

FISCAL YEAR (FY) 2009 ANNUAL REPORT

EMERGENCY MANAGEMENT PREVENTION ~ PREPAREDNESS ~ RESPONSE



Message from Dana Tulis, Acting Director of EPA’s Office of Emergency Management

During the past year, we had many opportunities to work with our federal, state, and local partners to increase and strengthen the nation’s capabilities and capacity to prevent, prepare for, and respond to emergencies both large and small.

Highlights of the year include:

- the March launch of RMP*eSubmit, the new online system for submitting Risk Management Plans. Review of RMP data found that since the program’s inception in 1999, the number of accidents reported per year has declined by approximately 40 percent;
- the completion of 368 emergency responses and removals;
- a report on the nationwide survey of Local Emergency Planning Committees;
- the release of technical guidance for methamphetamine (meth) laboratory cleanup; and
- the initiation of a large-scale recruitment effort for the Environmental Response Laboratory Network.

We also identified strategic priorities for the next five years in our four key program areas: Emergency Response and Removal (ERR); Chemical Emergency Preparedness and Prevention (CEPP); Oil Spill Prevention, Preparedness, and Response (Oil Program); and Homeland Security. We look forward to working with stakeholders to address these priorities in the near future.

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Emergency Response and Removal (ERR)

The mission of EPA's ERR Program is to respond to immediate threats from releases of hazardous substances and oil. The first priority is to eliminate any danger to the public. Over the last 40 years, the nature of the contaminants, number of responses by potentially responsible parties, and the capacity and capability of states have varied. Despite the geographic and other differences among the 10 EPA Regional offices, EPA Headquarters and Regions work together to ensure consistency and effectiveness of response activities.

For typical ERR activities, EPA:

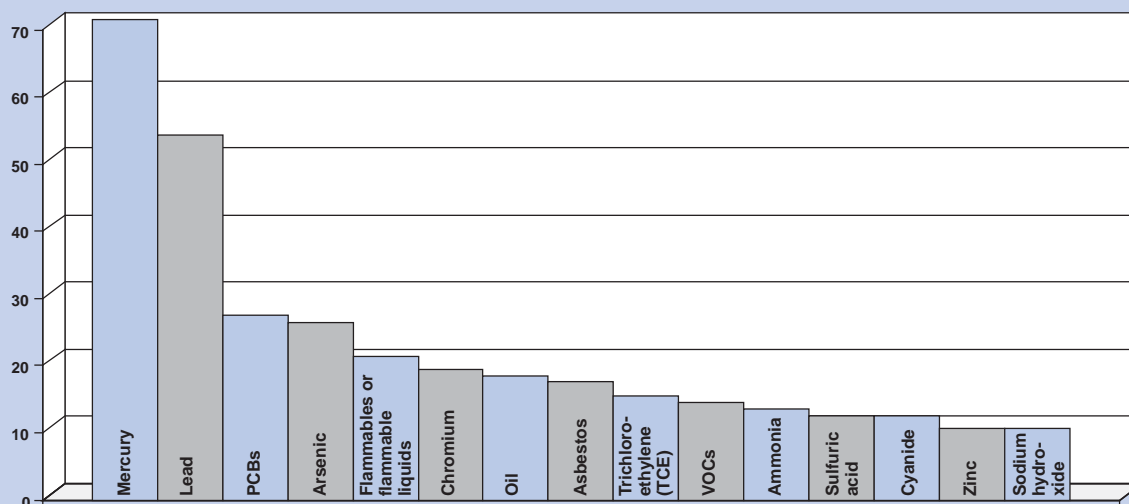
- Identifies the contaminants at the site that are of concern to adjacent communities;
- Measures the extent to which these contaminants are present at the site and whether they are migrating offsite;

- Estimates the level of risk associated with different activities that may bring individuals in contact with contaminants; and
- Coordinates with local and state governments and other federal agencies during the response and removal.

In Fiscal Year (FY) 2009, EPA completed 368 ERRs, avoiding an estimated 1,900,000 human exposures to hazardous substances, which means that approximately 13,500 human exposures were avoided per every \$1 million of extramural funding. The five leading contaminants at removal sites were (see [Figure 1](#)):

- Mercury
- Lead
- PCBs
- Arsenic
- Flammables or flammable liquids

Figure 1: Removal Actions Completed by EPA in FY 2009 by Contaminant*



* Contaminant data reflects information found in CERCLIS, EPA Pollution Reports, and EPA Action Memos.

The following section describes three examples of removal actions conducted in FY 2009.

EPA Oversees Safe Removal of Cyanide Cylinder from Community Dighton, Kansas

On October 21, 2008, EPA Region 7 received notification that a cylinder labeled “liquid hydrocyanic acid” was discovered and moved by the County Emergency Manager from a private shed in Dighton, Kansas to the Lane County Public Works Yard. EPA contacted Wyeth, a subsidiary of the company that was originally responsible for the cylinder. Wyeth provided background information on the cylinder’s contents and agreed to provide EPA with contract resources to assist in the removal of the tank from the public works yard. On October 31, 2008, with the assistance of Wyeth contractors, an EPA On-Scene Coordinator (OSC) oversaw the controlled detonation and burning of the contents of the cylinder while conducting real-time air monitoring for cyanide. This controlled process protected approximately 1,200 people in the surrounding community from exposure to cyanide gas that may have been released into the air if the cylinder was accidentally ruptured.

EPA Responds to Collapse at Allied Terminals, Inc. Facility Chesapeake, Virginia

On November 12, 2008, a storage tank at the Allied Terminals facility in Chesapeake, Virginia collapsed, spilling 2 million gallons of liquid fertilizer into three adjacent city streets. The spill resulted in the evacuation of 23 homes and threatened to contaminate the nearby Elizabeth River.

EPA OSCs quickly arrived and staffed the site 24 hours a day as part of a unified command led by the Chesapeake Fire Department. Throughout the response, EPA OSCs worked closely with the fire department, the Virginia Department of Environmental Quality (VADEQ), and Allied Terminals to address environmental impacts and human health concerns. EPA met with residents to address their

health concerns and worked closely with the Centers for Disease Control and Prevention’s Agency for Toxic Substances and Disease Registry to address health-related issues and to establish exposure limits.

While Allied Terminals focused on the environmental cleanup, containing the liquid fertilizer at the facility and removing it from residential properties, EPA and VADEQ monitored the Elizabeth River and nearby homes for potential impacts. As a precaution, EPA and VADEQ requested that Allied Terminals continue to monitor the air for ammonia vapors, the primary health concern, in the event that ammonia vapors resurged.

EPA Cleans Up Radiological Waste in Pennsylvania

At the request of the Commonwealth of Pennsylvania, EPA completed a rare emergency radiation cleanup at Strube, Inc. when the Pennsylvania Department of Environmental Protection (PADEP) discovered that eight of the company’s warehouses were full of improperly secured radioactive materials. Seven of the warehouses lacked fire-suppression systems. The warehouses were located across seven properties within several townships in Lancaster County. PADEP determined that without intervention, a fire could spread radioactive material across densely-populated communities and prime agricultural land.

In December 2008, EPA completed a 10-month removal action at six of the eight warehouses, removing more than 1,900 drums, 34 cubic-yard super-sacks of radium-contaminated items, and one 55-gallon drum of mercury-containing instruments. The source of the radioactive materials included a large collection of military instruments marked with radium-226 luminescent paint. Instruments included gyroscopes, gauges, aircraft dials, pointer needles, switches, counters, light bulbs, weights, screws, and bolts that were being stored in the warehouses. EPA packed the contaminated military equipment into 55-gallon drums and shipped them to the Oak Ridge, Tennessee Toxco Inc. facility, where the drums were compacted and shipped to Hanford, Washington for proper disposal. Approximately

400,000 items containing radium-226 paint were compacted for disposal at the U.S. Department of Energy's Hanford, Washington Nuclear Reservation. The cleanup was completed in January 2009, and two of the warehouses were subsequently removed from Strube, Inc.'s state license to handle radioactive materials. Under state oversight, Strube, Inc. continues the final decommissioning and cleanup of any remaining contamination in the warehouses that were subject to removal action by EPA.

EPA Releases Voluntary Guidelines for Methamphetamine (Meth) Laboratory Cleanup

The production and use of meth across the United States continues to pose considerable challenges to the nation. Despite a decline in domestic production of meth in recent years, vigilance is warranted not only because of the destructive nature of meth itself, but also due to the significant environmental hazards meth laboratories generate.

EPA recently released guidelines to provide technical guidance for state and local personnel responsible for meth lab cleanup as required by the Methamphetamine Remediation Research Act of 2007. The guidelines are based on an extensive review of the best available science and practices and address general cleanup activities, identify best practices for specific items or materials, discuss sampling procedures, and provide additional technical resources.

For more information, visit:

www.epa.gov/emergencies/methlab.htm

Chemical Emergency Preparedness and Prevention (CEPP)

EPA works with industry; community representatives; and state, local, and tribal governments to help prepare for and prevent accidental chemical releases. The CEPP Program includes risk management planning at certain chemical facilities, the Emergency Planning and Community Right-to-Know Act (EPCRA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Each of these programs plays an important role in increasing transparency and communication among facilities, governments, and communities in order to facilitate the prevention of accidents when possible and plan for effective emergency response actions when they are necessary.

EPA Launches First Web-Based Process for Risk Management Plan Submission

Under Clean Air Act regulations, facilities must review and update their Risk Management Plans (RMPs) at least every five years, and 2009 marked the latest five-year update cycle. In March 2009, EPA's Office of Emergency Management (OEM) launched a new online submission process for RMPs called RMP*eSubmit. Through RMP*eSubmit, facilities can now access and update their RMPs 24 hours a day, seven days a week. In FY 2009, more than 5,500 RMPs were submitted using the new RMP*eSubmit tool via a secure online system. This new system has significantly improved the quality of the RMP National Database by performing real-time validation of data entries and providing immediate feedback to users on potential errors before they complete their

RMP Inspector Training

submission. EPA has also made the full set of RMP data available online via RMP*Info to emergency planners and implementing agencies, including: federal and state regulatory authorities; State Emergency Response Commissions (SERCs); Local Emergency Planning Committees (LEPCs); and Tribal Emergency Response Commissions. Based on submission rates to date, the new tool is quickly being adopted by facilities across industries.

For more information, visit:

www.epa.gov/emergencies/content/rmp

In FY 2009, OEM updated its RMP Inspector Training course and provided this updated training to approximately 100 inspectors nationwide. Regional offices are also providing inspector training courses and guidance materials to state and local inspectors.

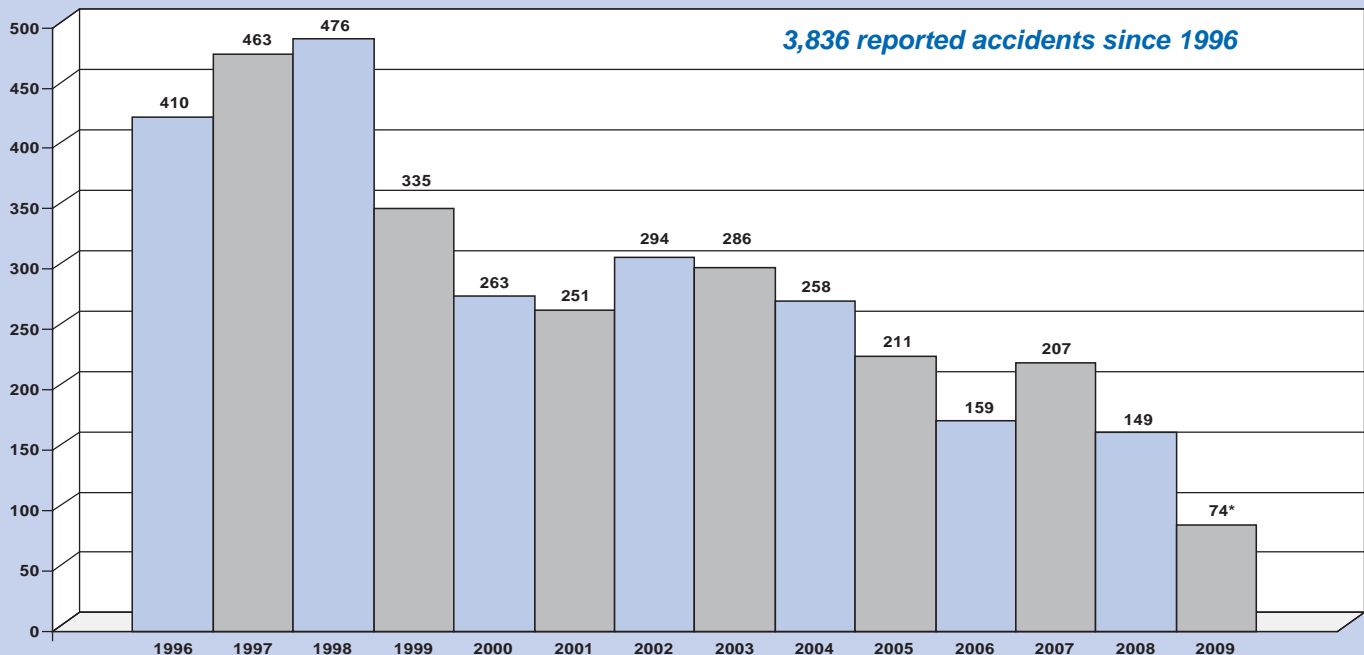
LEPCs Evolving to Meet Community Needs

In December 2008, EPA published its findings from a nationwide survey of Local Emergency Planning Committees (LEPCs). The report assesses LEPCs' current activities and probes LEPC practices and preferences regarding several important issues, including communication with local citizens and proactive accident prevention efforts. LEPCs serve as the fundamental link among citizens, industry, and government in emergency preparedness for communities. LEPCs are established by SERCs and consist of officials from state and local

Reduction of Accidents Reported at RMP Facilities

Since 1996, EPA has seen a reduction of accidents reported at facilities that submit RMPs (see Figures 2, 3, and 4). Overall accident reductions could be attributed to a number of factors including those actions taken by facilities to prevent spills.

Figure 2: Reported Accidents at Facilities that Submit RMPs



* Still Collecting 2009 Reporting Data – Data Incomplete.

Figure 3: Percentage of RMP Facility Reported Accidents by Industry

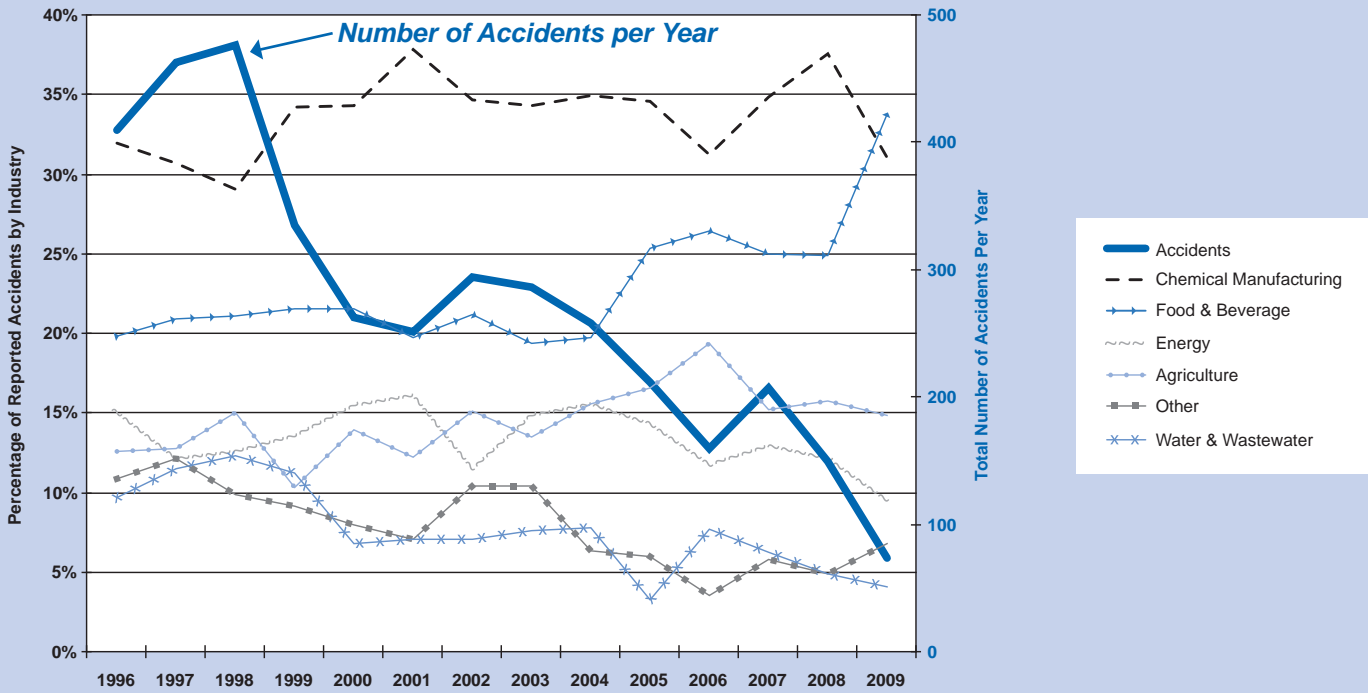
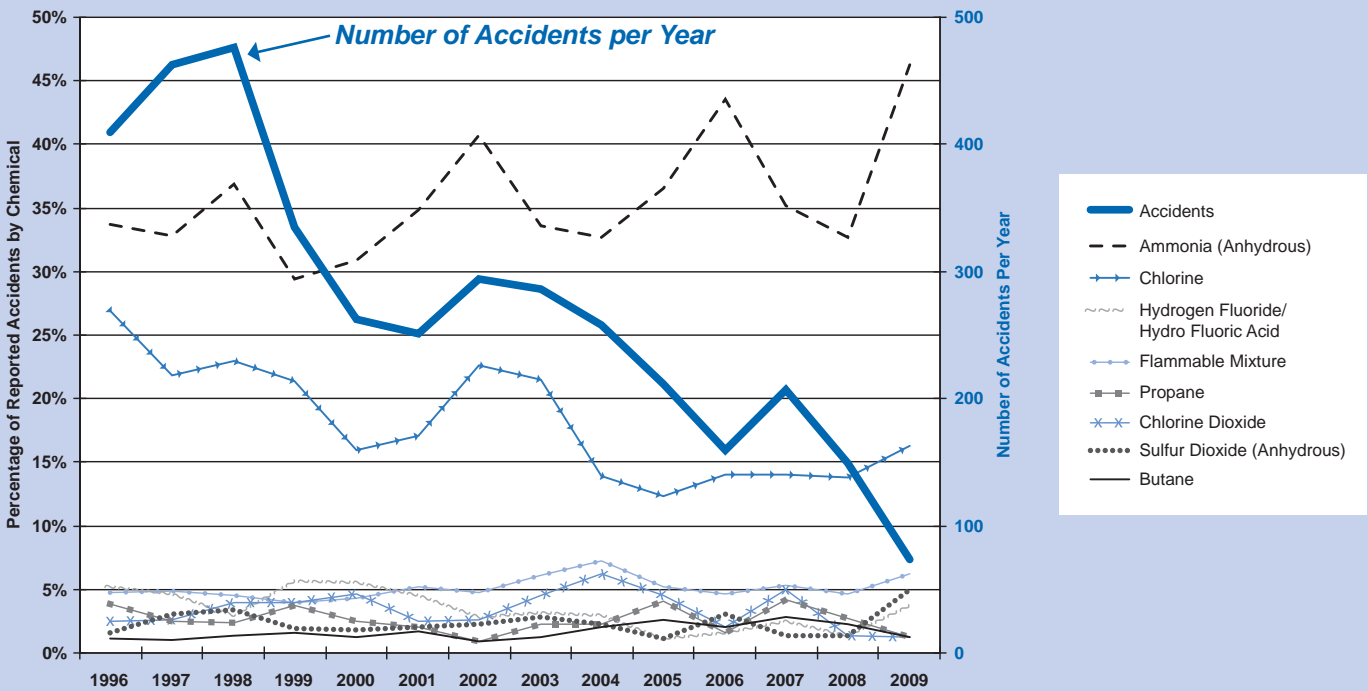


Figure 4: Percentage of RMP Facility Reported Accidents by Chemical



EPA Region 6 Hosts LEPC Emergency Preparedness Workshops

governments, police, fire, civil defense, public health, environmental, transportation organizations, as well as community groups and local media. Through these partnerships, LEPCs are improving chemical safety and protecting human health and the environment in communities across the country.

One of the goals of the survey was to determine how LEPC activities have changed following the terrorist attacks of September 11. Questions on homeland security were first asked in a 1999 survey of LEPCs, and at that time, 40 percent of LEPCs indicated they had incorporated counter-terrorism measures into their emergency response plans. Results from the 2008 survey show that number has increased to 78 percent. Many LEPCs report that they now take an all-hazards approach to planning and no longer solely focus on chemical emergency preparedness. For some LEPCs, this has led to increased interest and participation from both LEPC membership and the general public. Survey results show that nearly half of LEPCs have Citizen Corps Councils through which members of the community volunteer to help plan for and respond to emergencies. The survey also found that approximately 60 percent of responding LEPCs reviewed and updated their emergency plan in the past 12 months. More than 75 percent of responding LEPCs exercised their emergency response plan in the past year with nearly seven of 10 conducting full-scale exercises.

For more information on the LEPC survey results, visit:

www.epa.gov/emergencies/docs/chem/2008_lepcsurv.pdf

EPA Region 6's Office of Environmental Justice, Superfund Community Relations staff, and Emergency Response/Preparedness Team conducted a series of workshops in select communities designed to help locals learn about and discuss emergency notification procedures. These communities, which have experienced releases of hazardous substances, included Shreveport, Louisiana, Corpus Christi, Texas, and Brownsville, Texas. Attendees included LEPC members, community group leaders, church officials, and other interested parties working on environmental justice issues at the local level.

The workshops included a short summary of the reporting requirements under CERCLA 103 and EPCRA 304, a discussion with local facility representatives on their procedures for identifying a release and notifying officials from area LEPCs, and a presentation by an LEPC official on how the agencies ensure all citizens receive information about the release in a timely manner. This may include information on sheltering-in-place or evacuation procedures, potential health effects, and other actions individuals can take to protect themselves.

Attendees were given a chance to provide feedback to facility and community officials on concerns they had regarding these notification procedures, and they were also invited to become involved with their LEPC and the local Citizen Corps Council. EPA plans to conduct additional workshops in other communities throughout the Region.

Oil Spill Prevention, Preparedness, and Response (Oil Program)

Each year, approximately 10,000 emergencies involving the release of oil are reported in the United States. EPA's Oil Program works with our partners and the regulated community to develop and implement prevention programs that reduce the risk of oil spills in the environment and build preparedness capacity for oil spill emergencies. One important example of this work is EPA's implementation of the Facility Response Plan (FRP) rule, which builds preparedness at facilities considered high-risk for large oil spills.

FRPs—

Identifying High-Risk Facilities

Under the FRP Program, facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit FRPs to EPA's Regional offices. Facilities are considered higher-risk if they store more than 1 million gallons of oil near navigable waters. FRPs must demonstrate a facility's preparedness to respond to a worst-case oil discharge. EPA Regional offices inspect a percentage of these facilities and conduct unannounced exercises every year to ensure that FRPs are in place should an accidental oil spill occur.

Improving Emergency Planning at High-Risk Facilities

In FY 2009, EPA Region 3 began cross-checking information collected on FRP facilities with geographic information system (GIS) maps as part of its inspection strategy targeting higher-risk facilities.

This approach helped EPA Region 3 better identify the location of FRP facilities that could potentially cause the most environmental damage in a worst-case scenario because of their proximity to navigable waters.

As a result of this analysis, EPA discovered eight facilities that stored a combined 59 million gallons of oil co-located with facilities that required more stringent classification. The co-located facilities were either close to a drinking water intake or wetlands, lacked secondary containment, or had a reportable oil spill of 10,000 gallons within the past five years. Once identified, these eight facilities were re-categorized as higher-risk, and protection for approximately 220,000 people located in the area was improved.

Homeland Security

Training EPA Personnel to Respond

To ensure that EPA has the operational consistency necessary to respond quickly and effectively to large-scale emergencies, OEM and EPA's 10 Regional offices have continued to provide basic and specialized Incident Command System (ICS) training to personnel who may be tapped during a response. In FY 2009, EPA trained approximately 1,160 people in ICS. This brought the total number of EPA employees trained to approximately 4,700. In addition, EPA has focused its operational planning efforts on five of the Department of Homeland Security 15 priority scenarios. The five planning scenarios listed below were chosen because EPA would likely play a large role under Emergency Support Function 10, which deals with Hazardous Waste:

- Hurricane
- Earthquake
- Anthrax Attack
- Radiological Dispersal Device or Dirty Bomb Attack
- Blister Agent Attack

EPA Building National Environmental Lab Capacity

In September 2009, EPA launched a national recruitment effort to bring qualified private and public laboratories into its recently created Environmental Response Laboratory Network (ERLN). The ERLN addresses the shortage of laboratory capacity and capabilities identified during the response to September 11 and the anthrax incidents. The goal of the network is to provide environmental laboratory testing capability and capacity to meet EPA's responsibilities for surveillance of, response to, and recovery from incidents involving the release of chemical, biological, or radiological agents. Coordinated out of OEM, the ERLN brings together EPA regional and program laboratories as well as public and accredited private laboratories that would be accessed during a large-scale emergency response. Ultimately, the ERLN is strengthening relationships among laboratories now to help ease the process of collecting and providing data necessary to protect and inform the public when the next large-scale emergency happens.

The ERLN requires all member laboratories to have nationally-consistent protocols in order to ensure the reliability and quality of EPA's analytical results for significant amounts of data during a large-scale emergency response. Members of the ERLN can take advantage of training and exercise opportunities; increased access to professionals from laboratories across the nation; opportunities to participate in method development studies; technical support for lab operations; and access to a broad spectrum of expertise.

For more information visit:
www.epa.gov/erln

Looking to the Future

OEM recognizes the strong relationship among prevention, preparedness, and response activities. Looking at our four key program areas: ERR; CEPP; Oil Program; and Homeland Security (i.e., preparing for nationally significant events), OEM identified the following themes for its strategic priorities over the next five years.

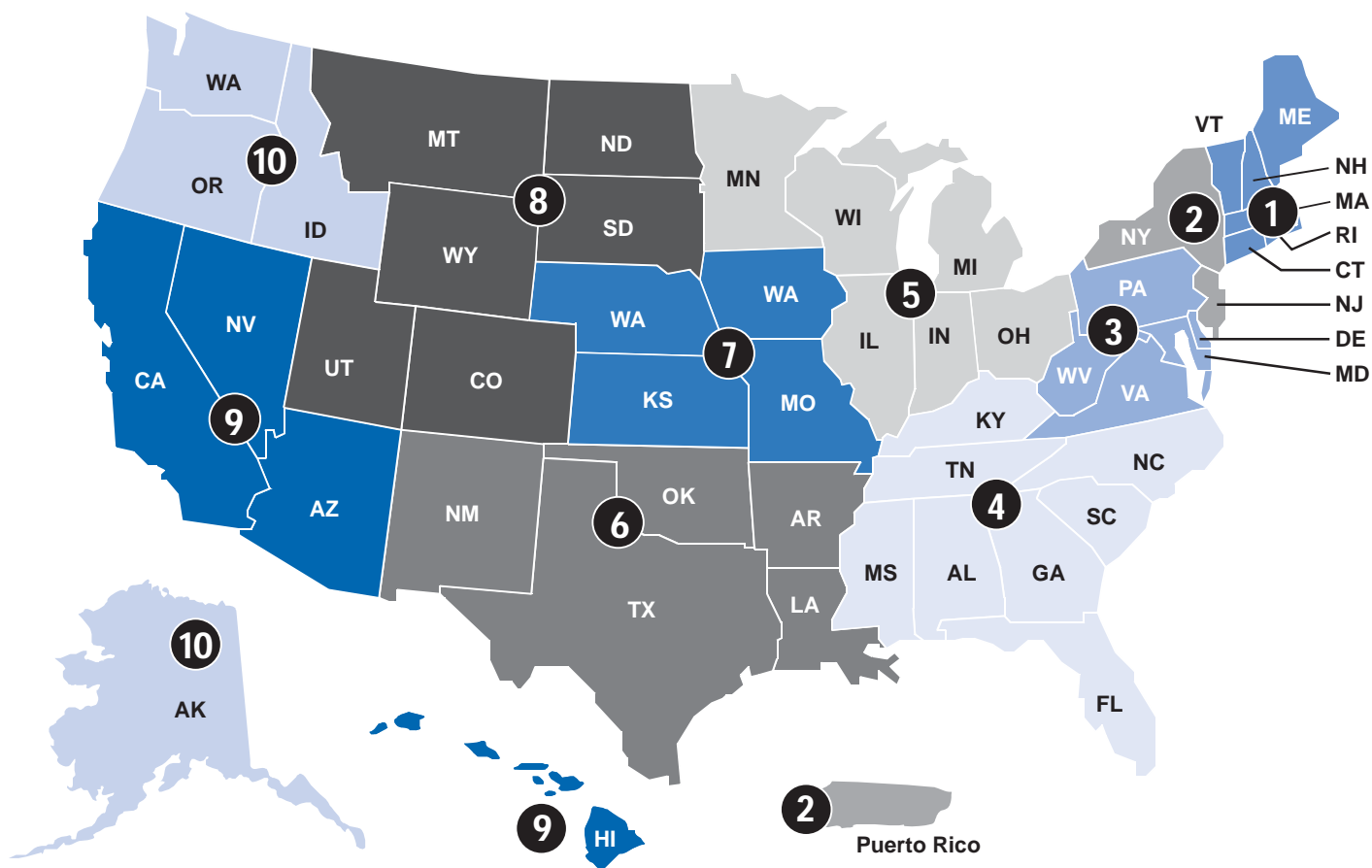
- Given limited resources, it is clear that our activities must focus on getting high-risk facilities into compliance as well as addressing our preparedness to respond to high-risk/high-consequence scenarios as identified by the Department of Homeland Security.
- There is a common need for collection and analysis of quality data so that EPA can learn more about the results associated with prevention and preparedness activities.
- Each of the areas can benefit from all-hazards planning.
- Finally, an important common theme is to continue to work with our partners at the local, state, and federal levels to ensure that OEM is focusing on the areas where Agency support is most needed.

Ultimately, the strategy will strengthen our abilities to understand, prepare for, and respond to today's dynamic realities of emergency management.

For more information on EPA's Office of Emergency Management's Strategic Direction, visit:

www.epa.gov/emergencies/docs/chem/oem_strategic_direction.pdf

EPA Regions



For contact information, visit:
www.epa.gov/emergencies/where_you_live.htm

