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Fourth Biennial EPA Freshwater Spills Symposium

EPA will host its Fourth Biennial Freshwater Spills Symposium (FSS) from March 19 to 21, 2002 in Cleveland, Ohio. The symposium focuses specifically on freshwater oil spills and encourages an exchange of ideas and solutions to some of their unique aspects.

Freshwater oil spills differ from marine spills in that they have a greater tendency to occur near areas that are populated and areas that are ecologically sensitive. Oil spills in freshwater may affect drinking water supplies such as surface and groundwaters, and biologically productive wetland areas. Freshwater oil spills are often different from marine spills in oil type, frequency, and volume.

The 2002 FSS concentrates on topic areas that differ from those covered in traditional marine spill-oriented fora. Each FSS session and track emphasizes preparedness, prevention, and response to oil spills in freshwater environments and may include case studies, lessons learned, natural resource restoration, environmental impacts, oil well fields, effects of MTBE on inland oil spill response, and spill prevention in the Arctic Wildlife Refuge.

Individuals who may find the 2002 FSS especially interesting include local, state, federal, and industry responders; natural

About The Update

EPA's *Oil Spill Program Update* is produced quarterly; using information provided by EPA regional staff, and in accordance with regional information needs. The goal of the Update is to provide straightforward 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 available on the Oil Program homepage at ***www.epa.gov/oilspill***.

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resource trustees and managers; and facility response planners. The symposium is free of charge and open to the public; however, registration is required. The 2002 FSS will be held at the Sheraton Cleveland City Centre Hotel.

Abstracts for the selection of speakers are being accepted by EPA through August 15, 2001. The FSS Design Team will review the abstracts and select the presentation speakers by September 14, 2001. To have a topic considered for presentation at the FSS 2002, please send an abstract of 200 words or less to: USEPA Oil Program Center (5203G), FSS 2002 Presentation Abstracts, Washington, DC 20460, or via e-mail to oilinfo@epamail.epa.gov. Visit the FSS 2002 Web Site for more information at www.freshwaterspills.net/fss2002/.

Facility Response Plan Outreach and Five-Year Reviews

The EPA Region 5 Oil Planning and Response Section (OPRS) has been very busy since the beginning of fiscal year 2001. Since October 2000, OPRS has been preparing for the lengthy task of conducting five-year reviews of Facility Response Plans (FRPs) located in Region 5. After OPRS staff reviewed the FRPs for the 500 facilities in Region 5, the staff determined that 200 facilities were subject to a five-year review. Those plans were reviewed against the FRP checklist and plan deficiencies were recorded. The 200 facilities were informed that they had 60 days to correct their plans and submit new plans to Alexander Tzallas, Region 5 FRP Coordinator. As of March 2001, Mr. Tzallas has received 165 of 200 revised plans.

In order to assist facilities with their FRP revisions, OPRS staff conducted FRP seminars at six locations. The seminars were very successful, drawing an attendance of 324 people, including a Brazilian representative who was interested in adapting U.S. oil regulations and programs to his country. Seminar attendees were mostly industry individuals, including terminal owners/operators, consultants, and agency personnel. The seminar agendas included discussions by Mr. Tzallas on FRP preparation, the FRP review process, the FRP five-year review process, Integrated Contingency Plans vs. Facility Response Plans, plan deficiencies, inspections, and agency expectations. Additional discussions led by OPRS staff included Region 5's unannounced exercise program, inland sensitivity maps, spill response strategies, as well as legal and enforcement issues.

Because these FRP seminars were so successful, plans are being made to conduct four more FRP seminars in October 2001. Notices for these seminars will be mailed out in late summer 2001. For further information, please contact Alexander Tzallas at (312) 886-0622.

Plume from the Nuex well blowout, as seen from the command post area.

Nuex Well Blow Out

On April 19, 2001, a completion drilling rig owned by Louisiana Swabbing and under contract with Nuex Exploration experienced a blow out at approximately 2:45 p.m. The rig is situated between the communities of Loreauville and New Iberia in Iberia, Louisiana, and is surrounded in all directions by crawfish ponds and sugarcane fields. The blowout occurred when a bull plug on the blowout preventor (BOP) stack failed. The natural gas that was then released could not be cut off. The escaping natural gas combined with formation sand and oil, causing a spark that apparently ignited the well and resulted in an explosion. A large, thick, black cloud and 80-foot flames could be seen several miles from the rig. There were no reported injuries to the six workers who were working on the rig at the time. Louisiana Department of Environmental Quality (LDEQ) representatives conducted air monitoring on-site and detected no dangerous levels of toxins in the ambient air.

The clean-up effort began on April 20, 2001, after an EPA Superfund Technical Assessment and Response Team

(START)2 representative arrived on-site. A cleanup contractor and numerous vacuum trucks were employed to begin oil recovery and cleanup activities. Absorbent booms and pads were placed in all drainage pathways to contain the spill for cleanup. The amount of oil discharged from the well as a result of the blowout was unknown. Oil was observed in drainage ditches around the rig as well as in Tee Bayou, which is a receiving waterway for the drainage ditches. Nuex Exploration also contracted a well control company to snub and cap the well. The well was left to cool and decrease in pressure before the well control company attempted to cap it.

Recovery action along Tee Bayou.

Cleanup operations continued on April 21, 2001. Representatives from the LDEQ and the U.S. Coast Guard (Marine Safety Office Morgan City, Louisiana) were on-site. Overnight, the wind direction had changed and caused the flames from the rig to ignite a pocket of oil in a drainage ditch near the blowout area. The well control company mobilized personnel and equipment and attempted to smother the fire with water, cut the old BOP, and capped the well once the fire was out. Cleanup efforts continued with drum and rope skimmers with vacuum trucks to recover the spilled oil. It was estimated that about 1,000 barrels of oil had spilled from the well blowout. The well continued to burn; however, the well pressure began dropping. Very little oil had entered the surrounding crawfish ponds and the contractor immediately recovered any oil observed in them. Nineteen frac (liquid pumping) trucks and two temporary groundwater wells were prepared to carry water to the blowout area for cooling the metal debris field and to extinguish the well fire.

By the end of the day on April 22, 2001, water was sprayed on the well and the metal debris was prepared for removal. The following day, the well control company extinguished the fire and began digging a cellar around the well to remove the BOP. After digging the cellar, the old BOP was unbolted and removed and the well was capped with a new BOP. Then, 323 barrels of 12-pound drilling mud was pumped downhole and the well was killed. Cleanup efforts continued on a day-to-day basis and included oil recovery operations in the drainage pathways, heavy equipment transportation from the command post off-site, and multi-media preparation of samples from areas contaminated by the spilled oil for laboratory analysis.

The EPA START2 representative returned to the scene May 1, 2001, to inspect the progress of the cleanup. Contractor personnel continued oil cleanup and maintenance operations and transferring the oil recovered from the fractation tanks to aboveground storage tanks owned by Nuex Exploration. START was informed that approximately 2,785 barrels of oily liquid were recovered, of which, 1,100 barrels were oil. START was also informed that the multi-media samples taken from the drainage areas and crawfish ponds revealed no hydrocarbon contamination. A radiation survey was conducted for naturally occurring radioactive materials around the well blowout scene and they found no elevated radiation levels above a background level of 5 to 6 microroentgens per hour. LDEQ instructed Nuex Exploration to construct an earthen berm around the well blowout scene to prevent storm water runoff. A new completion rig owned and operated by Louisiana Swabbing was positioned over the well and will be used to conduct the following: retrieve the wireline from the hole; set a retrievable plug at 600 feet; remove the BOP stack installed by Cudd Well Control; install a new BOP stack; pull the retrievable plug; go in with new tubing to clean the hole; and put the well online to begin the production of oil and gas.

Oil cleanup and maintenance operations were to continue on a weekly basis until all oil contamination was removed. The soil around the blowout scene was to be sampled and tested per LDNR Order 29-B regulations after the completion of the well. EPA involvement has been terminated and the case is closed. The spill contact is Mike Ryan, EPA Region 6, (337) 626-6006.

Red Barn Gasoline Spill

A ditch harbors the derailed cars of the Burlington Northern Santa Fe, Railroad in April 2001.

EPA Region 7 activated the Oil Spill Liability Trust Fund in response to a spill that occurred on February 24, 2001. A half-full, 12,000-gallon aboveground storage tank (AST) at a Red Barn Convenience Store and bulk petroleum storage facility released in excess of 2,500 gallons of gasoline into secondary containment. Due to the gasoline leakage and persistent precipitation, the capacity of the secondary containment was nearly exhausted at the time of EPA's notification from the National Response Center. EPA dispatched the Emergency and Rapid Response Services (ERRS) contractor, two START members, and On-Scene Coordinator (OSC), Scott Hayes to the spill.

Upon arrival at the scene, the OSC learned that the responsible party (RP) was unable to mitigate the threat of exceeding secondary containment capacity. The RP requested that EPA handle recovery of the spilled gasoline and prevention of containment breach. Though hampered by ice in the containment area, the ERRS contractor completed recovery of free liquid contained in a fractionation tank secured on-site. Remaining puddles, too small to be recovered by diaphragm pumps and containing mostly water, were absorbed using sorbent pads. The RP's fuel supplier provided a tanker truck that pumped remaining product from the leaking tank to an adjacent vessel.

Two residences near the incident located in the Town of Maysville, Missouri, were voluntarily evacuated during the cleanup period. Though heavy rains threatened to overflow secondary containment, only a small amount of gasoline reached outside drainage. In addition, other immediate threats that were abated included a fire hazard by ignition of gasoline vapors, and discharge into nearby West Fork Creek, potentially harming fish, wildlife, and adjacent cropland. Five days after the initial response, the estimated cleanup costs were approximately $10,100. For more information, contact Scott Hayes, EPA Region 7 OSC, at (913) 551-7670.

Oil Spills in Virginia & Maryland

Anne Arundel County, Maryland

The Washington Metropolitan Area has addressed two oil spills in recent months. The jail in Anne Arundel County Maryland suffered a 3,500-gallon diesel fuel spill that was caused by a faulty fuel pump. The pump was turned off at 8 p.m. on Saturday, May 26, 2001, but continued to operate until county jail staff turned off circuit breakers. The resulting spill was exacerbated by heavy rains that washed the fuel into storm drains and a storm water management pond. A contractor was assigned to address the spill.

Alexandria, Virginia

The Alexandria, Virginia shoreline of the Potomac River is also the subject of a cleanup that will be ongoing. A new 400-foot boom was placed along the shoreline to absorb an oily substance that was seeping into the river at the site of the former Alexandria Gas Works in Old Town, Alexandria. City officials have known about the leak since the 1970s and have tested soil, sediment, air, and water, and found the previously unknown substance to be composed of polycyclic aromatic hydrocarbons. Several attempts have been made to control and clean the spill since its discovery over two decades ago. The cleanup is expected to be finished by December 2002, with a total cost of approximately $2.5 million.

Train Derailment and Diesel Fuel Discharge

On Wednesday, April 18, 2001, at approximately 9:00 p.m., a southbound Burlington Northern Santa Fe (BNSF) Railroad train derailed about 50 miles southeast of Des Moines near Bussey, Marion County, Iowa. The derailment occurred in a remote wooded and agricultural area with moderate to steeply sloped terrain. The derailment involved nine general service tank cars containing diesel fuel. Three of the tank cars were returned to the track by BNSF contractors with no release of material. The six remaining cars were damaged when they rolled down a steep railway embankment, causing the release of an estimated 50,000 gallons of diesel fuel. The spilled diesel fuel was released into a low area between the active rail to the east, and an old abandoned railway adjacent on the west side. A drainage culvert located below the abandoned railway allowed a large amount of the released material to discharge west into an intermittent tributary of Cedar Creek.

OSCs, Joe Davis and Heath Smith, responded to the incident by coordinating response efforts with representatives from the Iowa Department of Natural Resources (IDNR), Marion County's Emergency Management Agency (EMA), and BNSF. On Thursday, April 19, 2001, a county road crew, working under the direction of EMA, constructed an underflow dam on the tributary creek about one-mile downstream of the derailment location. The underflow dam prevented the release of floating oil into the creek beyond this point. The OSCs evaluated the scene and determined that the response actions needed to cleanup the spill exceeded the capability of the railroad's emergency response contractors. As a result, OSC Davis mobilized the ERRS contractor and equipment to the scene.

Over the next week, cleanup efforts continued at the derailment site. The ERRS contract personnel conducted recovery of pooled diesel fuel from the low area at the location of the derailment, using pumps, skimmers, and vacuum trucks to transfer the fuel to storage tanks on the site. A second, upstream, underflow dam was constructed in the culvert beneath the abandoned rail line at the derailment location. Crews used gas powered leaf blowers and water pumps to push residual oil down the creek to the recovery area at the downstream underflow dam. The contractor crew conducted transfer operations on the derailed tank cars. After holes were drilled into the damaged tank cars, the excess diesel fuel was pumped into rail cars provided by BNSF. By Wednesday, April 25 2001, nearly all free liquid oil had been removed from the impacted creek area and all remaining product in the derailed cars had been transferred into tank cars.

The BNSF contractors dragged the damaged derailed cars into an adjacent field where they were washed out and cut up for scrap. Contaminated soil was excavated and stockpiled on plastic in the adjacent field. The contaminated soil will undergo land farm treatment and disposal at a facility identified and permitted by IDNR. The BNSF contractor will maintain absorbent booms within the underflow dams to prevent any release of residual product or sheen from the site. On-going maintenance and monitoring of the site will be conducted by the IDNR. On-site response actions were conducted with a joint effort from BNSF, federal, state, county, and local resources.

For further information, please contact Kevin Mould of EPA at (703) 603-8728.

An underflow dam in a drainage culvert blocked the flowing oil.

Recent Enforcement Actions

Pepperell Associates

Recently, there have been a number of enforcement actions involving EPA. On April 11, 2001, the First Circuit of the United States Court of Appeals upheld the decision of the Environmental Appeals Board in the Pepperell Associates v. United States Environmental Protection Agency (No. 00-1708) decision. The issues hearkened back to October 1996 when Pepperell Associates (who operated a business out of an old mill), experienced a rupture in a gasket in the boiler room of the building. The result was a 300- to 400-gallon oil spill that ultimately worked its way into Gully Brook and the Androscoggin River, which are both navigable waters of the United States. The spill was cleaned up through the help of the State of Maine. In light of the spill, however, EPA issued a three-count administrative penalty action against Pepperrel for not having an appropriate spill control plan. This action met with resistance by Pepperell, who claimed inadequate knowledge of their need to be compliant with federal oil spill provisions, and was finally brought in front of the Environmental Appeals Board (EAB). The EAB ordered Pepperell to pay $43,643 for the three counts of the complaint. The U.S. Court of Appeals refused to overturn that decision. Court of Appeals Judge Sandra Lynch, who wrote the court's opinion on the case, wrote, "This case illustrates the perils facing a small business that does not determine whether it is subject to regulation under 33 U.S.C. 1321, the oil spill provision of the Clean Water Act."

Texaco Refining and Marketing, Inc.

In Texas, a Texaco subsidiary (Texaco Refining and Marketing, Inc.) pled guilty in March 2001 to two felony charges and was fined $4 million for discharging millions of gallons of polluted waste water into the Dominguex Channel near its Wilmington refinery, and into a creek in San Luis Obispo. The plea was entered in front of U.S. District Judge Margaret Morrow. The guilty plea grew out of a 4-year investigation by 15 federal, state, and local agencies into operations at the company's Wilmington refinery. The Wilmington refinery, on the Pacific Coast Highway, is known to have discharged high levels of oily and greasy wastewater through an outfall into the nearby channel. The infractions seemed to have taken place in 1995, during a time when the company was having trouble with its new wastewater treatment system. Instead of shutting down systems to address any problems however, the company continued to flush millions of gallons of wastewater into the channel, exceeding the allowable pollutant release allotment. The offenses occurred while the company was under the ownership of Texaco. It is now owned by Equilon Enterprises, a joint venture of Texaco and Shell Oil. Seventy-five percent of the $4 million fine will be earmarked for environmental projects.

Koch Petroleum Group

Koch Petroleum Group, L.P. (Koch), pled guilty in April 2001 to a single felony count of filing false statements to the federal government, and conspiring to conceal information from the federal government. Koch has agreed to contribute $10 million to a fund for Supplemental Environmental Projects (SEPs) to be approved by the Texas Natural Resource Conservation Committee (TNRCC), U.S. Department of Justice, and EPA. These projects are frequently used to benefit communities that may have been harmed by the violation of environmental regulations. In this case, SEPs may be used to enhance air pollution detection equipment along Refinery Row. Koch has also agreed to pay $10 million to the federal government, and will be given five years of probation. The criminal case against Koch was developed by the Texas Environmental Enforcement Task Force, established in 1991, which includes the TNRCC, EPA, the U.S. Attorney's office, Texas Parks and Wildlife Department, and the Federal Bureau of Investigation. The agreement was approved by U.S. District Judge Janis Jack, and accordingly, the U.S. Attorney has dropped all charges.

Spill of National Significance Exercise

A spill of national significance (SONS) exercise will be performed in Port Arthur, Texas and Morgan City, Louisiana from Fall 2001 until Spring 2002. The United States Coast Guard (USCG) considers a SONS event to be an uncommon spill incident that: has multiple Federal On-Scene Coordinator (FOSC) zones, USCG districts, or international boundaries; poses a significant threat to human health or the environment over a large geographic area; includes an extended period of discharge or cleanup; and/or poses significant public, political, or media interest and concern. The purpose of the exercise is to investigate the response readiness of the Incident Command System for a SONS at the local, regional, and national levels. Likewise, the exercise allows for the testing of the effectiveness and coordination between contingency plans categorized as area, regional, and national.

The exercise will begin in September 2001 with Phase One; a table top exercise involving industry and government participants from the local, regional, and national levels. The

goal of Phase One is to ensure that participants across levels are fully aware of all levels of contingency plans and are able to implement them. Phase One is scheduled to last two to three days.

Phase two will be a four- to five-day, full scale exercise to begin in April 2002. This field exercise will include large-scale equipment deployment in response to a simulated oil release along the gulf coasts of Texas and Louisiana of a magnitude great enough to affect several hundred miles of shoreline. The exercise will be designed to test the knowledge and efficiency of responders and contingency plans through extensive field involvement and realism. Response techniques to be implemented during the exercise include shoreline and on-water recovery and cleanup, lightering, in-situ burning, dispersant application, and salvage methods. The SONS exercise will allow the functionality of an Incident Command System, including hundreds of participants, to be tested and evaluated. Further information and updates on the exercise can be found on the Internet at http://www.incidentnews.gov/incidents/incident_7.htm.

Tranguch Gasoline Leak

As of June 2001, many steps have been taken by EPA towards the clean up of an underground gasoline leak from the former site of Tranguch Tire Service in Hazelton, Pennsylvania. The plume is estimated to contain 50,000 gallons of gasoline. While the Tranguch site is the main source of the spill, three other potential responsible parties have contributed a small portion of leaked fuel to the area. These parties include Orloski's Shell, Sam's Amoco, and Hazelton Standard Oil. They are all within a one-block radius of the spill.

The site, which consists of 402 properties (359 of which are residential), extends for 12 city blocks. EPA recently began installation of sewer vent trap units to prevent vapors from entering into homes in this area. Specifically, EPA has found 71 private residences exceeding the non-detect level for benzene, and is taking appropriate measures to lower those levels. In addition, EPA has removed 56 cubic yards of contaminated soil from the construction site, as well as completed the treatment and discharge of 9,900 gallons of groundwater. For further information, please contact Stephen Jarvela of EPA Region 6 at (215) 814-3259.

Tank Fire at Orion Refining

Early in the morning on June 8, 2001, a gasoline storage tank at the Orion Refining Complex in Norco, Louisiana, burst into flames after being struck by lightning. The incident, which happened on the Mississippi River about 25 miles west of New Orleans, did not affect surrounding residential areas. The tank, with over 250,000 barrels of gasoline, emitted a 1,300-foot smoke plume, which dissipated over an adjacent swamp and Lake Pontchartrain. This event was the largest tank fire recorded in Louisiana's history.

Respondents to the blaze included an EPA On-Scene Coordinator and START contractor, as well as Louisiana State Police Hazmat, Louisiana Department of Environmental Quality, and other organizations. Gasoline that was not consumed in the fire was allowed to cool before it was relocated to adjacent tanks. The fire did not visibly impinge upon the affected tank and its neighbors.

While a threat of a spill was present, there were no spills into any waters. Air monitoring was conducted in the surrounding neighborhoods. Evacuations were deemed unnecessary because contaminants were not found. The water used to extinguish the blaze was taken from the Orion Refinery storm sewer and collection pond to be recycled. A START contractor remained onsite to monitor the tank and its neighbors as well as wrap-up the close out response. For more information, contact Richard Franklin, EPA Region 6, at (214) 665-2785.

Did You Know

What is the genesis of the 42-gallon barrel?

In 1866, oil producers in western Pennsylvania, the heart of the newly emerging industry, agreed to sell their product by the gallon instead of in randomly-sized barrels. This was typical of an industry that was starting to grow beyond regional borders, and needed the ability to consistently communicate and deal with customers around the country. Interestingly enough, they decreed that "an allowance of two gallons will be made on the gauge of each and every 40 gallons in favor of the buyer." This was a bold gesture of their desire to satisfy their customers. As a result, the Petroleum Producers Association adopted the 42-gallon barrel in 1872.