EPA Emergency Response Program

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ER Program Roles & Responsibilities

- The National Response System is the framework under which we operate
- EPA (with USCG) is the Coordinator and Primary Agency for ESF #10, Oil and Hazmat Response under the National Response Framework
- The ER program is spread across 10 regions, HQ offices, and designated special teams
- Over 250 EPA On-Scene Coordinators, 4 special teams (over 100 members), 2000 Response Support Corps and EPA contractors can be mobilized in support of incidents.
ER Program – Always Ready to Respond

- EPA receives over 30,000 notifications annually
- Notifications result in approx 300 responses led by EPA OSCs in the 10 regions and hundreds of responses where we provide more limited assistance
- Significant incidents require a high-level of interagency, state and local coordination
- EPA also pre-deploys for designated nationally significant events (e.g., Superbowl, NATO Summit, Times Square New Year’s Eve, Rose Bowl, etc.)
- EPA Special Team support includes, ERT, CBRN CMAT, RERT and NCERT personnel and equipment
ER Program – Core Mission

“...protect human health and to safeguard the natural environment...”

- Identify, contain, and cleanup releases of oil or hazardous materials,
- Air quality sampling and monitoring,
- Water quality monitoring and protection,
- Removal of drums, barrels, tanks or other bulk containers,
- Protection of natural resources,
- HHW Collection and disposal (including white goods and electronics and when under mission assignment)
ER Program Authorities

- National Oil & Hazardous Substances Pollution Contingency Plan (NCP)
- Clean Water Act/Oil Pollution Act
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA)
- Resource Conservation and Recovery Act (RCRA)
- Stafford Disaster Relief/Emergency Assistance Act
- National Response Framework (replaces NRP)
- Homeland Security Presidential Directives
A Selection of Notable Incidents

- Hurricane Irene/Tropical Storm Lee
- Silvertip Pipeline Oil Spill
- Joplin Tornado
- Enbridge Oil Spill
- DeepWater Horizon (BP Oil Spill)
- Japan Radiological Incident
Hurricanes & Flooding – Irene/Lee

- **Synopsis:** During late August and early September 2011 Hurricane Irene and TS Lee caused significant flood damage along the East Coast.

- **EPA Role:** Regions 1, 2, 3 and 4 provided support to impacted states upon request and under FEMA mission assignment. Support included recon, chemical and water facility assessments, HHW collection and contaminated debris management.
Hurricanes & Flooding
Hurricane Irene/TS Lee Observations

- Pre-landfall is the time to “grease the skids”
- Preparation activities can prevent releases
- Successful State coordination comes out of good long-standing relationships
- Cost-share on FEMA MAs a concern in tough State fiscal environments
**Synopsis:** On July 1, 2011, a break occurred in a 12-inch pipeline (ExxonMobil) under the Yellowstone River 20 miles upstream from Billings, MT. An estimated 1,000 barrels of oil entered the river. Evidence of oil was visible 45 miles downstream from the break.

**EPA Role:** EPA Region 8 was designated as the FOSC and led the response in close coordination with MT and other federal agencies, including USCG, DOI and DOT.
Silvertip Spill
Silvertip Spill Observations

- Pre-plan response tactics and expected resources
- Engage all local experts (e.g., health, resource trustees, responders) early in the process
- Use a variety of media and public information venues (e.g., community meetings, fact sheets, website) to communicate and repetition is OK
- Active oversight and competitive contracting of hazmat contractors can speed the cleanup and save money
- Involve stakeholders in the lessons learned process and prepare for candid communications
Joplin Tornado

- **Synopsis:** On May 22, 2011, a major tornado (rated EF-5) touched down in Joplin, Mo., killing more than 150 people, injuring hundreds, and destroying more than 8,000 structures in the community of nearly 50,000 residents.

- **EPA Role:** EPA Region 7 was involved in several response efforts under FEMA, including emergency responses, rapid needs assessments of damaged or destroyed facilities, removal of HHW, white goods and e-goods, and conducting air monitoring for the presence of asbestos and particulate matter.
Joplin Tornado
Joplin Tornado Observations

- Discuss response goals with State and other Feds
- Access existing debris management plans
- Coordination with USACE critical for ensuring proper waste segregation
- Communication with landfill owners/operators needed to determine allowable operating plan modifications – be ready to adapt
- Communicate to the public early and often and especially when decisions are made
Enbridge Pipeline Oil Spill

- **Synopsis:** On 7/26/10, Enbridge Energy partners reported a pipeline break in a 30 inch line near Marshall, MI. An estimated 819K gal oil entered the water. At the peak of the response, 2500 personnel were on site and 171K ft boom in the water. To date, 1.15M gal oil collected, 17M gal oil/water collected, and 186K cu yds of debris disposed.

- **EPA Role:** EPA was the FOSC with the lead for the response. Unified Command included, MI DNR, RP, numerous county and city officials. There were over 25 cooperating and assisting agencies.
Enbridge Pipeline Oil Spill
Enbridge Oil Spill Observations

- Largest oil spill in navigable waters in the history of the Midwest
- Containment of the released oil was the first response priority and protection of public health was a primary objective throughout the response
- Maintaining open communication with the public was an essential component of the spill response
- Consultation with natural resource trustees improves decision-making
- For a prolonged response make plans for removal of oil under seasonal conditions (e.g., improved access to remote areas during cold weather)
- Submerged oil recovery enhanced through innovative or improvised techniques
Innovative Oil Cleanup Techniques

Hand-Held Stingers
Innovative Oil Cleanup Techniques cont.

Spray Bar
Innovative Oil Cleanup Techniques cont.

Chain Drag
Innovative Oil Cleanup Techniques cont.

Pumper Boats
Innovative Oil Cleanup Techniques cont.

Sheen Sweep Boats
Deepwater Horizon

- **Synopsis:** On 4/20/10 an explosion and fire on the Deepwater Horizon oil rig led to a 3 month unabated oil release (est. 4.9M barrels) in the Gulf of Mexico. Clean-up costs and economic losses est. at $40B. Approx. 50K workers participated in the response. Over 13 million feet of boom and 1.8M gallons of dispersants was used.

- **EPA Role:** EPA served as an assisting agency providing policy, scientific, and technical support to the response effort, including guidance on use of dispersants, air and water sampling and monitoring, shoreline and marsh cleanup, public communication and other response and recovery actions.
Deepwater Horizon
Deepwater Horizon Oil Spill
Deepwater Horizon Observations

- Use of ICS was key allowing EPA to “plug and play” with other agencies and reach back for EPA support outside of the impacted regions (R4 and R6).
- Large responses need a common data management platform
- Recognize that decisions are made via a variety of drivers - science, public input, media reporting and other factors
- Consistent and clear tactical tasks, H&S programs and mobilization procedures are critical for large, sustained, multi-agency responses
- Unprecedented responses require innovative thinking and flexibility based on sound knowledge of applicable regulations and historical experiences
Japan Radiological Incident

- **Synopsis:** On 3/11/11 a major earthquake and tsunami off the coast of Japan led to a major accident at the Fukushima Daiichi nuclear power plant. The resulting radiation release was measurable (although not at harmful levels) in the U.S.

- **EPA Role:** In response to the Japanese nuclear incident, EPA accelerated and increased sampling frequency and analysis across the nation to confirm that there were no harmful levels of radiation reaching the U.S. from Japan and to inform the public about any level of radiation detected.
Japan Incident

RadNet Deployable Monitors:

Nome

Juneau

Saipan

RadNet
Tracking Environmental Radiation Nationwide
Japan Incident Observations

- National radiological monitoring systems (e.g. RadNet) should be enhanced through technology upgrades and inter-organizational cooperation
- The depth and quality of rad expertise, especially for laboratory capacity should be increased
- Public communication on radiological emergencies can be improved through use of social media, more user-friendly databases, and pre-scripted messaging
- Further evaluation of Federal plans, procedures, and guidance is recommended (e.g., NRF, EPA PAGs, etc.)
Common Themes

- RRTs play an important role in planning, prevention and response activities
- Common operating structures (e.g., ICS) and policies (e.g., NRF) are needed for inter-operability
- Responses are dynamic and there is a constant need for information, especially for larger incidents (on the 24/7 news cycle)
- Keep public messaging consistent across all levels
- Responses impact people, communicating risks to the public is critical
- Data – require a combination of quick collection and dissemination - balanced against the need for quality assurance
Questions?

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