



# 2005 Year in Review: Emergency Management — Prevention, Preparedness and Response



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## Message from Office of Emergency Management Director, Deborah Dietrich

I am pleased to share with you the 2005 report on the emergency management activities of the Environmental Protection Agency (EPA) Headquarters and Regional Offices. Like many other government agencies, EPA played a major role in the response to hurricanes Katrina and Rita. EPA continued to address priority areas under its National Approach to Response (NAR), including more training on the Incident Command System (ICS) and improvements in data management systems. EPA also collaborated with other agencies to develop an environmental laboratory response network. These efforts contributed significantly to the effectiveness of EPA's response to Hurricanes Katrina and Rita.

In the prevention arena, EPA proposed two amendments to the Spill Prevention, Control and Countermeasure (SPCC) Rule. The first amendment proposed streamlining the requirements to enhance oil spill prevention. The second amendment extended the deadline for SPCC compliance for all facilities. This extension proposal was finalized on February 17, 2006. EPA is also examining aspects of chemical accident prevention activities nationwide as we analyze the Risk Management Plan (RMP) data after our last five-year anniversary reporting.

This year, we look forward to celebrating the 20th anniversary of the Emergency Planning and Community Right to Know Act (EPCRA). Our colleagues in the Regional Offices and our many partners, including State Emergency Response Commissions (SERCs), Local Emergency Planning Committees (LEPCs), RMP Implementing Agencies, and others in state and local governments and the private sector, have made a sustained effort to actively improve their emergency preparedness. Together, I believe we continue to improve our response to environmental emergencies – contributing to the prevention of accidents, while still preparing for those that we cannot yet predict.

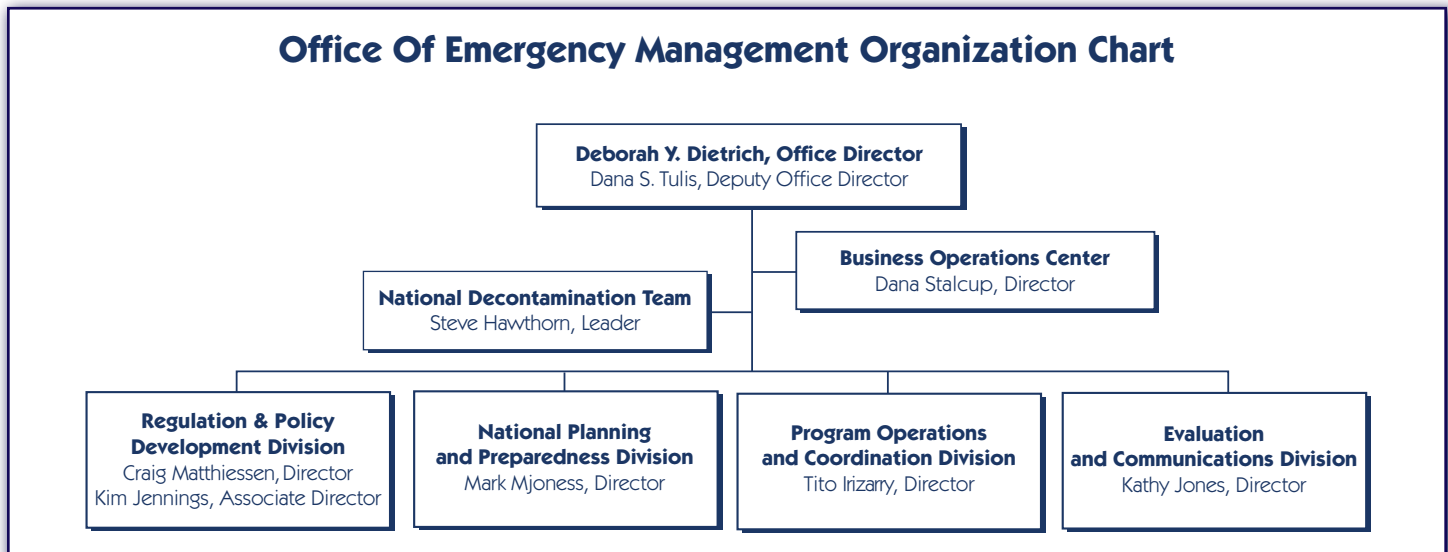
### **OEM Mission:**

To ensure that this nation is better prepared for environmental emergencies, EPA's Office of Emergency Management (OEM) is working with other EPA partners, federal agencies, state and local agencies, and industry to prevent accidents, as well as to maintain superior response capabilities. OEM's overall mission is to provide national leadership to prevent, prepare for, and respond to, health and environmental emergencies. This is facilitated through partnerships, joint strategy development, technology development and deployment, and training and exercises.

# Section I: Who We Are

OEM, part of EPA's Office of Solid Waste and Emergency Response (OSWER), was created in 2004 to integrate the functions of the former Superfund Emergency Response Program, Oil Spill Prevention Program, and the Chemical Emergency Preparedness and Prevention Office (CEPPO).

## Office Of Emergency Management Organization Chart



## OEM Divisions

### Regulation and Policy Development Division

The Regulation and Policy Development Division (RPDD) is OEM's policy and technical arm. RPDD develops policy, regulations, and technical approaches required by various environmental, safety, and accident statutes.

### Evaluation and Communications Division

The Evaluation and Communications Division (ECD) coordinates strategic planning, program evaluation, and communication. For example, ECD coordinates OEM work planning, develops lessons learned from exercises and incidents, coordinates outreach, and keeps the OEM Web site up-to-date.

### National Planning and Preparedness Division

The National Planning and Preparedness Division (NPPD) is responsible for ensuring national EPA readiness to respond to incidents involving hazardous chemicals, oil, and biological and radiological contamination resulting from terrorist attacks or accidents. NPPD works closely with EPA's Office of Homeland Security.

### Business Operations Center

The Business Operations Center (BOC) is responsible for program and resource management functions, including budgetary planning, human resources, contracts and grants, accountability, and the Emergency Operations Center (EOC). BOC directs the formulation and execution of annual budgets, and coordinates activities across OEM.

### Program Operations and Coordination Division

The Program Operations and Coordination Division (POCD) provides coordination and oversight for all OEM operational programs. Regional Coordinators provide programmatic expertise, policy interpretation, response strategies, and general support to the Regional Offices. POCD personnel provide a 24/7 watch officer service, serve as regional points of contact for expertise and support, and serve as advocates for regional needs.

### National Decontamination Team

Located in Cincinnati, Ohio, the National Decontamination Team (NDT) provides scientific and technical expertise and support to On-Scene-Coordinators (OSCs) regarding decontamination in the event of an incident involving releases of radiological, biological, or chemical contaminants.

## Regional Counterparts

|              | Program Component:<br>Removal |                             | Program Component:<br>CEPP |                     | Program Component:<br>Oil                          |   |
|--------------|-------------------------------|-----------------------------|----------------------------|---------------------|--|---|
|              | Division<br>Director          | Removal<br>Manager          | Division<br>Director       | CEPP<br>Coordinator | Division<br>Director                               | Oil<br>Coordinator                                  |
| Region<br>1  | Susan<br>Studlien             | Art Johnson                 | Stephane S.<br>Perkins     | Ray DiNardo         | Susan<br>Studlien                                  | Steve Novick  |
| Region<br>2  | George<br>Pavlou              | Eric Mosher<br>Joe Rotola   | George<br>Pavlou           | John Higgins        | George<br>Pavlou                                   | Doug Kodama   |
| Region<br>3  | Abe Ferdas                    | Dennis<br>Carney            | Abe Ferdas                 | Walt Graham         | Abe Ferdas   | Joan<br>Armstrong                                   |
| Region<br>4  | Beverly<br>Banister           | Shane<br>Hitchcock          | Beverly<br>Banister        | Anthony Toney       | Beverly<br>Banister                                | Anita Davis   |
| Region<br>5  | Richard C.<br>Karl            | Linda<br>Nachowicz          | Richard C.<br>Karl         | Mark Horwitz        | Richard C.<br>Karl                                 | Beverly Kush  |
| Region<br>6  | Sam<br>Coleman                | Ragan<br>Broyles            | Sam<br>Coleman             | Steve Mason         | Sam<br>Coleman                                     | James Mullins                                       |
| Region<br>7  | Cecilia Tapia                 | Scott Hayes<br>Ken Buchholz | William<br>Spratlin        | Mark Smith          | Cecilia<br>Tapia/<br>Carol Kather<br>(Acting)–SPCC | Paul Doherty/<br>Stanley<br>Walker<br>(Acting)–SPCC |
| Region<br>8  | Max Dodson                    | David<br>Ostrander          | Max Dodson                 | Martha Wolf         | Max Dodson   | Martha Wolf   |
| Region<br>9  | Keith Takata                  | Dan Meer                    | Keith Takata               | Kay Lawrence        | Keith Takata                                       | Jim Hanson  |
| Region<br>10 | Dan Opalski                   | Chris Field                 | Dan Opalski                | Kelly Huynh         | Dan Opalski  | Carl Kitz   |

## Section II: Our Goals

OEM and our regional colleagues work with other EPA offices and federal, state, and local agencies to fulfill the EPA Administrator's Action Plan to protect human health and the environment through results and accountability, innovation and collaboration, and use of the best available science. EPA's Strategic Plan guides OEM in the performance of this charge and focuses on the following priorities:

### **Reduce the risk of releases of oil and hazardous substances.**

- ❑ Develop, maintain, and support a regulatory structure that promotes the prevention of releases of oil and hazardous substances.
- ❑ Participate in, and provide leadership to, national and international efforts to understand the causes of accidental releases of oil and hazardous substances, and to develop state-of-the-art accident prevention technologies.

### **Lead EPA in developing and updating emergency preparedness structures for oil and hazardous substance emergencies, and in providing for a timely and effective response to any releases.**

- ❑ Continue to implement the National Response System (NRS) described in the National Contingency Plan (NCP) by maintaining up-to-date Regional Response Plans and Area Plans, and by maintaining and continually improving the Removal Program.
- ❑ Use the capabilities of the NRS and the structures described in the Agency's NAR to prepare to respond and recover from up to five simultaneous Incidents of National Significance (INS).
- ❑ Demonstrate readiness and effective response to oil and hazardous substance releases.
- ❑ Develop, maintain, and support a regulatory structure that promotes preparedness for releases of oil and hazardous substances.

### **Two OEM Programs PARTed During 2005.**

The Program Assessment Rating Tool (PART) is used by the Office of Management and Budget (OMB) to assess how well management practices relate to program objectives. The office also identifies program measures and targets for specific program objectives. Every federal government program is expected to be PARTed every five years.

OMB performed a follow-up assessment of the Removal Program and an initial PART of the Oil Program; both programs received a "passing" score. OEM developed new performance measures (and related targets) for each program. In addition, OMB and OEM agreed to specific action items to be addressed throughout the next five years to improve each program:

- ❑ For the Removal Program: (a) Modernize the program's data repository – Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), to ensure accurate and complete information on program performance and financial management; (b) Investigate the feasibility of outcome measures that test the link between program activities and impacts on human health and the environment; and (c) Develop a plan for regular, comprehensive, and independent assessments of program performance.
- ❑ For the Oil Program: (a) Develop stronger strategic planning procedures to ensure continuous improvement in the program, including regular procedures that will track and document key decisions and work products; (b) Evaluate the quality of key data sources used by the program in order to improve the accuracy and reliability of performance information; and (c) Develop a forum for sharing and implementing best practices among Regional Offices to improve the program's overall performance and efficiency.

**Develop and continually support external partnerships with other federal agencies, state and local governments, and the private sector in order to prevent, prepare for, and respond to releases of oil and hazardous substances.**

- ❑ Lead the NRS in the integration with and implementation of the NRP and the National Incident Management System (NIMS) by ensuring that all EPA preparedness and response staff are appropriately and actively involved in the various local, Regional, and national structures described in the NRP, NCP, and NIMS.
- ❑ Promote the ability of states, tribes, and local entities to be leaders in broad-based, comprehensive preparedness activities.
- ❑ Work with stakeholders to ensure that OEM regulations promote efficient and effective emergency prevention, preparedness, and response capabilities.

**Develop state-of-the-art technology and communicate timely, accurate information for understanding and managing oil and hazardous substance hazards.**

- ❑ Develop, maintain, and provide electronic tools, guidance, and technical assistance to help federal, regional, state, and local emergency planners and responders collect, manage, and use information to protect communities from threats of releases of oil and hazardous substances.
- ❑ Develop and maintain state-of-the-art capabilities (including the EOC Web site) to gather, analyze, and communicate information about oil and hazardous substances.

**Strengthen OEM.**

- ❑ Retain and attract a talented and diverse workforce.
- ❑ Develop and implement cross-program outcome and efficiency measures.

## **Office of Environmental Information on Quality Assurance (QA)**

### **Quality Matters**

Following its reorganization in 2004, OEM developed and finalized its Quality Assurance Implementation Plan. At the heart of the OEM Headquarters quality program is the development of strong procedures and training programs, as well as intra-agency coordination. OEM recognizes that most, if not all, OSWER environmental data collection is performed in the regions, with Quality Assurance Project Plans being developed by the organizations collecting the data.

EPA's quality assurance staff audited OEM Headquarters' quality operations in the summer of 2005 and found "considerable evidence of good quality assurance practices supporting OEM's operations," and also observed good management support for this critical component of OEM's activities. OEM continues to refine its quality practices, which are reflected in daily operations and also during extraordinary events such as Internet posting of data collected in the aftermath of the year's hurricanes.

# Section III: Highlights

## Prevention

### Spill Prevention, Control and Countermeasure

For the Oil Program, 2005 was a busy year for regulatory and program development. In December, a proposed rule was published that would amend the July 2002 SPCC rule. Specifically, the proposal would:

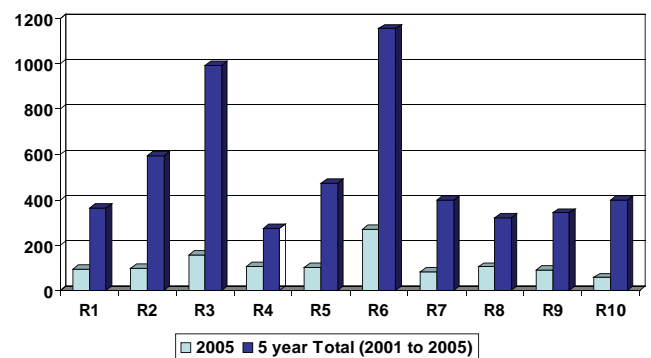
- ❑ Allow owners and operators of facilities with an oil storage capacity of 10,000 gallons or less the option of self-certification;
- ❑ Provide certain facilities an alternative to the secondary containment requirements;
- ❑ Define airport mobile refuelers and exempt such vehicles from certain requirements;
- ❑ Amend the requirements for animal fats and vegetable oils; and
- ❑ Define “farms” and provide a separate compliance date for certain farms.

OEM also proposed to extend the dates by which facilities must prepare and amend an SPCC Plan under the revised regulation (this extension was finalized in February 2006). Finally, OEM developed a comprehensive SPCC Guidance Document for Regional Inspectors to assist the inspectors (and the regulated community or interested stakeholders) in reviewing a facility’s implementation of the SPCC rule. Training based on the guidance was also developed.



**Field Inspection of an Above Ground Storage Tank**

**SPCC Inspections by Region, FY2005 and 5-year Total**



### International Oil Spill Conference

The International Oil Spill Conference (IOSC) took place in Miami Beach, Florida on May 14-19, 2005. The theme for the conference was “Prevention, Preparedness, Response and Restoration—Raising Global Standards.” Co-sponsors of the IOSC included International Maritime Organization (IMO), EPA, U.S. Coast Guard (USCG), International Petroleum Industry Environmental Conservation Association (IPIECA), American Petroleum Institute (API), Minerals Management Service (MMS), and National Oceanic & Atmospheric Administration (NOAA). A total of 1,313 participants attended the conference representing 66 countries. Several regional and Headquarters staff participated in the conference.



## Risk Management Plans

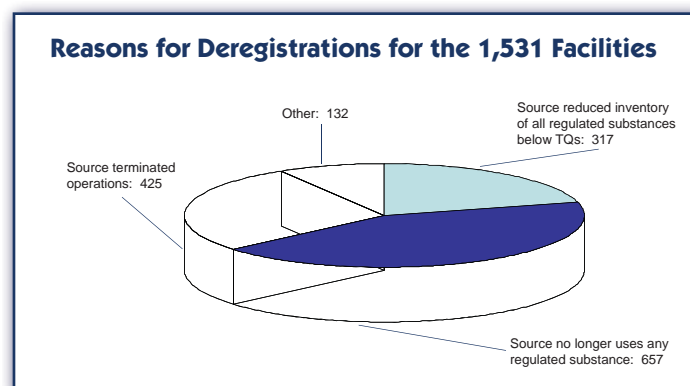
The regulations implementing section 112 (r) of the Clean Air Act (CAA) require certain facilities to develop a risk management program to prevent and mitigate the effects of chemical accidents, and to document the program in a Risk Management Plan (RMP). By the beginning of 2005, the RMP database contained approximately 14,600 current RMPs, but many facilities had not yet taken any action to update their plans since their original submissions in 1999. After much follow-up in 2005 by Regional Offices and Headquarters, OEM examined the facilities that formally deregistered from the system between the beginning of the 2004 reporting cycle (in mid-2004) and early 2006. This included a total of more than 1,530 facilities. By contrast, in the much longer period from the inception of the program in 1999 to the period just prior to the June 2004 submissions, 1,626 facilities deregistered. These deregistrations are paralleled by new facilities entering the system, but the total number of current RMPs has declined to approximately 14,000 as of the beginning of calendar year 2006. Of these 14,000 facilities, EPA conducted 885 RMP field audits and inspections in 2005.

### Who deregistered in 2004–2005?

The North American Industrial Classification System (NAICS) category reported that most deregistered facilities were wholesalers in non-durable goods. This category represented close to 30 percent of all deregistrations. This NAICS

code includes a diverse group of facility types, including wholesale petroleum products, chemical and allied products, raw material farm products, and “miscellaneous” wholesalers, many of whom use or store ammonia.

Utilities, the category with the next largest amount of deregistrations, comprised 26 percent of deregistered facilities. This category predominantly includes water, sewage, and other systems, many of which use chlorine.

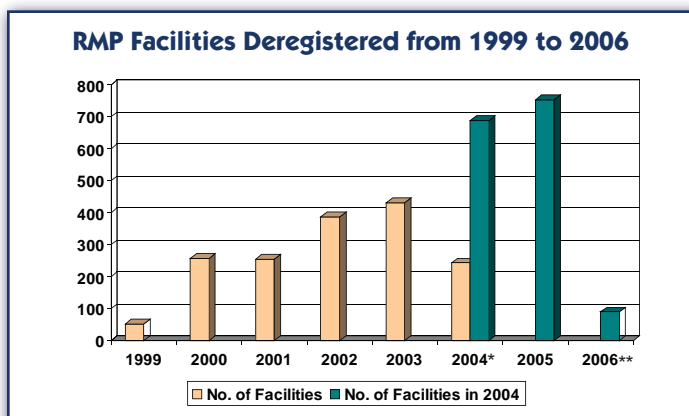


### Why did they do it?

In 2004, EPA modified the RMP regulation to add a mandatory data element for sources to identify reasons for revisions. Thus, there is now information on the reason why many facilities filed deregistration notices since mid-2004.

### Improvements to RMP Systems

Throughout 2005, EPA improved its software to allow facilities to make administrative changes to their RMPs via the internet. EPA introduced RMP\*WebRC in 2004 to enable facilities to make very limited administrative corrections. The 2005 expansion is a precursor to eventual Web-based reporting of the entire RMP. During 2005, federal, state, and local responders and analysts were also provided access via the Web to RMP\*Info database (i.e., RMP information not including Off-site Consequence Analysis information). Both of these steps made use of EPA's Central Data Exchange, allowing the RMP program to take advantage of EPA's reporting of improvements and new developments in information technology.



\*After amended RMP Final Rule, 69 FR 18819, April 9, 2004.

\*\*From January 1 to March 1, 2006.

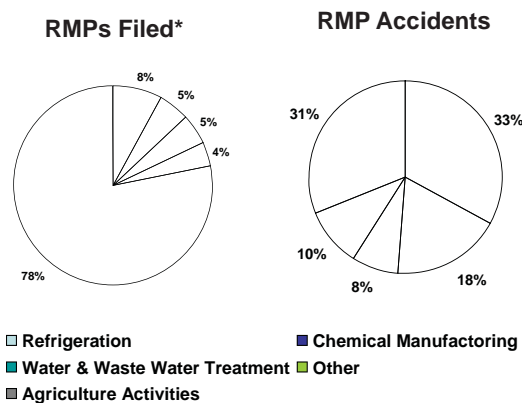
### EPA Region 7 Analysis Helps Drive Action

By examining specific facilities and NAICS Codes, Region 7 determined more accurate industrial classifications and accident rates. For example, the refrigeration industry sector—which includes bread and bakery product manufacturing and breakfast cereal manufacturing—reports 33 percent of the accidents in the Region’s database, but represents only 8 percent of the Region’s RMP industry. This industry sector is now identified as an area of concern. Further analysis of repeat accidents reveals trends within each industry sector. Inter-industry comparisons for the Region’s four states – Missouri, Kansas, Iowa, and Nebraska – reveal that Missouri experiences more than two times the industry average of accidents for agricultural activities. Missouri also shows a greater percentage of accidents in the water industry sector than that of other facilities. This analysis is being used to coordinate the Region’s collaborative actions with state officials. Further use of RMP data, in conjunction with other regional databases, not only sharpens the focus on particular issues, but also reveals deficiencies in RMP reporting.

### EPA Region 2 Reducing Risk in Rochester

EPA Region 2 selected the Rochester, New York area for a city-wide initiative to reduce environmental and health risks of residents (especially children) based on data from the RMP program and a variety of other sources, including local, state, and other EPA programs. This is a highly industrialized area with relatively high emissions reported through EPA’s Toxic Release Inventory (TRI). Health data shows that some local children have elevated blood lead levels. During this initiative, EPA inspected a packaged ice manufacturing and cold storage facility that had a deficient RMP and discovered that the ammonia refrigeration system was not operating safely. Using authorities under the Clean Air Act (CAA), EPA issued an order to the facility to immediately perform a comprehensive assessment and make all necessary repairs and upgrades. The inspection was one of 166 in the Rochester area during the initiative to assess industrial and commercial facilities’ compliance with regulations governing air pollution, solid and hazardous wastes, asbestos, pesticides, toxic waste disposal, and chemical inventories. The company paid a \$34,600 fine and performed the required repairs and upgrades under deadlines ranging from one to three months, and is currently working to improve its risk management program. The company’s actions will result in a safer facility with reduced likelihood of accidental air releases of ammonia, which will lower risks to employees, nearby residents, and emergency responders.

#### Top 4 Industry Categories by NAICS Code in Region 7



## Preparedness

### Emergency Planning and Community Right-to-Know Act and Computer Aided Management of Emergency Operations

Congress passed EPCRA of 1986 in the wake of the deadly release of methyl isocyanate in Bhopal, India. Now in its 20th year, EPCRA has matured into the primary program to prepare for possible chemical releases in our country, both at the local and state level.

EPCRA structures have absorbed or have merged with other organizations to ensure preparedness practices are established for releases caused by terrorist events. In response to a growing need, many LEPCs throughout the country have expanded to take on the responsibility of the Citizen Corps. Various agencies rely on EPCRA chemical information to analyze the threat of chemical terrorism. OEM established the strategic planning goal of having 50 percent of all LEPCs nationwide include deliberate releases by terrorists in the local emergency plan.

OEM and the Regional Offices provide guidance and technical assistance to SERCs and LEPCs. The OEM Web site includes information about chemical hazards, hazards analysis, and planning and risk communication guidance. Several regions hold regular conferences for LEPC members and others who are implementing EPCRA. (See the sidebars for a description of the conferences in Regions 3 and 7 during 2005.)

#### EPA Region 7 LEPC/SERC Conference

On August 18-21, 2005, Region 7, with senior officials from the Regional Office and Headquarters, sponsored its biennial LEPC/SERC Conference in Kansas City, Missouri. The conference was co-sponsored by the Federal Emergency Management Agency (FEMA), tribal, state and local governments, and business and industry. Approximately 380 participants came from the Region's four states, as well as from 21 other states, the District of Columbia, and Canada. Five training sessions were offered: 1) Grant Writing; 2) Hazardous Waste and Emergency Response (HAZWOPER) Refresher; 3) Basics of ICS; 4) Radioactive Material for First Responders; and 5) Properties of Hazardous Materials. In addition, five technical tracks were offered: 1) Radiation; 2) Health and Medical; 3) Tools for Exercises; 4) LEPC Basics; and 5) Homeland Security. Twenty-six exhibitors and three corporate sponsors provided financial support for the conference.

OEM continues to work with NOAA to support the use of Computer Aided Management of Emergency Operations (CAMEO) by LEPCs and fire departments throughout the country. A quarter of a million users have downloaded CAMEO free of charge from the Internet since 9/11. The Department of Homeland Security (DHS) has trained 4,000 users in CAMEO. Even Harvard University, with Region 1 support, provides CAMEO training. In 2005, the US Navy adopted CAMEO

for all Navy systems to improve emergency response and planning in their base installations worldwide. In 2005, a major enhancement for the Areal Location of Hazardous Atmospheres model (ALOHA) was released, which now allows modeling of fires and explosions. ALOHA is also undergoing enhancements to allow it to address weapons of mass destruction.

In 2006, we look forward to celebrating the 20th birthdays of both EPCRA and CAMEO.

## Facility Response Plans

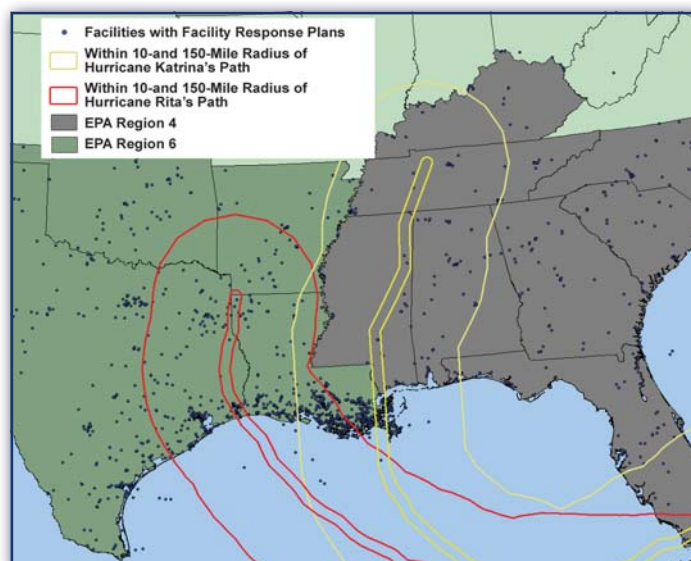
Facility Response Plans (FRPs) are an important planning link between facilities and area contingency plans, and are required under the Oil Pollution Act (OPA). Certain facilities with large oil storage capacity are required to prepare and submit a FRP for a worst-case discharge of oil that outlines procedures for managing and mitigating the substantial threat posed by such an event. The FRP requires facilities to establish emergency response resources, conduct a hazard evaluation, and determine discharge scenarios for small, medium, and worst-case discharges. Facilities that may cause significant and substantial harm in the event of a release are required to submit their FRP to the Regional Office for approval.

Facilities also must train employees and conduct drills and exercises to prepare for an oil response. EPA conducts inspections and drills at FRP facilities and has found that unannounced exercises are an effective way to determine emergency response readiness.

In 2005, OEM Regional Coordinators and counterparts completed development of a national database of 4,200 FRP plan holders. This database was used to compile a national profile of historical spill rates from FRP facilities dating back to 2001. Prior to hurricanes Katrina and Rita affecting major oil infrastructure, the total oil spill rate for 2005 was trending lower than each of the previous four years. Both the database and spill history profile were used to support the Oil PART.

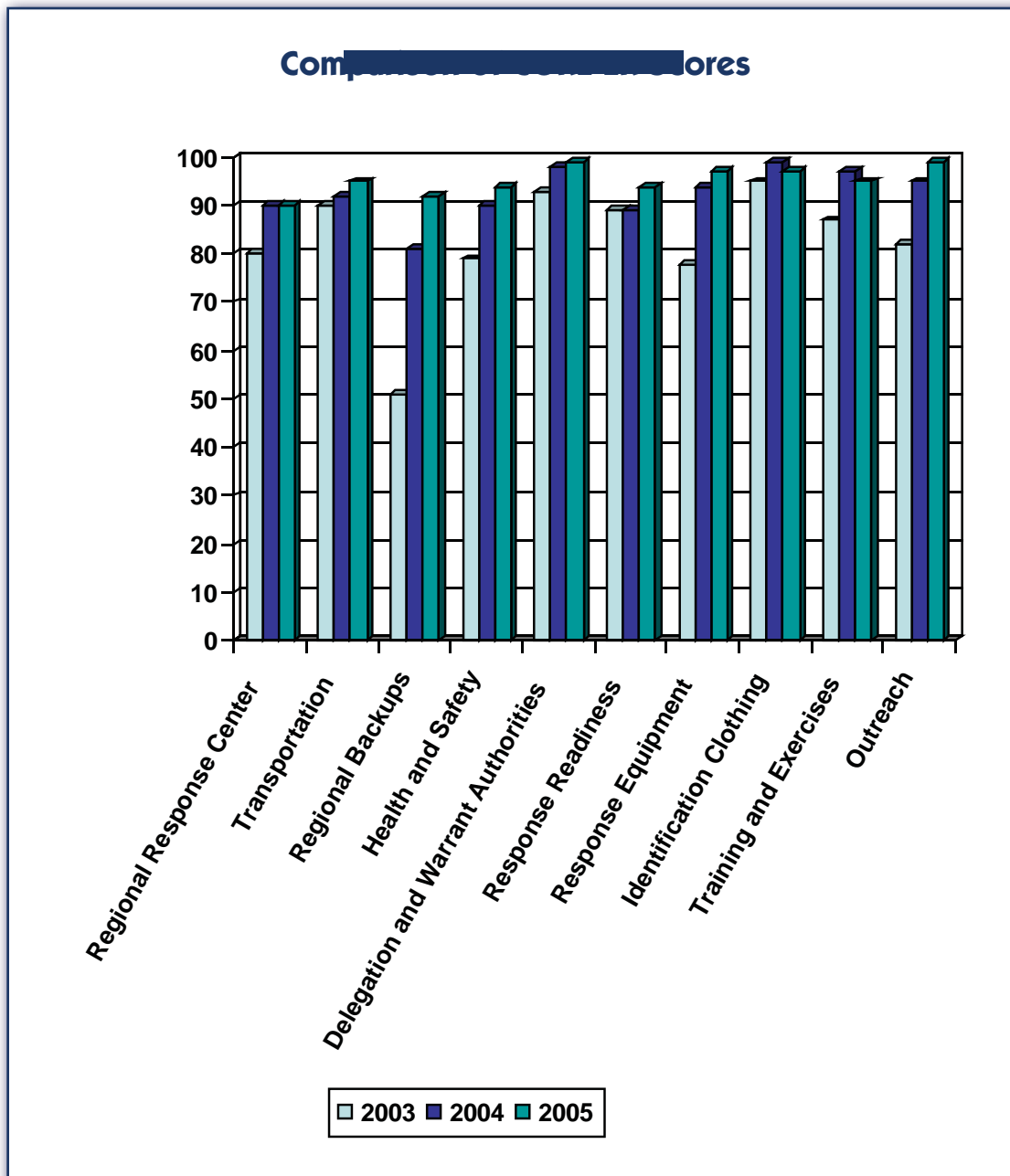
During 2005, the regions conducted numerous outreach seminars for stakeholders and visited facilities to conduct FRP inspections and unannounced drills. To promote national consistency in the FRP program, OEM began to consolidate and update existing FRP guidance to the regions. As part of the effort to ensure national consistency, OEM participated in several FRP inspections and unannounced exercises alongside regional staff.

**FRP Facilities Located in the Paths of Hurricanes Katrina and Rita**



## Core Emergency Response Scores Continue to Increase

Core Emergency Response (CORE ER) sets standards to ensure that each region works toward improving and maintaining an excellent response program that is capable of responding quickly and effectively to chemical, oil, biological agents, and radiological incidents. Under the Government Performance and Results Act (GPRA), EPA has set a target to improve emergency response preparedness by 10 percent each year, as measured through the CORE ER evaluation process. Overall, EPA has increased its Emergency Response Scores.



## Exercises

Exercises are commonly used by emergency responders to test existing plans and procedures and to validate communications equipment and protocols. Exercises are designed to assess how well different levels of government can coordinate during an emergency. Recent exercises have focused on testing NIMS and its use of ICS. Lessons learned from these exercises are subsequently used to update and modify plans and procedures in order to make them more effective.

EPA Regional Offices commonly participate in multi-agency exercises organized by the Federal Executive Board. Each year, the regions employ roughly five percent of their resources to participate in numerous exercises with varying levels of complexity. During 2005, EPA regions participated in approximately 300 exercises, some organized by EPA, others organized by additional government agencies and/or industry. Scenarios ranged from terrorist attacks (radiological, biological, and chemical) to local fires and oil spills at FRP facilities.

The single major exercise in 2005 was TOPOFF-3, held in early April. More than 10,000 participants from 27 Federal agencies and 275 government and private organizations were involved in this event. Since the scenario involved terrorist activity in Connecticut and New Jersey, Regions 1 and 2, along with Headquarters, were major players. TOPOFF-3 required more than a year of detailed planning from the main participants.



**Exercise Play during TOPOFF-3**

Also in 2005, EPA regions organized and participated in numerous Continuity of Operations Planning (COOP) exercises. Some tested notification procedures, while others involved deployment of key staff to an offsite location. Quarterly exercises were held at Headquarters to test notification procedures. For example, after key personnel were notified to report to an offsite location by a specified time, the COOP leaders evaluated how quickly each person received and acknowledged the notification. In June 2005, EPA Headquarters also participated in PINNACLE 05, sponsored by DHS and FEMA. This exercise was designed to test the ability of federal agencies to deal with a major terrorist event in the Washington, DC area. Several weeks before the actual PINNACLE 05, OEM COOP managers conducted a “rehearsal exercise” that used a simplified version of the PINNACLE scenario to remind key Headquarters personnel of important COOP procedures. In a post 9/11 world, COOP has become an integral component in ensuring the continuity of operations during an emergency or disaster.



**Exercise Play during TOPOFF-3**

## National Approach to Response

Issued in June 2003, NAR provides a framework for a consistent, EPA-wide approach for quickly and comprehensively responding to major incidents. Under NAR, EPA adopted NIMS ICS as the management structure for a major incident. NAR also clarifies regional coordination and affirms the role of the National Incident Coordination Team (NICT) as the focal point for multi-program information sharing and issue resolution.

This approach brings together existing emergency response assets to ensure the effective use of EPA resources. It also provides consistency in addressing key aspects of a response such as organizational elements, support personnel and national teams in ICS, exercises and training, equipment, laboratory capability/capacity, and contracting. In addition, NAR will prepare EPA to respond to an INS by integrating existing response plans, authorities and mechanisms, and by clearly articulating roles and interrelationships, including communications and interagency support. Perhaps most importantly, NAR establishes a requirement that EPA operate at the tactical level of response under a specific ICS during an INS.

### National Approach to Response Progress

During 2005, Headquarters and regional staff advanced resolution of the issues involving nationwide consistency that will be necessary to allow for quick and effective response to an INS. Work continued on 11 priority areas including: decontamination, environmental lab capacity, equipment, health and safety, human capital strategy, ICS, data management, telecommunications, radiation response, response support corps, and training/exercises. Accomplishments included:

- More than 2,000 EPA employees were trained in ICS;
- The National Decontamination Team was established;
- A gap analysis of national environmental lab capabilities for chemical, biological, and radiological agents was completed; and
- An Incident Management Handbook for EPA was drafted.

## National Decontamination Team

EPA's new National Decontamination Team (NDT) joins the force of Special Teams available to support On Scene Coordinators. Located in Cincinnati, Ohio, this thirteen member team is dedicated to providing decontamination expertise, especially related to contaminants that could be used as Weapons of Mass Destruction (WMD). The team provides scientific support and technical expertise for decontamination of buildings, building contents, public infrastructure (including waste/drinking water plants, chemical plants, power plants, food processing facilities and subways), agriculture, and associated environmental media (air, soil and water). Working closely with EPA's Environmental Response Team (ERT), the Radiological Emergency Response Team (RERT), and the National Homeland Security Research Center (NHSRC), the NDT identifies research needs and bridges the gap between research and application of newly developed field tools.

The NDT is currently developing a WMD Decontamination training course and also a Decontamination Portfolio, a web-based one-stop reference source for decontamination information. During the recent Hurricane Katrina Response, team members, who are fully trained in the Incident Command System, worked as Scientific Support Coordinators, Safety Officers and Environmental Unit Leaders.

# Response

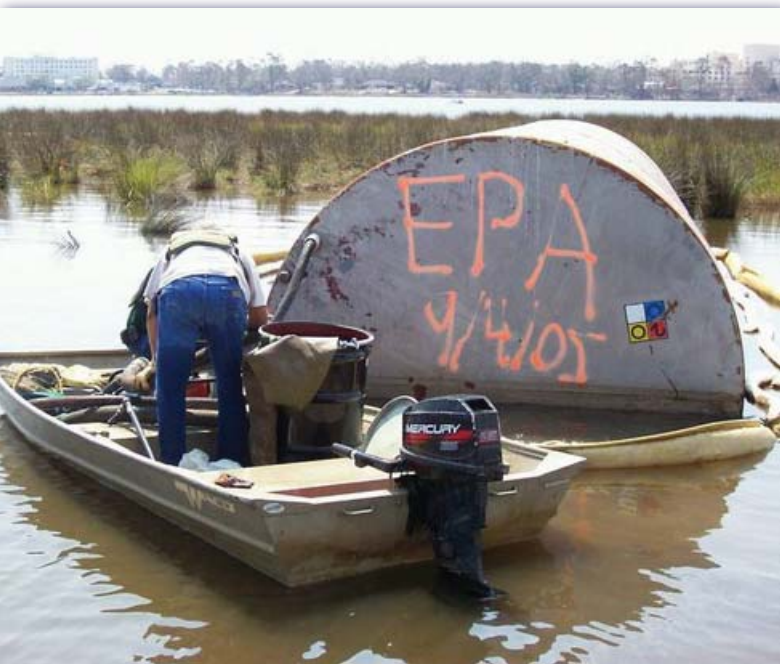
## Hurricanes Katrina and Rita

The federal government faced unprecedented challenges responding to hurricanes Katrina and Rita. Through EPA's NAR coordination mechanism, almost every EPA office supported Regions 4 and 6 as they worked on a range of issues along the Gulf Coast. The depth of EPA's emergency response experience and its on-going commitment to preparation and training enabled EPA to go above and beyond its traditional role by providing the support necessary to protect human health and the environment.

In the first days of the response, EPA took on a new role at the request of FEMA: rescuing approximately 800 residents from the New Orleans flood waters. As the response continued and presented more unique demands and challenges, more than 1,100 EPA employees from across the country were deployed to the Gulf Coast region to assist in the response and cleanup efforts. Thousands of additional employees supported EPA's response from their



**EPA Collecting Water Samples**



**EPA Assessing Storage Tank Flooded by Hurricane Katrina**

home offices. Under these mission assignments, as of April 30, 2006, EPA has:

- ❑ Collected more than 10,000 samples of floodwater, sediment, soil, air, surface water, and ground water. For all media, there were more than 400,000 analyses associated with the sampling activity throughout the Gulf Coast region.
- ❑ With the help of its partners, assessed more than 4,000 drinking water and wastewater system facilities, which EPA continues to monitor as they return to operation.



- ❑ Helped the lower six counties of coastal Mississippi control damaged water sector infrastructure. EPA also helped restore damaged sewer infrastructures in 11 coastal municipalities and cleaned lift stations to provide emergency power to local communities.
- ❑ Helped set up temporary mobile water treatment units for community and medical facilities and delivered emergency supplies to water and wastewater utilities.
- ❑ Provided oversight for assessment and cleanup efforts at the million-gallon Murphy Oil Spill. The spill affected a square mile of residential properties, including approximately 1,800 houses.
- ❑ Collected more than 3.2 million unsecured or abandoned containers of potentially hazardous wastes, collected more than 439,000 electronic goods, and recycled more than 360,000 large appliances.

All EPA data can be found at <http://www.epa.gov/katrina/testresults/index.html>

## Recovery

As federal operations are shifting from the response phase to the long-term recovery phase, EPA is working closely with FEMA staff and state officials in Mississippi and Louisiana to establish long-term recovery plans, with an emphasis on water and wastewater infrastructure. EPA assisted in developing brochures for local communities, including one entitled: "Federal Funding for Water and Wastewater Infrastructure Damaged by Hurricanes Katrina and Rita."

In Louisiana, EPA worked with FEMA storefront planning teams on the parish recovery plans. EPA has also facilitated meetings, fairs, and weekly conference calls with agencies that provide grants and loans for drinking water and wastewater infrastructure. EPA provided a draft Smart Growth template to help decision makers efficiently allocate recovery funding for community rebuilding. EPA is also working with Louisiana Department of Environmental Quality (LDEQ) to amend recovery plans to include the assimilation of secondarily treated wastewater effluent into wetlands.

## Other Response Activities

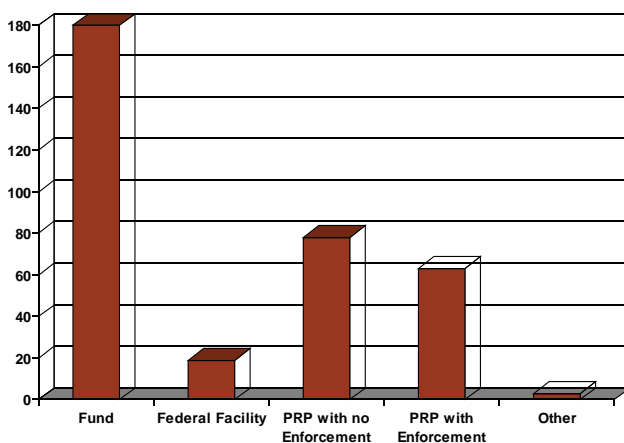
### Oil Spill Response Statistics

EPA responds to spills that threaten or directly impact inland waters of the United States, and supports the USCG during spills to the marine environment. In 2005, EPA responded to approximately 260 oil spills.

### Response Removal Actions

In 2005, Superfund conducted 343 emergency response and removal actions to address immediate and substantial threats to communities. Of these, 180 were Superfund lead actions; 19 were federal facility actions; 141 were potentially responsible party (PRP) actions; and three were classified under "other." EPA responds to a release or threat of release of a hazardous substance, pollutant, or contaminant that may present an imminent and substantial danger to the public health or welfare. A removal action is generally short-term and addresses the most immediate threat.

**FY2005 Completed Removals by Lead Organization**



### OSWER/OEM 2005 Notable Achievement Award Winner

2005 Chemical Emergency Preparedness and Prevention (CEPP) - State Partner Award: Len Insalaco of the Pennsylvania Department of Environmental Protection - Northeast Regional Office's Emergency Response Team is the 2005 CEPP State Partner award winner. Len has been a valuable partner to EPA Region 3's emergency response program and has been instrumental in leading the Northeast PA and East Central Terrorism Task Forces in counterterrorism planning and general hazmat/oil planning and response. Since 1989, he has effectively organized and managed the Pennsylvania Department of Environmental Protection (PADEP) Emergency Response Team, and his expertise in environmental response is routinely used across the state. Since 1980, Len has supported and collaborated with Region 3's OSCs. Due to Len's leadership and commitment, the region is better prepared to respond to environmental emergencies.

### National Response Team/ Regional Response Team Co-Chairs Meeting

The annual National Response Team/ Regional Response Team (NRT/RRT) Co-Chairs meeting was held in Denver, Colorado from March 8-10, 2005. Attended by EPA and USCG Co-Chairs of each of the 13 RRTs, representatives of the NRT member agencies and subject matter speakers served as an information exchange and activity coordination forum among the RRTs and NRT.

Discussion topics included:

- NRT/RRT role in international incidents;
- Next steps with regard to NIMS and the NRP;
- Developments in bio-defense planning and response for bio-toxins, pathogens, and prions;
- Lessons learned from selected major incidents and exercises in 2004;
- Reorganizations of EPA's OEM, USCG's Sectors, and NOAA's Office of Response and the resultant impact on RRT operations; and
- Safety and health of workers

## Major Response Actions

### Graniteville Train Derailment

On January 6, 2005 at 2:40 a.m., a Norfolk Southern train derailed after it collided with a parked train near Graniteville, South Carolina. The collision resulted in the derailment of 16 rail cars and two locomotives, including four hazardous materials cars. The derailment punctured one of the three chlorine cars, releasing approximately 46 tons of chlorine along with nearly 3,000 gallons of diesel fuel from the wrecked locomotives. Five thousand people were evacuated, nine fatalities occurred due to the chlorine exposure, and hundreds of victims were treated at nearby hospitals. Numerous local and state agencies, EPA Regions 3 and 4, the EPA Environmental Response Team (ERT), the USCG Gulf Strike Team, the Agency for Toxic Substances and Disease Registry (ATSDR), and the Superfund Technical Assessment and Response Team (START) contractors responded. The team was supervised under the direction of EPA OSCs and the response actions took approximately two weeks.



Graniteville Train Derailment

### Fair Play Tire Fire

On March 11, 2005 at 10:00 p.m., a large fire involving 2.5 million disposed tires in a quarry was reported near Fair Play, Missouri. Local emergency management officials, along with EPA OSCs, START contractors, Emergency and Rapid Response Services (ERRS) contractors, and 13 rural volunteer fire departments responded to the fire. A shelter-in-place order was issued by local emergency management. Smoke was visible in the sky for miles, and embers from the burning tires ignited fires in nearby fields. START contractors monitored the air quality in a one-mile radius for both on-site workers and for six nearby residences. Based on air-quality monitoring results, the shelter-in-place order was cancelled the following day at noon. Throughout the following six days, heavy equipment and fire suppression techniques were used to extinguish the field fires and to push the extinguished material and remaining tires into piles in the quarry. EPA monitored the air quality during the entire response and the Airborne Spectral Photometric Environmental Collection Technology (ASPECT) aircraft was dispatched to collect a

series of aerial imaging data in the immediate area to ensure protection of public health and the environment.

### Magellan Pipeline

On May 23, 2005 at 2:00 a.m., a high-pressure gasoline pipeline broke and approximately 118,600 gallons of gasoline were released onto the ground and into the storm sewers in Kansas City, Kansas. The spill affected two nearby railroad lines, a local utility facility, and storm sewers leading to the Missouri River. A Unified Command, which included both EPA and USCG, was established by the local county emergency management agency. Magellan Pipeline, the responsible party, conducted boom recovery and monitoring operations at the spill location. EPA deployed two field teams for air monitoring at areas affected by the spill. The two rail lines were shut down for three hours the following day while impacted soil was removed and stockpiled nearby. After the nearby sewers were flushed and the discharge water was monitored by USCG, the utility facility was able to resume operations on the third day. The EPA field teams monitored the air quality in the sewer lines after the flushing to ensure that no residual vapors or products were still present in the lines at concentrations harmful to public health or the environment.

### In closing, a look forward...

EPA's response to Katrina/Rita reminded us of the need to continue to enhance our capabilities to protect human health and the environment. We learned lessons from the response to the World Trade Center, trained EPA staff in ICS and coordinated regularly with other Federal, State and local agencies in advance about our appropriate roles during an emergency. We knew from EPCRA, RMP and FRP data where hazardous chemicals and oil were stored and used in the area hit by the hurricanes. Using our experience with the recent hurricane response, we will now adapt our work under the National Approach to Response to ensure that the next time we do an even better job. Every time that EPA responds to an incident, we learn ways in which we can prepare better, and we are motivated to work with our partners to implement the EPCRA, RMP and SPCC programs to ensure that we do what we can to prevent accidental spills and releases and be prepared for those that we cannot prevent.



Fair Play Tire Fire

