

# Fukushima, JAPAN RADIATION TABLETOP

March 18-April 1, 2011

AFTER ACTION REPORT/IMPROVEMENT PLAN

May 31, 2011



Homeland Security Exercise and Evaluation Program (HSEEP)  
After Action Report/Improvement Plan  
(AAR/IP)

Fukushima, Japan Radiation Response  
State of Florida, ESF- 8

The Fukushima, Japan Radiation Response After Action Report and Improvement Plan is in compliance with Homeland Security's Exercise and Evaluation Program (HSEEP) and will be used to enhance future Department of Health response plans, trainings, exercises, and event responses.

Adopted on 10/3/11 by:



Rhonda White, M.B.A.  
Chief  
Bureau of Preparedness and Response

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### ADMINISTRATIVE HANDLING INSTRUCTIONS

1. The title of this document Fukushima, Japan Radiation Tabletop
2. This is a public document – no special handling instructions are required.
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## EXECUTIVE SUMMARY

The real world events in Japan were used by a State ESF-8 planning cell to evaluate State Public Health and Medical [Emergency Support Function (ESF)-8] Planning and Communications capabilities during a radiological event. This was not a planned exercise, but involved an incremental increase in situational awareness among State ESF-8 Command and Planning Section personnel to anticipate a potential escalation of concerns from Japan as well as to examine current Florida Department of Health (DOH) and State Comprehensive Emergency Management Plan (CEMP) radiological plans and annexes.

The ongoing radiation release from the tsunami-damaged reactors in Fukushima, Japan, provided the scenario to support a State ESF-8 tabletop discussion of potential Florida issues.

- Objective 1: Review courses of action in current radiation response plans (both state and agency)
- Objective 2: Develop speaking points and other communications products to support DOH and county health department leadership.

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 corrective actions.

### Major Strengths

The major strengths identified during this exercise are as follows:

- The DOH Bureau of Radiation Control staff are very familiar with their roles and responsibilities and have the expertise to support radiological response.
- DOH has access to other radiological experts, specifically, Dr. John Lanza, who has a strong technical expertise combined with an ESF-8 response background.
- The State ESF-8 Information Management Unit allows for rapid input into the DOH Office of Communications, as well as SERT External Affairs (ESF-14).
- State ESF-8 Planning section personnel are familiar with contingency planning and their roles in a response.

### Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement in State ESF-8's ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- Clarifying roles and responsibilities between the DOH Office of Communications and State ESF-8 Information Management Unit
- Training State ESF-8 personnel to their roles and responsibilities in supporting a Florida radiological incident
- Supporting rumor control and media monitoring during a Florida radiological incident would be extremely difficult

- Determining the appropriate level of activation to support future planning without causing undue alarm among response partners or the general public

Overall, this exercise was useful in giving us a real world framework within which to evaluate our own plans and capabilities. There were elements of the Japanese response that bear further investigation, such as the long-term sheltering of over 500,000 people, contingency planning for the approaching May 31<sup>st</sup> Tropical Storm Songda (<http://abcnews.go.com/International/japan-battered-tropical-storm-songda-nuclear-reactor-fukushima/story?id=13720225>) and the impact of the tsunami storm surge on the local health and medical system.

## SECTION 1: EXERCISE OVERVIEW

### Exercise Details

**Exercise Name**

Fukushima, Japan Radiation Tabletop

**Type of Exercise**

Tabletop

**Exercise Start Date**

March 18, 2011

**Exercise End Date**

April 1, 2011

**Duration**

Two weeks

**Location**

Florida Department of Health buildings at the Capital Circle Office Complex, Tallahassee, FL. By conference call and through e-mail during the week.

**Sponsor**

N/A

**Program**

Public Health Emergency Preparedness Cooperative Agreement, 2010-2011

**Mission**

Response

**Capabilities**

Planning and Emergency Public Information and Warning

**Scenario Type**

Radiation release from a damaged nuclear power plant in Fukushima, Japan.

### Exercise Planning Team Leadership

There was no exercise planning team, however, the Division of Emergency Medical Operations Director, Jean Kline, and the Bureau of Preparedness and Response Chief, Rhonda White, authorized the activation of key staff to “play” the real world event.

### Participating Organizations

State ESF-8 Emergency Coordinating Officer, Agency Representative (Command Staff)

State ESF-8 Planning Section Coordinator, Situation Unit Lead, Information Management Unit

Lead (General Staff and supporting units)

State ESF-8 Medical Officer (Command Staff)

DOH Environmental Health radiation technical specialists

DOH Division of Disease Control technical specialists

State ESF-8 Information Management personnel

### **Number of Participants**

- Players: 14
- Controllers: 0
- Evaluators: 0
- Facilitators: 0
- Observers: 0
- Victim Role Players: 0

## SECTION 2: EXERCISE DESIGN SUMMARY

There was no exercise design team.

### Exercise Purpose and Design

N/A

### Exercise Objectives, Capabilities, and Activities

Planning and Emergency Public Information and Warning Capabilities

Activities included developing incident-related speaking points, situation reports, media and rumor monitoring reports and conducting regular incident planning meetings and conference calls.

### Scenario Summary

Earthquake Causes Nuclear Disaster

Disaster struck on Saturday, March 12, when about 26 hours after the 9.0 magnitude earthquake, an explosion in reactor No. 1 at the Fukushima Daiichi Nuclear Power Station caused one of the buildings to crumble to the ground. The cooling system at the reactor failed shortly after the earthquake. Officials feared that a meltdown had occurred, and radioactive material was detected outside the plant. These fears were realized on March 13, when officials said they believed that partial meltdowns occurred at reactors No. 1 and No. 3. The cooling systems at another plant, Fukushima Daini, were also compromised but the situation there seemed to be less precarious. More than 200,000 residents were evacuated from areas surrounding both facilities. Problems were later reported at two other nuclear facilities. By Tuesday, March 15, two more explosions and a fire had officials and workers at the Fukushima Daiichi Nuclear Power Station struggling to regain control of four reactors. The fire, which happened at reactor No. 4, released radioactivity directly into the atmosphere. The Japanese government told people living within 20 miles of the Daiichi plant to stay indoors, not use air conditioning, and keep their windows closed. More than 100,000 people are in the area. On Wednesday, March 16, while safety workers were still trying to contain the fire at reactor No. 4, officials announced that reactor No. 3 may have ruptured and appeared to be releasing radioactive steam. According to Tokyo Electric Power, the plant's operator, 5 workers have died and 22 more have suffered various injuries since the quake.

<http://www.infoplease.com/science/weather/japan-tsunami-2011.html>

### SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by capability and associated activities. The capabilities linked to the exercise objectives of Fukushima, Japan Radiation Tabletop are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

#### Capability 1: Planning Capability

**Capability Summary:** Planning is the mechanism through which Federal, State, local and tribal governments, non-governmental organizations (NGOs), and the private sector develop, validate, and maintain plans, policies, and procedures describing how they will prioritize, coordinate, manage, and support personnel, information, equipment, and resources to prevent, protect and mitigate against, respond to, and recover from Catastrophic events. Preparedness plans are drafted by a litany of organizations, agencies, and/or departments at all levels of government and within the private sector. Preparedness plans are not limited to those plans drafted by emergency management planners. The planning capability sets forth many of the activities and tasks undertaken by an Emergency Management planner when drafting (or updating) emergency management (preparedness) plans.

**Activity 1.1:** Review of Radiological/Nuclear Incident Response Plan (support plan to the State Radiological Incident Annex)

**Observation 1.1:** This is an area of improvement. State ESF-8 staff are not comfortable with their ability to implement Appendix 6 in a scenario similar to what occurred in Fukushima Prefecture, Japan.

**References:** Appendix 6 to Annex A of the Florida CEMP

**Analysis:** Florida DOH Bureau of Radiation Control technical specialists are well prepared for their response roles, however, the larger incident management challenges presented by a reactor meltdown would quickly overwhelm these technical specialists. Risk communications would be particularly challenging.

**Recommendations:** Participate in the July 2011 Radiation Exercise to further develop confidence in ESF-8 response roles.

1. Radiological technical specialists should conduct orientation to key aspects of hazard and response activities within the DOH Bureau of Radiation Control.
2. State ESF-8 Planning and Logistics Staff should participate in the July Exercise.

#### Capability 2: Emergency Public Information and Warning Capability

**Capability Summary:** The Emergency Public Information and Warning capability includes public information, alert/warning and notification. It involves effectively developing, coordinating, and disseminating information for all hazard conditions to the public, coordinating officials, and incident management and responders across all jurisdictions and disciplines..

**Activity 1.1:** Implementing the DOH Crisis and Emergency Risk Communications (CERC) Plan

and the draft Media and Rumor Monitoring Standard Operating Guidelines (SOGs)

**Observation 1.1:** The Information Management Unit participants were able to support the development of speaking points, but the larger issues of communicating effectively with healthcare providers and the general public during a large-scale radiological response need further work.

**References:** DOH Crisis and Emergency Risk Communications (CERC) Plan and the draft Media and Rumor Monitoring Standard Operating Guidelines (SOGs)

**Analysis:** The Rumor and Media Monitoring SOGs need to be further exercised in a Florida incident scenario. The information available from Japan triggered some excellent discussions, but did not allow for further work on these SOGs.

**Recommendations:** Include a strong CERC component in the July Radiological Exercise.

1. Simulate social media monitoring and response.
2. Exercise future considerations, as a radiological event will extend for many months if not years.
3. Integrate the DOH Office of Communications staff into exercise.

#### **SECTION 4: CONCLUSION**

The radiation emergency in Japan provided an excellent opportunity for State ESF-8 staff to examine the potential for that incident to impact Florida, but also to review plans in case one of Florida's power plant reactors melted down in a similar fashion. The overwhelming conclusion was that more State ESF-8 staff should participate in the annual SERT Nuclear Power Plant Exercises and that the roles and responsibilities for Public Health and Medical will be much larger and more difficult than we had previously imagined.

## Homeland Security Exercise and Evaluation Program (HSEEP)

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### APPENDIX A: IMPROVEMENT PLAN (IP)

This IP has been developed specifically for State ESF-8 Command and General Staff positions as a result of Fukushima, Japan Radiation Tabletop conducted March 18-April 1, 2011. These recommendations draw on both the After Action Report and the After Action Conference.

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Due Date
Planning Capability	1. State ESF-8 staff are not comfortable with their ability to implement Appendix 6 in a scenario similar to what occurred in Fukushima Prefecture, Japan.	1.1 Conduct technical specialist briefing wherein radiological experts orient State ESF-8 staff to the nature of the hazard and key response objectives	1.1.1 Conduct radiological hazard orientation	Planning	DOH Bureau of Preparedness and Response	ESF 8 Systems Unit, Samantha Cooksey	5/31/2011	3/1/2012
			1.1.2 Recommend additional training for State ESF-8 responders	Training	DOH Bureau of Preparedness and Response	ESF 8 Systems Unit, Samantha Cooksey	5/31/2011	5/31/2012
		1.2 Ensure that future Exercises test the State Public Health and Medical response system by having more staff participate from the ESF-8 Planning and Logistics	1.2.1 Design injects that support healthcare providers and systems response objectives	Exercise	DOH Bureau of Preparedness and Response	ESF 8 Systems Unit, Samantha Cooksey	5/31/ 2011	Completed 9/1/2011
			1.2.2 Design injects that support	Exercise	DOH Bureau of Preparedness and Response	ESF 8 Systems Unit, Samantha	5/31/ 2011	Completed 9/1/2011

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		Sections, as well as ESF-10 and SERT Partners.	responder safety and health objectives		ess and Response	Cooksey		
Emergency Public Information and Warning Capabilities Capability	1. The Information Management Unit participants were able to support the development of speaking points, but the larger issues of communicating effectively with healthcare providers and the general public during a large-scale radiological response need further work	2.1 Simulate social media monitoring and response	2.1.1 Develop injects from social media sources and utilize rumors that have gone "viral"	Exercise	DOH Bureau of Preparedness and Response	Information Management Unit, Ann Rowe-McMullen	5/31/2011	4/30/2012
		2.2 Exercise future considerations as a radiological event that will extend for many months, if not years.	2.2.1 Design injects that support long-term impacts into comms objectives	Exercise	DOH Bureau of Preparedness and Response	Information Management Unit, Ann Rowe-McMullen	5/31/2011	4/30/2012
			2.2.2 Design injects that support responder safety and health objectives	Exercise	DOH Bureau of Preparedness and Response	ESF 8 Systems Unit, Samantha Cooksey	5/31/2011	Completed 9/1/2011
		2.3 Integrate DOH Office of Communications staff into exercises	2.3.1 Ensure key DOH Office of Communications staff are briefed for and participate in future exercises	Planning	DOH Bureau of Preparedness and Response	Information Management Unit, Ann Rowe-McMullen	5/31/2011	4/30/2012

### Table A.1: Improvement Plan Matrix

#### APPENDIX B: LESSONS LEARNED

While the After Action Report/Improvement Plan includes recommendations that support development of specific post-exercise corrective actions, exercises may also reveal lessons learned that can be shared with the broader homeland security audience. The Department of Homeland Security (DHS) maintains the *Lessons Learned Information Sharing* (LLIS.gov) system as a means of sharing post-exercise lessons learned with the emergency response community. This appendix provides jurisdictions and organizations with an opportunity to nominate lessons learned from exercises for sharing on *LLIS.gov*.

For reference, the following are the categories and definitions used in LLIS.gov:

- **Lesson Learned:** Knowledge and experience, positive or negative, derived from actual incidents, such as the 9/11 attacks and Hurricane Katrina, as well as those derived from observations and historical study of operations, training, and exercises.
- **Best Practices:** Exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.
- **Good Stories:** Exemplary, but non-peer-validated, initiatives (implemented by various jurisdictions) that have shown success in their specific environments and that may provide useful information to other communities and organizations.
- **Practice Note:** A brief description of innovative practices, procedures, methods, programs, or tactics that an organization uses to adapt to changing conditions or to overcome an obstacle or challenge.

#### Exercise Lessons Learned

No lessons learned from this discussion-based exercise will be posted to the LLIS.

### APPENDIX C: PARTICIPANT FEEDBACK SUMMARY

Japanese Radiation Event  
After Action Review  
April 1, 2011  
Bldg. 4042; Room 301  
1-888-808-6959; 6181087

Jean Kline  
Valerie Beynon  
Kristin Green  
Bill Hansen

Tom Belcuore  
Ann Rowe-McMullen  
Aaron Otis  
Dr. John Lanza

Rhonda White  
Lisa Gordon  
Mike McDonald

#### Division Director's Comments:

- Information flow (notes, who is covering, etc.) from Association of State and Territorial Health Officials (ASTHO) calls disjointed and needs to be clarified.
  - Overall level of support was good
  - Developed better integration with Communications Office, Division of Environmental Health, etc.
  - May have missed additional “teachable” moments
- I. Media/Rumor Control SOGs
- a. Current SOGs worked for this event and are scaleable for larger events
    - i. “Blackberry” version works well
    - ii. More context needed from other Sections and Units to better focus products
  - b. Social media not fully integrated
    - i. Limited Twitter access
    - ii. Needs integration with situational awareness
    - iii. Needs integration with communications
    - iv. Needs integration with rumor control
- II. DOH/ESF-8 Roles & Responsibilities Document
- a. State ESF-8 personnel lack awareness of leading roles in radiation response
  - b. Radiological exercise have not covered all aspects of response, such as communications overload at multiple levels
  - c. General public has a very high fear factor when it comes to radiation
- III. Technical Specialist Support for Radiological folks
- a. July exercise should be an excellent opportunity to learn more from our radiological technical specialists
  - b. We may want to activate Technical Specialist Unit earlier to provide more opportunity for development
- IV. Information for DOH and SERT Radiological Annexes?
- a. Role of CHDs/DOH in screening, sheltering, etc. is a big gap

- b. How comfortable are hospital and other medical providers with radiation response?
  - c. Preventative Radiological/Nuclear Detection (PRND) document is attached to Appendix 6
  - d. DOH Radiological Annex just started
- V. Leadership Briefing Document on DOH Radiological Roles
- a. Radiological Appendix 6 to Annex A of SERT Comprehensive Emergency Management Plan (CEMP) will be included in the State Surgeon General brief
  - b. July exercise may be another briefing moment
- VI. Next Steps
- a. July Radiological Exercise will a good place to get more systematic work with radiological response
  - b. DOH Radiological Annex work continues
  - c. Appendix 6 of Annex A will be completed shortly
  - d. Radiological response training for State ESF-8 Staff?

**APPENDIX D: EXERCISE EVENTS SUMMARY TABLE**

**Table D.1: Exercise Events Summary**

Date	Time	Scenario Event, Simulated Player Inject, Player Action	Event/Action
3/11/11			Earthquake struck off the coast of Japan triggering a tsunami which caused widespread damage in north eastern Japan.
3/14/11			Reports of significant damage to Japan Nuclear Power Plants were in the news and reports of increased radiation levels.
3/18/11			FDOH began to see an increase in questions and media interest about impacts of Japan's radiation release on Florida
3/20/11			FDOH stood up a modified incident management team to focus on information management and rumor control.
4/1/11			IMT demobilized.

**APPENDIX F: ACRONYMS**

**Table F.1: Acronyms**

<b>Acronym</b>	<b>Meaning</b>
AAR/IP	After Action Plan/Improvement Plan
CERC	Crisis and Emergency Risk Communications
CEMP	Comprehensive Emergency Management Plan
CHD	County Health Department
DOH	Department of Health
ESF	Emergency Support Function
ESF8	Emergency Support Function 8 – Public health and Medical
ESF10	Emergency Support Function 10 – Hazardous Materials
ESF14	Emergency Support Function 14 – External Affairs
LLIS	Lessons Learned and Information Sharing
SERT	State Emergency Response Team
SOG	Standard Operational Guidelines
TEST	Training and Exercise Support Team