JULY 2000

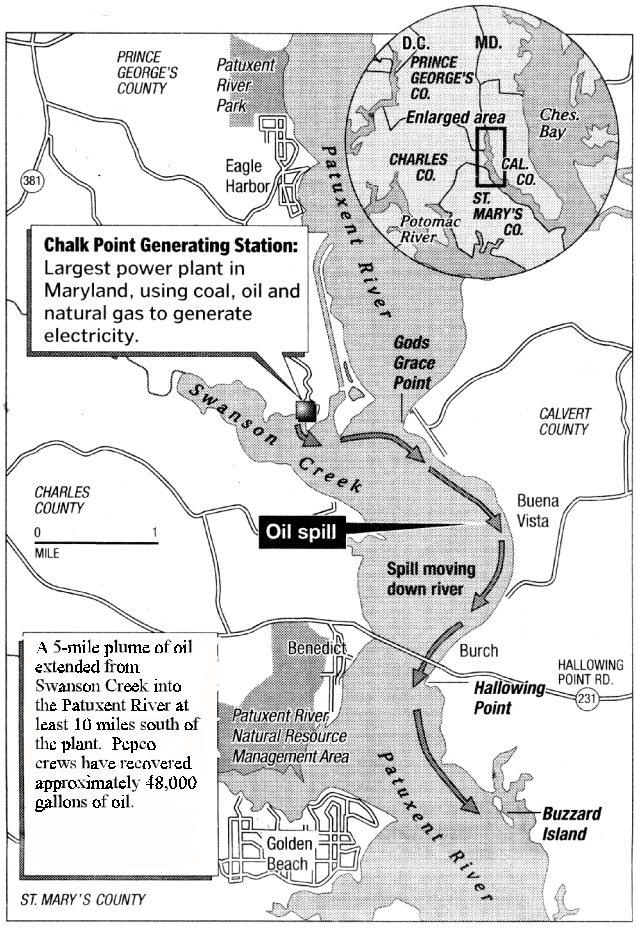
Region III Oil Program Activities

Volume 7, Issue 4

OIL SPILL INFORMATION

PEPCO, CHALK POINT, MARYLAND

On April 7, 2000 at approximately 6 pm, a fuel oil leak from an underground pipeline was detected at the Potomac Electric Power Company (Pepco) Chalk Point Generating Station in southeastern Prince George's County, Maryland. The leak occurred in a section of pipeline which supplies No. 6 fuel oil to the Chalk Point facility. The pipeline was being cleaned with an internal cleaning tool and No. 2 fuel oil when the release occurred. A combination of No. 2 and No. 6 fuel oil was released into the subsurface of a tidal marsh within Swanson Creek.



The National Response Center (NRC) report stated that approximately 2000 gallons of oil had been released to the Swanson Creek from a pipeline owned by Pepco and operated by ST Services. The NRC also reported that Pepco had already begun cleanup operations. The U.S. Coast Guard (USCG) Baltimore Activities was the first federal agency to respond to the spill and notified EPA that the spill was within EPA jurisdiction. They also reported there was significant impact to wildlife and the marsh area as a result of the oil spill. Early on April 8, 2000, EPA On-Scene Coordinator (OSC) Colby Stanton arrived on-site to assist in the cleanup/recovery efforts. It was then that EPA learned that the reported 2,000 gallon spill was actually a 126,000 gallon spill.

Containment efforts by Pepco the night of April 7, 2000 consisted of placing containment boom at the mouth of Swanson Creek and around the Swanson Creek Marsh. Recovery methods were beginning on April 8, 2000 when severe weather was forecasted. Additional booms were placed around the point of release, upstream in the middle of Swanson Creek and doubled at the mouth of Swanson Creek. High winds, rain and choppy tidal conditions during the night of April 8, 2000 caused the oil to breach and crest over the containment booms in place and enter the Patuxent River and tributaries. The oil spread approximately 17 linear miles downstream and impacted approximately 40 miles of shoreline.

OSC Stanton issued Pepco an Administrative Order pursuant to Section 311 (c) of the Clean Water Act (CWA) to conduct emergency response actions to contain and recover the oil. Recovery operations were implemented around the clock. A Unified Command structure was established to direct and oversee cleanup operations. Over 800 workers and representatives from Pepco and over twelve local, state and federal agencies worked on containing and removing the oil during the first few weeks of

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the response. The National Transportation Safety Board removed a 52-inch section of the failed pipeline for further investigation. Restrictions on boating were imposed and a precautionary advisory on the harvest and consumption of fish, crabs and shellfish from the Patuxent River was issued. A rehabilitation center for wildlife was established for oiled animals.

During the second week of the emergency, response activities were broken down into two phases. Phase I was identified as the emergency response phase and Phase II would focus on longer term cleanup. Phase I guidelines were established to determine when emergency response actions were complete. Generally, Phase I guidelines included the removal of all free and potentially mobile brown oil. Impacted areas on the Patuxent River and its tributaries were separated into 52 operational zones. Shoreline Cleanup Assessment Teams (SCAT) began surveying the operational zones. Cleanup of sandy beaches, vegetated shorelines, man-made structures and wetlands/marshes were initiated using various mechanical/manual cleanup techniques including flushing, fluidization and raking of oiled debris. On April 21, 2000, the Regional Response Team approved the use of biostimulation in the Swanson Creek Marsh. The emergency response phase was declared over on May 16, 2000.

On May 1, 2000, EPA issued a Unilateral Administrative Order, pursuant to Sections 311(c) and (e) of the CWA, to Respondents Pepco and ST Services to continue containment and recovery efforts and develop long term remediation plans for the impacted areas within the Swanson Creek Marsh, the Patuxent River and its tributaries. Pepco is finalizing the Response Action Plan (RAP) for Phase II operations as required under the Order. Phase II guidelines are also being finalized for the 52 operational zones. Each zone must be reinspected by SCAT and approved by the Natural Resource Trustees using the Phase II guidelines for final close-out. Phase II operations also include a Site Characterization Study for the Swanson Creek and Marsh, Patuxent River and Tributaries, Pipeline Excavation Plan and Long Term Monitoring Plan.

Significant progress has been made in the cleanup of the Swanson Creek and Marsh and Patuxent River. Light flushing, manual recovery and containment with sorbents continue at "hot spots" within 9 zones. Work in the Swanson Creek Marsh at the location of the spill also continues to progress. Active flushing operations have stopped and any free product being released is collected by sorbent pads and boom combinations. EPA is transitioning the responsibility for biostimulation activities to Pepco with aerial application of diammonium phosphate and monitoring occurring on a weekly basis. Heavily contaminated sediments in trenches, installed as part of the emergency response activities, are being aerated along with the spoil piles prior to re-filling. The Natural Resource Trustees have concurred with planting of 5000 marsh plants (spartina alterniflora) in the southeast lobe of the Marsh. Review and approval to replant the remaining portions of the Marsh is under consideration.

Many local, state and federal agencies have worked together during the cleanup at the Site and EPA would like to thank the following agency representatives for their continued support:

Maryland Department of the Environment
Dr. Robert Summers
Mr. Alan Williams
Mr. Michael Sharon
Ms. Deborah Jameson
Mr. Rusty McKay

Maryland Department of Natural Resources
Ms. Carolyn Watson
Mr. Richard Dolesh
Mr. David Heilmeyer

U.S.Fish and Wildlife
Ms. Beth McGee
Mr. Dan Murphy
Mr. Mark Huston

NOAA
LCDR Emily Christman
Ms. Carol Ann Manen

County Representatives
Mr. Paul Wible, St. Mary County
Mr. Donald Hall, Calvert County
Mr. Donald McGuire, Charles County

Members of the USCG Atlantic Strike Team

STATISTICS ON OIL SPILL

- ***126,000 gallons of oil released***
- ***47,934 gallons of net oil recovered***
- ***4,187,576 pounds of solid waste including oil-contaminated booms, sorbent pads, PPE and other response materials have been disposed off-site.***
- ***17,300 feet of containment boom used***
- ***# Wildlife captured/released - 157***

- ***# Wildlife captured/died -27***
- ***# Wildlife found dead - 804***

ENFORCEMENT ISSUES

EPA Region III issues Administrative Order against Motiva

EPA performed a Spill Prevention, Control, and Countermeasures (SPCC) inspection at the Delaware City, Delaware refinery of Motiva Enterprises, LLC from May 8, 2000 to May 10, 2000. It was determined during the inspection that a substantial threat of a release likely existed at the facility from three of the petroleum storage tanks. Since such a release had the potential of reaching a navigable waterway (the Delaware River) and affecting downstream ecosystems, EPA Region III issued an Administrative Order against Motiva requiring the facility to take the three tanks out of service immediately.

Two of the three tanks had bottom plates which had corroded almost completely to the shell-to-bottom weld. The American Petroleum Institute's (API) Standard 653, the fundamental inspection for petroleum storage tanks, states that the bottom plate should have a minimum projection of 0.375" from this weld. The bottom plate projection for these two tanks was below the allowable minimum. The deterioration of the exterior bottom plate extension was found to be threatening the integrity of each of these tanks.
The third tank was found to have gaps beneath the bottom plate which were large enough to threaten the stability of the tank foundation. Through these gaps, the inspectors were able to observe that the underside of the tank bottom showed obvious signs of corrosion. Further investigation revealed that this tank had never been internally inspected since its construction in 1957. API 653 requires that all tanks be internally inspected at a minimum of every 10 years if no corrosion data is available. The inspection interval can be lengthened to up to 20 years if corrosion rates can substantiate this extended interval. Additional tanks were also found which had never been internally inspected or were beyond the required interval to be inspected.

On June 22, 2000, EPA Region III issued a Unilateral Administrative Order (UAO) requiring the Facility to implement abatement activities to prevent discharge of oil from the Facility, specifically from the three oil storage tanks. The Order also requires that the facility take the three tanks out of service immediately and that the facility submit an implementation schedule to internally inspect these and the other tanks which either have never been, or are due to be, internally inspected. Any deficiencies found in the tanks must be corrected prior to bringing the tanks back into service.

Currently, the facility has taken the three tanks out of service and is in the process of developing a Response Action Plan (RAP) which will outline a schedule to inspect all the tanks required to be inspected by the Order.

COLONNA'S SHIPYARD, NORFOLK, VIRGINIA

Colonna's Shipyard is located on the Eastern Branch of the Elizabeth River in Norfolk, Virginia and has 29 aboveground storage tanks with a cumulative aboveground storage capacity of approximately 750,560 gallons of oil. The Facility normally handles #2 fuel oil and, on occasion, #4 and #6 fuel oil, lube oil, gasoline and asphalt.

On December 8, 1998, representatives from EPA performed a Spill Prevention, Control, and Countermeasures ("SPCC") and Facility Response Plan ("FRP") inspection of the Facility. Periodic integrity testing records required by the Oil Pollution Prevention regulations were presented during the inspection only for two tanks. These records are the only inspection records presented to date for the 29 tanks that are in use at the facility and the report only for Tank #25 addressed the tank-bottom plating. Inspections of the tank foundations, the tank walls and the tank wall/floor interface were not been conducted for any of the tanks. The inspection report for Tank #25 showed pitting or cavities in the bottom plating greater than that allowed by American Petroleum Institute ("API") standards. Pitting of the tank plating undermines the integrity of the bottom plating which could result in the rupture of the tank and a spill which could easily discharge into the Elizabeth River, which is approximately 90 feet away. Four other tanks were noted to be supported by a wooden beam grillage, a foundation not listed under API standards and not allowed by the National Fire Protection Association ("NFPA") standards for #2 oil, the product normally stored at the facility. Wood beams are susceptible to rot, termite and fire damage which could cause settlement of the tank bottom and possible rupture of the tank.

An Unilateral Administrative Order was issued by EPA on March 20, 2000 for Colonna's to take Tank #25 out of service immediately and take all tanks out of service and perform periodic inspections of the tanks. To date, all tanks have been inspected and after review of the periodic inspection reports, Colonna's has indicated that they will dismantle most of the

oil tanks at the facility, and continue repairs as required by the end of the year.

SPCC INFORMATION

EPA'S UST PROGRAM URGES OWNERS AND OPERATORS TO COMPLY WITH THE REGULATIONS.

Due to EPA's increased field presence, more facilities are being found to have violations of the recently phased-in requirement to upgrade tank systems with corrosion protection, spill protection, and overfill protection. EPA is noticing an increase in reports of a lack of cathodic protection testing and improper cathodic protection upgrades. Owners and operators seem to have difficulty when they put impressed current cathodic protection on the piping associated with a tank which was installed with sacrificial anodes. The owner and operator must be sure that the UST system and any other metal equipment or other buried metal structures are properly bonded to the impressed current system. Owners and operators should test the cathodic protection systems at the appropriate time, and check with the tank system manufacturer regarding any warranties which may be effected by upgrade work. Owners and operators should keep records of any UST system testing for as long as required by the regulations. Owners and operators permanently secure against access any secondary fill port which is not upgraded with spill and overfill protection. (July 5, 2000)

FACILITY RESPONSE PLAN INFORMATION

EDIBLE OILS

The Oil Pollution Act (OPA) applies to vegetable oils and animal fats, as well as petroleum based oils. Collectively, known by the oil industry as edible oils, vegetable oils and animal fats share a number of properties with petroleum-based oils and are addressed in some of the same laws and regulations. However, edible oils also have unique properties and are addressed by the Edible Oil Regulatory Reform Act of 1995 (EORRA).

Similar in chemical structure to petroleum-based oils, edible oils, when spilled, cause many of the same undesirable effects on the environment that petroleum oils do. Edible oils may coat organisms, often leading to oxygen depletion or hypothermia. They may be toxic to organisms, destroy food supplies, and produce odors. They can also degrade shorelines wreak havoc on water treatment plants, and be persistent in the environment

EORRA requires most Federal regulations and guidance documents(excluding those of the Food and Drug Administration and the Food Safety and Inspection Service) to use separate classifications for petroleum based oils and non-petroleum oils, including edible oils. The language of future legislation is wherefore required to be clear as to whether it applies to edible oils, petroleum oils, or both.

OPA addresses both petroleum, and non-petroleum oils. It requires facilities to prepare Facility Response Plans (FRPs) if they store certain quantities of edible oils or if a spill from the facility might cause significant and substantial harm to the environment. An FRP outlines a contingency plan to be followed, should oil be discharged to the environment. Under OPA, the FRP requirements for edible oils are more flexible than those for petroleum facilities. EORRA provisions that amend the Oil Pollution Prevention Response Regulations (40 CFR 112) have led EPA to propose a specific methodology to handle, store, and transport edible oils when planning response actions. This notice was published in the Federal Register on April 8, 1999. EPA accepted comments on the proposed rule and the advanced notice of the proposed rule making through June 9, 1999 and July 7, 1999, respectively. A final rule is pending.

PLANNING INFORMATION PREPAREDNESS ACTIVITIES

SELECTION GUIDE FOR OIL SPILL APPLIED TECHNOLOGIES

The **Selection Guide** (formerly referred to as the JOB AID) has been developed under the Work Plan of the Region III Spill Response Countermeasures Work Group with the Region IV Regional Response Team. This document is applicable for inland and coastal areas and is a compilation of information and guidance on the use of response actions that are relatively unfamiliar to On Scene Coordinators (OSCs) and other responders.

This Selection Guide was developed to provide OSCs and other response decision-makers with easy-to-use technical information on a variety of countermeasure technologies. This information is intended to be used both during spill response as well as during pre-spill planning. The information is also intended to assist decision-makers in evaluating vendor requests to use their product. The **Selection Guide** has been divided into two separate volumes:

Volume I, the Decision-Making Selection Guide, which is designed to provide response decision-makers all information to conduct evaluations of a preliminary technology

category, individual product, or technology during planning or incident-specific use.

Volume II, Guidance Procedures, contains Region specific implementation/operation plans for spill countermeasures technologies.

A five-day workshop was held at the USCG's Reserve Training Center in Yorktown, Virginia from April 17-21,2000, to finalize the Selection Guide. Participants, representing the various levels of oil spill response decision-making, came together and revised the document to address the needs of all decision-makers. These participants are now the *Development Committee* and will meet again to determine a plan for maintenance/updates and specify information requirements for an electronic version which would place the document on a website at some future date. The immediate results of the workshop will be a new and improved hard copy edition that will be available by June 30, 2000 and which will also be prepared in a PDF format version. Although this version will not be interactive, it will be accessible, readable, and printable from a website.

For more information, please contact t Linda Ziegler, Chair, Spill Response Countermeasures Workgroup, Regional Response Team, at (215) 814-3277.

UPCOMING EVENTS

REGION III RRT MEETING

The next regularly scheduled Region III RRT meeting will be held September 19-21,in Ocean City, Maryland. For further information, contact Linda Marzulli at (215)814-3256.

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-SPCC Enforcement Support
-Outreach