

NEW HAMPSHIRE EXTENT OF PLAY

This exercise is limited to plume exposure pathway activity.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Sub-element 4.c - Laboratory Operations

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to perform laboratory analyses of radioactivity in air, liquid, and environmental samples to support protective action decision-making.

Criterion 4.c.1: The laboratory is capable of performing required radiological analyses to support protective action decisions. (NUREG-0654, C.3., I.8., 9., J.11)

EXTENT OF PLAY
The laboratory staff should demonstrate the capability to follow appropriate procedures for receiving samples, including logging of information, preventing contamination of the laboratory, preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil (e.g., milk), and keeping track of sample identity. In addition, the laboratory staff should demonstrate the capability to prepare samples for conducting measurements.

The laboratory should be appropriately equipped to provide analyses of media, as requested, on a timely basis, of sufficient quality and sensitivity to support assessments and decisions as anticipated by the ORO's plans and procedures. The laboratory instrument calibrations should be traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides released in a reactor incident should be as described in the plans and procedures.

New or revised methods may be used to analyze atypical radionuclide releases (e.g. transuranics or as a result of a terrorist event) or if warranted by circumstances of the event. Analysis may require resources beyond those of the ORO.

The laboratory staff is qualified in radioanalytical techniques and contamination control procedures.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g. compacts, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

NEW HAMPSHIRE EXTENT OF PLAY

This exercise is limited to plume exposure pathway activity.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide prompt instructions to the public within the plume pathway EPZ. Specific provisions addressed in this sub-element are derived from the Nuclear Regulatory Commission

(NRC) regulations (10 CFR Part 50, Appendix E.IV.D.), and FEMA-REP-10, "Guide for the Evaluation of Alert and Notification systems for Nuclear Power Plants."

> ***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 & NUREG-0654, E. 1., 4., 5., 6., 7.)***

EXTENT OF PLAY
Responsible OROs should demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume pathway EPZ. Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, completion of system activation should be accomplished in a timely manner ***(will not be subject to specific time requirements)*** *for primary alerting/notification. The initial message should include the elements required by current FEMA REP guidance.*

For exercise purposes, timely is defined as "the responsible ORO personnel/ representatives demonstrate actions to disseminate the appropriate information/ instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Procedures to broadcast the message should be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast of the message(s) or test messages ***is not required****. The alert signal activation may be simulated. However, the procedures should be demonstrated up to the point of actual activation.*

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should be verified during an interview with appropriate personnel from the primary notification system.

NEW HAMPSHIRE EXTENT OF PLAY

Emergency notification and public information will be disseminated to the public in accordance with the NHRERP.

The sounding of sirens and broadcast of EAS/EPI messages will be simulated. EAS/EPI messages will be formulated and distributed by the New Hampshire EOC. Activation of the EAS system will be coordinated with Massachusetts' officials. WOKQ will receive EAS/EPI messages but will not broadcast them. **Broadcast will be simulated.** EPZ communities will demonstrate this objective through the receipt of siren and EAS activation times from their local liaisons in the IFO and will demonstrate their capability to monitor EAS stations and EPI outlets.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Criterion 5.a.2: RESERVED

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654, E. 6., Appendix 3.B.2.c)

EXTENT OF PLAY
OROs with FEMA-approved exception areas (identified in the approved Alert and Notification System Design Report) 5-10 miles from the nuclear power plant should demonstrate the capability to accomplish primary alerting and notification of the exception area(s) within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The 45-minute clock will begin when the OROs make the decision to activate the alert and notification system for the first time for a specific emergency situation. The initial message should, at a minimum, include: a statement that an emergency exists at the plant and where to obtain additional information.

For exception area alerting, at least one route needs to be demonstrated and evaluated. The selected routes should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (e.g., the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed upon location.

Backup alert and notification of the public should be completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. Backup route alerting needs only be demonstrated and evaluated, in accordance with the ORO's plan and/or procedures and the extent of play agreement, if the exercise scenario calls for failure of any portion of the primary system(s), or if any portion of the primary system(s) actually fails to function. If demonstrated, only one route needs to be selected and demonstrated. All alert and notification activities along the route should be simulated (e.g., the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the Public Address system will be conducted at some agreed upon location.

NEW HAMPSHIRE EXTENT OF PLAY

There are no populated FEMA approved exception areas in the Seabrook Station Emergency Planning Zone. This criterion is not applicable.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

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

INTENT

This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to disseminate to the public appropriate emergency information and instructions including any recommended protective actions. In addition, NUREG-0654 provides that OROs should ensure the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 also provides that a system be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

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,a.,b.,c.)

EXTENT OF PLAY

Subsequent emergency information and instructions should be provided to the public and the media in a timely manner ***(will not be subject to specific time requirements)****. For exercise purposes, timely is defined as "the responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate when evacuating, information concerning pets, shelter-in-place instructions, information/instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.*

The OROs should ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The emergency information should contain all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take information concerning protective actions for schools and special populations, public inquiry telephone number, etc.) to assist the public in carrying out protective action decisions provided to them. OROs should demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion pathway EPZs. This includes demonstration of the capability to use familiar landmarks and boundaries to describe protective action areas.

The emergency information should be all-inclusive by including previously identified protective action areas that are still valid as well as new areas. The OROs should demonstrate the capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media. In addition, the OROs should demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plan and/or procedures.

OROs should demonstrate the capability to develop emergency information in a non-English language when required by the plan and/or procedures.

If ingestion pathway measures are exercised, OROs should demonstrate that a system exists for rapid dissemination of ingestion pathway information to pre-determined individuals and businesses in accordance with the ORO's plan and/or procedures.

OROs should demonstrate the capability to provide timely, accurate, concise, and coordinated information to the news media for subsequent dissemination to the public. This would include demonstration of the capability to conduct timely and pertinent media briefings and distribute media releases as the situation warrants. The OROs should demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and media releases should be consistent with protective action decisions and other emergency information provided to the public.

Copies of pertinent emergency information (e.g., EAS messages and media releases) and media information kits should be available for dissemination to the media.

OROs should demonstrate that an effective system is in place for dealing with calls to the public inquiry hotline. Hotline staff should demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate information source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, should be included, as appropriate, in emergency information provided to the public, media briefings, and/or media releases.

NEW HAMPSHIRE EXTENT OF PLAY

The primary responsibility for briefing the media with respect to off site activities in New Hampshire lies with the state. The State EOC and the JIC are the facilities where this process takes place. The JIC facility is jointly operated among the states the utility and federal response agencies. Controllers at these facilities will simulate media inquiries.

New Hampshire will coordinate its' media information with Massachusetts and Seabrook Station personnel at the JIC, which is co-located with the EOF/IFO facility in Newington, N.H.

New Hampshire EPZ municipalities do not have representatives at the JIC. EPZ municipal officials may respond to questions about local emergency response but are encouraged to refer press inquiries to the JIC. A controller message will be generated for each community to initiate a response and referral to media inquiries made to local officials.

A Public Inquiry line is established to provide members of the public with a supplemental source of accurate emergency information. A control cell will provide incoming calls. Calls to the public inquiry call center will occur when a Site Area Emergency and/or General Emergency emergency classification level (ECL) is reached during the course of the exercise.

Public Inquiry personnel will provide callers with accurate information and screen calls for trends. Communities will refer calls that address issues beyond local jurisdiction to the Public Inquiry center. A controller message will be generated for each community to initiate a response and referral of to the public inquiry call center. WOKQ repeats New Hampshire Emergency Public Information Messages every fifteen minutes until they are changed by the state. **The repetition or broadcast of any exercise messages will be simulated for the purposes of this exercise**

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 57-06-5.b.1-A-02 ** UNRESOLVED

CONDITION: *The Exeter Emergency Operations Center (EOC) issued an untimely news release that misinformed the public on important information concerning student status, and didn't correct it in a timely manner.*

REASON ISSUE UNRESOLVED: *Although the same type of message was not issued by the Exeter EOC during the November 5, 2008 exercise, the Exeter Emergency Management Director and Town Manager did not assign the Public Information Officer (PIO) responsibility to any staff member during the exercise as required by NHRERP Volume 23/Revision 13, "Exeter Plan Information and Implementing Procedures," Section 3.15, "Emergency Procedures – Public Information Officer."*

RECOMMENDATION: *Ensure that a PIO is assigned to the Exeter EOC, and that the development of a press release by the Exeter EOC addressing local conditions, including the implementation of precautionary actions by the School Administrative Unit #16 is done.*

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs have the capability to implement radiological monitoring and decontamination of evacuees and emergency workers, while minimizing contamination of the facility, and registration of evacuees at reception centers.

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.; K.5.b.)

EXTENT OF PLAY

Radiological monitoring, decontamination, and registration facilities for evacuees/ emergency workers should be set up and demonstrated as they would be in an actual emergency or as indicated in the extent of play agreement. This would include adequate space for evacuees' vehicles. Expected demonstration should include 1/3 of the monitoring teams/portal monitors required to monitor 20% of the population allocated to the facility within 12 hours. Prior to using a monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation.

Staff responsible for the radiological monitoring of evacuees should demonstrate the capability to attain and sustain a monitoring productivity rate per hour needed to monitor the 20% emergency planning zone (EPZ) population planning base within about 12 hours. This monitoring productivity rate per hour is the number of evacuees that can be monitored per hour by the total complement of monitors using an appropriate monitoring procedure.

A minimum of six individuals per monitoring station should be monitored, using equipment and procedures specified in the plan and/or procedures, to allow demonstration of monitoring, decontamination, and registration capabilities.

The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators in order to determine whether the twelve-hour requirement can be met. Monitoring of emergency workers does not have to meet the twelve-hour requirement. However, appropriate monitoring procedures should be demonstrated for a minimum of two emergency workers.

Decontamination of evacuees/emergency workers may be simulated and conducted by interview. The availability of provisions for separately showering should be demonstrated or explained. The staff should demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs and appropriate means (e.g. partitions, roped-off areas) to separate clean from potentially contaminated areas. Provisions should also exist to separate contaminated and uncontaminated individuals, provide changes of clothing for individuals whose clothing is contaminated, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any individual found to be contaminated, procedures should be discussed concerning the handling of potential contamination of vehicles and personal belongings.

Monitoring personnel should explain the use of action levels for determining the need for decontamination. They should also explain the procedures for referring evacuees who cannot be adequately decontaminated for assessment and follow up in accordance with the ORO's plans and procedures. Contamination of the individual will be determined by controller inject and not simulated with any low-level radiation source.

The capability to register individuals upon completion of the monitoring and decontamination activities should be demonstrated. The registration activities demonstrated should include the establishment of a registration record for each individual, consisting of the individual's name, address, results of monitoring, and time of decontamination, if any, or as otherwise designated in

the plan. Audio recorders, camcorders, or written records are all acceptable means for registration.

NEW HAMPSHIRE EXTENT OF PLAY

Manchester Memorial High School and Dover Middle School will demonstrate their ability to operate reception/monitoring/decontamination center facilities for the general public and emergency workers. This demonstration will take place independently and out of sequence. Portal monitors for all location will be demonstrated. Seven simulated evacuees (one male and one female "contaminated") at each facility will be processed during the demonstration. The seven evacuees may be processed sequentially.

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

57-04-6.A.1-A-09 *Southside Middle School – Manchester Reception Center - Vehicle Monitoring team members at the Manchester South Middle School Reception Center did not adequately demonstrate the procedures to determine if the Victoreen Survey Meters, Model 493 were correctly operating, utilizing the data on the range of reading calibration label.*

ISSUE: 57-08-6.a.1/6.b.1-A-12

Condition: *The wrong form was used to record the monitoring results for vehicle monitoring at the Manchester County Reception/Monitoring/Decontamination Center at the Southside Middle School. New Hampshire does not have a version control system in place to ensure that procedures used in the field are the correct, approved procedures.*

Possible Cause: *In the forms section used by the Vehicle Monitoring Team, there were two forms labeled "Form 120 K." When the team asked their command center which one to use, they were told to use Form 120 C (which was an Incident Log Form). The form section provided as part of the exercise materials only contains one Form 120 K-VM (which is the proper form) and does not include a Form 120 C.*

References:

- *NUREG-0654, J.12; K.5.a, K.5.b, and P.5*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 5.7 "Reception Center Operations, Staff – Vehicle Monitoring"*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 13.0, "RERP Numbered Forms Section," Form 120 K-VM "Contaminated Vehicle Monitoring Report Form"*
- *NH RERP Volume 39/Revision 13, "Manchester Host Plan Information and Implementing Procedures," Section 4.0, "Monitoring/Decontamination Operations"*

Effect: *Incorrect information was collected for the monitoring of vehicles. Necessary actions may not be taken because the procedures or forms are incorrect.*

Recommendation: *Develop and implement a method for controlling/tracking procedures changes and distribution of those changes in accordance with*

ISSUE: 57-08-6.a.1/6.b.1-A-14

CONDITION: *The Vehicle Monitoring Team at the Rochester Middle School, Rochester, New Hampshire, could not perform the necessary actions to properly monitor a vehicle for contamination or indicate it was contaminated.*

Specifically, the team could not perform an operational check of the survey meters by utilizing the data on the range of reading calibration label. They did not know how to determine a background reading. They had limited knowledge of why the operators needed to use the headphones along with the various meter scales and how the scales are read for determining contaminated vehicles and equipment. They did not perform the monitoring of the vehicle in accordance with procedure (the probe speed exceeded one inch per second). When told that a vehicle was contaminated, they did not mark the vehicle or isolate it according to the procedure.

POSSIBLE CAUSE: *Insufficient training of monitoring personnel in the use of the survey instruments and monitoring procedures.*

REFERENCE:

- *NUREG-0654: J.10.h.; K.5.b.*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 5.7 "Reception Center Operations, Staff – Vehicle Monitoring"*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 13.0, "RERP Numbered Forms Section," Form 120 K-VM "Contaminated Vehicle Monitoring Report Form"*
- *NH RERP Volume 40/Revision 13, "Rochester Host Plan Information and Implementing Procedures," Section 4.0, "Monitoring/Decontamination Operations"*

EFFECT: *The inability to properly operate the instrument and perform monitoring activities would allow possibly contaminated vehicles and equipment to be used and spread contamination to people and the environment.*

RECOMMENDATION: *Conduct in depth training for the Vehicle Monitoring Teams.*

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

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs have the capability to implement radiological monitoring and decontamination of emergency worker equipment, including vehicles.

> ***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
The monitoring staff should demonstrate the capability to monitor equipment, including vehicles, for contamination in accordance with the ORO's plans and procedures. Specific attention should be given to equipment, including vehicles, that was in contact with individuals found to be contaminated. The monitoring staff should demonstrate the capability to make decisions on the need for decontamination of equipment including vehicles based on guidance levels and procedures stated in the plan and/or procedures.

The area to be used for monitoring and decontamination should be set up as it would be in an actual emergency, with all route markings instrumentation, record keeping and contamination control measures in place. Monitoring procedures should be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as air intake systems, radiator grills, bumpers, wheel wells, tires, and door handles should be demonstrated. Interior surfaces of vehicles that were in contact with individuals found to be contaminated should also be checked.

Decontamination capabilities, and provisions for vehicles and equipment that cannot be decontaminated, may be simulated and conducted by interview.

NEW HAMPSHIRE EXTENT OF PLAY

Manchester Memorial High School and Dover Middle School will demonstrate their ability to operate reception/monitoring/decontamination center facilities for the general public and emergency workers. This demonstration will take place independently and out of sequence. Seven simulated evacuees (one male and one female "contaminated") at each facility will be processed during the demonstration.

AREAS REQUIRING CORRECTIVE ACTION (ARCA):

ISSUE: 57-08-6.a.1/6.b.1-A-12

> ***Condition:*** *The wrong form was used to record the monitoring results for vehicle monitoring at the Manchester County Reception/Monitoring/Decontamination*

Center at the Southside Middle School. New Hampshire does not have a version control system in place to ensure that procedures used in the field are the correct, approved procedures.

Possible Cause: *In the forms section used by the Vehicle Monitoring Team, there were two forms labeled "Form 120 K." When the team asked their command center which one to use, they were told to use Form 120 C (which was an Incident Log Form). The form section provided as part of the exercise materials only contains one Form 120 K-VM (which is the proper form) and does not include a Form 120 C.*

References:
- *NUREG-0654, J.12; K.5.a, K.5.b, and P.5*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 5.7 "Reception Center Operations, Staff – Vehicle Monitoring"*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 13.0, "RERP Numbered Forms Section," Form 120 K-VM "Contaminated Vehicle Monitoring Report Form"*
- *NH RERP Volume 39/Revision 13, "Manchester Host Plan Information and Implementing Procedures," Section 4.0, "Monitoring/Decontamination Operations"*

Effect: *Incorrect information was collected for the monitoring of vehicles. Necessary actions may not be taken because the procedures or forms are incorrect.*

Recommendation: *Develop and implement a method for controlling/tracking procedures changes and distribution of those changes in accordance with*

ISSUE: 57-08-6.a.1/6.b.1-A-14

CONDITION: *The Vehicle Monitoring Team at the Rochester Middle School, Rochester, New Hampshire, could not perform the necessary actions to properly monitor a vehicle for contamination or indicate it was contaminated.*

Specifically, the team could not perform an operational check of the survey meters by utilizing the data on the range of reading calibration label. They did not know how to determine a background reading. They had limited knowledge of why the operators needed to use the headphones along with the various meter scales and how the scales are read for determining contaminated vehicles and equipment. They did not perform the monitoring of the vehicle in accordance with procedure (the probe speed exceeded one inch per second). When told that a vehicle was contaminated, they did not mark the vehicle or isolate it according to the procedure.

POSSIBLE CAUSE: *Insufficient training of monitoring personnel in the use of the survey instruments and monitoring procedures.*

REFERENCE:
- *NUREG-0654: J.10.h.; K.5.b.*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 5.7 "Reception Center Operations, Staff – Vehicle Monitoring"*
- *NH RERP Volume 8/Revision 13, "State and Local Functional Implementing Procedures," Section 13.0, "RERP Numbered Forms Section," Form 120 K-VM "Contaminated Vehicle Monitoring Report Form"*
- *NH RERP Volume 40/Revision 13, "Rochester Host Plan Information and Implementing Procedures," Section 4.0, "Monitoring/Decontamination Operations"*

EFFECT: *The inability to properly operate the instrument and perform monitoring activities would allow possibly contaminated vehicles and equipment to be used and spread contamination to people and the environment.*

RECOMMENDATION: *Conduct in depth training for the Vehicle Monitoring Teams.*

Sub-element 6.c – Temporary Care of Evacuees

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs demonstrate the capability to establish relocation centers in host areas. Congregate care is normally provided in support of OROs by the American Red Cross under existing letters of agreement.

> ***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., 12.)***

EXTENT OF PLAY
Under this criterion, demonstration of congregate care centers may be conducted out of sequence with the exercise scenario. The evaluator should conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with ARC 3031 ***In this simulation, it is not necessary to set up operations, as they would be in an actual emergency.*** *Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences*

between demonstration and simulation of this criterion, exercise demonstration expectations should be clearly specified in extent-of-play agreements.

Congregate care staff should also demonstrate the capability to ensure that evacuees have been monitored for contamination, have been decontaminated as appropriate, and have been registered before entering the facility. This capability may be determined through an interview process. If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility(ies). However, availability of such items should be verified by providing the evaluator a list of sources with locations and estimates of quantities.

NEW HAMPSHIRE EXTENT OF PLAY

Congregate care centers will not be activated. Current shelter surveys will be provided to FEMA for review.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

Sub-element 6.d – Transportation and treatment of Contaminated Injured Individuals

INTENT
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

> ***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
Monitoring, decontamination, and contamination control efforts will not delay urgent medical care for the simulated victim.

OROs should demonstrate the capability to transport contaminated injured individuals to medical facilities. An ambulance should be used for the response to the victim. However, to avoid taking an ambulance out of service, any vehicle (e.g., car, truck, or ambulance) may be utilized to transport a simulated victim to the medical facility. Normal communications between the ambulance/ dispatcher and the receiving medical facility should be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur prior to releasing the ambulance from the drill. This would include reporting radiation monitoring results, if available.

Additionally, the ambulance crew should demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the simulated victim may be performed prior to transport, done enroute, or deferred to the medical facility. Prior to using a monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities should be completed, as they would be in an actual emergency.

Appropriate contamination control measures should be demonstrated prior to and during transport and at the receiving medical facility.

The medical facility should demonstrate the capability to activate and set up a radiological emergency area for treatment. Equipment and supplies should be available for the treatment of contaminated injured individuals.

The medical facility should demonstrate the capability to activate and set up a radiological emergency area for treatment. Equipment and supplies should be available for the treatment of contaminated injured individuals. The medical facility should demonstrate the capability to make decisions on the need for decontamination of the individual, to follow appropriate decontamination procedures, and to maintain records of all survey measurements and samples taken. All procedures for the collection and analysis of samples and the decontamination of the individual should be demonstrated or described to the evaluator.

NEW HAMPSHIRE EXTENT OF PLAY

This Evaluation Area will be demonstrated December '09 MS-1 Drill at the Wentworth-Douglass located in Rochester, N.H.

AREAS REQUIRING CORRECTIVE ACTION (ARCA): N/A

MASSACHUSETTS
EVALUATION AREAS AND EXTENT OF PLAY

Overview

The following organizations/locations will demonstrate in 2010:

State Emergency Operations Center
Massachusetts Emergency Management Agency
Massachusetts Department of Public Health
Massachusetts State Police
Massachusetts Department of Transportation (DOT)
Massachusetts National Guard
Massachusetts Department of Mental Health
Massachusetts Department of Agricultural Resources
Office of the Secretary of the Commonwealth
American Red Cross
Federal Emergency Management Agency Region I
NextEra Energy Seabrook Station
MASS 211 Call Center

Region I Emergency Operations Center
Massachusetts Emergency Management Agency – Region I
Massachusetts State Police – Troop A
Massachusetts Department of Transportation (DOT)
Massachusetts Department of Mental Health
American Red Cross
Central Medical Emergency Direction (C-Med)
Region I EOC volunteer staff
RACES volunteer staff

Emergency Operations Facility
Massachusetts Emergency Management Agency
Massachusetts Department of Public Health/Radiation Control Program
NextEra Energy Seabrook Station

Radiological Field Monitoring and Sampling Teams
Massachusetts Department of Public Health/Radiation Control Program
NextEra Energy Seabrook Station

Joint Information Center
Massachusetts Emergency Management Agency
NextEra Energy Seabrook Station

EAS Radio Station

WBZ 1030 AM
WMKK 93.7 FM
WXRV 92.5 FM
WNBP 1450 AM

Risk Jurisdictions
Amesbury EOC
Merrimac EOC
Newbury EOC
Newburyport EOC
Salisbury EOC
West Newbury EOC

The following demonstrations will be conducted out of sequence between March 1 – 19, 2010:

State Police Troop A, Danvers: March 18th (T).

MassHighway Department, Scotland Rd, Newbury: March 18th (T).

School Superintendents:

Newburyport Superintendent	March 1st (T)
Amesbury Superintendent	March 8th (T)
Triton Superintendent	March 10th (T)
Pentucket Superintendent	March 16th (T)

Schools (Note: * Denotes KI participation):

Amesbury:

Amesbury Elementary*	March 8th (T)
Amesbury High School*	March 8th (T)

Merrimac:

Dr. F N Sweetsir School*	March 2nd (T)

Newbury:

Governor's Academy*	March 10th (T)
Newbury Elementary*	March 10th (T)

Newburyport:

River Valley Charter School*	March 1st (T)
Brown Early Learning Center*	March 1st (T)

Salisbury:

Salisbury Elementary*	March 10th (T)

West Newbury:

Pentucket High School*	March 16th (T)
Dr. John C. Page School*	March 16th (T)

Day Cares (Note: *Denotes KI participation):

Newburyport:

Bright Horizons	March 1st (T)
Knoll Edge Nursery	March 1st (T)
YMCA-Schools Out	March 1st (T)

Salisbury:

Coastal Connections*	March 10th (T)

West Newbury:

Koinonia Preschool	March 16th (T)
Children's Castle	March 16th (T)

Special Facilities (Note: *Denotes KI participation):

Amesbury:

Hillside Rest Home*	March 8th (T)

Newburyport:

Heritage House	March 2nd (T)
Dare Family Services	March 2nd (T)

The following Transportation Staging Areas will demonstrate on

State Transportation Staging Area: June – June 5, 2009
Local Transportation Staging Areas: June – June 5, 2009

The following organizations/locations will NOT demonstrate in 2010:

Schools :

Amesbury:
Amesbury Middle School
Cashman School
Sparhawk School

Merrimac:
Helen R. Donoghue School

Newbury:
Triton Regional Middle & High School

Newburyport:
Bresnahan Elementary School
Immaculate Conception School
Newburyport High School
Rupert A Nock Middle School
E. G. Molin Upper Elementary School

Salisbury:
Sparhawk School @ North Campus

West Newbury:
Pentucket Regional Middle School

Day Cares:

Amesbury:
Amesbury Country Day
Educational Child Care
James Place, The Next Generation
Leaps and Bounds Pre-School(s)
Windmill Country Day

Merrimac:
Little People's Pre-School

Newburyport:
Community Action, Inc.
Kinder Care Learning Center(s)
Knoll Edge Nursery
Mrs. Murray's Nursery
Newburyport Montessori School

Salisbury:
Early Wonders Pre-School and Day Care
New Beginnings Learning Center, LLC

West Newbury:
Learning Tree Preschool
Pathways for Learning Preschool

Special Facilities:

Amesbury:

Amesbury Academy
Amesbury Residence
Camp Bauercrest
Elizabeth Calsey House & Assisted Living
Elizabeth Calsey House 2
Harbor Schools
Harborside Healthcare
Highland Group Home
Amesbury Village LLC
Amesbury Health Center

Merrimac:
Harbor Schools Star Program

Newbury:
Harbor Schools

Newburyport:
Brigham Manor
County Rehabilitation
Harborside Adult Health
Griffin House Home for Aged Men
Atria Merrimack Place
Newburyport Residence
Harbor Schools
Opportunity Works
Port Healthcare Center
Residential Options

Salisbury:
Assisted Living Center of Salisbury

MS-1 Hospital -- demonstrated on October 14, 2009

KI Dispensing Sites

Danvers Putnam Pantry
Lowell Memorial Cawley Stadium

Host Facilities

Minuteman Regional High School, Lexington
Methuen High School, Methuen
Marsh Grammar School, Methuen
Dewing Elementary School, Tewksbury
Tewksbury Memorial High School, Tewksbury
Wakefield High School, Wakefield
Shriner's Auditorium, Wilmington

Mass Care Shelters: There are no new or renovated shelters.

MEMA has requested implementation of "on the spot" corrections of issues as outlined in Recommendation Initiative 1.5 – Correct Issues Immediately. The request was approved by FEMA on TBD.

EVALUATION AREA 1: Emergency Operations Management

Sub-element 1.a – Mobilization

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to alert, notify, and mobilize emergency personnel and to activate and staff emergency facilities.

> ***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)***

Extent of Play
Responsible OROs should demonstrate the capability to receive notification of an emergency situation from the licensee, verify the notification, and contact, alert, and mobilize key emergency personnel in a timely manner. Responsible OROs should demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations. Activation of facilities should be completed in accordance with the plan and/or procedures. Pre-positioning of emergency personnel is appropriate, in accordance with the extent of play agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. Further, pre-positioning of staff for out-of-sequence demonstrations is appropriate in accordance with the extent of play agreement.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
State EOC—MEMA SEOC emergency staff, including the Massachusetts Emergency Management Team staff (MA Department of Public Health, MassHighway, MA Department of Mental Health, MA State Police, MA National Guard, American Red Cross), the State Public Information Line staff, the Federal Emergency Management Agency, and the Seabrook Nuclear Power Station Liaison will be prestaged at 0800 in the SEOC and upon notification, will report to the EOC, using a ten-minute per hour travel time. The MASS 211 Call Center will be activated for a nuclear power plant event at Seabrook Station. The notification process will be completed and call down rosters will be shown to the FEMA Evaluator.

Region I EOC—MEMA Region I EOC and emergency volunteer staff will prestaged at 0800 outside the Region I EOC and upon notification, will report to the Region I EOC, using a ten-minute per hour travel time. The notification process will be completed and call down rosters will be shown to the FEMA Evaluator.

Emergency Operations Facility (EOF)—MEMA and MDPH personnel will be prestaged in the area of the EOF and upon notification, will report to the EOF one hour later.

Joint Information Center (JIC)—MEMA personnel will be prestaged in the area of the JIC and upon notification, will report to the JIC one hour later.

NIAT Field Monitoring Team Personnel—Field Team personnel will be prestaged and upon notification, will report one hour later.

Local EOCs—Local EOC emergency response staff will be prestaged at 0800 outside the local EOC and upon notification, will report to the EOC, using a ten-minute per hour travel time.

State Transportation Staging Area – mobilization of personnel will be demonstrated by verifying availability of staff and obtaining an estimate time of arrival; however, no personnel will be deployed on May 5, 2010. State Transportation Staging Area staff will demonstrate on **June 5, 2009.** Call down roster will be shown to the FEMA Evaluator.

Sub-element 1.b – Facilities

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have facilities to support the emergency response.

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

Extent of Play
Facilities will only be specifically evaluated for this criterion if they are new or have substantial changes in structure or mission. Responsible OROs should demonstrate the availability of facilities that support the accomplishment of emergency operations. Some of the areas to be considered are: adequate space, furnishings, lighting, restrooms, ventilation, backup power and/or alternate facility (if required to support operations).

Facilities must be set up based on the ORO's plans and procedures and demonstrated, as they would be used in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
There are no new or renovated facilities within the Seabrook Massachusetts EPZ.

Areas Requiring Corrective Action (ARCA): N/A

Sub-element 1.c - Direction and Control

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to control their overall response to an emergency.

> ***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
Leadership personnel should demonstrate the ability to carry out essential functions of the response effort, for example: keeping the staff informed through periodic briefings and/or other means, coordinating with other appropriate OROs, and ensuring completion of requirements and requests.

All activities associated with direction and control must be performed based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless otherwise noted above or indicated in the extent of play agreement.

Massachusetts Extent of Play
If a community is directed to evacuate, EOC personnel will demonstrate continuity of government through a discussion of logistics with the FEMA Evaluator. Closing of the local EOC and relocation will be simulated.

Areas Requiring Corrective Action (ARCA): N/A

Sub-element 1.d – Communications Equipment

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should establish reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as the following: appropriate contiguous governments within the emergency planning zone (EPZ), Federal emergency response organizations, the licensee and its facilities, emergency operations centers (EOC), and field teams.

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
OROs will demonstrate that a primary and at least one backup system are fully functional at the beginning of an exercise. If a communications system or systems are not functional, but exercise performance is not affected, no exercise issue will be assessed. Communications equipment and procedures for facilities and field units should be used as needed for the transmission and receipt of exercise messages. All facilities and field teams should have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs should demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations.

OROs should ensure that a coordinated communication link for fixed and mobile medical support facilities exists. The specific communications capabilities of OROs should be commensurate with that specified in the response plan and/or procedures. Exercise scenarios could require the failure of a communications system and the use of an alternate system, as negotiated in the extent of play agreement.

All activities associated with the management of communications capabilities must be demonstrated based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless otherwise noted above or in the extent of play agreement.

Massachusetts Extent of Play
There are no exceptions to this sub-element. Contact with locations not playing will be simulated.

Areas Requiring Corrective Action (ARCA): N/A

Note: If, during the exercise, a participant demonstrates this sub-element unsatisfactorily, the FEMA Evaluator will inform the MEMA Controller. After an "on the spot" training by the local or State representative, the FEMA Evaluator will provide another opportunity to re-demonstrate the activity that day.

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have emergency equipment and supplies adequate to support the emergency response.

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

Equipment within the facility (facilities) should be sufficient and consistent with the role assigned to that facility in the ORO's plans and/or procedures in support of emergency operations. Use of maps and displays is encouraged.

All instruments, including air sampling flow meters (field teams only), should be inspected, inventoried, and operationally checked before each use. They should be calibrated in accordance with the manufacturer's recommendations (or at least annually for the unmodified CDV-700 series or if there are no manufacturer's recommendations for a specific instrument; modified CDV-700 instruments should be calibrated in accordance with the recommendation of the modification manufacturer). A label indicating such calibration should be on each instrument or verifiable by other means. Note: Field team equipment is evaluated under 4.a.1; radiological laboratory equipment under 4.c.1; reception center and emergency worker facilities' equipment is evaluated under 6.a.1; and ambulance and medical facilities' equipment is evaluated under 6.d.1.

Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers should be available for issuance to all categories of emergency workers that could be deployed from that facility. Appropriate direct-reading dosimetry should allow individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans and procedures.

Dosimetry should be inspected for electrical leakage at least annually and replaced, if necessary. CDV-138s, due to their documented history of electrical leakage problems, should be inspected for electrical leakage at least quarterly and replaced if necessary. This leakage testing will be verified during the exercise, through documentation submitted in the Annual Letter of Certification, and/or through a staff assistance visit.

Responsible OROs should demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers, as indicated on rosters; institutionalized individuals, as indicated in capacity lists for facilities; and, where stipulated by the plan and/or procedures, members of the general public (including transients) within the plume pathway EPZ.

Quantities of dosimetry and KI available and storage locations(s) will be confirmed by physical inspection at storage location(s) or through documentation of current inventory submitted during the exercise, provided in the Annual Letter of Certification submission, and/or verified during a Staff Assistance Visit. Available supplies of KI should be within the expiration date indicated on KI bottles or blister packs. As an alternative, the ORO may produce a letter from FEMA indicating that the KI supply remains potent, in accordance with Food and Drug Administration (FDA) guidance.

At locations where traffic and access control personnel are deployed, appropriate equipment (e.g., vehicles, barriers, traffic cones and signs, etc.) should be available or their availability described.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
Participating facilities will demonstrate that equipment, maps, displays, dosimetry, KI and other supplies are adequate and sufficient to support the emergency response.

FEMA will provide copies of the Annual Letter of Certification to evaluators as documentation of quarterly inventory and operational checks.

Areas Requiring Corrective Action (ARCA): N/A

Note: If, during the exercise, a participant demonstrates this sub-element unsatisfactorily, the FEMA Evaluator will inform the MEMA Controller. After an "on the spot" training by the local or State representative, the FEMA Evaluator will provide another opportunity to re-demonstrate the activity that day.

EVALUATION AREA 2: Protective Action Decision-Making

Sub-element 2.a - Emergency Worker Exposure Control

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (OROs) have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plans and procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency.

These limits include any pre-established administrative reporting limits (that take into consideration Total Effective Dose Equivalent or organ-specific limits) identified in the ORO's plans and procedures.

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. (NUREG-0654, K.4, J.10. e, f)

Extent of Play
OROs authorized to send emergency workers into the plume exposure pathway EPZ should demonstrate a capability to meet the criterion based on their emergency plans and procedures.

Responsible OROs should demonstrate the capability to make decisions concerning the authorization of exposure levels in excess of pre-authorized levels and to the number of emergency workers receiving radiation dose above pre-authorized levels.

As appropriate, OROs should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure, based on the ORO's plan and/or procedures or projected thyroid dose compared with the established Protective Action Guides (PAGs) for KI administration.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
There will be no exceptions to this sub-element.

Areas Requiring Corrective Action (ARCA): N/A

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to independently project integrated dose from exposure rates or other
information and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation. OROs base these choices on PAGs from the ORO's plans and procedures or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (e.g., other affected OROs), availability of appropriate in-place shelter, weather conditions, evacuation time estimates, and situations that create higher than normal risk from evacuation.

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 onsite and offsite environmental conditions. (NUREG-0654, I.8, 10 and Supplement 3)

Extent of Play
During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO should demonstrate the capability to use appropriate means, described in the plan and/or procedures, to develop protective action recommendations (PAR) for decision-makers based on available information and recommendations from the licensee and field monitoring data, if available.

When release and meteorological data are provided by the licensee, the ORO also considers these data. The ORO should demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PARs appropriate to the scenario. In all cases, calculation of projected dose should be demonstrated.

Projected doses should be related to quantities and units of the PAG to which they will be compared. PARs should be promptly transmitted to decision-makers in a prearranged format.

Differences greater than a factor of 10 between projected doses by the licensee and the ORO should be discussed with the licensee with respect to the input data and assumptions used, the use of different models, or other possible reasons. Resolution of these differences should be incorporated into the PAR if
timely and appropriate. The ORO should demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
There will be no exceptions to this sub-element.

Areas Requiring Corrective Action (ARCA): N/A

Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PAD) 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
Offsite Response Organizations (ORO) should have the capability to make both initial and subsequent PADs. They should demonstrate the capability to make initial PADs in a timely manner appropriate to the situation, based on notification from the licensee, assessment of plant status and releases, and PARs from the utility and ORO staff.

The dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. The decision-makers should demonstrate the capability to change protective actions as appropriate based on these projections.

If the ORO has determined that KI will be used as a protective measure for the general public under offsite plans, then the ORO should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for the general public to supplement sheltering and evacuation. This decision should be based on the ORO's plan and/or procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process should involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision-making, OROs should communicate and coordinate PADs with affected OROs. OROs should demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.

All decision-making activities by ORO personnel must be performed based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
There will be no exceptions to this sub-element.

Areas Requiring Corrective Action (ARCA): N/A

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to determine protective action recommendations, including evacuation, sheltering and use of potassium iodide (KI), if applicable, for special population groups (e.g., hospitals, nursing homes, correctional facilities, schools, licensed day care centers, mobility impaired individuals, and transportation dependent individuals). Focus is on those special population groups that are (or potentially will be) affected by a radiological release from a nuclear power plant.

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

Extent of Play
Usually, it is appropriate to implement evacuation in areas where doses are projected to exceed the lower end of the range of PAGs, except for situations where there is a high-risk environment or where high-risk

groups (e.g., the immobile or infirm) are involved. In these cases, examples of factors that should be considered are: weather conditions, shelter availability, availability of transportation assets, risk of evacuation vs. risk from the avoided dose, and precautionary school evacuations. In situations where an institutionalized population cannot be evacuated, the administration of KI should be considered by the OROs.

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
There will be no exceptions to this sub-element.

Areas Requiring Corrective Action (ARCA): N/A

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate PAGs, and make timely, appropriate protective action decisions to mitigate exposure from the ingestion pathway.

During an accident at a nuclear power plant, a release of radioactive material may contaminate water supplies and agricultural products in the surrounding areas. Any such contamination would likely occur during the plume phase of the accident and, depending on the nature of the release, could impact the ingestion pathway for weeks or years.

Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria. (NUREG-0654, J.11)

Extent of Play
It is expected that the Offsite Response Organizations (ORO) will take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans and procedures. Often such precautionary actions are initiated by the OROs based on criteria related to the facility's Emergency Classification Levels (ECL). Such actions may include recommendations to place milk animals on stored feed and to use protected water supplies.

The ORO should use its procedures (for example, development of a sampling plan) to assess the radiological consequences of a release on the food and water supplies. The ORO's assessment should include the evaluation of the radiological analyses of representative samples of water, food,

and other ingestible substances of local interest from potentially impacted areas, the characterization of the releases from the facility, and the extent of areas potentially impacted by the release. During this assessment, OROs should consider the use of agricultural and watershed data within the 50-mile EPZ. The radiological impacts on the food and water should then be compared to the appropriate ingestion PAGs contained in the ORO's plan and/or procedures. (The plan and/or procedures may contain PAGs based on specific dose commitment criteria or based on criteria as recommended by current Food and Drug Administration guidance.) Timely and appropriate recommendations should be provided to the ORO decision-makers group for implementation decisions. As time permits, the ORO may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO should demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information available. Any such decisions should be communicated and, to the extent practical, coordinated with neighboring and local OROs.

OROs should use Federal resources, as identified in the Federal Radiological Emergency Response Plan (FRERP), and other resources (e.g., compacts, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This sub-element will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

Sub-element 2.e. – Rad Assessment/Decision-Making Concerning Relocation, Re-entry, and Return

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to make decisions on relocation, re-entry, and return of the general public. These decisions are essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a nuclear power plant.

Criterion 2.e.1: Timely relocation, re-entry, 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, I.10; M.1)

Extent of Play

Relocation: *OROs should demonstrate the capability to estimate integrated dose in contaminated areas and to compare these estimates with PAGs, apply decision criteria for relocation of those individuals in the general public who have not been evacuated but where projected doses are in excess of relocation PAGs, and control access to evacuated and restricted areas. Decisions are made for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs.*

Determination of areas to be restricted should be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates vs. the PAGs, and field samples of vegetation and soil analyses.

Re-entry: *Decisions should be made regarding the location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to temporarily enter the evacuated area to perform specific tasks or missions.*

Examples of control procedures are: the assignment of, or checking for, direct-reading and non-direct-reading dosimetry for emergency workers; questions regarding the individual's objectives and locations expected to be visited and associated time frames; availability of maps and plots of radiation exposure rates; advice on areas to avoid; and procedures for exit including: monitoring of individuals, vehicles, and equipment; decision criteria regarding decontamination; and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.

Responsible OROs should demonstrate the capability to develop a strategy for authorized re-entry of individuals into the restricted zone, based on established decision criteria. OROs should demonstrate the capability to modify those policies for security purposes (e.g., police patrols), for maintenance of essential services (e.g., fire protection and utilities), and for other critical functions. They should demonstrate the capability to use decision-making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for farm animals or secure machinery for storage), or to retrieve important possessions. Coordinated policies for access and exposure control should be developed among all agencies with roles to perform in the restricted zone.

OROs should demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed to re-enter the restricted zone. The extent that OROs need to develop policies on re-entry will be determined by scenario events.

Return: *Decisions are to be based on environmental data and political boundaries or physical/geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area that is based on the relocation PAG.*

Other factors that the ORO should consider are, for example: conditions that permit the cancellation of the Emergency Classification Level and the relaxation of associated restrictive

measures; basing return recommendations (i.e., permitting populations that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis) on measurements of radiation from ground deposition; and the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are: medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.

Massachusetts Extent of Play
This sub-element will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

EVALUATION AREA 3: Protective Action Implementation

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

Intent
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimetry and permanent record dosimetry; the reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; and establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of protective action guides, always applying the ALARA (As Low As is Reasonably Achievable) principle as appropriate.

> ***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
OROs should demonstrate the capability to provide appropriate direct-reading and permanent record dosimetry, dosimeter chargers, and instructions on the use of dosimetry to emergency workers. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows individual(s) to read the administrative reporting limits (that are pre-established at a level low enough to consider subsequent calculation of Total Effective Dose Equivalent) and maximum exposure limits (for those emergency workers involved in life saving activities) contained in the ORO's plans and procedures.

Each emergency worker should have the basic knowledge of radiation exposure limits as specified in the ORO's plan and/or procedures. Procedures to monitor and record dosimeter readings and to manage radiological exposure control should be demonstrated.

During a plume phase exercise, emergency workers should demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker should report accumulated exposures during the exercise as indicated in the plans and procedures. OROs should demonstrate the actions described in the plan and/or procedures by determining whether to replace the worker, to authorize the worker to incur additional exposures or to take other actions. If scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed and at what exposure levels. Emergency workers may use any available resources (e.g., written procedures and/or co-workers) in providing responses.

Although it is desirable for all emergency workers to each have a direct-reading dosimeter, there may be situations where team members will be in close proximity to each other during the entire mission and adequate control of exposure can be affected for all members of the team by one dosimeter worn by the team leader. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers, and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area. It should be noted that, even in these situations, each team member must still have their own permanent record dosimetry. Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must re-enter an evacuated area following or during the plume passage, should be limited to the lowest radiological exposure commensurate with completing their missions.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

State Police Troop A, Danvers: State Police traffic control personnel will demonstrate knowledge of emergency worker exposure limits and the use of dosimetry through a discussion with the FEMA Evaluator – **OUT OF SEQUENCE: MARCH 18th (T).**

EPZ EOCs: Dosimetry packets will be issued to five emergency workers in each EPZ EOC. Knowledge of the use of dosimetry will be demonstrated through an interview of these individuals by the FEMA Evaluator.

Areas Requiring Corrective Action (ARCA): N/A

Note: If, during the exercise, a participant demonstrates this sub-element unsatisfactorily, the FEMA Evaluator will inform the MEMA Controller. After an "on the spot" training by the local or State representative, the FEMA Evaluator will provide another opportunity to re-demonstrate the activity that day.

Sub-element 3.b – Implementation of KI Decision

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to provide radioprotective drugs for emergency workers, institutionalized individuals, and, if in the plan and/or procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to emergency workers and institutionalized individuals, the provision of KI to the general public is an ORO option and is reflected in ORO's plans and procedures. Provisions should include the availability of adequate quantities, storage, and means of the distribution of radioprotective drugs.

> ***Criterion 3.b.1: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained. (NUREG-0654, J. 10. e)***

Extent of Play

Offsite Response Organizations (ORO) should demonstrate the capability to make KI available to emergency workers, institutionalized individuals, and, where provided for in the ORO plan and/or procedures, to members of the general public. OROs should demonstrate the capability to accomplish distribution of KI consistent with decisions made. Organizations should have the capability to develop and maintain lists of emergency workers and institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. The ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI is not necessary. OROs should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those advised to take it. If a recommendation is made for the

general public to take KI, appropriate information should be provided to the public by the means of notification specified in the ORO's plan and/or procedures.

Emergency workers should demonstrate the basic knowledge of procedures for the use of KI whether or not the scenario drives the use of KI. This can be accomplished by an interview with the evaluator.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

Actual distribution and ingestion of KI will not occur. Empty KI tablet containers (small zip-lock bags) will be included in the dosimetry packets for emergency workers and institutionalized persons.

Schools, day cares, and special facility staff who administer KI will be interviewed by the FEMA Evaluator – **(See Sub-element 3.c)**

Areas Requiring Corrective Action (ARCA): N/A

Note: If, during the exercise, a participant demonstrates this sub-element unsatisfactorily, the FEMA Evaluator will inform the MEMA Controller. After an "on the spot" training by the local or State representative, the FEMA Evaluator will provide another opportunity to re-demonstrate the activity that day.

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to implement protective action decisions, including evacuation and/or sheltering, for all special populations. Focus is on those special populations that are (or potentially will be) affected by a radiological release from a nuclear power plant.

> ***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)***

Extent of Play
Applicable OROs should demonstrate the capability to alert and notify (e.g., provide protective action recommendations and emergency information and instructions) special populations (hospitals, nursing homes, correctional facilities, mobility impaired individuals, transportation dependent, etc.). OROs should demonstrate the capability to provide for the needs of special populations in accordance with the ORO's plans and procedures.

Contact with special populations and reception facilities may be actual or simulated, as agreed to in the Extent of Play. Some contacts with transportation providers should be actual, as negotiated in the extent of play. All actual and simulated contacts should be logged.

All implementing activities associated with protective actions for special populations must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

Region I: Initial calls to Transportation Providers will be made to verify telephone number and contact person. Default numbers from the Resource Manual will be used to determine transportation requirements. No vehicles or personnel will be mobilized. A list of the Transportation Providers from the Resource Manual will be provided to the FEMA Evaluator.

Region I Special Needs Coordinator and staff will demonstrate all appropriate communications with EPZ community EOC staff and coordination of bed space assignment for evacuating nursing home patients and hospital patients, although actual evacuation of special facilities will not occur. Default numbers from the Resource Manual will be used.

EPZ EOCs: All special facilities will receive initial contact only to verify attendance (to be logged for comparison to default number). Default numbers will be used from the Resource Manual for exercise play. Follow-up calls will be **simulated** and logged. Participating special facilities will be interviewed by a FEMA Evaluator.

Transportation Coordinators will report to Region I the number of additional beds needed to accommodate patients from each participating facility that may be directed to evacuate; however, no patients will actually be moved or be impacted in any way. Default numbers from the Resource Manual will be used to determine number of beds needed.

The list of special needs individuals will be shown to the FEMA evaluator; however, the information is confidential and copies will not be provided to the evaluator. All calls will be **simulated** and logged. If the list has a request for TTY notification, then the TTY will be demonstrated per procedure. Amesbury and Newburyport will demonstrate the capability to correctly operate a TTY by sending and receiving one test message to and from the Region I EOC; all other communities requiring use of TTY notification will be demonstrated by contacting the Region I EOC, who will simulate making the TTY notification for the community.

The following special facilities will participate **OUT OF SEQUENCE** by a FEMA Evaluator, who will interview key players.

Special Facilities (Note: *Denotes KI participation):

Amesbury:
Hillside Rest Home* March 8th (T)

Newburyport:
Heritage House March 2nd (T)
Dare Family Services March 2nd (T)

Areas Requiring Corrective Action (ARCA): N/A

Note: If, during the exercise, a participant demonstrates this sub-element unsatisfactorily, the FEMA Evaluator will inform the MEMA Controller. After an "on the spot" training by the local or State representative, the FEMA Evaluator will provide another opportunity to re-demonstrate the activity that day.

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

Extent of Play
Applicable OROs should demonstrate the capability to alert and notify all public school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students. Contacts with public school systems/districts must be actual.

In accordance with plans and/or procedures, OROs and/or officials of public school systems/districts should demonstrate the capability to make prompt decisions on protective actions for students. Officials should demonstrate that the decision making process for protective actions considers (i.e., either accepts automatically or gives heavy weight to) protective action recommendations made by ORO personnel, the ECL at which these recommendations are received, preplanned strategies for protective actions for that ECL, and the location of students at the time (e.g., whether the students are still at home, en route to the school, or at the school).

Public school systems/districts shall demonstrate the ability to implement protective action decisions for students. The demonstration shall be made as follows: At least one school in each affected school system or district, as appropriate, needs to demonstrate the implementation of protective actions. The implementation of canceling the school day, dismissing early, or sheltering should be simulated by describing to evaluators the procedures that would be followed. If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to reception centers, congregate care centers, or host schools may actually be demonstrated or accomplished through an interview process. If accomplished through an interview process, appropriate school personnel including decision making officials (e.g., superintendent/principal, transportation director/bus dispatcher), and at least one bus driver (and the bus driver's escort, if applicable) should be available to demonstrate knowledge of their role(s) in the evacuation of school children.

Communications capabilities between school officials and the buses, if required by the plan and/or procedures, should be verified.

Officials of the school system(s) should demonstrate the capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the media on the status of protective actions for schools.

The provisions of this criterion also apply to any private schools, private kindergartens and day care centers that participate in REP exercises pursuant to the ORO's plans and procedures as negotiated in the Extent of Play Agreement.

All activities must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

EPZ EOCs: Initial notification will be made to all school superintendents who will contact each school and day care per procedure to obtain attendance (information to be logged for comparison to default numbers). Default numbers for the Resource Manual will be used for exercise play. Follow-up calls will be **simulated** and logged.

School Superintendents:

Newburyport Superintendent	March 1st (T)
Amesbury Superintendent	March 8th (T)
Triton Superintendent	March 10th (T)
Pentucket Superintendent	March 16th (T)

Schools: Participating facilities will be visited **out of sequence** by a FEMA Evaluator who will interview key players (and if the site's plan calls for KI, responsible staff).

Schools (Note: * Denotes KI participation):

Amesbury:

Amesbury Elementary*	March 8th (T)
Amesbury High School*	March 8th (T)

Merrimac:

Dr. F N Sweetsir School*	March 2nd (T)

Newbury:

Governor's Academy*	March 10th (T)
Newbury Elementary*	March 10th (T)

Newburyport:

River Valley Charter School*	March 1st (T)
Brown Early Learning Center*	March 1st (T)

Salisbury:

Salisbury Elementary*	March 10th (T)

West Newbury:

Pentucket High School*	March 16th (T)
Dr. John C. Page School*	March 16th (T)

Day Care Centers: Participating facilities will be visited **out of sequence** between **March 1 – 19, 2010** by a FEMA Evaluator who will interview key players (and if the site's plan calls for KI, responsible staff).

Day Cares (Note: *Denotes KI participation):

Newburyport:	
Bright Horizons	March 1st (T)
Knoll Edge Nursery	March 1st (T)
YMCA-Schools Out	March 1st (T)
Salisbury:	
Coastal Connections*	March 10th (T)
West Newbury:	
Koinonia Preschool	March 16th (T)
Children's Castle	March 16th (T)

Areas Requiring Corrective Action (ARCA): N/A

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

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to implement protective action plans, including relocation and restriction of access to evacuated/sheltered areas. This sub-element focuses on selecting, establishing, and staffing of traffic and access control points and removal of impediments to the flow of evacuation traffic.

> ***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)***

Extent of Play

OROs should demonstrate the capability to select, establish, and staff appropriate traffic and access control points, consistent with protective action decisions (for example, evacuating, sheltering, and relocation), in a timely manner. OROs should demonstrate the capability to provide instructions to traffic and access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.

Traffic and access control staff should demonstrate accurate knowledge of their roles and responsibilities. This capability may be demonstrated by actual deployment or by interview, in accordance with the extent of play agreement.

In instances where OROs lack authority necessary to control access by certain types of traffic (rail, water, and air traffic), they should demonstrate the capability to contact the State or Federal agencies with authority to control access.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

State Police, Troop A, Danvers: Two personnel who might be assigned traffic and access control duties will be interviewed -- **OUT OF SEQUENCE: March 18, 2010** on the procedures for operating a traffic and access control point by the FEMA evaluator. No deployment to TCP/ACP locations will occur.

EPZ EOCs: EOCs will demonstrate the ability to direct and monitor traffic control operations within their jurisdictions through discussions with the evaluator. The EOC local highway representative will participate in a discussion of procedures and resources available for traffic control. No personnel or equipment will be deployed to field locations.

Areas Requiring Corrective Action (ARCA): N/A

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

Extent of Play

OROs should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments, such as wreckers, need not be demonstrated; however, all contacts, actual or simulated, should be logged.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

Each EPZ Local EOC will demonstrate rerouting of traffic following a traffic impediment through an interview with the FEMA Evaluator. No personnel or equipment will be dispatched to the accident scene.

Areas Requiring Corrective Action (ARCA): N/A

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

Intent
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to implement protective actions, based on criteria recommended by current Food and Drug Administration guidance, for the ingestion pathway zone (IPZ), the area within an approximate 50-mile radius of the nuclear power plant. This sub-element focuses on those actions required for implementation of protective actions.

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. NUREG-0654, J.9, 11)

Extent of Play
Applicable OROs should demonstrate the capability to secure and utilize current information on the locations of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the ingestion pathway EPZ.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g., compacts, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

Massachusetts Extent of Play
This criterion will not be demonstrated during this exercise.

Areas Requiring Corrective Actions (ARCA): N/A

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

Extent of Play
Development of measures and strategies for implementation of IPZ protective actions should be demonstrated by formulation of protective action information for the general public and food producers and processors. This includes the capability for the rapid reproduction and distribution of appropriate reproduction-ready information and instructions to pre-determined individuals and businesses. OROs should demonstrate the capability to control, restrict or prevent distribution of contaminated food by commercial sectors. Exercise play should include demonstration of communications and coordination between organizations to implement protective actions. However, actual field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food

controls within the IPZ should be demonstrated, but actual communications with food producers and processors may be simulated.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This criterion will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

Sub-element 3.f – Implementation of Relocation, Re-entry, and Return Decisions

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should demonstrate the capability to implement plans, procedures, and decisions for relocation, re-entry, and return. Implementation of these decisions is essential for the protection of the public from the direct long-term exposure to deposited radioactive materials from a severe accident at a commercial nuclear power plant.

> ***Criterion 3.f.1: Decisions regarding controlled re-entry of emergency workers and relocation and return of the public are coordinated with appropriate organizations and implemented. (NUREG-0654, M.1, 3)***

Extent of Play
Relocation: *OROs should demonstrate the capability to coordinate and implement decisions concerning relocation of individuals, not previously evacuated, to an area where radiological contamination will not expose the general public to doses that exceed the relocation PAGs. OROs should also demonstrate the capability to provide for short-term or long-term relocation of evacuees who lived in areas that have residual radiation levels above the PAGs.*

Areas of consideration should include the capability to communicate with OROs regarding timing of actions, notification of the population of the procedures for relocation, and the notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their homes due to high levels of contamination. OROs should also demonstrate the capability to communicate instructions to the public regarding relocation decisions.

Re-entry: *OROs should demonstrate the capability to control re-entry and exit of individuals who need to temporarily re-enter the restricted area, to protect them from unnecessary radiation exposure and for exit of vehicles and other equipment to control the spread of contamination*

outside the restricted area. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedure subjects are: (1) the assignment of, or checking for, direct-reading and non-direct-reading dosimetry for emergency workers; (2) questions regarding the individuals' objectives and locations expected to be visited and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; and procedures for exit, including monitoring of individuals, vehicles, and equipment, decision criteria regarding contamination, proper disposition of emergency worker dosimetry, and maintenance of emergency worker radiation exposure records.

Return: *OROs should demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs should demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate term housing for relocated persons.*

Communications among OROs for relocation, re-entry, and return may be simulated; however all simulated or actual contacts should be documented. These discussions may be accomplished in a group setting.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g., compacts, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This sub-element will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

EVALUATION AREA 4: Field Measurement And Analysis

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to deploy field teams with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to

measure airborne radioiodine in the presence of noble gases and to measure radioactive particulate material in the airborne plume.

In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. This does not imply that plume exposure projections should be made from the field data. Adequate equipment and procedures are essential to such field measurement efforts.

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)

Extent of Play
Field teams should be equipped with all instrumentation and supplies necessary to accomplish their mission. This should include instruments capable of measuring gamma exposure rates and detecting the presence of beta radiation. These instruments should be capable of measuring a range of activity and exposure, including radiological protection/exposure control of team members and detection of activity on the air sample collection media, consistent with the intended use of the instrument and the ORO's plans and procedures. An appropriate radioactive check source should be used to verify proper operational response for each low range radiation measurement instrument (less than 1 R/hr) and for high range instruments when available. If a source is not available for a high range instrument, a procedure should exist to operationally test the instrument before entering an area where only a high range instrument can make useful readings.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

Two, 2-person, MA NIAT Field Teams will be prestaged at the Salisbury Fire Department and upon notification, will report one hour later in accordance with the NIAT Handbook. Once dispatched, only gloves will be used for actual exercise play.

The NIAT Field Teams will collect a minimum of one complete sample (monitoring and air sample) as specified by the procedures in the NIAT Handbook, Section D.4.

Charcoal filters cartridges will simulate use of Silver Zeolite filer media. Simulated cartridges will be prepared for transportation to the Lab for analysis.

Areas Requiring Corrective Action (ARCA): N/A

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

Extent of Play
Responsible Offsite Response Organizations (ORO) should demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.

Field measurements are needed to help characterize the release and to support the adequacy of implemented protective actions or to be a factor in modifying protective actions. Teams should be directed to take measurements in such locations, at such times to provide information sufficient to characterize the plume and impacts.

If the responsibility to obtain peak measurements in the plume has been accepted by licensee field monitoring teams, with concurrence from OROs, there is no requirement for these measurements to be repeated by State and local monitoring teams. If the licensee teams do not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all field teams (licensee, Federal, and ORO) is essential. Coordination concerning transfer of samples, including a chain-of-custody form, to a radiological laboratory should be demonstrated.

OROs should use Federal resources as identified in the Federal Radiological Emergency Response Plan (FRERP), and other resources (e.g., compacts, utility, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
NIAT Field Teams are managed by the Field Team Coordinator located at the utility EOF. He will brief and dispatch two teams to sampling locations in accordance with the NIAT Handbook, Section D.4.

NIAT Field Team personnel will prepare sample media, survey forms, and chain of custody documents as if they were being shipped for analysis. Actual transport of samples to the MERL will be simulated.

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)

Extent of Play
Field teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates and ambient radiation to the field team coordinator, dose assessment, or other appropriate authority. If samples have radioactivity significantly above background, the appropriate authority should consider the need for expedited laboratory analyses of these samples. OROs should share data in a timely manner with all appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO's plan and/or procedures.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g., compacts, utility, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
Coordination concerning transfer of samples to a lab for analysis will be simulated and discussed in an interview with the FEMA Evaluator.

Areas Requiring Corrective Action (ARCA): N/A

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

Intent
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to assess the actual or potential magnitude and locations of radiological hazards in the IPZ and for relocation, re-entry and return measures.

This sub-element focuses on the collection of environmental samples for laboratory analyses that are essential for decisions on protection of the public from contaminated food and water and direct radiation from deposited materials.

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

Extent of Play
The ORO's field team should demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support re-entry, relocation, and return decisions. When resources are available, the use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO's plan and/or procedures.

Ingestion pathway samples should be secured from agricultural products and water. Samples in support of relocation and return should be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g., compacts, utility, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This sub-element will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

Sub-element 4.c - Laboratory Operations

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to perform laboratory analyses of radioactivity in air, liquid, and environmental samples to support protective action decision-making.

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

Extent of Play
The laboratory staff should demonstrate the capability to follow appropriate procedures for receiving samples, including logging of information, preventing contamination of the laboratory, preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil (e.g., milk), and keeping track of sample identity. In addition, the laboratory staff should demonstrate the capability to prepare samples for conducting measurements.

The laboratory should be appropriately equipped to provide analyses of media, as requested, on a timely basis, of sufficient quality and sensitivity to support assessments and decisions as anticipated by the ORO's plans and procedures. The laboratory (laboratories) instrument calibrations should be traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides released in a reactor incident should be as described in the plans and procedures. New or revised methods may be used to analyze atypical radionuclide releases (e.g., transuranics or as a result of a terrorist event) or if warranted by circumstances of the event. Analysis may require resources beyond those of the ORO.

The laboratory staff should be qualified in radioanalytical techniques and contamination control procedures.

OROs should use Federal resources as identified in the FRERP, and other resources (e.g., compacts, utility, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This sub-element will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

EVALUATION AREA 5: Emergency Notification and Public Information

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

Intent
This sub-element is derived from NUREG-0654, which provides that OROs should have the capability to provide prompt instructions to the public within the plume pathway EPZ. Specific provisions addressed in this sub-element are derived from the Nuclear Regulatory Commission (NRC) regulations (10 CFR Part 50, Appendix E.IV.D.), and FEMA-REP-10, "Guide for the Evaluation of Alert and Notification systems for Nuclear Power Plants."

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 and NUREG-0654, E.5, 6,7)

Extent of Play
Responsible Offsite Response Organizations (ORO) should demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume pathway EPZ. Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, completion of system activation should be accomplished in a timely manner (will not be subject to specific time requirements) for primary alerting/notification. The initial message should include the elements required by current FEMA REP guidance.

For exercise purposes, timely is defined as "the responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Procedures to broadcast the message should be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast of the message(s) or test messages is not required. The alert signal activation may be simulated. However, the procedures should be demonstrated up to the point of actual activation.

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should be verified during an interview with appropriate personnel from the primary notification system.

All activities for this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, except as noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
State EOC: The sounding of the sirens and broadcast of EAS/News Releases will be **simulated**. EAS/News Releases will be formulated and distributed by the Massachusetts State EOC. Activation of the EAS system will be coordinated with New Hampshire officials. Actions to demonstrate performance of initial notification of the public will be performed up to the point of actual transmission of the Emergency Alert System (EAS) message. The EAS message will be prepared/encoded by MEMA. EAS radio stations WBZ (1030 AM), WMKK (93.7 FM), WNBP (1450) and WXRV (92.5 FM) will be contacted and faxed a copy of a standard test message. The EAS stations will return the fax to the Public Affairs Officer to ensure receipt of fax.
Broadcast of EAS messages/News Releases will be simulated.

Areas Requiring Corrective Action (ARCA): N/A

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654, E. 6, Appendix 3.B.2.c)

Extent of Play
Offsite Response Organizations (ORO) with FEMA-approved exception areas (identified in the approved Alert and Notification System Design Report) 5-10 miles from the nuclear power plant should demonstrate the capability to accomplish primary alerting and notification of the exception area(s) within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The 45-minute clock will begin when the OROs make the decision to activate the alert and notification system for the first time for a specific emergency situation. The initial message should, at a minimum, include: a statement that an emergency exists at the plant and where to obtain additional information.

For exception area alerting, at least one route needs to be demonstrated and evaluated. The selected route(s) should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed-upon location.

Backup alert and notification of the public should be completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. Backup route alerting only needs to be demonstrated and evaluated, in accordance with the ORO's plan and/or procedures and the extent of play agreement, if the exercise scenario calls for failure of any portion of the primary system(s), or if any portion of the primary system(s) actually fails to function. If demonstrated, only one route needs to be selected and demonstrated. All alert and notification activities along the route should be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the extent of play. Actual testing of the mobile public address system will be conducted at some agreed-upon location.

All activities for this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, except as noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This criterion is not required by the Massachusetts Radiological Emergency Response Plan.

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

Intent

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to disseminate to the public appropriate emergency information and instructions, including any recommended protective actions. In addition, NUREG-0654 provides that OROs should ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 also provides that a system should be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

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)

Extent of Play

Subsequent emergency information and instructions should be provided to the public and the media in a timely manner (will not be subject to specific time requirements). For exercise purposes, timely is defined as "the responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

The ORO should ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The emergency information should contain all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, information concerning pets, shelter-in-place instructions, information concerning protective actions for schools and special populations, public inquiry telephone number, etc.) to assist the public in carrying out protective action decisions provided to them. The ORO should also be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident. At a minimum, this information must be included in media briefings and/or media releases. OROs should demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion pathway EPZs. This includes demonstration of the capability to use familiar landmarks and boundaries to describe protective action areas.

The emergency information should be all-inclusive by including previously identified protective action areas that are still valid, as well as new areas. The OROs should demonstrate the capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media. In addition, the OROs should demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plan and/or procedures.

OROs should demonstrate the capability to develop emergency information in a non-English language when required by the plan and/or procedures.

If ingestion pathway measures are exercised, OROs should demonstrate that a system exists for rapid dissemination of ingestion pathway information to pre-determined individuals and businesses in accordance with the ORO's plan and/or procedures.

OROs should demonstrate the capability to provide timely, accurate, concise, and coordinated information to the news media for subsequent dissemination to the public. This would include demonstration of the capability to conduct timely and pertinent media briefings and distribute media releases as the situation warrants. The OROs should demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and media releases should be consistent with protective action decisions and other emergency information provided to the public. Copies of pertinent emergency information (e.g., EAS messages and media releases) and media information kits should be available for dissemination to the media.

OROs should demonstrate that an effective system is in place for dealing with calls to the public inquiry hotline. Hotline staff should demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate information source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, should be included, as appropriate, in emergency information provided to the public, media briefings, and/or media releases.

All activities for this criterion must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

Joint Information Center: Information generated as a result of incoming calls to the SEOC Public Information Line/MASS 211 Call Center will be included in news briefings. At least two rumor trends will be handled.

State EOC: Control cell personnel will make calls simulating members of the public personnel. The MASS 211 Call Center will demonstrate the ability to handle public inquiry calls. Handling at least two rumor trends (three or more calls of the same nature) will be demonstrated. Two MASS 211 public information line operators each will respond to calls once the Public Alert and Notification System has been activated at Site Area Emergency or General Emergency at the State EOC.

EPZ Towns: Control cell personnel will make calls to the local EOCs simulating members of the public. Each local EOC will demonstrate the community's emergency response and refer all other questions to the State Public Information Line: MASS 211.

Areas Requiring Corrective Action (ARCA): N/A

Note: If, during the exercise, a participant demonstrates this sub-element unsatisfactorily, the FEMA Evaluator will inform the MEMA Controller. After an "on the spot" training by the local or State representative, the FEMA Evaluator will provide another opportunity to re-demonstrate the activity that day.

EVALUATION AREA 6: Support Operation/Facilities

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to implement radiological monitoring and decontamination of evacuees and emergency workers, while minimizing contamination of the facility, and registration of evacuees at reception centers.

> ***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
Radiological monitoring, decontamination, and registration facilities for evacuees/ emergency workers should be set up and demonstrated as they would be in an actual emergency or as indicated in the extent of play agreement. This would include adequate space for evacuees' vehicles. Expected demonstration should include 1/3 of the monitoring teams/portal monitors required to monitor 20% of the population allocated to the facility within 12 hours. Prior to using monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation.

Staff responsible for the radiological monitoring of evacuees should demonstrate the capability to attain and sustain a monitoring productivity rate per hour needed to monitor the 20% emergency planning zone (EPZ) population planning base within about 12 hours. This monitoring productivity rate per hour is the number of evacuees that can be monitored per hour by the total complement of monitors using an appropriate monitoring procedure. A minimum of six individuals per monitoring station should be monitored, using equipment and procedures specified in the plan and/or procedures, to allow demonstration of monitoring, decontamination, and registration capabilities. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators in order to determine whether the twelve-hour requirement can be meet. Monitoring of emergency workers does not have to meet the twelve-hour requirement. However, appropriate monitoring procedures should be demonstrated for a minimum of two emergency workers.

Decontamination of evacuees/emergency workers may be simulated and conducted by interview. The availability of provisions for separately showering should be demonstrated or explained. The staff should demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs and appropriate means (e.g., partitions, roped-off areas) to separate clean from potentially contaminated areas. Provisions should also exist to separate contaminated and uncontaminated individuals, provide changes of clothing for individuals whose clothing is contaminated, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any individual found to be contaminated, procedures should be discussed concerning the handling of potential contamination of vehicles and personal belongings.

Monitoring personnel should explain the use of action levels for determining the need for decontamination. They should also explain the procedures for referring evacuees who cannot be adequately decontaminated for assessment and follow up in accordance with the ORO's plans and procedures. Contamination of the individual will be determined by controller inject and not simulated with any low-level radiation source.

The capability to register individuals upon completion of the monitoring and decontamination activities should be demonstrated. The registration activities demonstrated should include the establishment of a registration record for each individual, consisting of the individual's name, address, results of monitoring, and time of decontamination, if any, or as otherwise designated in the plan. Audio recorders, camcorders, or written records are all acceptable means for registration.

All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This sub-element will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to implement radiological monitoring and decontamination of emergency worker equipment, including vehicles.

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
The monitoring staff should demonstrate the capability to monitor equipment, including vehicles, for contamination in accordance with the Offsite Response Organizations (ORO) plans and procedures. Specific attention should be given to equipment, including vehicles, that was in contact with individuals found to be contaminated. The monitoring staff should demonstrate the capability to make decisions on the need for decontamination of equipment, including vehicles, based on guidance levels and procedures stated in the plan and/or procedures.

The area to be used for monitoring and decontamination should be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping and contamination control measures in place. Monitoring procedures should be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as air intake systems, radiator grills, bumpers, wheel wells, tires, and door handles should be demonstrated.

Interior surfaces of vehicles that were in contact with individuals found to be contaminated should also be checked.

Decontamination capabilities, and provisions for vehicles and equipment that cannot be decontaminated, may be simulated and conducted by interview.

All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
This sub-element will not be demonstrated during this exercise.

Areas Requiring Corrective Action (ARCA): N/A

Sub-element 6.c – Temporary Care of Evacuees

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) demonstrate the capability to establish relocation centers in host areas. Congregate care is normally provided in support of OROs by the American Red Cross (ARC) under existing letters of agreement.

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
Under this criterion, demonstration of congregate care centers may be conducted out of sequence with the exercise scenario. The evaluator should conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with ARC 3031. In this simulation, it is not necessary to set up operations as they would be in an actual emergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this objective, exercise demonstration expectations should be clearly specified in extent-of-play agreements.

Congregate care staff should also demonstrate the capability to ensure that evacuees have been monitored for contamination, have been decontaminated as appropriate, and have been registered before entering the facility. This capability may be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility (facilities). However, availability of such items should be verified by providing the evaluator a list of sources with locations and estimates of quantities.

All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play
There are no new or renovated mass care shelters.

Areas Requiring Corrective Action (ARCA): N/A

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

Intent
This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

> ***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
Monitoring, decontamination, and contamination control efforts will not delay urgent medical care for the victim.

Offsite Response Organizations (ORO) should demonstrate the capability to transport contaminated injured individuals to medical facilities. An ambulance should be used for the response to the victim. However, to avoid taking an ambulance out of service for an extended time, any vehicle (e.g., car, truck, or van) may be utilized to transport the victim to the medical facility. Normal communications between the ambulance/dispatcher and the receiving medical facility should be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur prior to releasing the ambulance from the drill. This communication would include reporting radiation monitoring results, if available. Additionally, the ambulance crew should demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the victim may be performed prior to transport, done enroute, or deferred to the medical facility. Prior to using a monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities should be completed as they would be in an actual emergency. Appropriate contamination control measures should be demonstrated prior to and during transport and at the receiving medical facility.

The medical facility should demonstrate the capability to activate and set up a radiological emergency area for treatment. Equipment and supplies should be available for the treatment of contaminated injured individuals.

The medical facility should demonstrate the capability to make decisions on the need for decontamination of the individual, to follow appropriate decontamination procedures, and to maintain records of all survey measurements and samples taken. All procedures for the collection and analysis of samples and the decontamination of the individual should be demonstrated or described to the evaluator.

All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

Massachusetts Extent of Play

Saints Medical Center was successfully demonstrated on **October 14, 2009**.

Areas Requiring Corrective Action (ARCA): N/A

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