

Japanese Nuclear Emergency: EPA's Radiation Monitoring

2012 OSC Readiness Training
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Region 10 OSC



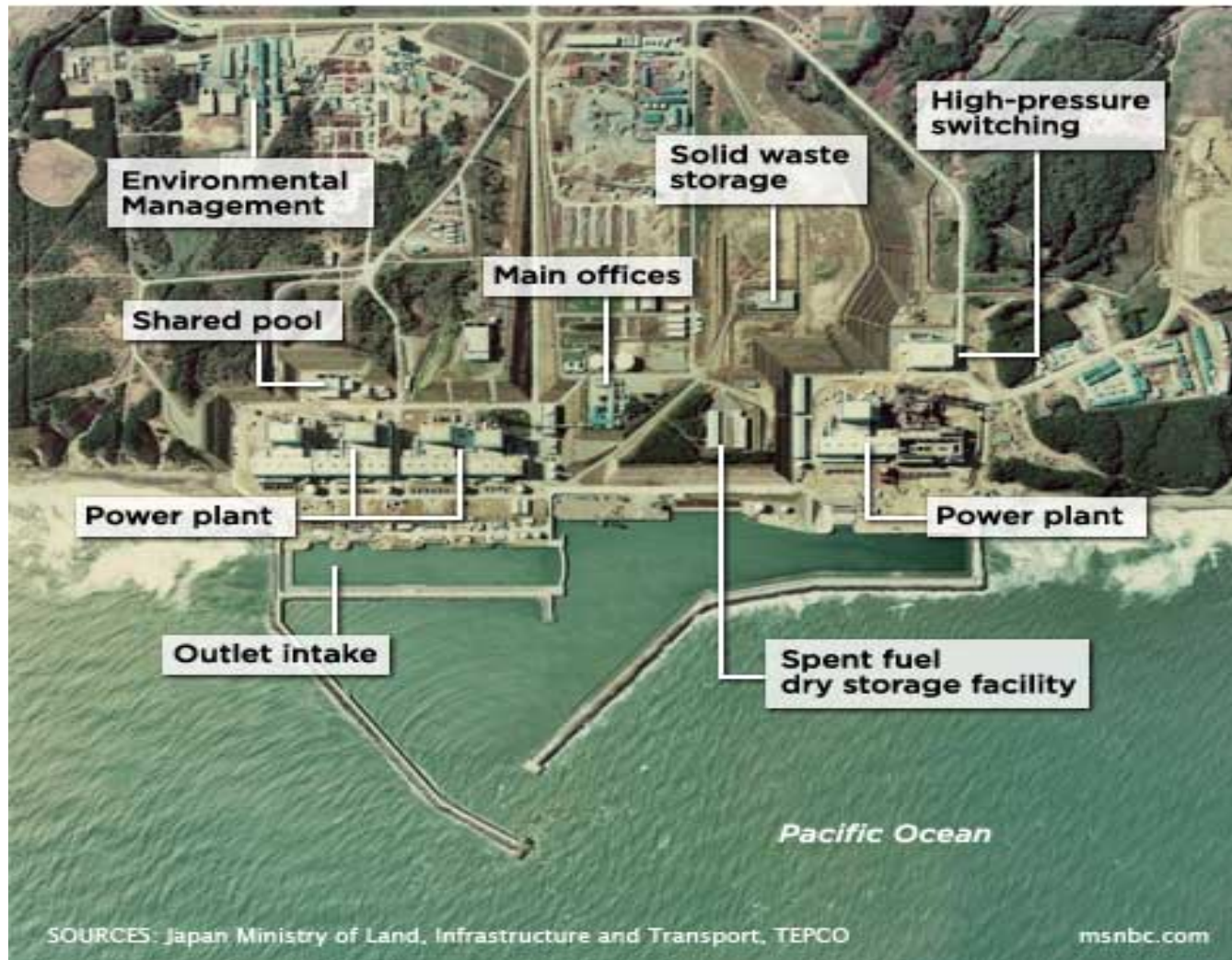
Japan

11 March 2011

- 9.0 earthquake and subsequent tsunami off the coast of Japan
- Fukushima Daiichi Nuclear Power Plant suffered equipment failures and the loss of cooling
 - Resulted in radiological releases into the atmosphere and adjacent marine waters



Fukushima Daiichi Nuclear Power Station



U.S. Response



- Nuclear experts and response team from the U.S. Departments of Defense and Energy and the Nuclear Regulatory Commission went to Japan to support their nuclear safety and public protection efforts
- All federal agencies with responsibility in public health, nuclear safety, transportation, food, and agriculture were fully engaged in monitoring the events to evaluate the possibility of environment or health impacts in the United States

U.S. National Radiation Monitoring

- EPA's Mission:
 - National monitoring of radiation particles in the atmosphere from the Fukushima Plant
 - Coordinate and provide technical assistance to the other public health, nuclear safety, transportation, food, and agriculture agencies
 - Provide risk communication to the U.S. population



EPA's Radiation Air Monitoring Capabilities

- EPA's nationwide radiation monitoring system, RadNet, continuously monitors the nation's air and regularly monitors drinking water, milk, and precipitation for environmental radiation
- Network contains more than 100 real-time stationary air monitors across the U.S.
- EPA has 40 deployable air monitors that can be sent to take readings anywhere in the country to supplement the RadNet network

EPA Region 10 Effort



- Stationary monitors:
 - Alaska (Anchorage, Fairbanks, Juneau)
 - Idaho (Boise)
 - Oregon (Corvallis, Portland)
 - Washington (Olympia, Richland, Spokane)
- Deployable monitors:
 - Alaska (Dutch Harbor, Nome, Juneau)
 - Boise
 - Seattle

Monitoring Process

- All deployable units had filters changed out and sent daily to EPA's National Air & Radiation Environmental Lab (NAREL) in Montgomery, Alabama for analysis
- Quarterly RadNet milk, rain water, and drinking water samples also sent to NAREL for analysis
- Processed data sets sent to EPA HQ for QA/QC
- Final data sets sent to EPA Regions for State distribution
- Final data sets also posted to the EPA Japan 2011 and EPA EnviroFacts and RadNet websites

Comparing Chernobyl Data to Current Event Data

	Highest Iodine-131 in Air	Highest Iodine-131 in Milk	Highest Iodine-131 in Rain
Chernobyl 1986	1.6 pCi/m ³ Boise & Phoenix	136 pCi/L Spokane	6,620 pCi/L Spokane
Japan 2011	0.84 pCi/m ³ Boise	0.84 pCi/m ³ Hilo, HI	390 pCi/L Boise

Current Situation

- All EPA personnel manning deployable monitors have been demobilized
- All deployable monitors have been demobilized
- Information coordination with locals, States, and other elected officials continues, as appropriate



Summary

- The levels detected are far below levels of concern
- For more information:
 - FAQs on Japan Nuclear Emergency
www.epa.gov/japan2011/japan-faqs.html
 - RadNet www.epa.gov/radnet

