CROSS TALK

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PROACT

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Regulatory Alerts

The Environmental Protection Agency (EPA) promulgated the final rule amending the Federal Oil Pollution Prevention regulations on July 17, 2002 after three proposed revisions in 1991, 1993, and 1997. The purpose of the Oil Pollution Prevention rule is not to respond to cleanup efforts after a spill occurs, but rather to prevent the discharge of oil into navigable waters of the United States and adjoining shorelines. The regulatory changes address requirements for spill prevention control and countermeasures (SPCC) with some provisions affecting facility response plans (FRP). The new SPCC rule became affective August 16, 2002 and can be found in Title 40 Code of Federal Regulations (CFR) Part 112.

Changes to the SPCC rule stems from the lack of clarity in the language and organization of the rule. The rule clarifies its applicability to facilities that drill, produce, gather, store, use, process, refine, transfer, distribute, or consume oil and oil products. In addition, the new rule reduces the burden on the regulated community by approximately 40 percent, eliminates duplicate regulations, and exempts certain small facilities and wastewater treatment plants. The SPCC rule revisions are outlined below.

Major Rule Changes

- Exemptions
  - √ Completely buried tanks that are subject to all technical requirements of Title 40 CFR Part 280 or 281 (Underground Storage Tank rules)
  - √ A container which is less than 55 gallons
  - √ Any facility or part thereof used exclusively for wastewater treatment and not for any Title 40 CFR Part 112 requirements; however, this does not apply to the production, recycling, or recovery of oil which are not considered wastewater treatment.
  - √ Permanently closed tanks and minerals management service facilities
- The rule eliminates the 660-gallon requirement for single containers and creates a standard threshold of greater than 1,320 gallons

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- Regional Administrators (RA) may require preparation of an SPCC plan for otherwise exempt facilities on a case-by-case basis, where necessary to carry out the purposes of the Clean Water Act
- An integrated contingency plan (ICP), a state SPCC plan, or any other format acceptable to the RA may be used to meet Title 40 CFR Part 112 requirements (If the owner or operator does not follow the sequence specified in the rule, he must provide a cross reference)
- The time period for periodic SPCC plan review was extended from 3 years to 5 years
- Owners or operators are allowed the flexibility to use "usual and customary" business records (including NPDES stormwater bypass records) to satisfy record keeping requirements
- Previous "guidelines" are now mandatory; however, technical waivers are allowed for most provisions (except secondary containment requirements) provided an explanation for nonconformance and equivalent environmental protection is given
- A professional subordinate may conduct a site visit in place of the professional engineer (PE), but the PE must review the subordinate's work and certify the plan

Additional Rule Changes

- Brittle fracture evaluation is required for field-constructed aboveground storage containers undergoing repair, alteration, reconstruction, or change in service that might affect the risk of a discharge or failure due to brittle fracture or other catastrophe, or when there has been an actual discharge or failure due to brittle fracture or other catastrophe
- An ICP format or any other format acceptable to the RA may be used as the FRP
- The rule reduces the information required to be submitted by facilities after certain discharges; however, it raises the regulatory trigger for this submission
- The rule limits training requirements to oil-handling employees and specifies some subjects that must be included, discharge prevention briefings for oil handling employees are now required at least once a year
- The rule includes new sections for different types of facilities (e.g., onshore facilities, certain offshore facilities, etc.), and new subparts for different types of oils (petroleum and other oils, animal fats and vegetable oils)

Previously, the rule required that facilities amend their SPCC plan by February 17, 2003 to include the new regulatory changes and to implement the amended plan by August 16, 2003. However, due to numerous extension requests and complaints by the regulated community that the deadlines do not allow enough time for compliance, the EPA has granted a sixty-day extension of the compliance date. During the extension period the EPA will consider and receive comments on a proposed one-year extension of the revised compliance date. To review the status of the proposed extension, or for more information on the SPCC rule changes and other updates, visit EPA's Office of Solid Waste and Emergency Response at http://www.epa.gov/oilspill/index.htm.

CrossTalk

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ECAMP BMP Update

The Air Force Environmental Compliance Assessment and Management Program (ECAMP) is a tool designed to assist Air Force installations and organizations as they assess their compliance with various federal, state, local, and Air Force environmental requirements. Aside from noting potential program non-compliances, ECAMP reports also identify positive findings or Best Management Practices (BMPs) that demonstrate a standard of excellence or an achievement considered best-in-class. The ECAMP Final Report for Laughlin AFB contained several positive findings, or BMPs, one of which is highlighted here from the Pesticide Management protocol.

Wastewater Reduction Initiative

Langley Air Force Base, Virginia

Mr. Richard K. Parker at Langley AFB, Virginia has instituted the use of a filtration and evaporation system that eliminates or minimizes Langley AFB's prior requirement to dispose of non-regulated wastes generated during hanger bay floor cleaning (i.e. floor scrubber wastewater) through the Defense Reutilization and Marketing Office (DRMO), in turn saving time and money.

Langley AFB generates approximately thirty drums of floor scrubber wastewater on a monthly basis. Each drum costs $36 and weighs an average of 500 pounds (filled), with a disposal cost of $0.12 per pound. Considering these and other associated expenses, disposal costs can easily exceed $30,000 annually.

Langley AFB had the wastewater analyzed at an off-site laboratory and found it to be non-hazardous under the standards of the Resource Conservation and Recovery Act (RCRA). However, although non-hazardous, disposal into the sanitary sewer was not an option because the waste did not meet the effluent limits of the local sanitation district. In addition, sanitary sewer disposal was not economically feasible due to the high cost associated with waste characterization prior to each disposal. As an alternative Langley AFB found an evaporation system and environmental requirements for disposal of the floor scrubber wastewater.

Langley AFB employs the use of the Water Evaporator Series 500 GAS by Samsco, a Severn Trent company. Liquid waste from the floor scrubber is initially pumped through a filtration device and then into holding tanks where the waste is processed through a water evaporator. The evaporation unit separates the water from the waste and collects granular, oil, or other debris into a containment area and the bottom of the tank where it is later drummed and turned in for characterization.

The evaporator provides both disposal and recycling solutions by reducing up to 98 percent of water-based wastes in an environmentally acceptable way. By decreasing the volume of waste transported off-site and by performing economical, on-site treatment of the wastewater, this unit helps reduce potential liabilities and non-compliance issues. The evaporation system has been tested by The Military Equipment Evaluation Program (MEEP) and approved for use at Langley AFB. Supplier information can be found on the World Wide Web (WWW) at http://www.severntrentservices.com/index.html.

For further information on the Langley AFB water evaporation system and its uses, contact Mr. Richard Parker, DSN 574-1132, richard.parker1@langley.af.mil, or Mr. Mat Goss, DSN 574-1130 matthew.goss@langley.af.mil.

New Tools and Guidance

Air Conformity Applicability Model Software

The Air Conformity Applicability Model (ACAM) Version 3 software is now available for download at AFCEE's Environmental Conservation and Planning web page. The software provides Air Force planners and environmental impact analysis process (EIAP) personnel a tool to estimate air emissions from proposed federal actions in areas designated as non-attainment and/or maintenance areas for each specific criteria and precursor pollutant as defined in the National Ambient Air Quality Standards. The software may also be used to compare alternatives within EIAP documents. ACAM requires Windows 95, Windows NT, and Windows 2000 compatible operating systems. Downloads include a training package and manuals to assist users. To download ACAM Version 3 visit http://www.afcee.brooks.af.mil/ec/air/acam/acam.asp, or for additional questions contact Mr. Frank Castaneda by telephone at DSN 240-3890 or by email at frank.castaneda@brooks.af.mil.

Integrated Risk Information System

The United States EPA's Integrated Risk Information System (IRIS) is now available online. IRIS is an electronic database containing information on health effects that may result from exposure to various chemicals in the environment. The system is designed to provide consistent information on chemical substances for use in risk assessments, decision-making, and regulatory activities. The system is comprised of a collection of chemical files containing descriptive and quantitative toxicological information pertaining to a specific substance. Users may choose to view a full chemical file summary or quick view IRIS substances from a drop down alphabetized list. IRIS is fully supported by a compliment of guidance documents to assist users in accessing and understanding the information presented on this site. To use this system visit http://www.epa.gov/iris/intro.htm.

Conference Corner

Army Environmental Training Symposium

The U.S. Army Training and Doctrine Command and the Army Environmental Center will sponsor an Army Environmental Training Symposium on March 23-28, 2003. The symposium will focus on environmental training, education, and dissemination of the Department of the Army environmental policy. The symposium will also serve as a forum for information and technology exchange through the use of industry-wide exhibitors. Additional information is available at www.jmwaller.com.

Global Demilitarization Symposium and Exhibition

The Joint Ordnance Commanders Group (JOCG) and the National Defense Industrial Association's 11th Annual Global Demilitarization Symposium and Exhibition will be held May 19-22, 2003 in Sparks, Nevada. The symposium will offer discussions on a wide range of issues and challenges facing global demilitarization today including ongoing disposal, recycling and reuse programs, research and development efforts, transitioning technologies, and the latest policy issues that effect business. The symposium presents a valuable opportunity for attendees from industry, academia, government, and international personnel to meet and exchange ideas in an engaging and organized forum. To register online visit www.ndia.org, or contact Ms. Christina Buck at (703) 247-9478 for additional information.

P2 Initiatives

Fuel Buggy

The 149th Fighter Wing (FW) of the Texas Air National Guard at Lackland Air Force Base (AFB) has implemented an environmentally friendly and economical method to recycle jet aircraft fuel for later use in their aerospace ground equipment.

For years, JP-8 jet aircraft fuel waste collected at Lackland AFB was containerized and transported off-site by a contractor. The contractor sold the recycled fuel for use in ground equipment such as farm machinery. Though the 149th FW was aware JP-8 fuel waste is recyclable, it was not readily apparent how the AFB could recycle the waste on-site and reuse it in their ground equipment. The team began exploring recycling options that would meet system requirements, environmental objectives, and economical goals. Their aim was to identify equipment that would be small and portable, yet could easily drain, filter, and store used fuel for later use.

After several months of exchanging information with W.E.N. Industries, Inc., of New Hampshire, the 149th FW was prepared to design the specifications for fuel recycling equipment, including tire ratings, color schemes, safety features, and accessible and easy to replace filters.

A prototype PH1000EL Self-Contained Fuel Transfer Unit, known as the "fuel buggy," was developed. The fuel buggy is comprised of a four-wheel trailer with a 1,000-gallon tank, a hose, and an electric pump. The fuel buggy filters fuel upon entry into the system and again when the fuel is pumped into other ground equipment such as air compressors, generators, and bomb lifts. The fuel buggy provides ease of mobility and the efficiency of a stationary fuel recycling mechanism in one unit.

The Air Education and Training Command Operational Inspection Team recently cited the fuel buggy as a "best practice." One of the most notable advantages of the fuel buggy is the long-term economic savings. The amount of JP-8 fuel purchased for use was reduced nearly 60 percent, from 3,500 gallons per month to less than 1,500 gallons. Although the prototype cost $15,000, the cost savings realized per year have been approximately $18,000.

While the prototype is still undergoing testing and additional improvements, the 149th FW is eager to share information regarding their success to assist other installations interested in this P2 initiative.

Technical Inquiry Roundup

TI 24409 – Aerospace NESHAP

By Carl Lehman

A customer contacted PROACT for information concerning the Aerospace National Emission Standards for Hazardous Air Pollutants (NESHAP). The customer stated his installation strips more than six aircraft annually using mechanical stripping methods. The customer also indicated the majority of this stripping is accomplished by hand sanding, while a small amount is attributed to bead blasting. The customer previously read in the PROACT Fact Sheet, "National Emission Standards for Hazardous Air Pollutants (NESHAP) for Aerospace Facilities," August 2000, that facilities that strip less than six aircraft per year are exempt from Aerospace NESHAP regulation. Specifically, the customer wanted to know if facilities that strip more than six aircraft per year using mechanical methods are subject to Aerospace NESHAP regulation.

A review of the applicable Federal regulations (specified below) revealed mechanical and hand sanding stripping operations are exempt from the Aerospace NESHAP regulation. However, bead blast stripping operations are required to comply with the Aerospace NESHAP regulation. Additionally, depainting operations performed on parts normally removed from an aerospace vehicle for stripping are also exempt, except when the

part is a wing or stabilizer. Stripping of these two parts must comply with the Aerospace NESHAP regulation.

PROACT reviewed Title 40 Code of Federal Regulations (CFR) 63.741, "Applicability and Designation of Affected Sources," and found in paragraph 63.741(c) that 'affected sources' are "activities that manufacture or rework aerospace vehicles or components."

We also found in Title 40 CFR 63.742, "Definitions," that 'mechanical sanding' is defined as "aerospace vehicle or component surface conditioning which uses directional and random orbital abrasive tools and aluminum oxide or nylon abrasive pads for the purpose of corrosion rework, substrate repair, prepaint surface preparation, and other maintenance activities." While conversely, the definition of 'Depainting' "for non-chemical means, excludes hand and mechanical sanding, and any other non-chemical removal processes that do not involve blast media or other mechanisms that would result in airborne particle movement at high velocity."

Our review of Title 40 CFR 63.746(c)(5), revealed that "mechanical and hand sanding operations are exempt from the requirements in paragraph (b)(4) of this Section." Paragraph 63.746(b)(4) states, "each owner or operator of a new or existing depainting operation complying with paragraph (b)(2), that generates airborne inorganic Hazardous Air Pollutant (HAP) emissions from dry media blasting equipment, shall also comply with the requirements specified in paragraphs (b)(4)(i) through (b)(4)(v) of this Section."

We discussed our findings with Mr. Frank Castaneda, Environmental Conservation and Planning Directorate, Headquarters Air Force Center for Environmental Excellence (HQ AFCEE/ECE), DSN 240-4202, who agreed with our conclusion that mechanical hand sanding operations are exempt from the Aerospace NESHAP regulation.

Finally, since the hand sanding operation exempts you from the Aerospace NESHAP, but your bead blasting operation does not, PROACT recommends you contact the AFCEE Regional Environmental Office (REO) for your area, and seek assistance in approaching your regional or state air quality officials for a ruling on your Aerospace NESHAP status.

TI 24415 – BACT/MACT

By Gregory Hines

A customer contacted PROACT for information concerning Best Available Control Technology (BACT) and Maximum Achievable Control Technology (MACT). Specifically the customer wanted to know the difference between these technologies.

PROACT reviewed Title 40 CFR 52.21(b)(12), which states, BACT is an emission limitation based on the maximum degree of reduction (considering energy, environmental, and economic impacts) achievable through application of production processes or available methods, systems, and techniques. BACT does not permit emissions in excess of those allowed under any applicable Clean Air Act provisions. Use of the BACT concept is allowable on a case-by-case basis for proposed major stationary sources or major modifications emissions sources in attainment areas, and applies to each regulated pollutant.

We next reviewed Title 40 CFR 63, which states MACT is the emission standard for sources of hazardous air pollutants (HAP). MACT's require the maximum achievable reduction of HAP emissions, taking cost and feasibility into account. Under Title III of the Clean Air Act Amendments of 1990, the MACT must not be less than the average emission level achieved by the top 12 percent of the currently operating industrial and utility sources.

In summary MACT standards are industry-specific and technology-based, and are designed to reduce HAP emissions. This standard can require owner operators to meet emission limits, install emission control technologies, and/or employ specified work practices. Alternatively, BACT technology is based on the maximum degree of reduction for each

regulated criteria pollutant that would be emitted from any new major stationary source in an attainment area.

TI 24430 – Hazardous Waste Mixing

By Richard Howell

A customer contacted PROACT for information concerning the mixing of aerosol cans with solid waste refuse. Specifically, the customer wanted to know if empty, non-punctured aerosol cans may be disposed with municipal solid waste.

PROACT reviewed Title 40 CFR, Part 261.7, "Residues of Hazardous Waste in Empty Containers," which states any hazardous waste remaining in an "empty" container is not subject to regulation under 40 CFR Parts 261 through 265, 268, 270, or 124, or notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA). RCRA "empty" is specifically defined in 40 CFR 261.7(b), as empty when no more than one inch of residue may remain on the bottom of the container or no more than 3 percent by weight of the total capacity of the container remains in the container (if the container is less than or equal to 110 gallons in size). This section of the regulation further states a container that has held a compressed gas is considered empty when the pressure in the container approaches atmospheric pressure. Therefore, if a container that has held a compressed gas is determined by the generator to meet the definition of empty and has been reduced to atmospheric pressure, the container is not subject to regulation as a hazardous waste under RCRA.

RCRA regulations do not specify any particular method to ensure a container is empty; however, two separate U.S. EPA letters state an aerosol can should not contain a significant amount of liquid if properly punctured and/or drained. Generally, puncturing of aerosol cans is conducted with recycling activities to meet the scrap metal exemption and as such does not require a treatment permit under RCRA. However, the liquids or contained gases removed from aerosol cans may be subject to regulation as hazardous wastes if they are listed in Subpart D of 40 CFR Part 261, or if they exhibit any characteristics of hazardous waste as described in Subpart C of 40 CFR Part 261. The EPA has delegated implementation of RCRA to the states, and as such their regulations may be more stringent.

We next reviewed Title 30 Texas Administrative Code (TAC), Part 1, Chapter 335, Subchapter B, "Hazardous Waste Management General Provisions." Specifically, TAC 335.41(f), which provides requirements for the management of residues of hazardous waste containers, states Texas hazardous waste regulations do not apply to any hazardous waste remaining in an empty container. Texas follows the Federal definition in determining whether a container is empty. In addition, Title 30 TAC, Part 1, Chapter 335, Subchapter C, Rule 355.78 "Special Requirements for Hazardous Waste Generated by Conditionally Exempt Small Quantity Generators," Paragraph (h) allows these wastes (empty containers) to be mixed with non-hazardous waste (i.e., municipal solid waste).

In summary, aerosol cans that meet the definition of RCRA "empty" may be mixed with municipal solid waste for disposal. An aerosol can is considered RCRA "empty" when it contains no more than 1 inch of product residue, no greater than 3% by weight of the total container, and approaches atmospheric pressure (non-compressed).

TI 24433 – Solid Film Lubricant/UH-1

By Pamela Jernigan

A customer contacted PROACT requesting information for an EPA 17 priority pollutant-free substitute for solid film lubricant, National Stock Number (NSN) 9150-01-260-2534, which contains lead. The customer stated this product is used on the gears and synchronized elevator horn on the UH-1 helicopter in accordance with Technical Order 1H-1U(N-2-1) and Military Specification MIL-L-23398. Specifically, the customer wanted to know if there is a lead-free product approved for use in this application.

PROACT searched the Department of Defense Hazardous Materials Information System and found two material safety data sheets (MSDSs) for NSN 9150-01-260-2534 that do not contain lead. These two products however, contain methyl ethyl ketone (MEK), an EPA 17 Priority Pollutant.

We next contacted Mr. Dave Peth, UH-1 Helicopter System Program Office (SPO), DSN 468-2742, who stated the product currently used is the only one authorized at this time.

In Memoriam

The U.S. Air Force and PROACT respectfully acknowledge the loss of the Space Shuttle Columbia and its seven-member crew. The dignity and courage of those lost explorers will remain forever a symbol of national spirit, to do what is asked, regardless of risk. Their dreams remain our dreams, as we continue their journey of discovery.

In Our Customer's Own Words…

"Absolutely excellent assistance. I appreciated being kept informed of the progress being made on my research request"

Robin Stankoff
Lakenheath AFB

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