



# July 1999

## Region III

# Oil Program Activities

### Volume 6, Issue 3

#### *An Overview of the SPCC/FRP Inspection Process* *Eduardo Rovira, Oil Inspector*

As a Facility Manager, what comes to your mind when you hear the word inspection? Despite the fact that the regulations have been in effect for years, EPA inspectors find that many facility owner/operators were not aware of why they were being inspected. Another thing they did not know was what to expect during and after the inspection. The purpose of this article is to give you an idea of the whole inspection process.

The inspections have two purposes. First, inspections help to ensure that oil storage facilities comply with the regulation. Second, on-site inspections give the Environmental Protection Agency (EPA) personnel the opportunity to educate owners and operators about the regulation and methods for ensuring compliance. There are three main reasons why a facility may be inspected. There are routine, "for cause" and for case development support and follow-up inspections. The routine inspections are generally conducted to determine compliance with a program's requirements. These are generally conducted for a certain subpopulation of the regulated community, which is selected through some type of neutral facility targeting scheme. A "for cause" inspection is conducted at a facility if there is some reason to suspect a violation (e.g., through a tip, complaint, or self-monitoring report), or because you have had 2 or more spills within one year. Overall, the inspector would know what he or she is looking for in these inspections. An inspector may revisit a facility to conduct a case development support and follow-up inspection to collect additional evidence to support enforcement actions or to determine whether a facility has returned to compliance. In fact, the main reason why many of you have been inspected and are going to be SPCC/FRP inspected is because many fuel terminals are considered Significant and Substantial (SIG & SUB) Harm Facilities. Once you become a SIG & SUB Facility you must be inspected every five years.

Once at the facility, EPA SPCC/FRP Inspectors or On-Scene Coordinators may ask to review the Spill Prevention Control and Countermeasures Plan (SPCC) and the Facility Response Plan (FRP) and to conduct a walk-through inspection of the facility to ensure that the facility has implemented the spill prevention and response measures the plan describes. The inspectors usually check the tanks for leaks, discoloration, corrosion, cracks, gaps between tank and foundation, and vegetation. They will also check pipes and valves for evidence of leakage at joint and seams, and bowing of pipes between supports. The secondary containment also is another area they will check. If you have any response equipment they may ask to see it and if you do any over-water transfers they will want to see your dock as well. In addition, EPA may interview facility personnel on the SPCC and FRP, and their role in implementing them.

After the inspection, the Inspectors will go back to the office to finish reviewing your SPCC and FRP Plan. For SPCC you may be subject to a Notice of Non-Compliance that may give you a grace period of 60 days from the day you receive the letter to correct the violations. If violations are egregious you may expect to be subject to an enforcement penalty action. On the other hand, if no violations are found, your case will be closed. With regard to FRP you may get either a Five-Year Approval or a Notice of Non-Compliance that gives you a grace period of 30 days from the day you receive the letter to correct the violations. Commonly, EPA finds that facilities are in compliance; however, when the Agency encounters a facility that violates the SPCC/FRP regulations, EPA has the authority under the Clean Water Act to take administrative, civil judicial and even criminal actions. In dealing with out-of-compliance facilities, however, EPA strives to work with facility owners and operators to remedy any problems identified.

The mission of the Environmental Protection Agency is to protect human health and to safeguard the natural environment (air, water, and land) upon which life depends. We are counting on you to help us accomplish our mission.

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## ***30 year Anniversary of Cuyahoga River Fire***

Mike Welsh, OSC

Three decades ago, an event occurred that would galvanize the United States environmental movement: the Cuyahoga River became a river of fire. A nauseating brew of flammable pollutants from steel mills, paint factories, chemical plants and sewage burst into flame sparked by molten metal from a train car going over a bridge. Three years later, Congress passed new environmental laws that would change the face of industry and save the river. Among the laws was the Clean Water Act which could bring fines of up to \$25,000 per day for polluters. Suddenly, it became very expensive for industry to do what it had been doing for years. Industry still dominates the riverbanks today, but now there are restaurants where factories used to be. Mother ducks swim in the Cuyahoga with their offspring, blue herons have returned to the banks, and rowing teams practice -- all testament to an astonishing ecological recovery.

### **Introducing Region III's Inspector-in-Chief, Frank Cosgrove**

Neeraj Sharma, Oil Inspector

Region III holds at least one major distinction when it comes to the history of the EPA's Oil Program. The Region is home to the first SPCC inspector in the nation. Of course when Frank Cosgrove joined the Agency in 1992, he wasn't exactly sure what he was getting into.

"I knew it had something to do with oil. I didn't know what exactly." He was given an impressive title, however. "I was named Chief Inspector when I first started. Of course, I was also the only inspector in the Program."

Probably the most memorable experience Cosgrove has had as an inspector was his March 1994 attempt to conduct an SPCC inspection of the White House. "I asked them to show me all their oil storage," Cosgrove says. The inspection did not go far, however. It began and ended in the Commander-in-Chief's kitchen.

"The Secret Service showed me their stock of peanut oil. When I asked to look at their other oil storage, I was told that the information was classified due to national security concerns. I then asked what time lunch would be served. They ended the inspection."

Cosgrove, who refers to himself as the "benevolent dictator", joined the Agency in 1992 after a long and distinguished career with the Philadelphia Fire Department. During his 35 years with the Department, Cosgrove served as Chief in all of the city's 13 battalions. A few of his battles are especially haunting.

"One bad experience I had was the Gulf Arco fire. A tank had failed, filling the secondary containment with gasoline. We immediately covered the pool with a layer of foam. There must have been vapors that escaped, though, because a spark from some equipment ignited the whole thing." Five firefighters lost their lives in the ensuing explosion.

"There was also the Fretz Building fire. That was probably the largest fire I participated in. A 14 alarmer." Each alarm dispenses four more trucks and ladders to a fire scene. "We worked all night on that fire. It was on New Year's Eve. What a way to start the New Year." The fire resulted in the disintegration of a whole city block.

But the worst experience in Cosgrove's firefighting career was on a much smaller scale. "We responded once to a fire burning in a row house. By the time we got there the fire had engulfed the house. A family was trapped inside. We managed to get the mother out, but she died soon after. A whole family was gone."

Prior to joining the fire department, Cosgrove flew as a pilot in the Pacific theater during World War II. Cosgrove was stationed on the USS Independence, an aircraft carrier whose mission was to engage the Japanese on their "island hopping" campaign in the South Pacific. "I flew a TBF (Torpedo Bomber Fighter). I had to provide air support to our ground troops and drop torpedoes on Japanese ships."

Cosgrove and his copilot had just finished a bombing run in April of 1945 when they felt a jolt. A bullet had just severed the plane's oil line. Cosgrove watched helplessly as the plane's oil pressure gauge plunged. The plane began to drop rapidly, but Cosgrove was able to regain control and perform a "water ditch". They then used an emergency raft to float to a nearby island. While Japanese troops combed the island, the pair were able to remain undetected.

But the tense situation got the best of Cosgrove's copilot. "That #@%\$^#\$ got their attention and surrendered. I couldn't believe it!"

The pair were put in an internment camp with sixty other POWs. Camp life, though dull and tedious, was not as bad as Cosgrove expected. "The camp commandant was a UCLA grad for Pete's sake. They treated us O.K. They knew they were losing."

The food left much to be desired, however. "They fed us live maggots and rice. I suppose it was a good source of protein." Occasionally Cosgrove supplemented his diet with papaya fruit. "I used to yell and curse at them to get them to throw it at me. They were just trying to shut me up."

One morning, four months after he was first captured, Cosgrove and his fellow POWs awoke to find his captors had suddenly abandoned the island. Unbeknownst to the group, one day earlier the United States had dropped the last of two atomic bombs on Japan to force a surrender. The war was over. Cosgrove returned home to Philadelphia to begin his life stateside.

Cosgrove's favorite part of working at the Agency is being able to interact with his fellow employees. "There a lot of good people here. I love working with them."

Cosgrove does have a few pet peeves when it comes to SPPC Plans. "I don't know why those facility owner operators can't have their plans in the proper sequence. It's all laid out for them in the darn regulations! Another thing that I notice is that they won't put down their facility startup date. What are they trying to hide?"

Facilities would be wise to heed Cosgrove's request. He is one guy you don't want to mess with.

### **Region III Job Aids for Spill Countermeasures Technologies**

Linda Ziegler, Chair, Spill Response Countermeasures Workgroup - RRT III

The Job Aid is a streamlined guide for OSCs to use to decide what products and/or mitigation techniques may be used in an oil spill response and is being developed under the Work Plan of the Region III Spill Response Countermeasures Work Group. It is applicable for all areas within Region III, i.e., inland and coastal. The Job Aid will be updated quarterly, as new information or new emerging technologies become available. The intent is that it will also be posted on a Website to facilitate easy access and information exchange among regions.

The first discussion draft titled **Job Aids for Optional Spill Technologies** was presented at the Workgroup meeting held January 13, 1999 in Alexandria, Virginia. Optional Spill Technologies are those response actions which are less familiar to OSCs than the traditional mechanical response countermeasures, such as boom and skimming devices, yet can be environmentally beneficial and add value to the response. The Job Aid can assist the OSC in making proactive, situation-appropriate decisions regarding incident-specific use of countermeasures; and since the information applies to all OSCs, it could become an annex in various Area Contingency Plans (ACPs).

This document was shared with Region 4 RRT Members in

February requesting comments. The RRT 4 Response Technology Committee's focus has been to develop a standard and a protocol to review new products and technology as this applies to dispersant and/or sorbent. They indicated an interest in supporting our Region III efforts. Interest has been spreading beyond EPA Regions 3 and 4. A second Discussion Draft was presented at the March 4, 1999 Response Countermeasures Subcommittee meeting of the Philadelphia Port Area Committee (PAC); a name change was recommended to reflect a focus on spill countermeasures technologies.

The second Discussion Draft (3/99), which also presented a simple mock-up of the general organization and content of the Job Aid, is a task specific tool to help an OSC perform infrequent activities correctly and efficiently. This job aid has been developed based on the process OSCs have indicated that they will use to consider, evaluate, and select optional response countermeasures during an actual incident. During the Region 4 RRT meetings held in Charleston, South Carolina the Region III Job Aid was showcased. On Tuesday, April 20, 1999 a 2.5 hour presentation/exercise was conducted by our contractor support of Scientific and Environmental Associates, Inc. (SEA) to the spill workgroup. They did an introduction to the project, reviewed the goals and steps within the document and then did a practice scenario for inland on land using the job aid to help make decisions. The group was then divided into EPA and USCG district participants and they ran through an inland on water and coastal marine scenario respectively. The group agreed that a spills use database would be very useful and the database as well as the whole job aid should be posted to a website (possibly the EPA Product Schedule).

The **Region III Job Aids for Spill Countermeasures Technologies** presentation went so well, Region 4 has made arrangements to provide funding to Region III for continuation/enhancement of the project; the Job Aid presentation/exercise will be taken to the RRT 2 meeting being held in the Caribbean the week of April 26th. The practice run through the job aid as a group, and later dividing the group into subgroups to work on the additional scenarios, worked very well; everyone got hands-on experience that might not have been gained elsewhere if this exercise had not been done. It has been suggested that the Job Aid can compliment the NCP Product Schedule Product Notebook and it was recommended that EPA Headquarters review and join in the process and ensure that the Job Aid be taken nationally. Comments received will be incorporated into the next Draft which will be showcased at the RRT III meetings in Ocean City, Maryland (May 19, 20, 1999).

## ***REGULATIONS/QUESTIONS AND ANSWERS***

**SPCC and FRP regulations apply to individual facilities. For many operations it is often unclear if there is more than one facility in a given area.**

First, EPA divides facilities into two groups: non-transportation-related facilities and transportation-related facilities (Part 112, Appendix A). Only onshore or offshore non-transportation-related facilities are subject to the criteria set forth in the SPCC regulations (§112.1). Furthermore, only onshore and certain offshore, non-transportation-related facilities are subject to the FRP regulations (§112.20(a)).

**Can a facility be both transportation-related and non-transportation-related?**

Yes. Part of a facility may be transportation-related and part may be non-transportation-related. Those parts which are non-transportation-related are subject to the regulation.

**An office building has diesel fuel tanks for heating. One 2,000-gallon tank belongs to a tenant of the building. Who is responsible for ensuring compliance with SPCC regulations, the owner or tenant?**

This is a legal issue which must be resolved by the parties involved. Both the owner and operator can be held liable for failure to comply with the regulations.

**The OPA statutory deadline for submission of FRPs differs from the regulatory deadlines. Which deadline should a facility meet?**

The FRP submission deadline a facility must meet will depend on when the facility commenced operations. If a facility was in operation on or before February 18, 1993, the owner/operator should have submitted a FRP by the statutory deadline of February 18, 1993. If such a facility needed to revise its FRP to meet the regulatory requirements, they should have resubmitted the plan or the updated portions of the plan by February 18, 1995. If a facility in operation before February 18, 1993, failed to submit a FRP by the statutory deadline of February 18, 1993, they should have submitted a plan by August 30, 1994.

If a facility commenced operations after February 18, 1993, but before August 30, 1994, the owner/operator should have submitted the plan prior to August 30, 1994. For a newly constructed facility that commenced operations after August 30, 1994, the owner/operator must submit the response plan prior to the start of operations.

**What is the role of the qualified individual in a response action?**

Answer: The qualified individual at the facility is the person with full authority, including contracting authority, to implement removal actions and carry out the emergency response action plan. The required duties of the qualified individual are described in 40 CFR 112.20(h)(3)(ix) and include: notification of facility personnel, response authorities, and government officials, assessment of the possible hazards resulting from the accident, and coordination of the response action.

## **Bioremediation**

From "The Science News", June 12, 1999, p. 374-5  
submitted by Sarah Caspar, OSC

A scientific study found that microbes living in the sediment of stream beds, i.e.: "in the muck", can digest certain pollutants before they well up in the water.

The study determined that these microbes can dispose of methyl tertiarybutyl ether (MTBE) and tertiarybutyl alcohol (TBA). Both compounds are additives in gasoline that reduce emissions but contaminate drinking water supplies. The Environmental Protection Agency has classified MTBE as a possible human carcinogen.

The study was conducted by James E. Landmeyer, Paul M. Bradley and Francis H. Chapelle, all of the US Geological Survey in Columbia, SC and appears in the June 1 edition of "Environmental Science and Technology".

Landmeyer said that the finding should help environmental engineers to more accurately assess the threat to streams by MTBE. During the three month study, the organisms degraded up to 73% of the MTBE and 84% of the TBA. Unfortunately, although surface water benefits from these microbes, underground water does not because of the absence of oxygen.

Side bar: For several years, efforts have been made to develop microbes able to digest oil spilled in waterways. Microbes do exist that have a healthy appetite for oil, but funding is limited and it is feared that the microbes are too slow.

Certain trees also help to reduce pollution in wetlands and streams by transpiration. Chlorinated solvents are absorbed through the root system and released through the

leaves.

### ***Beach Response***

Dan McGoldrick, OSC

Its summertime, and many of us are thinking about the beach! Of course, if you reading this article, you may spend some of your vacation time pondering how you would best respond to an oil spill at the beach. The following may help solidify your thoughts.

The type of spill response changes with the impacted habitat, and one must be aware of the unique issues with sand. Sand habitats are characterized by a substrate composed of sediments predominantly finer than 2 millimeters, but greater than silt or clay sized material. Sand habitats generally do not have biological communities except in cases where the habitat tends to be protected, or consist of poorly sorted muddy sediments. Thus, ecological effects are likely to be of limited extent because of low natural productivity. In developed areas, sand beaches are considered sensitive because of their high recreational use.

During small spills, oil will concentrate in a band along the swash line. Maximum penetration into fined-grained sand will be less than 15 cm; penetration in coarse sand can reach 25 cm. Burial of oil layers by clean sand can occur quickly, creating more difficult cleanup issues. On heavily used recreational beaches, an extensive cleanup is usually required to remove as much of the oil as possible. When large amounts of sediments must be removed, it may be necessary to replace these sediments with clean material. Typically, the response methods that have the least habitat impact include natural recovery, flooding, manual oil removal, and sorbents.

Natural recovery is appropriate for small spills, lighter oil types, and remote areas. Flooding is effective only when the oil is fluid and on the sand surface, rather than penetrated or buried. Manual oil removal can minimize sediment removal and problems of erosion and waste disposal. It is effective when oil is mostly on the surface (i.e., not buried beneath clean sand). Sorbents can be effective, but not with heavy oil since it may not adhere to Sorbents; or with gasoline spills since it will quickly evaporate. Note also that overuse of Sorbents may result in excess waste generation.

Other means of recovery that may be more adverse to habitats include mechanical oil removal, low pressure-cold water flushing, and vacuuming. Mechanical oil removal may be considered on high use beaches where rapid removal of oil is required and long stretches of shoreline are heavily oiled. Note that mechanical removal tends to remove large amounts of clean sand with oiled sand. Low pressure-cold water

flushing is only effective when the oil is fluid and adheres loosely to the sediments. Early use of vacuuming on pooled liquid oil can prevent deeper penetration. When used with flushing efforts, vacuuming will minimize the amount of sorbent waste. Vacuuming is effective on heavy non-sticky oil from sand substrates.

Ref: "Environmental Impacts of Freshwater Spill Response Options," draft, API and NOAA

### **SAFETY ISSUE**

Reducing the Cost of Compliance;  
MSA's Scientific New Approach to Respirator Cartridge  
Change-Out Schedules

submitted by Joe Arena, OSC

#### **Introduction**

On April 8, 1998, the Occupational Health and Safety Administration (OSHA) implemented the first revision to its respiratory protection standard in more than 25 years. The standard, 29 CFR 1910.134, which governs 1.3 million employers and 5 million workers in the United States, reflects current respirator technology and establishes new practices for ensuring proper fit and use. Covered are both air-purifying respirators and, in atmospheres that are immediately dangerous to life and health (IDLH), atmosphere-supplying respirators. For employers, major requirements of the new standard include a written respiratory protection plan, evaluation of the workplace respiratory hazards, medical evaluation of respirator wearers, proper respirator selection, fit testing, respirator use training and periodic program evaluation.

The most significant change for both employers and workers, however, is the need to utilize air-purifying cartridges and canisters that have either an end-of-service-life indicator (ESLI) or are changed according to a schedule developed from objective data. In an effort to help respirator users comply more cost-effectively with the ESLI/change-out schedule requirement while still protecting employees, Mine Safety Appliances Company (MSA) embarked upon the most extensive cartridge/contaminant-specific breakthrough studies ever conducted. MSA products used for the study included GMA, GMB, GMC, GMD and GME cartridges for Comfo(R) and Advantage(R) air-purifying respirators"

**For more information on this subject contact :**

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OSHA's Web site at [www.osha.gov/](http://www.osha.gov/) or  
MSA's specific web page at  
[www.MSAnet.com/safetyproducts/cartlife/](http://www.MSAnet.com/safetyproducts/cartlife/)

### REGION III RRT MEETING

The next regularly scheduled Region III RRT meeting will be held in September, concurrently with the CEPP Conference on September 21, 22, 23 that is described below.

For further information, contact Linda Marzulli at (215) 814-3256.

### **EPA REGION III's 1999 CHEMICAL EMERGENCY PREPAREDNESS AND PREVENTION CONFERENCE**

EPA Region III's 1999 Chemical Emergency Preparedness and Prevention Conference "Make a Difference" will be held September 20-23, 1999 at the Hilton Washington Towers, Washington, DC.

The best conference of its kind anywhere in the USA. More topics, more workshops, more case studies, more networking, more fun than you are probably entitled to for \$95.

To register, call toll free 1-877-804-CEPP, or register online at [www.epacepp.com](http://www.epacepp.com).

### SPCC/FRP OUTREACH MANUAL

REGION III'S SPCC/FRP OUTREACH MANUAL

\_\_\_\_\_SPCC MANUAL                      \_\_\_\_\_FRP MANUAL

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