2012 New England Compact Radiological Exercise

SPARKLING CHAMPLAIN

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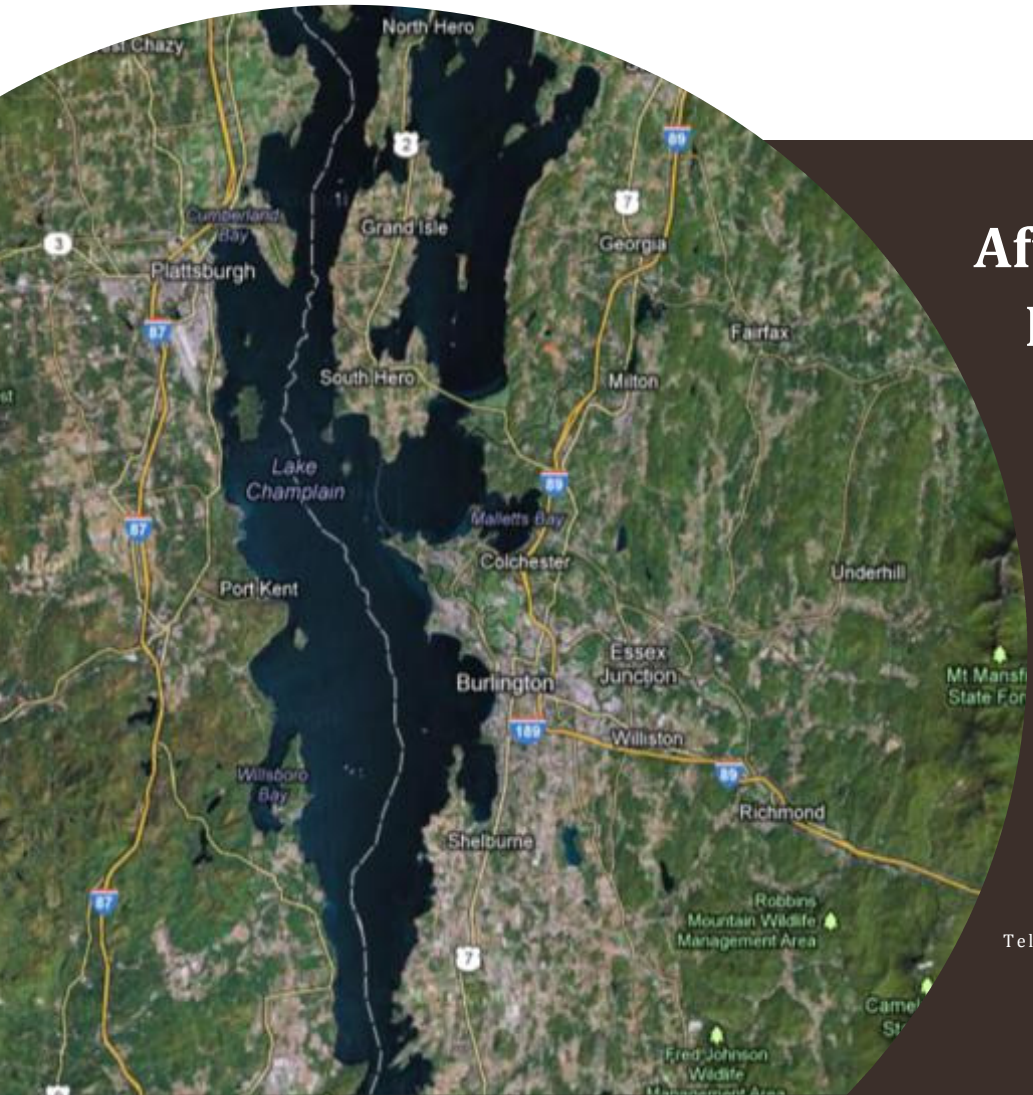

After Action Report/ Improvement Plan

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EXECUTIVE SUMMARY

The 2012 New England Compact Radiological Exercise: *Sparkling Champlain* was developed to evaluate the ability of the State of Vermont and its New England partners to respond to and provide incident support for a man-made radiological incident.

The exercise was a complex effort that integrated local, state, and federal response partners, and the State of Vermont Emergency Operations Center and Health Operations Center. It is worthwhile to note that this exercise was an element of the 43rd Annual Meeting, New England Radiological Health Conference and also occurred on the cusp of Superstorm Sandy 2012, which was even then having an effect on the New England Region. The Sparkling Champlain Exercise Planning Team was composed of numerous and diverse agencies, including the Vermont Department of Health, Vermont Emergency Management, the New England Radiological Health Committee, and the U.S. Environmental Protection Agency. Training, exercise and planning are critical elements of the preparedness program for any type of emergency incident, natural, or otherwise.

The Exercise Planning Team developed the following objectives for the Sparkling Champlain Full-Scale Exercise:

- Objective 1: Response and Extended Operations
- Objective 2: Assessment and Protective Actions
- Objective 3: Emergency Public Information and Warning
- Objective 4: Resource Activation and Integration.
- Objective 5: Samples and Surveys
- Objective 6: Information Flow and Communications
- Objective 7: Emergency Operations Center (EOC) Management

The Vermont Department of Health and Vermont Emergency Management recognize their respective responsibilities to protect the public from, mitigate the consequences of, and respond in an integrated manner to the hazards associated with acts of terrorism, as well as to naturally occurring or technological disasters. This report lists the specific agencies and organizations with responsibilities for post-exercise improvement in **Appendix A**: Improvement Plan.

This report includes a summary of observations made by exercise evaluators during the exercise. These observations are characterized as Strengths or Areas for Improvement. Exercise evaluators analyze the observations to identify the likely "Root Causes" that lead to the observed strength or area of improvement. Once the root cause is identified, a viable recommendation for improvement can be offered to the After Action Report (AAR) reviewers. During the After Action Conference, the participants have a facilitated discussion to develop an Improvement Plan Matrix where improvement actions are identified, assigned, and given a completion date.

Homeland security preparedness involves a cycle of assessment, planning, capability development and organization, training, exercising, evaluation, and improvement. Successful exercises lead to ongoing improvements to the preparedness program. The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of improvement actions.

Major Strengths

The major strengths identified during this exercise are as follows:

- Good coordination and communication between internal branches within the state as well as between the state and federal and local agencies
- Technical expertise of scientists and knowledgeable staff with good understanding of their roles and responsibilities
- Existing working relationships among the responding agencies
- Timely and accurate information provided by the Incident Public Information Officer (PIO) to the media and interested parties
- Successful demonstration of emergency management and health staff's ability (at the state level) to operate the Vermont State Emergency Operations Center (SEOC) and the Vermont Health Operations Center
- HOC-SEOC applied Vermont Yankee plans and procedures to a non-nuclear power plant event very well
- Hazmat team clearly demonstrated knowledge and ability to deal with RAD response
- Hazmat team had a very good working knowledge of instruments
- Application of new ideas and skills that had not been addressed before, both radiological health at SEOC and HOC
- Civil Air Patrol over flight

Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement in Vermont's ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Establish safe work zones to minimize potential contamination of workers and to reduce the accidental spread of hazardous substances by workers from the contaminated area to the clean area
- Improve the setup, design, and operation of contamination reduction zone (CRZ) to facilitate decontamination of victims, personnel, and equipment.
- Determine the presence and nature, type, or classification of the hazard more quickly so that other future or subsequent decisions can be made.
- Improve integration of outside assets to assist with incident response and recovery operations.
- Reduce duplication of effort between the Health Operations Center (HOC) and the State Emergency Operations Center (SEOC) for support and public notification messages.

- Improve information flow between SEOC and HOC to maintain a common operating picture.
- Improve training and familiarization with DisasterLAN. DLAN proved to be difficult for many State Support Function (SSF) representatives to use, and particularly so for the HOC staff.

SECTION 1: EXERCISE OVERVIEW

Exercise Details

Exercise Name

2012 New England Compact Radiological Exercise: *Sparkling Champlain*

Type of Exercise

Full-Scale Exercise

Exercise Start Date

October 25, 2012, at 0915

Exercise End Date

October 25, 2012, at 1445

Duration

5.5 hours

Location

Burlington, Vermont (Vermont Department of Health [VDH] Health Operations Center [HOC] venue)
Waterbury, Vermont (Vermont State Emergency Operations Center [SEOC] venue)
Pittsford, Vermont (Vermont Fire Academy [VFA] field venue)

Sponsor

Vermont Department of Health, Office of Public Heath Preparedness

Mission

Prevention and Response

Capabilities

- Communications
- On-Site Incident Management
- Emergency Operations Center (EOC) Management
- Emergency Public Information and Warning

- Weapons of Mass Destruction (WMD)/Hazardous Materials Response and Decontamination
- Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) Detection
- Responder Safety and Health

Scenario Type

Radiological Dispersal Device (RDD)

Exercise Planning Team

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Participating Organizations

State

- Vermont Department of Health
- Vermont Emergency Management
- Vermont Hazardous Materials Response Team
- Vermont Agency of Natural Resources
- Vermont Agency of Transportation
- Vermont National Guard







- Connecticut Department of Energy and Environmental Protection
- New Hampshire Department of Health and Human Services, Radiological Health Division
- Rhode Island Department of Health
- Massachusetts Department of Public Health

Federal

- U.S Environmental Protection Agency
- Federal Bureau of Investigation (FBI)
- U.S. Coast Guard (USCG)
- U.S. Department of Energy
- U.S. Department of Homeland Security
- U.S. Department of Transportation
- Food and Drug Administration
- Centers For Disease Control and Prevention

Other

- City of Rutland Fire Department, Rutland, Vermont
- Rutland Emergency Medical Service (EMS)

Number of Participants

- Players/Observers: 140/11
- Evaluators: 15
- Controllers: 14
- Victim Role Players: 8







SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

The purpose of the exercise was to evaluate player actions against current response plans and capabilities for radiological monitoring and assessment during a response to an uncontrolled release of hazardous materials.

The Vermont Department of Health, Vermont Emergency Management, and New England radiological response partners held a Concept and Objectives (C&O) meeting on March 9, 2012 to discuss exercise plans and to focus on developing the approach, plan, and support for the Full-Scale Exercise (FSE). An exercise planning team was formed, and the scope, agenda, target audience, and objectives of the exercise were determined during an Initial Planning Conference (IPC) conducted on March 9, 2012. The exercise planning team provided their scenario outline and the exercise support team developed an exercise scenario and the Master Scenario Events List (MSEL) based on the design criteria and the exercise objectives. During the Midterm Planning Conference (MPC) on July 13, 2012, the exercise planning team reviewed the MSEL and the draft Exercise Plan (ExPlan). On September 26, 2012, a Final Planning Conference was held to conduct a final review of the objectives, scenario, exercise documents, and remaining action items.

Exercise Objectives

The exercise was organized and conducted based on the objectives listed below. Additionally, each objective is linked to several corresponding activities and tasks that became the basis for exercise evaluation.

The Exercise Planning Team evaluated the following objectives during the exercise:

- **Objective 1: Response and Extended Operations**: Based on established procedures, the State of Vermont, its supporting agencies and teams will respond to, coordinate and begin a long term incident response and recovery for a multi county potentially high radiation exposure incident.
- **Objective 2: Assessment and Protective Actions**: Based on established procedures and protective and precautionary guidelines, Vermont response and supporting agencies will assess the response site and designate exclusion zones, determine and monitor public exposure levels based on samples, surveys, analysis and modeling. The State Emergency Operations Center (SEOC) Incident Coordination Team (ICT) will conduct protective measure decision making.
- **Objective 3: Emergency Public Information and Warning**: Vermont public information entities, including health and emergency management personnel, will utilize established and effective communications strategies (JIC, 211, SEOC, HOC etc.) to provide the public with timely, accurate, clear and useable information to enable individuals to implement protective measures. Clinical guidance and care will be provided to those responders, the public, and health providers affected by a high radiation incident.

- **Objective 4: Resource Activation and Integration**: Vermont response organizations will activate existing mutual aid compacts in accordance with established procedures, and effectively integrate incoming resources of the New England Compact for Radiological Assistance.
- **Objective 5: Samples and Surveys**: Laboratories and field technicians will perform sample collection, packaging, transportation, and analysis of samples for contamination and isotope identification, in accordance with established procedures. Analysis results, area survey and modeling are provided in a format that enables incident command personnel to develop and implement response strategies.
- **Objective 6: Information Flow and Communications**: Responders, support agencies, and multi-agency coordination entities will coordinate information sharing and maintain situational awareness during the response, in accordance with established procedures. The SEOC will provide coordination with the participating facilities and jurisdictions through effective communication means (telephone, fax, DisasterLAN, RACES, low band radio and alternate means).
- **Objective 7: EOC Management**: Both the State of Vermont Emergency Operations Center (EOC) and the State of Vermont HOC will perform their pre-identified roles as Vermont's Emergency Management and Public Health incident support and coordination entities. This objective focuses on the ability of the EOC and HOC to build a common operating picture for incident support and coordination.

Scenario Summary

The exercise scenario involved a premature detonation of a "Dirty Bomb"/radiological dispersal device (RDD) caused by (or causing) a fire in a structure located north of Rutland, Vermont. This scenario involved the uncontrolled release of radiological material to test and evaluate emergency response and crisis/consequence management plans, policies, and procedures. The nature of the release required responders and technical experts to evaluate the immediate impact on public health, assess the extent and magnitude of the release on potentially affected populations and environments, and take actions to prevent further spread of the radiological materials.

Scenario Narrative: The accidental detonation of the dirty bomb occurred shortly after midnight on October 25, 2012, in a residential neighborhood in Pittsford, Vermont. The explosion killed one of the terrorists involved with making the dirty bomb and severely injures one other terrorist. The explosion and fire dispersed a plume of radioactive contaminated material over a large geographic area. A caller reported the incident to 911 and the local fire departments responded to the call with 12 firefighters, two emergency medical technicians (EMT) and one police officer. Firefighters suppress and extinguish the fire by 0400. There were two victims: one unconscious victim was taken to the hospital with serious injuries and the other victim was deceased and taken to the morgue. Two firefighters and one engine remained at the incident scene after the fire was extinguished. All of the other firefighters returned to stations and then to their homes.

A radiation detector at the hospital alarmed as a patient from the fire was wheeled to the intensive care unit. A hospital radiation technician confirmed that the patient was heavily contaminated and the hospital

subsequently contacted Vermont Emergency Management (VEM), who then contacted the VDH Radiological Health Chief (RHC). Based on the RHC's recommendation, all on-scene firefighters retreat from the fire scene and the original firefighters were called back to the scene for radiation contamination screening. The Vermont Hazardous Materials Response Team (VHMRT) was deployed and established a warm-zone perimeter. Additionally, the RHC notified the VDH Office of Public Health Preparedness (OPHP) Director to activate the Health Operations Center (HOC), the Commissioner activated the New England Compact for Radiological Assistance, the VEM was activated, and the VHMRT arrived on scene. The arrival of VHMRT marked the start of the exercise.




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SECTION 3: ANALYSIS OF OBJECTIVES/CAPABILITIES

This section of the report summarizes performance reviews of the exercised objectives/capabilities, activities, and tasks. Observations are organized by objective/capability and associated activities. A complete review of each objective is listed below.

Objective/Capability 1: Response and Extended Operation

Objective/ Capability Summary: Based on established procedures, the State of Vermont, its supporting agencies and teams will respond to, coordinate and begin a long term incident response and recovery for a multi county potentially high radiation exposure incident.

Points of Review Available: 22 (See **Appendix B** for complete list of Points of Review).

	VFA Venue	SEOC Venue	HOC Venue*
Number Met	13	N/A	8
Number Not Met	3	N/A	0
Number Not Observed	6	N/A	15
Number Not Applicable	0	N/A	0

* More than one answer checked

Points Not Met:

VFA Venue	SEOC Venue	HOC Venue
#4, #15, and #17	N/A	0

Points Not Observed:

VFA Venue	SEOC Venue	HOC Venue
# 9, #11, #12, #18, #21, and #22	N/A	#2, #3, #5-16, and #18

Points Not Applicable:

VFA Venue	SEOC Venue	HOC Venue*
0	N/A	0
*The Exercise Evaluation Guide (EEG) was not designed for the HOC but was evaluated to explore linkage to On-Scene Command.		

Observations:

Area for Improvement

1.1 The incident response structure at the Fire Academy lacked the Incident Command Structure (ICS) positions needed to ensure that the required functions occurred.

Analysis: An insufficient number of ICS position-trained personnel were on hand to fill the positions, which meant that incident operations lacked some attention to detail. The insufficient numbers may have been affected by the regional composition of the response structure, which included personnel from a variety of locations and agencies.

Recommendation:

1.1.1 Review the staffing levels and personnel assignments of the hazmat teams to determine the needed ICS positions.

1.1.2 Develop a training plan and provide ICS position-specific training for identified positions within the incident management team.

Area for Improvement

1.2 Not clear if health and safety planning existed for all responders.

Analysis: Because this incident occurred over a single operational period, not enough time or need was present to initiate preparation of an IAP. However, elements of an IAP (objectives, communications plan, medical plan, and HASP ICS208) could have been developed. A discussion may need to occur among the Compact members as to when an IAP should be developed and what documents should be included. HAZMAT did create a Site Safety Plan with objectives, safety and risk analysis, a communications plan and a medical plan for health and safety of responders at the incident site.

Recommendation:

1.2.1 Define roles for H&S for multi jurisdiction events.

Area for Improvement

1.3 Responders entered the hot zone before decontamination (decon) procedures were in place.

Analysis: Decon should be ready prior to team entry into the hot zone. If a contaminated member of the incident response team needs to immediately exit the hot zone for any reason, decon procedures should be in place to prevent the spread of contamination outside the hot zone. Entry into the Contamination Reduction Zone should be clearly delineated so the decon process flows in only one direction. Procedures should follow an established plan for decon set up and conduct. A walkthrough of the decon line should occur with all personnel prior to entry into the hot zone, and a decon team leader should be present to guide entry teams through the decon process**.**

Recommendation:

1.3.1 Improve team familiarity with proper decon setup and operation procedures (follow/setup decon standard operation procedures [SOP]).

Area for Improvement

1.4 Several participants were uncertain about appropriate levels of personal protective equipment (PPE) to be worn in the decon line and upon entry into the hot zone.

Analysis: PPE was not applied uniformly in the decon line. It is uncertain as to why this occurred. Because the radiation source is a gamma emitter, Level A PPE will not provide any better protection than a lesser level of PPE and may actually slow responders, leading to more time in the presence of radiation. Improved understanding of PPE selection for decon based on consequence will be beneficial to all.

Recommendation:

1.4.1 All decon personnel should be briefed on strategy and rationale of PPE.
1.4.2 Decon training should include monitoring for contaminants.

Strength

1.5 Entry teams demonstrated the proper knowledge and use of instruments. The video camera was very helpful.

Analysis: Entry teams seemed well versed in the use of the instruments needed to assess the area for the unidentified agent. The video camera allowed non-entry personnel to virtually enter the hot zone, which had great situational awareness benefits.

Recommendation:

1.5.1 Maintain and improve the ability to use instruments and sampling/assessment technology.

Strength

1.6 Strategy discussions and planning regarding extended actions within the HOC and at the scene were very productive.

Analysis: Strategy discussions and planning activities regarding extended actions that needed to be taken within the HOC and at the scene were very productive, even with relatively little information. These discussions may enhance the on-scene operations and activities at the SEOC.

Recommendation:

1.6.1 Discuss and review the benefits of relaying identified strategies from the HOC to the SEOC and On-Scene Command.

Strength

1.7 The Health Department subject-matter experts (SME) are excellent at their areas of expertise and pick up quickly on necessary actions. (No specific example given).

Analysis: (Not Offered)

Recommendation:

1.7.1 Maintain and improve SME skill levels in their identified expertise areas.

Objective/Capability 2: Assessment and Protective Action

Capability Summary: Based on established procedures and protective and precautionary guidelines, Vermont response and supporting agencies will assess the response site and designate exclusion zones, determine and monitor public exposure levels based on samples, surveys, analysis and modeling. The State Emergency Operations Center (EOC) Incident Coordination Team (ICT) will conduct protective measure decision making.

Points of Review Available: 11

	VFA Venue*	SEOC Venue	HOC Venue
Number Met	7	9	7
Number Not Met	2	0	0
Number Not Observed	1	2	4
Number Not Applicable	0	0	0

* Only 10 Points of Review on VFA EEG

Points Not Met:

VFA Venue	SEOC Venue	HOC Venue
#8 and #10	N/A	N/A

Points Not Observed:

VFA Venue	SEOC Venue	HOC Venue
#9	#1 and #2	#7, #9, #10 and #11

Points Not Applicable:

VFA Venue	SEOC Venue	HOC Venue
N/A	N/A	N/A

Observations:

Area for Improvement

2.1 Food and water safety were addressed by those present, but a key player, SSF 11 Agriculture, was not represented in the SEOC.

Analysis: SSF 8 and SSF 11 Agency of Natural Resources (ANR) did a good job of bringing up issues regarding food and water safety. They sent out information to farmers and instructed them to keep their livestock divided between those that had been outside vs. inside, feed animals from covered sources, and not to send any products off the farm until testing had occurred. There were also plans to test reservoirs, streams, and groundwater, prioritizing testing of Furnace Brook and Kiln Brook with Vermont's Department of Environmental Conservation (DEC) Water Supply Engineer. Despite being mentioned in the VRERP Section 10 C 2 and having a DLAN report of contaminated milk, SSF 11

Agriculture was not represented in the SEOC. This may have been due to exercise scheduling issues.

Recommendation:

2.1.1 Include Department of Agriculture where food and water safety are at risk in an exercise.

Strength

2.2 First responder/worker health and safety was considered by multiple agencies at the SEOC.

Analysis: Responder/worker safety was actively pursued at the SEOC. Multiple agencies provided input on the actions that should be taken to keep the responders safe.

Recommendation:

2.2.1 Maintain and improve the development of health and safety strategies for responder/ worker safety and relay this information to the scene.

Strengths

2.3 SEOC players knew how to handle the event, despite its increased level of complexity.

Analysis: Experience obtained and lessons learned at Vermont Yankee were evident. Callbacks to the scene were initiated as soon as radiation was identified. SSF 8 requested worker tracking and documentation for those that left the scene. SSF 4 warned fire departments to look out for additional similar situations. SSF 8 sent out information about Personal Protective Guidance, in accordance with the VRERP, and dose limits were set and refined for workers, including reporting values and turn-back limits.

Recommendation:

2.3.1 Maintain and improve the identified skill set of the SSF 8 and Vermont Health representatives at the SEOC to maintain excellence.

Objective/Capability 3: Emergency Public Information and Warning

Capability Summary: Vermont public information entities, including health and emergency management personnel, will utilize established and effective communications strategies (JIC, 211, SEOC, HOC etc.) to provide the public with timely, accurate, clear and useable information to enable individuals to implement protective measures. Clinical guidance and care will be provided to those responders, the public, and health providers affected by a high radiation incident.

Points of Review Available: 17

	VFA Venue*	SEOC Venue	HOC Venue
Number Met	1	8	10**

Number Not Met	0	0	4
Number Not Observed	3	9	2
Number Not Applicable	16	0	1

* More than one answer checked

** Point of Review #12 partially met

Points Not Met:

VFA Venue	SEOC Venue	HOC Venue
N/A	N/A	#1, #10, #11, and #14

Points Not Observed:

VFA Venue	SEOC Venue	HOC Venue
#4, #5, and #7	#9-17	#2 and #7

Points Not Applicable:

VFA Venue	SEOC Venue	HOC Venue
#1-5, #7-17	N/A	#15

Observations:

Area for Improvement

3.1 A Joint Information Center/Joint Information System (JIC/JIS) was not established.

Analysis: Because of the real world events caused by Superstorm Sandy, the PIO at the SEOC was unable to join the exercise. Therefore the PIO at the HOC was unable to receive timely information, which increased the time that the public was unaware of events.

Recommendation:

3.1.1 Create a procedure for establishing a JIC/JIS when more than one emergency event is taking place. This procedure includes alternate personnel to allow continuity of operations.

Area for Improvement

3.2 Phone calls from the media to the PIO were received by several different people who then relayed different messages to each outlet.

Analysis: When media outlets began to call into the PIO to reach the media liaison, the message that was given to each outlet was inconsistent. Calls were received prior to the submission of a press release and prior to the collection of all facts and information coming into the HOC. The dispersion of inconsistent messages causes rumors and false information to be distributed to the public.

Recommendation:

3.2.1 Review current procedures to determine the individual responsible for relaying information to the media during an event or incident.

Area for Improvement

3.3 Press releases #2 and #3 gave contradictory information about protective actions for the public and did not explain why the change was suggested or what geographic area was affected.

Analysis: Press releases should be analyzed for consistency of message and accuracy. The JIS should offer opportunities among its members to analyze proposed press releases to determine whether the JIC is speaking with one voice while allowing individual agencies to get their messages out. Authority should be delegated to an individual to approve all press releases prior to release.

Recommendation:

3.3.1 Develop, review, or update procedures to give Public Information staff guidance on maintaining press release accuracy and obtaining approval prior to communicating to the public.

Area for Improvement

3.4 No attempts were made to address the needs of individuals with access needs, functional needs, or people who speak languages other than English.

Analysis: Though the exercise offered little or no prompting to move the exercise players in this direction, functional, behavioral and cultural needs of the communities within the incident area should be considered at both the policy and operational level. Emergency plans including public information plans should be revised to ensure that the entire Vermont population is reached, not simply those with access to and understanding of the media. This may involve using VDH district staff, town health officers, Agency of Human Services (AHS) leadership, town clerks, or others to disseminate (proactively) protective action recommendations to organizations and individuals in the affected areas. Thought should be given to serving those who are house bound, people with functional and access needs, the homeless, and speakers of languages other than English.

Recommendation:

3.4.1 Review, evaluate and revise emergency plans including public information plans to ensure that the entire spectrum of Vermont population within the incident area are reached regardless of functional, behavioral, or cultural differences.

Strength

3.5 Public messaging venues such as Twitter, Facebook, 211, and the VDH website were continually updated and monitored throughout the exercise.

Analysis: Beginning 20 minutes after the first briefing at the HOC, the first tweet went out regarding the explosion. Updates were sent every 7-15 minutes following the first tweet. The website was updated within 17 minutes. The first press release went out within 90 minutes.

Recommendation:

3.5.1 Maintain and enhance the ability of JIS staff to identify and use varied public information modalities for message delivery.

Strength

3.6 At the incident site, the IC identified a PIO to manage the real-world media.

Analysis: Once the need was identified, the IC moved quickly to assign the PIO duties to one of the command staff. This delegation allowed the IC to maintain a focus on incident response tactics and operations.

Recommendation:

3.6.1 Identify members of the team to be cross-trained in additional ICS disciplines.

Strength

3.7 The team under the PIO utilized VDH staff members outside of traditional communications staff.

Analysis: By employing non-communications staff, the team increased their capacity during a time when they were asked to do a tremendous amount of work. This tactic was highly successful and should be maintained. Regular HOC trainings (monthly) should be resumed and staff from throughout the VDH should be trained in key roles to ensure that the HOC has the needed capacity to serve all roles over multiple operation periods.

Recommendation:

3.7.1 Identify members of the staff to be cross-trained in additional PIO-assistant roles.

Objective/Capability 4: Resource Activation and Integration

Capability Summary: Vermont response organizations will activate existing mutual aid compacts in accordance with established procedures, and effectively integrate incoming resources of the New England Compact for Radiological Assistance.

Points of Review Available: 11

	VFA Venue	SEOC Venue	HOC Venue*
Number Met	9	6	5
Number Not Met	2	0	1
Number Not Observed	0	5	2
Number Not Applicable	0	0	4

* More than one answer checked

Points Not Met:

VFA Venue	SEOC Venue	HOC Venue
#5 and #10	N/A	#6

Points Not Observed:

VFA Venue	SEOC Venue	HOC Venue
N/A	#4, #6, #8, #9, and #10	#7 and #8

Points Not Applicable:

VFA Venue	SEOC Venue	HOC Venue
N/A	N/A	#1, #3, #5, and #9

Observations:

Area for Improvement

4.1 The team conducted insufficient research regarding identification of reception centers and shelter locations as they pertain to separated or co-located non-contaminated citizens.

Analysis: Insufficient research was collected regarding identification of reception centers and shelter locations to be used to separate or co-locate non-contaminated populace with individuals that may be potentially contaminated. The same reception and shelter location was used for everyone regardless of where they came from, which may spread contamination between companions within the shelter.

Recommendation:

4.1.1 Review and update plans to address the need to segregate non-contaminated individuals from those that are contaminated.

4.1.2 Work to develop multiple reception centers and shelter locations north of the Vermont Yankee network.

4.1.3 Identify and deploy appropriate screening, triage, and decon resources for reception/shelter locations.

Objective/Capability 5: Samples and Surveys

Capability Summary: Laboratories and field technicians will perform sample collection, packaging, transportation, and analysis of samples for contamination and isotope identification, in accordance with established procedures. Analysis results, area survey and modeling are provided in a format that enables incident command personnel to develop and implement response strategies.

Points of Review Available: 17

	VFA Venue	SEOC Venue	HOC Venue*
Number Met	2	6	3
Number Not Met	13	0	-
Number Not Observed	2	4	13
Number Not Applicable	0	7	-

* Not all Points of Review were evaluated on the EEG.

Points Not Met:

VFA Venue	SEOC Venue	HOC Venue*
#2 - #8, #10, #11, #13, and #15 - #17	N/A	-

* Not all Points of Review were evaluated on the EEG.

Points Not Observed:

VFA Venue	SEOC Venue	HOC Venue
#1 and #14	#1, #4, #5, #16	#3, #5 - 15, and #17

Points Not Applicable:

VFA Venue	SEOC Venue	HOC Venue
NA	Not designed for HOC or EOC but evaluated as a companion for linkage	Not designed for HOC or EOC but evaluated as a companion for linkage

Observations:

Area for Improvement

5.1 A general reinforcement of field sampling techniques needs to be performed by the hazmat team.

Analysis: Proper sampling techniques need to be reinforced by performing activities including developing sampling strategies, establishing sample and evidence chain-of-custody, documenting sample collection, and creating an equipment/sample drop area.

Recommendation:

5.1.1 Conduct a review of overall sampling techniques (strategy development, sample techniques and handling, chain of custody, documentation and risk communication to the next level) for the hazmat team.

Objective/Capability 6: Information Flow and Communications

Capability Summary: Responders, support agencies, and multi-agency coordination entities will coordinate information sharing and maintain situational awareness during the response, in accordance with

established procedures. The SEOC will provide coordination with the participating facilities and jurisdictions through effective communication means (telephone, fax, DisasterLAN, RACES, low band radio and alternate means).

Points of Review Available: 17

	VFA Venue*†	SEOC Venue	HOC Venue
Number Met	13**	15	11
Number Not Met	0	1	1
Number Not Observed	1	1	3
Number Not Applicable	1	0	1

* Not all Points of Review evaluated on EEG
† More than one answer checked
** Point of Review #4 partially met

Points Not Met:

VFA Venue	SEOC Venue	HOC Venue
N/A	#9	#9

Points Not Observed:

VFA Venue	SEOC Venue	HOC Venue
#5	#7	#2, #7, and #15

Points Not Applicable:

VFA Venue	SEOC Venue	HOC Venue
#5	N/A	#3

Observations:

Area for Improvement

6.1 DLAN was found to be more of an obstacle than an asset.

Analysis: Individuals unfamiliar with DisasterLAN found it actually became an obstacle rather than an asset. Some of the complexities include the requirement to enter identifying/personal information multiple times and on each ticket, as opposed to the information being automatically entered once you are logged in. Some mandatory fields did not relate to the incident at hand.

Recommendation:

6.1.1 Assess the use of DLAN, its current configuration, and user requirements.
6.1.2 Provide regularly scheduled training and narrow-focused drills specific to DLAN.

Area for Improvement

6.2 Leadership on the state level is heavily reliant on a single individual: the Radiological and Toxicological Sciences Program Chief.

Analysis: Leadership on the state level is heavily reliant on the Radiological and Toxicological Sciences Program Chief, who provides technical and subject-matter expertise to VEM and VDH. This individual has many and complex duties to manage. EOC partners were often competing to consult with the Radiological and Toxicology Sciences Program Chief. Additional personnel could be assigned and some responsibilities could be delegated to assist where appropriate.

Recommendation:

6.2.1 Assure adequate individuals are trained to provide leadership in Chief's absence.

Area for Improvement

6.3 Activities and tasks may be duplicated.

Recommendation:

6.3.1 Analyze the current roles and responsibilities of the SEOC and HOC to determine the best future assignment of responsibilities.

Area for Improvement

6.4 Communication between HOC and SEOC was sporadic and information sharing was slow.

Analysis: The HOC was unable to reach the SEOC from 0931 to 0951 and did not do a joint call until 1105. It took until 1152 for HOC to get Cesium 137 confirmation. At 1051, HOC was still looking for a list of first responders that have possible contamination at scene.

Recommendation:

6.4.1 Create and utilize scheduled conference calls between HOC and SEOC.
6.4.2 Integrate HOC and SEOC communication plans where appropriate.
6.4.3 Implement a living document to which both the HOC and SEOC (not DLAN) can add major events (both should be able to view and add information at same time.
6.4.4 Develop process for identifying emergency responders by name so their exposure to contaminants can be recorded for H&S purposes.

Objective/Capability 7: EOC Management

Capability Summary: Both the State of Vermont EOC and the State of Vermont HOC will perform their pre-identified roles as Vermont's Emergency Management and Public Health incident support and coordination entities. This objective focuses on the ability of the EOC and HOC to coordinate and build a common operating picture for incident support and coordination.

Points of Review Available: 18

Number Met	15
Number Not Met	1

Number Not Observed	2
Number Not Applicable	0

Points Not Met:

VFA Venue	SEOC Venue	HOC Venue
N/A	#6	N/A

Points Not Observed:

VFA Venue	SEOC Venue	HOC Venue
N/A	#11 and #14	N/A

Points Not Applicable:

VFA Venue	SEOC Venue	HOC Venue
N/A	0	N/A

Observations:

Area for Improvement

7.1 See DLAN discussion in Section 6.1 (Information Flow and Communication Analysis).

Analysis: (see Section 6.1)

Recommendation:

Strength

7.2 SEOC staff and SSF personnel worked well together.

Analysis: The SEOC staff and SSF personnel worked very well together. Open dialogue and conversations to resolve issues without agency or personal agendas were the norm. The positive working relationships also included those agencies not necessarily located within the SEOC, such as the U.S. Department of Energy and other contractors. The work was all performed simultaneously as the SEOC was preparing for extreme weather within the next 2-3 days.

Recommendation:

7.2.1 Maintain and improve agency interaction through regularly scheduled drills, training, and team building events.




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SECTION 4: CONCLUSION

The Sparkling Champlain Full-Scale Exercise provided an opportunity for Vermont to demonstrate the effectiveness of their plans, standard operating guidelines, SOPs, resource ordering procedures, decision-making and coordination pathways, and response tactics needed to manage the radiological incident presented in the exercise scenario.

The major strengths identified during this exercise are as follows:

- Good coordination and communication between internal branches within the state as well as between the state and federal and local agencies
- Technical expertise of scientists and knowledgeable staff with good understanding of their roles and responsibilities
- Existing working relationships among the responding agencies
- Timely and accurate information provided by the Incident PIO to the media and interested parties
- Successful demonstration of emergency management and health staff's ability (at the state level) to operate the Vermont SEOC and the Vermont Health Operations Center
- HOC-SEOC applied Vermont Yankee plans and procedures to a non-nuclear power plant event very well
- Hazmat team clearly demonstrated knowledge and ability to deal with RAD response
- Hazmat team had a very good working knowledge of instruments
- Application of new ideas and skills that had not been addressed before, both radiological health at SEOC and HOC
- Civil Air Patrol over flight

The following areas for improvement in Vermont's ability to respond to the incident were identified during the exercise:

- Establish safe work zones to minimize potential contamination of workers and to reduce the accidental spread of hazardous substances by workers from the contaminated area to the clean area
- Improve the setup, design, and operation of CRZ to facilitate decontamination of victims, personnel, and equipment.
- Determine the presence and nature, type, or classification of the hazard more quickly so that other future or subsequent decisions can be made.
- Improve integration of outside assets to assist with incident response and recovery operations.
- Reduce duplication of effort between the HOC and the SEOC for support and public notification messages.
- Improve information flow between SEOC and HOC to maintain a common operating picture.
- Improve training and familiarization with DisasterLAN. DLAN proved to be difficult for many SSF representatives to use, and particularly so for the HOC staff.

Planners should use the results of this exercise to review and update their respective agency's EOPs, SOGs, and SOPs, and to explore methods to refine coordination pathways between agencies and partners. The results of the AAR may also be considered for enhancements and justification in the acquisition of equipment, systems, and other resources that will improve all phases of emergency response.




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APPENDIX A: IMPROVEMENT PLAN




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This IP has been developed specifically for the Vermont Department of Health and its partners as a result of the Sparkling Champlain Full-Scale Exercise conducted on October 25, 2012. These improvements draw on both the After Action Report and the After Action Conference.

Table A.1 Improvement Plan Matrix

Objective 1: Response and Extended Operation						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
The incident response structure at the Fire Academy lacked the Incident Command Structure (ICS) positions needed to ensure that the required functions occurred.	Review the staffing levels and personnel assignments of the state response teams to determine the needed ICS positions.	Development of an Incident Management Team approach	Planning	Division of Fire Safety	Chris Herrick	December 2013
	Develop a training plan and provide ICS position-specific training for identified positions within the incident management team.	Train the IMT	Training	Division of Fire Safety	Chris Herrick	December 2013
Not clear if health and safety planning existed for all responders.	Define roles for H&S for multi jurisdiction events	Working group of public safety, Dept. of Health, and Occupational. Safety and Health identify how health and safety is provided.	Planning	EMHS Working Group	Erica Bornemann	June 2013
Responders entered the hot zone before decontamination (decon) procedures were in place.	Improve team familiarity with proper decon setup and operation procedures (follow/setup decon standard operating procedures [SOP]).	Follow SOPs	Training	VHMRT	Chris Herrick	February 2013
Several participants were uncertain about appropriate levels of personal protective equipment (PPE) to be worn in the decon line and upon entry into the hot zone.	All personnel are briefed on strategy and rationale of PPE	Follow SOGs	Training	Division of Fire Safety	Chris Herrick	February 2013
	Decon training should include monitoring for contaminants	Revise training to include monitoring for contaminants	Training	Division of Fire Safety	Chris Herrick	February 2013




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Objective 1: Response and Extended Operation						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
Entry teams demonstrated the proper knowledge and use of instruments. The video camera was very helpful.	Maintain and improve the ability to use instruments and sampling/assessment technology	Seek means by which the VHMRT can cross-train other teams for mutual benefit	Training	VDH	Bill Irwin	December 2013
Strategy discussions and planning regarding extended actions within the HOC and at the scene were very productive.	Discuss and review the benefits of relaying identified strategies from the HOC to the SEOC and On-Scene Command.	Continue to share benefits of this strategy with SEOC	Planning	VDH	Chris Bell	June 2013
		More joint HOC SEOC communication drills/exercises	Exercise	VDH	Chris Bell	June 2013
The Health Department subject-matter experts (SME) are excellent at their areas of expertise and pick up quickly on necessary actions. (No specific example given).	Maintain and improve SME skill levels in their identified expertise areas.	CBRNE training by SMEs for response staff (HOC and SEOC) to improve skills and knowledge of both	Training	VDH	Bill Irwin	December 2013
		Risk communication training	Training	VDH	Nancy Erickson	December 2013






Objective 2: Assessment and Protective Actions						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
Food and water safety were addressed by those present, but a key player, SSF 11 Agriculture, was not represented in the SEOC.	Include Ag where food and water safety are at risk in exercise	Need for broader participation in similar exercises in future	Planning	EMHS	Erica Bornemann	February 2013
First responder/worker health and safety was considered by multiple agencies at the SEOC.	Maintain and improve the development of health and safety strategies for responder/ worker safety and relay this information to the scene.	Working group of public safety, Dept. of Health, and Occupational Safety and Health identify how health and safety is provided.	Planning	EMHS working group	Erica Bornemann	June 2013
SEOC players knew how to handle the event, despite its increased level of complexity.	Maintain and improve the identified skill set of the SSF4 and SSF8 at the SEOC to maintain excellence.	Additional chemical and biological scenario exercises in future	Exercises	EMHS	Erica Bornemann	June 2013




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Objective 3: Emergency Public Information and Warning						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
A Joint Information Center/Joint Information System (JIC/JIS) was not established,	Create a procedure for establishing a JIC/JIS when more than one emergency event is taking place. This procedure includes alternate personnel to allow continuity of operations.	Engage communications staff from state agencies to review and update JIC/JIS center plan	Planning	EMHS	Mark Bosma	December 2013
		Bring Regional PIO training to VT	Training	EMHS	Mark Bosma	December 2013
Phone calls from the media to the PIO were received by several different people who then relayed different messages to each outlet.	Review current procedures to determine the individual responsible for relaying information to the media during an event or incident.	Make corrective changes to existing procedures	Planning	VDH	Nancy Erickson	February 2013
Press releases #2 and #3 gave contradictory information about protective actions for the public and did not explain why the change was suggested or what geographic area was affected.	Develop, review, or update procedures to give Public Information staff guidance on maintaining press release accuracy and obtaining approval prior to communicating to the public.	Make corrective changes to existing procedures	Planning	VDH	Nancy Erickson	February 2013
No attempts were made to address the needs of individuals with access needs, functional needs, or people who speak languages other than English.	Review, evaluate and revise emergency plans including public information plans to ensure that the entire spectrum of Vermont population within the incident area are reached regardless of functional, behavioral, or cultural differences.	Update a plan for people not in traditional communications range	Planning	Joint EMHS/VDH	Nancy Erickson and Mark Bosma	March 2014
		Look at plans from culturally diverse cities and states for guidance. Update these populations in advance	Planning	Joint EMHS/VDH	Nancy Erickson and Mark Bosma	March 2014
Public messaging venues such as Twitter, Facebook, 211, and the VDH website were continually updated and	Maintain and enhance the ability of JIS staff to identify and use varied public information modalities for message delivery.	Expand this capacity in the JIS	Planning	Joint EMHS/VDH	Nancy Erickson and Mark Bosma	June 2013




Objective 3: Emergency Public Information and Warning						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
monitored throughout the exercise.						
At the incident site, the IC identified a PIO to manage the real-world media.	Identify members of the team to be cross-trained in additional ICS disciplines.	Incorporate into PIO and JIS training	Training	Joint EMHS/VDH	Nancy Erickson and Mark Bosma	March 2014
The team under the PIO utilized VDH staff members outside of traditional communications staff.	Identify members of the staff to be cross-trained in additional PIO-assistant roles.	Implement cross training	Training	VDH	Nancy Erickson	March 2013






Objective 4: Resource Activation and Integration						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
The team conducted insufficient research regarding identification of reception and shelter locations as they pertain to separated or co-located non-contaminated citizens.	Review and update plans to address the need to segregate non-contaminated individuals from those that are contaminated.	Develop a working group for reception center and shelter planning for events where contamination exists.	Planning	EMHS	Erica Bornemann	March 2014
	Work to develop multiple reception centers and shelter locations north of the Vermont Yankee network.	Develop a working group for reception center and shelter planning for events where contamination exists.	Planning	EMHS	Erica Bornemann	March 2014
	Identify and deploy appropriate screening, triage, and decon resources for reception/shelter locations.	Develop a working group for reception center and shelter planning for events where contamination exists.	Planning	EMHS	Erica Bornemann	March 2014




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Objective 5: Samples and Surveys						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
A general reinforcement of field sampling techniques needs to be performed by hazmat team.	Conduct a review of overall sampling techniques (strategy development, sample techniques and handling, chain of custody, documentation and risk communication to the next level) for the hazmat team.	Incorporate lessons learned into hazmat training	Training	VHMRT	Chris Herrick	February 2013






Objective 6: Information Flow and Communications						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
DLAN found to be more of an obstacle than an asset.	Assess the use of DLAN, its current configuration, and user requirements.	Establish DLAN users workgroup to determine how to more effectively use DLAN	Planning	EMHS	Erica Bornemann	February 2013
	Provide regularly scheduled training and narrow-focused drills specific to DLAN.	Establish DLAN operators (number based on situation to make use most effective)	Planning	EMHS	Erica Bornemann	February 2014
Leadership on the state level is heavy reliant on a single individual: the Radiological and Toxicological Sciences Program Chief.	Assure adequate individuals are trained to provide leadership in Chief's absence.	Continue training Rad/Tox Sciences staff.	Training	VDH	Bill Irwin	February 2013
Activities and tasks may be duplicated.	Analyze the current roles and responsibilities of the SEOC and HOC to determine the best future assignment of responsibilities.	Multi agency working group to evaluate how health department resources interface with others (from the HOC).	Planning	Joint VDH/ EMHS	Chris Bell and Joe Flynn	June 2013
		Delineate roles within the HOC and between HOC and SEOC.	Planning	Joint VDH/ EMHS	Chris Bell and Erica Bornemann	December 2013
Communication between HOC and SEOC was sporadic and information sharing was slow.	Create and utilize scheduled conference calls between HOC and SEOC.	Explore options	Planning	Joint VDH/ EMHS	Chris Bell and Erica Bornemann	December 2013
	Integrate HOC and SEOC communication plans where appropriate.	Explore options	Planning	Joint VDH/ EMHS	Chris Bell and Erica Bornemann	December 2013
	Implement a living document to	Explore options	Planning	Joint VDH/	Chris Bell	December




Objective 6: Information Flow and Communications						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
	which both the HOC and SEOC (not DLAN) can add major events (both should be able to view and add information at same time.			EMHS	and Erica Bornemann	2013
	Develop process for identifying emergency responders by name so their exposure to contaminants can be recorded for H&S purposes.	Continue to push VDH rapid registry for emergency responder registration.	Planning	VDH	Brant Goode	December 2013
		Tap into resources that are already there (e.g. state police).	Planning	VDH	Brant Goode	December 2014






Objective 7: EOC Management						
Observation	**Recommendation**	**Corrective Action**	**Capability**	**Responsible Agency**	**Agency POC**	**Completion Date**
See DLAN Discussion under Information Flow and Communication objective.			Planning	EMHS	Erica Bornemann	February 2013
SEOC staff and SSF personnel worked well together.	Maintain and improve agency interaction through regularly scheduled drills, training, and team building events.		Planning	EMHS	Erica Bornemann	February 2013




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APPENDIX B: POINTS OF REVIEW




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POINTS OF REVIEW
Response and Extended Actions

1.	Were WMD and Hazardous Material Response and Decontamination resources activated?
2.	In response to activation, did the appropriate resources mobilize and arrive at the incident scene to begin operations?
3.	Did the participants establish and implement on-scene management for HazMat response?
4.	Was an Incident Action Plan (IAP) developed that used objectives to address the response problem?
5.	Was a perimeter established to control access to the incident site?
6.	Were WMD and Hazardous Material Response Tactical Operations coordinated among all responders?
7.	Did responders arrive on scene with the requisite equipment to initiate response operations?
8.	Did responders arrive on scene and with the requisite equipment to minimize the level of on-scene contamination and the potential for secondary contamination beyond the incident scene?
9.	Did responders arrive on scene and with the requisite equipment to ensure an effective transition to clean-up and recovery operations?
10.	Was hazardous waste properly collected and disposed of?
11.	Were actions taken to ensure that hazardous materials management and decontamination activities are conducted in a manner that protects public and environmental safety?
12.	Was the scene protected and evidence identified and collected using established protocols?
13.	Were gross contaminated personnel and equipment surveys and decontamination procedures conducted upon exiting facility?
14.	Did personnel proceed to full decontamination facilities at the DZ perimeter control point for final decontamination of personnel and equipment?
15.	Was a decontamination line established according to specifications outlined in the HASP and implement decontamination procedures on all entry team members upon completion of daily field activities?
16.	Was there coordination with the Safety/Science Officer to ensure the safety of on-scene WMD/ HazMat responders?
17.	Was an ICS-208 Health and Safety Plan included into the IAP?
18.	Were samples collected with appropriate chain of custodies and analytical requests made/documented?
19.	Was an assignment made to the SEOC or HOC to track health cases?
20.	Was provision made for dose monitoring and management for response workers?
21.	Was accurate information provided the health and medical community regarding the use of chelating agents (Prussian Blue)?
22.	Was the need for extended operations identified and planned for?




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POINTS OF REVIEW
Assessment and Protective Actions (VFA)

1.	Did the participants pre-identify resources (personnel and equipment) to provide rapid initial size up of HazMat incident?
2.	Was an initial size up and assessment of the site conducted?
3.	Was a hazard analysis conducted to determine potential consequence and risk posed by the hazard?
4.	Were the requirements for public notifications and warnings identified and relayed to the SEOC/HOC?
5.	Was the weather forecast analyzed to conduct hazard zone prediction?
6.	Were HazMat zones (hot, warm, cold) established based on instrumentation surveys?
7.	Was responder and public exposure to downwind contamination considered?
8.	Was the extent and scope of contamination identified at the incident site?
9.	Was plume modeling software used or results of the modeling obtained from the HOC/SEOC in a timely manner?
10.	Were actions taken necessary to ensure that the public has sufficient access to safe food and potable water?




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POINTS OF REVIEW
Assessment and Protective Actions (SEOC and HOC)

1. Did the participants pre-identify resources (personnel and equipment) to provide rapid initial size up of HazMat incident?
2. Was an initial size up and assessment of the site conducted?
3. Was a hazard analysis conducted to determine potential consequence and risk posed by the hazard?
4. Was the weather forecast analyzed to conduct hazard zone prediction?
5. Were zones of contamination (hot, warm, and cold) established based on plume models?
6. Was responder and public exposure to downwind contamination considered?
7. Was the extent and scope of contamination identified at the incident site?
8. Was Plume modeling software used and results transmitted to SEOC/HOC and scene in a timely manner?
9. Were dose assessment actions taken necessary to determine the potential amount of contamination in public food or water sources?
10. Were actions taken necessary to ensure that the public has sufficient access to safe food and potable water?
11. Were dose assessment/field sampling actions taken necessary to determine the potential amount of contamination in critical infrastructure?




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POINTS OF REVIEW
Emergency Public Information and Warning

1.	Was the incoming public-related information from all sources processed in a timely fashion?
2.	Were plans, procedures, programs and systems used to rapidly control rumors by correcting misinformation?
3.	Were communications and information systems monitored as needed to identify information to be disseminated to the public?
4.	Was a Joint Information System (JIS) established? (either virtually or at EOC)
5.	Were Public Information Officer (PIO) roles assigned?
6.	Was an appropriate spokesperson(s) identified?
7.	Were both the public and private partner agencies notified regarding Joint Information System activation?
8.	Was a central contact for the media established?
9.	Were routing and approval protocols coordinated for release of information? Were clearance protocols followed for both clinical and public information?
10.	Was there accurate and timely dissemination of protective action messages to medical professionals and the public?
11.	Was emergency public information provided to: special, vulnerable, at-risk populations?
12.	Was critical health and safety information designed to alert the public to clinical symptoms and reduce the risk of exposure to ongoing and potential hazards?
13.	Were periodic updates provided the media?
14.	Were media contacts and public inquiries tracked (listing contact, date, time, query, and outcome)?
15.	Were corrective messages issued when errors are recognized in previous public announcements?
16.	Was a frequently updated public information hotline established?
17.	Were all public messaging venues used or addressed? Social media, 2-1-1, website, media releases and press conference?




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POINTS OF REVIEW
Resource Activation and Integration

1.	Was coordination established between Emergency Operations Center (EOC/HOC) and Incident Command to determine resources needed to support incident response and operations?
2.	Were existing internal jurisdiction specific resources identified and available to support response and recovery operations?
3.	Did HazMat Team facilitate an awareness of deployed resources with the SEOC (i.e., NERHC, decon, CT Mobile Lab)
4.	Was the need for additional external tactical and resource logistics considered?
5.	Was resource logistics and distribution support established for incident response operations?
6.	Were ongoing resource support needs obtained through appropriate procurement sources at the EOC/HOC?
7.	Was the logistics staging area established (LSA) for internal and external response personnel, equipment and supplies?
8.	Were all incoming resources identified, inventoried and tracked?
9.	Were incoming resources properly briefed and prepared for their assigned duties?
10.	Were ICS 204 Division/Group Assignment worksheets included in the IAP for all organizational elements?
11.	Were established mutual aid plans and compacts successfully activated?




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POINTS OF REVIEW
Samples and Surveys

1. Did responders arrive on scene and with the requisite equipment to conduct sampling?
2. Was a sampling strategy established to identify the scope of the incident?
3. Was a sampling strategy established to characterize the hazard or agent?
4. Was a strategy for collection of samples accomplished based on locations identified in the plan?
5. Were direct measurement/surveys conducted on all identified persons, equipment and structures?
6. Was the appropriate spectrum of sampling techniques considered?
7. Was the incident site adequately surveyed?
8. Were established evidence and sample collection protocols followed, including but not limited to all chains of custody documentation?
9. Was the speciation of the isotope accomplished through the use of reliable means?
10. Was the air inside the DZ (around the perimeter of the Vermont Fire Academy) characterized for radiological and hazardous materials?
11. Was the soil inside the DZ (around the perimeter of the Vermont Fire Academy) characterized for radiological and hazardous materials?
12. Were personnel and equipment surveyed for decontamination before exiting the facility?
13. Did all completed data, completed forms and samples go to the Operations Chief/Science Officer for review and final submission to necessary parties at EOC/HOC?
14. Were long term health monitoring strategies discussed and considered?
15. Was data collected from all sources, prioritized, managed and secured?
16. Were all completed data/measurements documented effectively?
17. Were all samples transferred to the CT mobile laboratory with proper contamination controls and paperwork?




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POINTS OF REVIEW
Information Flow and Communications

1.	Were existing communications plans, policies, procedures, and systems used that support required communications with all Federal, regional, State, and local governments and agencies as well as voluntary agencies?
2.	Were emergency communications and data requirements identified for each stakeholder?
3.	Did responders inform incident staff and management of their interoperable communications requirements?
4.	Was situational awareness achieved and maintained by all response and support elements?
5.	Did coordinated information sharing occur with the chief medical examiner's office and local health and medical officials?
6.	Did coordinated information sharing occur with the Law Enforcement SSF and fusion functions?
7.	Was procurement and placement of technology communications systems coordinated?
8.	Were information systems established and maintained across response entities?
9.	Was just in time training developed and conducted to improve incident management capability for response communications?
10.	Were external resources requested using the Emergency Management Assistance Compact (EMAC) and other mutual aid/assistance processes (inter- and intra-State)?
11.	Was common response communications language (i.e., plain English) used to ensure information dissemination was timely, clear, acknowledged, and understood by all receivers?
12.	Were response communications systems established and maintained?
13.	Was connectivity with the EOC/HOC established and maintained?
14.	Was a common operating picture (COP) maintained for real-time sharing of information with all participating entities?
15.	Was an ICS 205 Communications Plan used to plan and guide incident communications?
16.	Did the HazMat response and Health Operations Center provide representative support for EOC SITREPS and call in conferences?
17.	Was coordination of incident site communications consistent with the National Incident Management System (NIMS) framework?




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POINTS OF REVIEW
EOC Management

1.	Were security and access control plans for EOC/HOC implemented? Was security for other venues planned for? (i.e. Laboratory)
2.	Was the EOC/HOC/MACC activated?
3.	Were EOC/MACC/IOF personnel activated, alerted, and requested?
4.	Were incoming personnel briefed?
5.	Were appropriate liaisons from different levels of government identified and brought to the EOC/MAC?
6.	Was EOC/HOC just in time specific training provided?
7.	Were the chief executive and other key officials briefed on the incident?
8.	Were the appropriate State Support Functions (SSFs) or HOC positions staffed?
9.	Was the SEOC/HOC able to support the jurisdictional emergency management operations?
10.	Were regularly scheduled SITREPS performed to keep the EOC/HOC population up to date?
11.	Did coordination exist with nongovernmental agencies and/or the private sector to collect/share data on the incident situation?
12.	Was information and intelligence collected, analyzed, and disseminated to the appropriate parties?
13.	Were needs/issues identified, tracked and elevated up the chain of command?
14.	Was resolution provided for legal, policy, political, social, and economic sensitivities of the affected jurisdiction(s) as they affect response and recovery operations?
15.	Were protective action decisions (PADs), formulated as needed?
16.	Were mutual aid agreements activated and documented to obtain resources?
17.	Were incident response operations supported by providing resources ordered by the HazMat responders through the EOC?
18.	Was there support for identification and determination of potential hazards and threats including mapping, modeling, and forecasting?




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APPENDIX C: PARTICIPANT FEEDBACK SUMMARY




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APPENDIX C:
Participant Feedback Summary

By utilizing a participant feedback survey, all of the individuals and agencies involved in the Sparkling Champlain FSE were able to provide ideas and comments indicating the exercise's successes and areas for improvement. Included in this summary is a compilation of the most common comments expressed by participants, as well as a sample participant feedback survey with data expressing the average of all the exercises feedback survey answers.

Strengths
DLAN worked very well for coordination.
Log/journal updating.
Participants worked well together in a non-threatening environment and it was easy to ask questions.
Excellent teamwork and participant engagement.
Communications between entry team and decon/base.
Safety officer did a great job with safety review and help with the media.
Equipment was functional and use of Teletrix made it realistic.
Good show of teamwork from VT HMRT.
Enthusiasm of players and volunteers.
Controllers managed the players effectively.
Transition to unified command was completed without disruption to operations.
Areas for Improvement
There was confusion on how samples should be sent to the lab and whether personnel should wait before sending victims for medical treatment.
I question if the simcell had enough players/evaluators.
There was no definition of rad fields within plume, data needed for model/refinement.
Interagency communications, i.e. radio interoperability – specifically how would the FBI communicate with DPS.
The lack of a fire chief to act as IC slowed the start and limited the creation of a unified command
Handling of potential evidence may not have been proper.
Sense of urgency to address incident (burn times). No health and safety plan – no signed IAP.
Provide anti-Cs for all player updates of the status of event.
Someone (other than IC at scene) should worry about prioritizing data collection away from the scene. RAP – 10 pt monitoring Plan.




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Assessment of Exercise Design and Conduct

Assessment Factor	Strongly Disagree				Strongly Agree
The exercise was well structured and organized.	1	2	**3.9**	4	5
The exercise scenario was plausible and realistic.	1	2	3	**4.1**	5
The facilitator/controller(s) was knowledgeable about the area of play and kept the exercise on target.	1	2	3	**4.0**	5
The exercise documentation provided to assist in preparing for and participating in the exercise was useful.	1	2	**3.6**	4	5
Participation in the exercise was appropriate for someone in my position.	1	2	3	**4.2**	5
The participants included the right people in terms of level and mix of disciplines.	1	2	3	**4.1**	5
This exercise allowed my agency/jurisdiction to practice and improve priority capabilities.	1	2	3	**4.1**	5
After this exercise, I believe my agency/jurisdiction is better prepared to deal successfully with the scenario that was exercised.	1	2	3	**4.0**	5

Note: Averages based on approximately 95 Participant Feedback Surveys received.

APPENDIX D: ACRONYMS

APPENDIX D:
Acronyms

Acronym	Meaning
AAR	After Action Report
AHS	Agency of Human Services
CBRNE	Chemical, Biological, Radiological, Nuclear, Explosive
CDC	Centers for Disease Control
CHP	Certified Health Physicist
CRZ	Contamination Reduction Zone
DEC	Department of Environmental Conservation
Decon	Decontamination
DEEP	Department of Energy and Environmental Protection
DLAN	Disaster LAN
DPH	Department of Public Health
EEG	Exercise Evaluation Guide
EMS	Emergency Medical Service
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
ExPlan	Exercise Plan
FBI	Federal Bureau of Investigation
FSE	Full Scale Exercise
FY	Fiscal Year
HASP	Health and Safety Plan
Hazmat	Hazardous material
HOC	Health Operations Center
JIC	Joint Information Center
JIS	Joint Information System
IAP	Incident Action Plan
IC	Incident Command
ICS	Incident Command System
ICT	Incident Command Team
IPC	Initial Planning Conference
MAC	Multi-agency coordination
MPC	Midterm Planning Conference

Acronym	Meaning
MSEL	Master Scenario Events List
OPHP	Office of Public Health Preparedness
PIO	Public Information Officer
POR	Point of Review
PPE	Personal Protective Equipment
RACES	Radio Amateur Civil Emergency Service
RAD	Radiation
RHC	Radiological Health Chief
RDD	Radiological Dispersal Device
SEOC	State Emergency Operations Center
Sitrep	Situation Report
SOP	Standard Operating Procedure
SSF	State Support Function
UC	Unified Command
USCG	United States Coast Guard
VDH	Vermont Department of Health
VEM	Vermont Emergency Management
VFA	Vermont Fire Academy
VHMRT	Vermont Hazardous Materials Response Team
VNG	Vermont National Guard
VRERP	Vermont Radiological Emergency Response Plan
VSP	Vermont State Police
WMD	Weapon of Mass Destruction