



# Oil Spill

# Program Update

The U.S. EPA's Oil Program Center Report

## ABOUT THE UPDATE

EPA's "Oil Spill Program Update" is produced quarterly, using information provided by EPA Regional staff, and in accordance with Regions' information needs. The goal of the Update is to provide straight-forward information to keep EPA Regional staff, other federal agencies and departments, industries and businesses, and the regulated community current with the latest developments. The Update is distributed in hardcopy and is available on the Oil Program homepage at [www.epa.gov/oilspill](http://www.epa.gov/oilspill).

## The NCP Celebrates its 30<sup>th</sup> Anniversary

The National Oil and Hazardous Substance Pollution Contingency Plan (NCP) celebrated its 30th anniversary on November 13, 1998. In the 30 years since it was adopted, the NCP has continued to change and improve. Responders continue to learn from events like the Ashland and *Exxon Valdez* spills and incorporate these lessons into the NCP. In addition, the passage of landmark legislation such as the Clean Water Act, CERCLA, and the Oil Pollution Act of 1990 have broadened the purview of the NCP. Although expanded in scope, it continues to ensure the most nimble and effective response to the threats that oil and hazardous materials spills pose to human health and the environment.

### *Early Response Efforts*

Prior to 1968, a voluntary "interagency agreement" for response to water emergencies

existed among several offices and agencies. There was no fund for response and no formal obligation. Several agencies had responsibilities—for example, the Office of Emergency Planning was responsible for coordinating an emergency water preparedness program with other national emergency plans; the Department of Health, Education, and Welfare was responsible for developing a nationwide program to assure adequate safe water supplies in an emergency; and the Department of Agriculture was responsible for providing guidance to farmers and food processors in the conservation and proper and safe use of water, for managing national forests to provide an adequate flow of quality water, for assisting watershed project sponsors in providing impoundments, for providing water supply forecast information based upon snowpack surveys, and for making state and local government officials aware of the available water supplies.

Until 1967, there was little recognition of the need to address and prepare for the threats posed by

major spills of oil and other hazardous substances. In March 1967, the tanker *Torrey Canyon* grounded and sank off Land's End, England, spilling 33 million gallons of crude oil. More than 100 miles of England's Cornish Coast, and approximately 50 miles of the Brittany Coast in France were fouled with the oil. The oil damaged beaches, wildlife, fishing, and tourist economies. To learn how it might cope with such a catastrophe in U.S. waters, the United States sent a six-person team representing several Federal Agencies to observe the cleanup of the unprecedented spill. The team found that there were no clear lines of authority, no response plans, and no overall strategy for the cleanup.

When the team returned, it drafted a report that detailed the status of U.S. spill technology, design of vessels, available equipment, and skilled manpower and presented it to the President of the United States. This report led to a June 7, 1968 memorandum from the President to the Secretaries of Defense; Interior; Transportation; Health, Education, and Welfare;

and to the Director of the Office of Science and Technology. The memo directed them to develop a national contingency plan for responding to oil spills.

### ***The 1968 National Multi-Agency Oil and Hazardous Materials Contingency Plan***

The group of Federal Agencies developed the National Multi-Agency Oil and Hazardous Materials Contingency Plan, which was signed into law on November 13, 1968. The objectives were to develop effective systems for discovering and reporting the existence of a pollution incident, containing the discharge, applying techniques for cleanup and disposal, recovering cleanup costs, and enforcing federal statutes. The Secretary of the Interior assumed primary responsibility and established a division in the Federal Water Pollution Control Administration (FWPCA) in January 1970.

The plan established a national reaction team and provided for the establishment of regional reaction

teams and contingency plans. At the national level, the National Interagency Committee (NIC) was in charge of reviewing regional planning efforts, coordinating reports from the Joint Operations Team (JOT) and the Regional Operations Teams (ROT). Reports from the JOT and ROTs focused on the handling of major or unusual pollution incidents in order to improve contingency plans, and making recommendations on training. The Department of Interior representative to the NIC served as chair, and the U.S. Coast Guard representative served as the vice-chair.

The FWPCA headed the JOT and the Coast Guard provided the JOT's assembly center. The assembly center consisted of a communications and map room in the Coast Guard Headquarters. The JOT responded to pollution incidents which exceeded regional capabilities, overlapped boundaries, or involved national security or a "major hazard." The ROTs handled individual response efforts, headed by an On-Scene Commander (OSC), usually provided by the Coast Guard for coastal and major inland navigable waters. The plan divided response to an incident into four separate categories: Phase I, Discovery and Notification; Phase II, Containment and Countermeasures; Phase III, Cleanup, Restoration, and Disposal; and Phase IV, Recovery of Damages and Enforcement.

Phase I was the first response action to a pollution incident. The incident was reported to the ROT, either directly, or by local police, fire, or port authorities. The ROT would then determine if it was

necessary to report the incident to the JOT. Phase II consisted of defensive actions to be initiated as soon as possible after discovery and notification, including putting physical barriers or booms in place, or using chemicals or other materials to restrain the pollutant and its effects on water-related resources. Phase III was the responsibility of the OSC. Phase IV was carried out by individual agencies in accordance with existing statutes.

### ***Further Changes***

In 1970, the Environmental Protection Agency (EPA) was formed and the responsibilities for the response activities were transferred from the Department of Interior to the EPA. In 1972, the Clean Water Act (CWA) was passed, requiring that the 1968 response plan to be revised to include hazardous substances, as well as oil discharges. Section 311 of the CWA provides the EPA and Coast Guard with the authority to establish a program for preventing, preparing for, and responding to oil spills that occur in navigable waters. In 1980, the passing of Superfund legislation further broadened the scope of the NCP to cover emergency removal actions at Superfund sites.

The latest revisions to the NCP, in 1994, reflect provisions of the Oil Pollution Act of 1990 (OPA). The OPA expanded the NCP in a three-tiered approach: the Federal government is required to direct all public and private response efforts for certain types of spill events; Area Committees must develop detailed, location-specific Area Contingency Plans (ACPs); and owners or operators of vessels and

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certain facilities that pose a serious threat to the environment must prepare their own facility response plans.

### ***Today's National Contingency Plan***

The present NCP retains the same basic structure as the original 1968 plan. The National Interagency Committee is replaced by a National Response Team, the Regional Operations Team by Regional Response Teams, and On-Scene Commanders by On-Scene Coordinators. Because the EPA was not yet established when the 1968 NCP was written, some of the responsibilities in the present NCP are now shifted into its purview instead of the Department of Interior's or the Coast Guard's. Each of the levels has different responsibilities during a spill response.

*The National Response Team* - The NRT is made up of 16 federal agencies, with EPA serving as chair and the U.S. Coast Guard serving as vice-chair. The team does not respond directly to spills, but assists by providing information, technical advice, and access to resources and equipment during an incident. In the event that response is needed by more than one Region, the NRT helps coordinate response efforts.

*Regional Response Teams* - There are 13 RRTs—one for each Region, one for Alaska, one for the Caribbean, and one for the Pacific Basin. The RRTs do not respond on-scene, but provide assistance as requested by the OSC. They are primarily planning, policy, and coordinating bodies that assist state and local governments in preparing, planning, and training for emergency response.

## **Kenneth Biglane – NCP Pioneer**

The 30th anniversary of the National Contingency Plan (NCP) not only represents a milestone achievement in environmental protection, it demonstrates the commitment of the people that made the NCP a reality 30 years ago and of those who continue to ensure that we take every prudent measure to prevent and prepare for oil spills. As one of the earliest proponents of a national effort to prevent and prepare for spills, Kenneth Biglane stands out as an example of this commitment.

Throughout the 1950s, in his early career with the State of Louisiana, Biglane worked to control oil pollution and reduce its impacts on local water quality. In 1967, he was among those dispatched to observe and learn from the *Torrey Canyon* disaster. The careful analysis of Biglane and his colleagues became the basis of the NCP. Biglane's career followed the growth and transformations of the NCP from the Department of the Interior, Federal Water Pollution Control Administration, to the newly formed Environmental Protection Agency, where he served as Chairman of the National Response Team (NRT), and Director of the Oil and Special Materials Control Division of the Office of Water. With the passage of Superfund and establishment of the Office of Emergency and Remedial Response, Biglane served as the director of the Hazardous Response Support Division, which included the Oil Program, and continued in his role as NRT chair.

Kenneth Biglane gained recognition as a national and international expert in all aspects of oil and hazardous materials spills. Even after his retirement, he was called on to provide assistance on the *Exxon Valdez* spill and continued to participate in training sessions for on-scene coordinators and other program staff.

Kenneth Biglane was committed to the notion that oil spill prevention and environmental protection were served through the cooperation of government and industry, and through the coordinated efforts of various federal state and local actors. These characteristics remain strengths of the NCP today, allowing it to draw on the best skills available to meet response needs and continue to adapt to change.

*On-Scene Coordinators* - OSCs are designated for each Region and are responsible for coordinating all efforts during an incident, including response by federal, state, and local agencies, and responsible parties. They also provide local support and information in their response communities. OSCs are notified of spills by the National Response Center, which receives notification of all chemical, radiological, oil, and biological releases. Under the direction of the OSC, Area

Committees, made up of federal, state, and local agency representatives, develop ACPs for specific areas within the state.

Although it continues to serve its original purpose, the NCP has undergone many changes since it was first enacted. Early lessons have helped to strengthen and shape the plan into its present form—a plan that promotes and establishes lines of coordination and planning throughout all levels of response.

## The Oil Pollution Act of 1990

The Oil Pollution Act of 1990 (OPA) was signed into law by President Bush on August 18, 1990. Over the preceding years, seven similar proposals were defeated, but the 1989 *Exxon Valdez* spill and the less broadly publicized but pivotal Ashland oil spill of 1988, solidified broad-based support for OPA. The Act provides financial incentives for improved industry spill prevention and response efforts by increasing spill liability limits and penalties; ensures that the federal response system is adequately prepared to manage the impacts of oil spills (catastrophic and routine) that do occur; and mandates that industry implement prevention and preparedness measures.

### ***Federal Liability Framework***

Prior to the passage of the OPA it was perceived that the cost of spilling oil, and the cost of cleanup were not high enough to encourage industry to devote the necessary resources to spill prevention. Before enactment of OPA, responsible parties were only liable for the cleanup costs incurred by the federal government. The Act expanded liability to include costs and damages incurred by local governments, agencies, and private parties. The OPA adopts and extends the standard of liability outlined under section 311 of the Clean Water Act. Under the OPA, the owner or operator of a vessel or facility (defined as the "responsible party") from which oil is

discharged, or which poses the substantial threat of discharge of oil, is liable for damages and any removal costs incurred in a manner consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Six categories of damages are compensable under this section:

- Natural resource damages, including the reasonable costs of assessing these damages;
- Real or personal property damages;
- Loss of subsistence use of natural resources;
- Net loss of tax and other revenues;
- Loss of profits or earning capacity; and
- Net cost of additional public services provided during or after removal actions.

Liability limits and financial obligations of responsible parties (as set by the Clean Water Act), are extended under the OPA. Liability for tank vessels larger than 3,000 gross tons is increased to \$1,200 per gross ton or \$10 million, whichever is greater. For tank vessels smaller than 3,000 gross tons, liability is capped at \$1,200 per gross ton or \$2 million, whichever is greater. Parties responsible for discharges from non-tank vessels are liable for up to the greater of \$600 per gross ton or \$500,000. Maximum liability for offshore facilities is the total of removal costs plus \$75 million. Liability for onshore facilities and deep water ports is \$350 million. The OPA does establish certain conditions under which liability is unlimited: (1) discharges caused by gross negligence, willful misconduct, or violation of

applicable Federal safety, construction, or operating regulations; (2) failure to report a spill; and (3) failure or refusal to cooperate in a removal action. The OPA does not preempt state laws, which may impose additional liability, penalties, or cleanup requirements.

As an additional financial incentive, OPA provided for larger fines for discharges of oil or other hazardous substances, or for failure to comply with a federal removal order.

### ***Expanded Spill Prevention and Preparedness Activities***

Not only did the OPA raise the financial stakes for responsible parties, it mandated that tankers and inland oil facilities develop individual response plans. These plans require vessels and facilities to plan for the worst case spill scenario and develop strategies for responding to the spill itself and the threat it poses to the environment. With regard to on-shore facilities, the EPA Oil Program administers this provision of the OPA through the Spill Prevention Control and Countermeasure Regulation.

The OPA also mandated enhancements to the national response system. Among the major changes was the creation of a National Response Unit to keep track of oil spill response equipment, provide technical assistance in the event of a spill, and perform administrative functions related other requirements of the Act. At the regional level, the OPA required the formation of Coast Guard District Response Groups to maintain equipment and provide technical assistance during spill responses.

Also new under OPA was a requirement to develop Area Contingency Plans. This provision required the formation of Area Planning Committees made up of members of appropriate local, state, and federal agencies. These committees are responsible for developing contingency plans that are similar to the NCP, but that apply to smaller geographic areas. The area plans provide a means to coordinate facility, state and local emergency plans. These enhancements to the national response system are aimed at creating a network of coordinated response resources, allowing responders to be aware of and use the best available personnel and equipment during an emergency.

#### ***Other OPA Provisions***

The OPA also established an Oil Spill Liability Trust Fund to pay for removal costs and damages not recovered from responsible parties. With some exceptions, claims must be presented to the responsible party before they are presented to the Trust Fund. Fund monies are generated by a five-cent-per-barrel fee on oil. The total amount available from the Trust for a single spill incident, is limited to \$1 billion. The trust fund is administered by the U.S. Coast Guard.

In addition to addressing responses to spills, the OPA also established steps that were aimed at preventing spills in the first place. The OPA requires that new tank vessels have a double hull or a double containment system, it mandates that tankers be escorted by towing vessels designated high-risk areas, and institutes drug and alcohol screening for tanker personnel.

In order to improve the ability to respond to oil spills over the long term, the OPA contains provisions for research and development in oil pollution and spill response. The Act mandated the establishment of an interagency committee to coordinate this research. Research topics covered by the OPA R&D provision include mechanical response technologies such as booms, skimmers, and temporary storage and handling; chemical and biological treatments of spills and affected areas; and remote sensing and monitoring of spills and spill response activities.

The Oil Pollution Act of 1990 was the culmination of 15 years of debate surrounding the need to improve U.S. laws regulating oil tankers and oil spill response. The *Exxon Valdez* accident provided the impetus for change because it exposed the weaknesses of the federal response mechanisms and the inadequacy of liability provisions. As a result of the OPA the U.S. benefits from a more robust response system, increased environmental protection and public safety through improved contingency planning, and more diligent action by transporters and handlers of oil.

## **11<sup>th</sup> Anniversary of the Ashland Oil Spill in Floreffe, PA**

On the afternoon of January 2, 1988, a four-million gallon oil storage tank owned by Ashland Oil Company, Inc., split apart and collapsed at an oil storage facility located in Floreffe, Pennsylvania, near the Monongahela River. The tank split while being filled to capacity for the first time after it had been dismantled and moved from an Ohio location and reassembled at the Floreffe facility. The sudden rupture released 3,881,841 gallons of No. 2 diesel fuel in a surge that flowed over the facility's containment berms, across a parking lot on an adjacent property, and into a nearby uncapped storm sewer that drained directly into the Monongahela River. An estimated 750,000 gallons of oil entered the river and flowed through a series of locks and dams, contaminating the entire depth of the water column. The Monongahela carried the oil to the



*Remains of the collapsed diesel fuel storage tank following the 1988 Ashland spill*

Ohio River, temporarily contaminating drinking water for approximately one million people in Pennsylvania, West Virginia, and Ohio. The Ashland oil spill is the largest inland oil spill in U.S. history. Although it was less than half the size of the *Exxon Valdez* spill, the Ashland spill highlights the direct impacts inland spills can have on large population—in this case, one million people were affected.

### **The Response**

Ashland quickly notified local emergency response authorities and the National Response Center (NRC) of the spill, and assumed financial responsibility. Within three hours of the spill, local authorities had established a command post at the Floreffe Fire Hall. Initial attempts to contain the flow of oil were hampered by lack of communication due to a power shutdown for safety purposes, darkness, and the velocity and magnitude of the oil flow. During the evening of the spill, the U.S. Coast Guard acted on behalf of the federal On-Scene Coordinator (OSC) as the First Federal official on the scene until the EPA OSC arrived the following morning. Federal response agencies were involved with activation of the Incident-Specific Regional Response Team (RRT) on January 2, 1988. The RRT was formed to provide support and guidance for the OSC. The response as directed by the OSC was multifaceted: source control at the facility, river cleanup operations, monitoring the movement of the oil plume in the river, protection of drinking water intakes and providing alternative water supplies are just some of the many tasks performed. State and



*Deployment of containment booms on the Monongahela River*

county officials assisted the OSC by taking the lead on the response efforts that focused on water quality through the setup of an extensive monitoring program. The USCG and the National Strike Force were assigned the lead for cleanup and oil recovery in the rivers.

An inflatable plug was installed in the drain opening in the sewer system to stop oil flow to the river. Unfortunately, the plug dam was not in place until approximately four hours after the collapse. By this time, most of the oil had reached the river. The initial inflatable plug later failed, releasing another 50,000 gallons of oil into the river. The Coast Guard prohibited unauthorized traffic on the Monongahela for 58 hours following the rupture and continued to regulate traffic for the next seven days to allow cleanup crews to have unhindered movement on the river.

The cleanup effort consisted of 11 vacuum trucks, three cranes, 20,000 feet of booms, and more than 150 people. The cleanup strategy entailed diversion and removal of oil from man made and natural pools. Single digit temperatures and 50 to 90 percent ice cover on

the river complicated cleanup. Final cleanup efforts were completed on February 5, 1988. An estimated 20 percent of the oil that had entered the rivers was recovered. EPA also performed follow-up activities such as compliance inspections and a spill prevention, control and countermeasures (SPCC) plan inspection of the facility.

### **Effects on Wildlife**

The fuel contaminated river ecosystems killing thousands of animals, such as waterfowl and fish. Two oil impact studies designed by aquatic toxicologists from the Pennsylvania DNR took mussel samples and a census before and after the spill. Pennsylvania and West Virginia authorities conducted shoreline counts to determine the number of fish killed. In the week following the spill, several censuses of dead and stressed fish were taken in dam pools along the river. Fish collection surveys yielded further information regarding ecological effects. Significant efforts by the Pennsylvania Game Commission, Audubon Society, and dozens of volunteers retrieved oil-endangered waterfowl with limited success due to weather conditions. Ice and very low temperatures kept rescue workers on shore, hampering the recovery effort. Although many birds were saved waterfowl mortality estimates ranged from 2,000 to 4,000 ducks, loons, cormorants, and Canadian geese, among others.

### **Lessons Learned**

Several important lessons were learned from this spill response. It was concluded that the quick notification by Ashland to the local response authorities and the NRC



was fundamental to the establishment of the command post on the evening of the spill. Communication was enhanced by the positive presence of the media throughout the incident. The media was instrumental in keeping the public informed of the cleanup operations. Evaluators of the response recommended that inventories of locally available equipment be prepared so that in the future, emergency responders might locate needed resources quickly. It was also recommended that, to protect public water sources in future emergencies, water suppliers should plan for the availability of contingency water supplies and equipment.

## 10<sup>th</sup> Anniversary of the Exxon Valdez Spill and Restoration Update

On March 24, 1989, the oil tanker *Exxon Valdez* ran aground on Bligh Reef in Prince William Sound, Alaska resulting in the largest oil spill in U.S. history. The 987-foot tanker was carrying 54 million gallons of oil when it struck the reef at approximately 12 miles per hour, ripping open 8 of its 11 holds. The accident released more than 11 million gallons of oil over a period of 5 hours. Within seven hours of report of the spill, the developing oil slick was well over three football fields wide and four miles long. Oil from the spill eventually coated an estimated 1,100 miles of Alaskan shoreline.

The oil spill damaged the Alaskan environment around Prince William sound at all levels. Ecosystems and habitats were damaged and individual species suffered more specific injuries. Human populations were also impacted. The local fishing industry, the mainstay of most of the regions communities, declined severely. Additional damage was done to archeological sites, parks, and recreational areas.

### *The Response*

The immediate response to the accident focused on preventing the remaining 43 million gallons of oil onboard the *Exxon Valdez* from spilling and protecting nearby fish hatcheries. Several factors hampered response to the spill. While the oil companies had oil spill response equipment, it was not immediately available, and it was not enough to manage a spill of such magnitude. The remoteness of the location also prevented timely response. Arriving response teams found that there was not enough local lodging to house them all during the response. The closest

airport was too small for planes carrying cleanup equipment to land, forcing equipment to be transported from Anchorage—nine hours away by truck.

Exxon assumed responsibility for costs and cleanup efforts on the second day after the incident. The company established a communication network allowing information to be exchanged between response personnel from private organizations and local, state, and federal government agencies. Cleanup efforts for the remainder of 1989 concentrated on cleaning oil from the environment and rescuing affected wildlife. Thousands of workers aided in cleanup using techniques ranging from cleaning rocks by hand, to high temperature pressure washing, to applying fertilizer to oiled shorelines to increase bioremedial activity. A spring 1990 survey of the affected shoreline resulted in continued cleanup efforts through 1990, followed by limited work from 1991-1994. Although minor work continued, the U.S. Coast Guard determined in June 1992 that



*Workers cleaning an oiled shore, Prince William Sound, Alaska*

the expense of additional cleanup activities could no longer be justified by the gains made in the ecosystem.

### ***Natural Resource Damage Assessment to Date***

Natural resource damage assessment studies were begun during the summer of 1990 by the Alaska Department of Fish and Game, the U.S. Department of the Interior, the U.S. Department of Agriculture, and the National Oceanic and Atmospheric Administration. Studies estimated that 100,000 to 300,000 birds were killed, with some local colonies' numbers cut in half. Other losses include an estimated 2,650 sea otters and highly elevated mortality in pink salmon embryos. Research done as late as 1995 and 1996 showed that species such as the harlequin duck were still effected by the spill; 94 percent of tagged females survived the 1995-1996 winter in unoiled areas as opposed to 77 percent in oiled areas.

More than 2,000 people in the spill effected region rely heavily on subsistence harvests of fish and wildlife as a means of livelihood and a part of their culture. Significant declines in the amount of subsistence harvesting occurred following the spill due to a lack of fish and wildlife availability, and concerns about consuming contaminated food. Household interviews performed by the Alaska Department of Fish and Game indicated that in some areas subsistence harvesting is rebounding but a lag exists in the Prince William Sound region. Native Alaskans are concerned that once a population is forced from a

subsistence way of life, they are not likely to return.

Passive use of resources (the gains to be had through the intrinsic and aesthetic value of the what was considered one of the most pristine environments on earth) have also suffered. Studies performed by the State of Alaska have shown substantial losses in passive use values due to the spill. Recreation and tourism have declined since the spill due to residual oil on popular beaches and the closing of fishing and hunting areas. However, there has been an increase in recent years of visitors wanting to view the spill site. The spill area is believed to contain in excess of 3,000 historically and archaeologically significant sites, of which, 24 have been negatively impacted by the spill.

### ***The Exxon Valdez Oil Spill Trustee Council***

On August 28, 1991, the United States and the State of Alaska entered into a Memorandum of Agreement (MOA) and Consent Decree for the purposes of settling federal and state government disputes and managing the funds available for restoration of natural resources. Pursuant to the MOA and federal laws, the federal and state governments act as co-trustees in the collection and appropriation of restoration funds along with management of restoration activities and projects. The *Exxon Valdez* Oil Spill Trustee Council was formed as the embodiment of the co-trustee relationship between the U.S. and Alaska. The Trustee Council has developed and funded numerous research, monitoring, and restoration projects since its formation including studies

### ***Exxon Valdez Oil Spill Facts***

- The spill contaminated portions of Prince William Sound including the Kenai Peninsula, lower Cook Inlet, the Kodiak Archipelago, and the Alaska Peninsula. The oil traveled as far as 600 miles southwest of the spill site and covered an estimated 1,100 miles of shoreline.
- It is estimated that \$25 million in damage was done to the *Exxon Valdez*. The tanker was repaired, renamed the *SeaRiver*, and reassigned to service in the Mediterranean Sea.
- From March 1989, to August 1991, Exxon spent more than \$2.1 billion in cleanup costs.
- Exxon was ordered to make 10 payments totaling \$900 million from 1991 through the year 2001.
- A \$5 billion judgement against Exxon was awarded to 14,000 commercial fisherman, Alaskan natives, business owners, landowners, and corporations named in a class-action suit. This is the largest figure ever awarded against a corporation and is being appealed by Exxon. Defendants have yet to receive any of the award.



focusing on local fisheries and wildlife, purchase of habitat for protective purposes, and numerous community involvement projects, some of which are described in the following section.

### **Community Involvement**

One of the goals of the *Exxon Valdez* Oil Spill Trustee Council is balanced community, industry and government involvement. One of the main groups the Trustee Council seeks advice from is the Public Advisory Group (PAG). This group has 17 members representing users of the affected area and additional interested parties. The PAG's advice is sought when the Trustee Council must make decisions on planning, funding, and performing restoration projects. The Trustee Council funds 10 positions of "local facilitator" in spill-area communities. The facilitators serve as liaisons between the Trustee Council, the Restoration Office in Anchorage, scientists conducting restoration work, and the community. All meetings of the PAG and Trustee Council include an open forum session during which any citizen may address restoration activities. PAG and Restoration Office meetings have often been held directly in affected communities.

The Trustee Council has funded and undertaken several innovative projects to help foster community involvement. One of these projects is a radio series entitled "Alaska Coastal Currents" which started in March 1996 and was designed to explain Trustee Council restoration projects to the public. The Trustee Council also funds the Chugach School District project called Youth

Area Watch. The program allows students from spill area communities to work directly with research scientists in the field. Educational units on Biology and Oceanography are taught hands-on in the areas where the students live. The Trustee Council's homepage provides information regarding the history of the spill, status of affected natural resources, and study results. It can be accessed at <http://www.alaska.net/~ospic>.

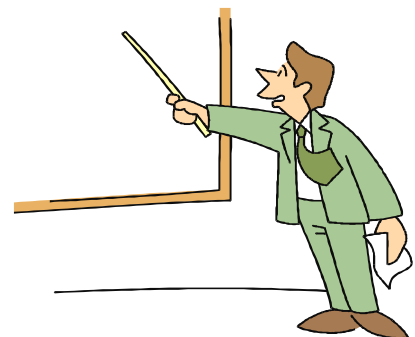
## **Region 6 Pilot SPCC Expedited Enforcement Program**

The U.S. Environmental Protection Agency, Region VI, recently completed a pilot of an expedited enforcement program. The Spill Prevention Control and Countermeasures (SPCC) Expedited Enforcement Program (SEEP) is an attempt to make SPCC enforcement in Region VI, a more timely, consistent, and widespread deterrent. It is also meant to improve the compliance rate of targeted facilities. The program was field-tested in the second quarter of fiscal 1998 after approval from OECA and the pilot was conducted in the second, third, and fourth quarters of fiscal 1998. The SEEP was designed to minimize the expenditure of resources for common, clear-cut violations that are easy to correct within 30-60 days. The program was piloted at production facilities and small bulk storage facilities. The three main objectives of SEEP are to: (1) simplify the

administrative penalty process so that minimal EPA resources are expended; (2) establish a more convenient and less onerous alternative to the traditional approach to dealing with EPA; and (3) achieve higher rates of compliance with minimal resource expenditures.

The program allows owners/operators to correct SPCC violations, sign a "Complaint and Expedited Settlement Agreement," and pay a penalty within 30 days of receipt. An optional 30-day extension is available if necessary to correct the cited violations. The range of penalty amounts for the program is \$400-\$2500. The Region used this range in order to assure that the penalties are large enough to serve as a deterrent to the violator, but that the amount is small enough to serve as an incentive for owners/operators to quickly correct violations. By contrast, under more formal enforcement procedures, facilities can face fines up to \$27,500 per day until the violation is corrected.

Before conducting the SEEP pilot, Region 6 conducted in-house training and testing, and field tested the procedures. Outreach efforts were made throughout the Region. Meetings were held with State Agencies in Oklahoma and



## Report Oil Spills

**Call the National Response Center at:**

**1-800-424-8802.**

**Failure to notify the appropriate federal agency of an oil spill (including vegetable oils and animal fats) or chemical discharge may result in a maximum penalty of \$250,000 and 15 years imprisonment for the individual or \$500,000 for the organization. [Section 311(b)(5) of CWA].**

Louisiana, and three workshops were held with trade organizations. In-house training and testing were conducted prior to the field inspections to educate and receive feedback about the inspection procedures. Finally, the procedures were tested in the field.

After the procedures had been field-tested, the pilot was launched in the Region. Prior notice was given to the owners/operators for the pilot, assuring that the owners/operators were available at the site to answer questions, and to make the SPCC plan available at the time of the inspection. A total of 191 inspections were conducted between February 26, 1998 and September 4, 1998. Approximately 30 percent of the inspections were performed by contractors, and the

remainder by EPA Federal On-Scene Coordinators.

If inspections revealed no violations, or if the penalty was less than \$400, the owners/operators were given only the field copy of the standard SPCC inspection check list, and were requested to correct any minor violations. If the penalties were between \$400 and \$2500, the owners/operators were given the Inspection Findings, Alleged Violations, and Proposed Penalty Form, the Complaint and Expedited Settlement Agreement, and a set of instructions. If the penalties were more than \$2500, the owners/operators were given a copy of the checklist and told that they could expect to be contacted by EPA enforcement personnel concerning possible enforcement action.

The pilot resulted in 191 SPCC inspections, all of which were evaluated for expedited or traditional enforcement. Under the pilot program, 69 expedited administrative penalties were issued under SEEP; 14 traditional Class I and Class II administrative penalties were issued; and 2 civil judicial cases were referred to the Department of Justice. The average penalty issued through the expedited process was \$919.

To date, all of the owners/operators who were issued expedited actions have responded by correcting their violations, and signing and returning the 'Complaint And Expedited Settlement Agreement' form and check within the specified time frame. The adjusted rate of non-compliance for the 191 facilities inspected was 76 percent at the time of the inspection. (It is

estimated that unannounced inspections would have resulted in a noncompliance rate of more than 90 percent. This estimate is based on violations observed during aerial or ground reconnaissance done prior to the actual inspections.)

Important lessons were learned about all phases of SEEP implementation during the pilot process.

- Although compliance workshops are resource intensive and must be carefully planned, they provide great opportunities to educate the regulated community and improve compliance.
- Inspections should be announced rather than surprise in nature, be performed by well trained inspectors, and facility owners/operators must have a clear understanding of the inspection process.
- Even small penalties can improve compliance.

It was a somewhat surprising finding that owners/operators of many of the production facilities inspected in the older oil fields were unaware of SPCC requirements. As a whole, however, most of the owners/operators visited exhibited a genuine attitude of wanting to do what is right under the law. The expedited process allowed them to achieve compliance as quickly as possible, and with minimum costs and aggravation to both the owners/operators and the EPA.

Region 6 presented information about the program at the October

1998 Permian Basin International Oil Show. There are also plans to raise awareness about the program at spill control workshops for oil and gas industry associations.

The overall evaluation of the SEEP program is that it is a practical, least-cost alternative to traditional administrative penalty enforcement for smaller SPCC facilities. The SEEP program has the potential for widespread use in the agency. EPA should evaluate this approach in other OPA, other water, and other media programs as well.

For more information about SEEP contact Jimmy Graham at (214) 665-2272 or Roger Hartung at (214) 665-8561.

## First Inland Area Planning/GIS Workgroup Meeting Held

As part of its ongoing implementation of the Oil Pollution Act of 1990, EPA held the first Inland Area Planning/Geographic Information Systems (GIS) Workgroup meeting just outside Washington D.C. on December 7th through the 11th, 1998. The workgroup is made up of members from EPA Headquarters organizations and personnel from each Region, including On-Scene Coordinators and Regional Response Team members. The workgroup provides a forum to which all Regions can

bring their own experiences and

lessons learned about area planning and the use of GIS. By participating in the workgroup, the members are able to help develop and coordinate area plans and implement initiatives that are common to all Regions. The workgroup develops more effective guidance and directs funding to where it will be most useful. The agenda for the conference included two and one-half days for each topic—area contingency planning and geographic information systems.

Because the workgroup combines the efforts of Regions and Headquarters, members were able to work to successfully define common goals and objectives in a minimal amount of time, maximizing the information which could be covered during the session. In addition, the group developed lists of action items related to area contingency planning and the application of GIS to planning and oil spill response. Workgroup members, the USCG, and EPA contractors presented examples of area contingency plans, demonstrated GIS software technology, and showcased informational websites.



## SPCC Averts Costs and Damages

A major part of the Oil Spill Program is the Oil Spill Prevention Program, which requires the development and implementation of Spill Prevention, Control, and Countermeasures (SPCC) plans for approximately 440,000 facilities nationwide. A critically important part of most SPCC plans is a passive secondary containment structure around the tank storage area; the plan also addresses inspections, training, security, and other pollution prevention measures.

Over history of the program, a great deal of environmental damage and cost has been averted due to the success of secondary containment structures. The following cases illustrate the value of the SPCC program.

- A 3 million gallon tank in Wisconsin released 28,400 gallons of oil, but all was reported to be contained within a diked area.
- Approximately 42,000 gallons of fuel oil spilled from a tank in New York City when a valve was left open. Only 500 gallons escaped the containment area, and none of it reached navigable waters.
- Approximately 12,600 gallons of crude oil spilled from a tank in California, but none escaped the secondary containment area.

- The federal government and responsible parties have spent approximately \$9 million to clean up three different oil spill sites in Wyoming. These costs would probably have been avoided or significantly reduced if the facilities had been in compliance with SPCC regulations. The average SPCC inspection costs less than \$10,000, including EPA and contractor time and follow-up.
- A facility in Region 6 spilled 126,000 gallons of oil, impacting several environmentally sensitive areas. The facility had recently restarted operations after being in receivership, but the SPCC and FRP plans were not updated to reflect changes in the facility. The response to the oil spill, which could have been prevented with updated SPCC/FRP plans, cost more than \$1,000,000 and forced the facility into bankruptcy.
- Two spills in Region 2 early in 1998 (one approximately 23,000 gallons and one approximately 2,650 gallons) were entirely contained within the secondary containment structure.

## Recent Oil Spill News

### *San Francisco Oil Spill Mystery*

An estimated 2,300 gallons of oil spilled from an unknown source off the Northern California coast

around September 29, 1998. The 10-mile long, 2-mile wide slick was first spotted approximately 25 miles from San Francisco off the Farallon Islands. The Farallon Islands are a national marine sanctuary known as one of the most productive seabird rookeries in the eastern Pacific. Cleanup efforts were concluded by October 3rd, with approximately 9,200 pounds of tar balls and 1,262 gallons of oil recovered.

The spill killed a total of 89 birds and injured an additional 70 birds, which are undergoing rehabilitation at the Marine Wildlife Veterinary Care and Research Center in Santa Cruz. The spill caught Common Murres at a particularly bad time, when the large flocks of the birds gather on the water to teach hatchlings how to feed themselves.

The source of the spill is still unknown and no entity has yet taken responsibility. Field sample analysis, shipping logs, and satellite photographs are being used in an effort to link the spill to the responsible source.

—summarized from various AP, UP, and Reuters releases.

### *Latest San Francisco Oil Spill Prompts New Legislation*

Following a 2,300 gallon oil spill of San Francisco at the end of September 1998 for which no one claimed responsibility, California Governor Pete Wilson signed a bill prohibiting large oil transport ships from entering California waters unless they have an approved oil spill contingency plan. Fines are

set for up to \$100,000 per day of noncompliance and up to one year in a county jail.

Under the new law, any vessel weighing more than 300 gross tons and carrying 1 million gallons of oil for its own use must submit a contingency plan, and demonstrate the ability to pay as much as \$300 million to cover potential damages. Wilson stated he believes the new legislation will use due diligence to curb oil spills in state waters. Wilson also noted that not only are spills harmful to the marine environment, but they are difficult and costly to clean up.

—summarized from Reuters release

### *New Orleans Spill*

Approximately 2,000 gallons of oil was released from an oil pipeline in the Gulf of Mexico October 3, 1998. The Chevron pipeline was being pressure tested to determine the location of a leak responsible for an approximate 155,000 gallon spill the previous week. No official estimate is available on how much of the original 155,000 gallon spill was recovered; the oil formed into a 20-mile long, 5-mile wide slick. No wildlife mortality has yet to be linked to the spill. Oil from the original slick was dispersed with special detergents, and much of it dispersed on its own. The 2,000 gallon leak caused by the failed pressure test was contained by oil booms in place and recovered by boats present on the scene as part of the pressure test. Previously the 155,000 gallon spill was thought to have come from a British Petroleum pipeline adjacent to the Chevron pipeline; however the failed pressure test and subsequent release

of 2,000 gallons of oil from the Chevron line caused authorities to reevaluate their conclusions.

–summarized from AP releases

### ***Lingering Oil Harmful to Salmon***

National Marine Fisheries Service (NMFS) researchers announced October 5, 1998 that oil lingering from the 1989 *Exxon Valdez* spill will continue to kill or damage future generations of pink salmon. NMFS researchers stated that oil pollution concentrations of as low as one part per billion could stunt pink salmon growth and cause other chronic health problems for the fish. According to Jeffrey Short of the NMFS, small pools of oil that remain on stream banks release hydrocarbons as tides flush through them. Short's research suggests that the longer-lived polycyclic aromatic hydrocarbons have proven to be more harmful to natural populations than the quickly evaporating simpler chemical compounds normally associated with environmental damage.

The NMFS study was performed in cooperation with scientists from the Alaska Department of Fish and Game for the *Exxon Valdez* Oil Spill Trustee Council, the federal/state panel that administers the \$900 million settlement from Exxon for the disaster. Researchers working for Exxon refuted the NMFS finding, stating that NMFS scientists mishandled the salmon eggs, killing them prematurely. Another Exxon scientist stated that biological harm from pollution measured at one part per billion was an artifact of statistics.

–summarized from Reuters release

### ***Coconut Oil Spill in Rhode Island***

According to an EPA pollution report, approximately 1,400 gallons of coconut oil was spilled at the Original Bradford Soap Works on September 21, 1998. The spill occurred when valves and piping that were to transfer coconut oil from a tanker truck to an empty storage tank were misaligned, causing the oil to be transferred instead to a half-full above-ground storage tank. Facility personnel discovered the oil flowing out of the top of the tank and onto the ground. It is estimated that 800 gallons of coconut oil reached the adjacent Pawtuxet River before containment actions were successful. There were no secondary containment facilities for the above-ground storage tanks located next to the river. The responsible party has assumed financial liability for the spill and has begun clean-up procedures.

–summarized from US EPA Pollution Report

### ***Maintenance Shuts Down the Trans-Alaska Pipeline***

The trans-Alaska pipeline was shut down for almost 29 hours on September 25 and 26, 1998. This was the longest planned shutdown in the life of the 800-mile long pipeline, according to the Anchorage Daily News. The shutdown was necessary to correct problems at two valves that failed safety checks in 1997. One valve was repaired and another replaced. Overall, the 26-year old valves are holding up well although some have some leaks, according to Greg

Shotts, project leader for one of the repair operations.

–summarized from Anchorage Daily News 9/28/98

### ***Train Derailment Leads to Coconut Oil Spill***

Following a train derailment in Columbus, Ohio, local fire officials reported a 20,000 gallon “liquid soap” spill to state authorities. The spillage resembled that of vegetable oil more than liquid detergent, and further investigation confirmed that the substance was refined coconut oil. Less than 50 gallons of the oil made its way into the sewer system which underlies the tracks. Because the sewer system flows to a combined storm water/sanitary sewage main that flows to the Columbus Southerly Sewage Treatment Plant, the spill posed no threat to the nearby Scioto River. Short-term response actions included diking the spill and clean-up using vacuum trucks and excavation. Bioremediation was selected as a longer term remedial action to treat the remaining oil.

–summarized from Ohio EPA Emergency Response Investigation Report





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