Annual Storm Water and Spill Prevention Training

Lafayette Regional Airport (LFT)
Lafayette, Louisiana
September 2016

CK Associates
Environmental Consultants

Training Presentation Outline

Storm Water/Wash Water Training

- Regulatory Background
- Permit Requirements
- Plan Components
- Best Management Practices
- Group Discussion

Training Presentation Outline

Spill Prevention Training

- Regulatory Background
- Plan Components
- Bulk Storage Containers, Oil-Filled Equipment, Mobile Refuelers
- Containment
- Response Measures
- Notification Requirements
- Integrity Testing
- Performing Inspections
- Group Discussion

But First…

While you eat and listen to this presentation:

- Be prepared to pay attention and participate.
- Update your material inventory and deicing information for LFT's records.
- Complete the Annual Tenant Form to assist LFT with their SWPPP update.
- Fill out the SWPPP and SPCC Training Quizzes.

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Storm Water Pollution Prevention Training – Regulatory Background

- Lafayette Airport Commission (LAC) obtained Louisiana Department of Environmental Quality (LDEQ) permits for the LFT to authorize discharges of:
  - Storm water associated with industrial activity (LAR05M152);
  - Storm water through municipal separate storm sewer system (MS4) outfalls (LAR0401025);
  - Exterior vehicle wash waters (LAG7550655).
- These permits require LFT to prepare a Storm Water Pollution Prevention Plan (SWPPP) and to conduct annual training.

Storm Water Pollution Prevention Training – Regulatory Background

- Permit for storm water associated with industrial activity (LAR05M152) governs runoff from transportation facilities (Sector S) *for only*:
  - Portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication);
  - equipment cleaning operations;
  - airport deicing operations.
- Permit reissued in 2016, but no significant changes that impact the airport.

Storm Water Pollution Prevention Training – Regulatory Background

- Permit for storm water discharges through municipal separate storm sewer system (MS4) outfalls is required because the property governed by LAC is considered part of the municipal storm sewer system for a metropolitan area with over 100,000 population or otherwise identified by Congress as an “urbanized” area.
- City of Lafayette has been identified as an urbanized area subject to the requirements of the MS4 permit.

Storm Water Pollution Prevention Training – Regulatory Background

- Permit for exterior washing of vehicles, boats, aircraft, and/or heavy equipment.
  - No pressure washing or steam cleaning of engines
  - No cleaning with any product other than biodegradable soaps
  - **No maintenance** may be conducted in or around the wash areas
  - **Only** the **exterior** of equipment, vehicles, and aircraft may be washed
  - Any **vehicle or equipment in a state of disrepair shall not be washed until it is free of oil**
  - Any **spills, drips, dirt or debris in the wash area shall be removed** by dry methods **before washing**

- Lafayette Airport has permit coverage for five outfall locations around the airport.

Storm Water Pollution Prevention Training – Permit Requirements

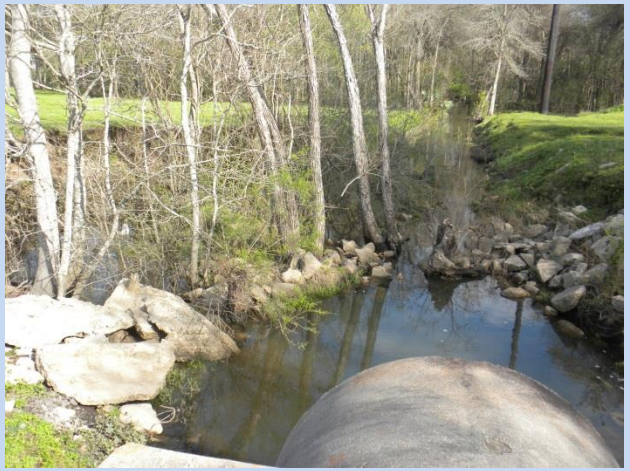
- Multi-Sector General Permit (MSGP) authorizes storm water associated with industrial activities, including those in the air transportation sector (SIC Codes 4512 - 4581).
- The MSGP also authorizes:
  - Fire Hydrant/System Flushings;
  - Fire Fighting Activities;
  - Foundation/Footing Drainage;
  - Natural Springs;
  - Exterior Building Wash Downs (No Detergents);
  - Irrigation Drainage and Lawn Watering;
  - Uncontaminated Groundwater;
  - Air-Conditioning Condensate; and
  - Potable Water Line Flushings.

Storm Water Pollution Prevention Training – Permit Requirements

- The MSGP requires a Storm Water Pollution Prevention Plan (SWPPP); implementation of best management practices; quarterly visual inspections of representative outfall discharges and potential pollutant source areas; and an evaluation of compliance with the MSGP.

Storm Water Pollution Prevention Training – Plan Components

- The goal of SWPPP is to minimize the amount of pollutants in storm water discharges since rainwater or storm water flows from the airport property directly into Bayou Vermillion and Bayou Tortue.
- The SWPPP requires that LFT:
  - Form an SWPPP team
  - Assess pollutant sources
  - Identify BMPs for facility
  - Implement BMPs
  - Inspect site/evaluate BMPs
  - Evaluate compliance with SWPPP
  - Monitor storm water discharges



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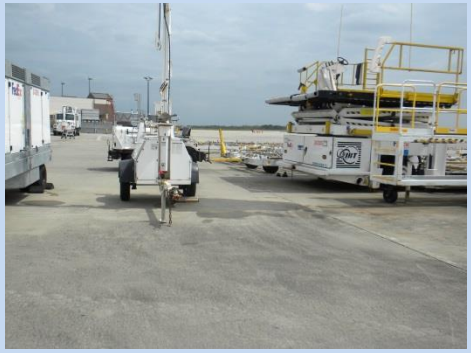
Storm Water Pollution Prevention Training – Plan Components

The LFT SWPPP is maintained on the airport website at:

http://lftairport.com/environmental-managament/



Storm Water Pollution Prevention Training – Plan Components

Identify the LFT SWPPP Team:

- Team Leader – Ashley Simon, Environmental Compliance Officer
- Team Member – Daniel Elsea, Deputy Director of Aviation
- Team Members – LAC Operations and Maintenance Personnel

Anyone Else?

YES - All of You!!

Storm Water Pollution Prevention Training – Plan Components

Name of Company	Storage of Deicer	Amount	Application	Type of Deicer
Jet Delta Global Services	By Terminal Baggage Area	4 Drums (55 gallons each)	Has a machine to apply deicer	Octaflo EF Concentrate, Type I
Delta Global Services	By Terminal Building	2 Totes (275 gallons each)	Has a machine to apply deicer	Dow-UCAR™ PG Aircraft Deicing Fluid Concentrate
American Eagle	By Gate 10	2 Totes (275 gallons each)	Has a machine to apply deicer	Dow-UCAR™ PG Aircraft Deicing Fluid Dilute
FedEx	By Hangar 7	5 Totes (265 gallons each)	Has a machine to apply deicer	KilFrost DF Plus (88) Dilute, Type I

Storm Water Pollution Prevention Training – Plan Components

- If your facility changes the type of deicing material, please let LFT know by submitting a new MSDS to LAC.
- Maintain monthly records of types and quantities of deicing fluid used before dilution and submit these records quarterly to LAC.
- LAC conducts deicing area and outfall inspections monthly during winter months
- Are you maintaining these records?

Storm Water Pollution Prevention Training – Plan Components

- The MSGP does not authorize dry-weather deicing.
- The MSGP requires an inventory of deicing materials

Storm Water Pollution Prevention Training – Plan Components

- Permit for vehicle wash waters allow the airport to discharge wash waters through five outfalls:
  - (Outfall 001B) An airplane and vehicle wash rack located between Hangar's 10 & 11;
  - (Outfall 001C) A wash rack located near the Acadian Ambulance hangar;
  - (Outfall 001D) A truck and equipment wash rack located at LFT's Maintenance Shop
  - (Outfall 001E) A wash rack at Airport Rescue and Fire Fighting Department (ARFFD); and
  - (Outfall 001F) A wash rack near Gate 7.
- ***Only these outfalls*** can receive wash waters.

Storm Water Pollution Prevention Training – Plan Components

Storm Water Pollution Prevention Training – Plan Components

- Vehicle wash water permit requires that only biodegradable soaps be used at the five wash racks and at the proper dilution.
- LFT must collect samples quarterly for various parameters (oil grease, suspended solids, total organic carbon, chemical oxygen demand, pH, etc.) and report them on discharge monitoring reports (DMRs).
- LFT must maintain a weekly sheen log for each wash rack.
- Must track soap usage, types of soap used, and average number of aircraft/vehicles washed for quarterly reporting.
- Oils must never be allowed to be washed or drained into the wash racks nor be discharged.

Storm Water Pollution Prevention Training – Plan Components

- MS4 Permit focuses on six minimum control measures:
  - Public education and outreach on storm water impacts;
  - Public involvement and participation;
  - Illicit discharge detection and elimination;
  - Construction site storm water runoff control;
  - Post-construction storm water management in new development and redevelopment; and,
  - Pollution prevention and good housekeeping for municipal operators.
- MS4 Permit requires an annual report to identify progress on fulfillment of the minimum control measures.

Storm Water Pollution Prevention Training – Plan Components

Assess Pollutant Sources

- Fuels, Oils, Solvents, Paints from Airport/Tenant Operations
- Sediments from erosion and construction activities

Storm Water Pollution Prevention Training – Plan Components

Identify/Implement Best Management Practices (BMPs)

- Structural BMPs – Curbing, Roof Covering, Erosion/Sediment Controls, etc.
- Non-structural BMPs – Good Housekeeping, Preventative Maintenance, Inspections, Spill Prevention and Response.
- Activity Specific BMPs – Material Storage Areas, Fueling Areas, Loading/Unloading Areas, Vehicle/Equipment Maintenance Areas.
- Other Pollution Prevention Practices – Required under the Vehicle Wash Water Permit.

Storm Water Pollution Prevention Training – Plan Components

Non-Structural BMPs

- Good Housekeeping
  - Dry cleaning (e.g., sweeping),
  - Keep areas free of debris and litter,
  - Keep trash dumpsters closed.
- Preventative Maintenance
  - Maintain vehicles, aircraft, and support equipment to minimize potential for leaks/releases.
- Spill Prevention and Response - Contain and clean-up spills, leaks, and releases promptly; and dispose of spilled materials properly.

Storm Water Pollution Prevention Training – Plan Components

Non-Structural BMPs

- Visual Inspections
  - ***These inspections require that Ashley visit your operations to evaluate whether BMPs are being followed and are effective. You should be reviewing your own facility regularly as well.***
  - Tenant facilities quarterly,
    - Leaks, corroded or open containers, use of spill prevention measures, non storm water discharges, proper materials storage, and debris management
  - Quarterly outfalls visual,
    - Condition of outfall and evidence of sheen, debris or other pollutants in discharge
  - Deicing season monthly deicing fluid area and outfall ,
    - Deicing fluid in outfall and review of deicing area and equipment
  - Weekly visual wash area inspections,
    - Evidence of sheen
  - Quarterly wash area discharge monitoring, and
    - Sheen, soap usage, and solids
  - Construction Sites Inspections biweekly
    - Storm water discharges, nonstorm water discharges, BMPs, discharge points, construction entrance, site cleanliness, washout areas, spills or leaks, storage areas

Storm Water Pollution Prevention Training – Plan Components

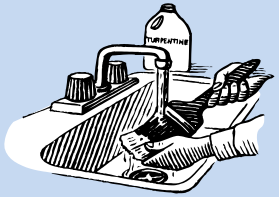
Activity-Specific BMPs

- Material Storage Areas
  - Designate areas for storage,
  - Use tank overfill protection, fill gauges, secondary containment dikes, and impervious dike areas
  - Label and tightly seal containers, and
  - Store in covered areas.
- Fueling Areas
  - Discourage overtopping,
  - Use dry clean-up methods, and
  - Remain with vehicle/aircraft/equipment being filled.
- Loading/Unloading Areas
  - Use containment and train personnel on proper procedures (especially mobile refuelers).
- Vehicle and Equipment Maintenance Areas
  - Contain and recycle all waste for proper disposal,
  - Perform maintenance activities under cover where possible,
  - Use drip pans/buckets to prevent oils/fuels from hitting the ground,
  - Maintain work areas that are clean and dry, and
  - Use dry clean-up methods.

Storm Water Pollution Prevention Training – Plan Components

WARNING

No Chemicals or Paints



Can be drained into these sinks. It is against Lafayette Utilities System Regulations

Other Pollution Prevention Practices

- Keep trash dumpsters closed.
- Store vehicles and equipment on an impervious surface.
- Regularly inspect vehicles and equipment for leaks.
- Maintain any drip pans used with leaking equipment especially if not stored undercover.
- Do not dispose of solvents or any other chemicals down the wash racks, storm drains or sanitary sewer.
- Do not pour anything down the wash racks or storm drains, including mop water or any other waste water.
- Keep all batteries stored inside or covered and in containment.
- Proper solid/hazardous waste disposal. Do not put the following in dumpsters:
  - Oil-based paints
  - Mercury light bulbs/ballasts
  - Used tires

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Storm Water Pollution Prevention Training – Summary

- LFT has three permits authorizing discharges to the storm water drainage system:
  - MSGP
  - MS4
  - Vehicle Wash Water Permit
- These permits require that steps are taken to prevent pollutants from entering Lafayette receiving streams.
- LFT needs ***your help*** with maintaining permit compliance.

Storm Water Pollution Prevention Training – Side Note

- In late 2015, the Water Environment Federation (WEF) announced the first winners of a new national municipal storm water and green infrastructure awards program. Lafayette Airport (as part of the Lafayette Consolidated Government co-permittee group) was recognized as the top Program Management for small MS4 permittees.

Storm Water Pollution Prevention Training – Group Discussion

What's wrong with this picture?

Drip bucket (good control) but they should be tightly sealed when not in use. Note the proximity to the storm drain.

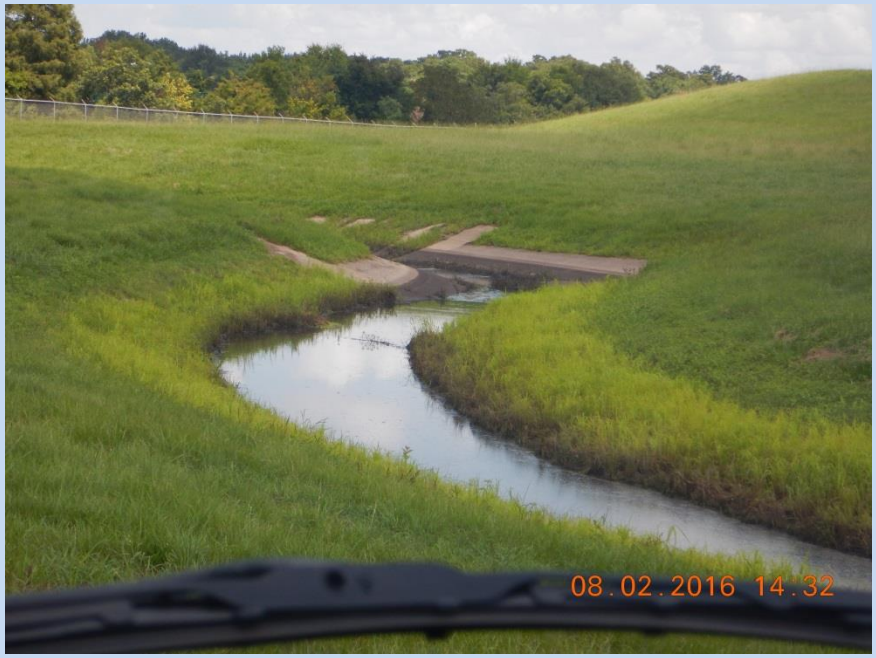
Storm Water Pollution Prevention Training – Group Discussion

What's wrong with this picture?

Drum is not labelled.

Storm Water Pollution Prevention Training – Group Discussion

What's wrong with this picture?



Staining on banks of ditch is evidence of release. Need to notify Environmental Compliance or Security.

Annual Storm Water and Spill Prevention Training

How about a break?

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Spill Prevention, Control, and Countermeasure (SPCC) Plan Training – Regulatory Background

- Regulatory requirements were originally promulgated on December 11, 1973, to establish requirements for prevention/containment of oil and hazardous substances from vessels and onshore and offshore facilities. SPCC Plans were required to prevent **oil** from entering waters of the U.S.

- Federal regulations have been periodically updated, most recently on November 5, 2009.

- State of Louisiana requires that spill plans (Spill Prevention and Control [SPC] Plans) address substances on notification list (LAC Part I, Chapter 39), including acids, caustics, and solvents.

SPCC Plan Training – Regulatory Background

Facilities Covered

- Facilities which, due to their location, could be reasonably expected to discharge oil into navigable waters of the U.S.
- Facilities that are non-transportation related, including onshore and offshore (under the federal agreement between USCG [DOI], DOT, and EPA, an airport is considered non-transportation related for the purposes of these requirements).
- Facilities where the aboveground storage capacity of oil is equal to or greater than 1,320 gallons and underground Storage Tanks (USTs) total capacity is equal to or greater than 42,000 gallons. USTs regulated under 40 CFR 280 are not subject to SPCC Plan requirements (but must be shown on SPCC Plan figures).
- Tenants that meet the volume applicability requirements must develop and maintain their own SPCC Plan.

SPCC Plan Training – Plan Components

The LFT SPCC Plan is maintained on the airport website at:

http://lftairport.com/environmental-managament/

- Goal of SPCC Plan is to reduce the potential for oil or hazardous materials being spilled or released to the ground and to receiving streams.

SPCC Plan Training – Bulk Storage Containers, Oil-Filled Equipment, Mobile Refuelers

Bulk Storage Containers

- Greater than or equal to 55 gallons capacity (shell capacity not effective capacity) for holding oil.
- Does not include oil-filled equipment, process vessels, or wastewater equipment (if exclusively wastewater treatment – oil/water separators for drainage or containment areas are not exempt).
- Bulk storage containers require sized secondary containment, inspections and testing.

SPCC Plan Training – Bulk Storage Containers, Oil-Filled Equipment, Mobile Refuelers

Oil-Filled Equipment

- Includes an oil storage container greater than or equal to 55 gallons capacity where oil is present solely to support the function of the equipment. It does not include flow-through manufacturing equipment or motive power.
- Examples include: hydraulic systems, lubricating systems, gear boxes, machining coolant systems, transformers, circuit breakers, heat transfer systems, electrical switches, sumps, and compressors.
- Oil-Filled Equipment requires general secondary containment and inspections.

SPCC Plan Training – Bulk Storage Containers, Oil-Filled Equipment, Mobile Refuelers

Mobile Refuelers

- A mobile refueler is a bulk storage container, onboard a vehicle or towed, that is designed or used to solely store and transport fuel for transfer into or from an aircraft, motor vehicle, vessel, ground service equipment, or another oil storage container. Must operate exclusively within the confines of a non-transportation facility.
- Subject to the general secondary containment requirements.

SPCC Plan Training – Containment

Sized Secondary Containment

- Volume of the largest container within the containment system plus sufficient freeboard to contain precipitation. Required for bulk storage containers.
- If not feasible, must have contingency plan (40 CFR 109), integrity testing of container and appurtenances, and a written commitment of manpower to handle releases.

General Secondary Containment

- Systems in place to prevent releases from leaving site, including curbing, booms/weirs, diversion ponds, response equipment/materials.
- Required for oil-filled equipment and mobile refuelers.

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SPCC Plan Training – Response Measures

- **Safety first – don't take risks!**
- **IF AT ALL POSSIBLE, STOP THE SOURCE OF THE SPILL IMMEDIATELY.** If the fuel is discovered leaking or spilling from fuel servicing equipment or hoses, the emergency fuel shutoff should be operated at once. If the fuel is discovered leaking of spilling from an aircraft at the filler opening, vent line, or tank seams during fueling operations, fueling should be stopped immediately. Evacuation of the aircraft should be ordered when necessary. Approach the incident area from upwind to a point where the spilled material can be identified. If conditions are hazardous (e.g., fire or potential explosion), **DO NOT APPROACH.**
- Mobile fueling equipment and all other mobile equipment should be withdrawn from the area or left as is until the spilled fuel is removed or made safe. **No fixed rule can be made as fire safety varies with circumstances. Shutting down equipment or moving vehicles can provide a source of ignition if no fire immediately results from spillage.** If circumstances dictate that operating internal combustion engine equipment within a spill area that has not ignited should be shut down, engine speeds should be reduced to idle prior to cutting ignition in order to prevent backfire.

SPCC Plan Training – Response Measures

- **TAKE IMMEDIATE ACTION TO PREVENT THE SPILL FROM REACHING SURFACE WATERS.** Place booms or pads, dig a diversion ditch or ditches, or use soil to build a berm. If the release reaches surface water, attempt to place booms in the water to contain the release or, if necessary, block drainage downstream of the release to prevent further discharge.
- Determine the source, type, and quantity of material spilled.
- LFT has a Spill Response Team – the Airport Rescue and Fire Fighting Department (ARFFD) is specifically trained to respond, contain, and clean up minor volumes of spilled material on the airfield.
- It is your responsibility to contact the Airport and if on the airfield ARFFD.

SPCC Plan Training – Notifications

- After identifying and assessing the hazard, isolate and evacuate the area based on assessment of quantity and threat to life or health:

  CONTACT SECURITY OR ARFFD IMMEDIATELY if on airfield:

  — Security – Number on back of badge - (337) 266-4461

  — ARFFD – (337) 233-1652

  Call the **ENVIRONMENTAL SITE LEADER for all spills:**

  — Ashley Simon, Office (337) 266-4401; Cell (337) 277-5604

  or Alternate listed below:

  — Daniel Elsea, Deputy Director (337) 266-4401

SPCC Plan Training – Notifications

- The Responsible Party or in their absence the Environmental Site Leader will determine if the release is a reportable quantity based on the following:
  - For releases of hazardous substances onto land – the Final Reportable Quantity (RQ) in Table 302.4 in 40 CFR §302.4;
  - For releases of hazardous substances into waters of the state (rivers, streams, lakes, groundwaters, and all other waters within and bordering the state) – the Final RQ in Table 302.4;
  - For releases of petroleum product, used oil, and oil that is not a petroleum product onto land – 1 barrel (42 gallons);
  - For releases of spills or discharges into waters of the state – quantity sufficient to cause a sheen; and
  - Additional information on reportable quantities can be found on the LAC website.
- Also, releases of flammable liquids in excess of 100 pounds (approximately 13.5 gallons) that leave the site must be reported to the State Police “immediately”.

SPCC Plan Training – Notifications

- In the event of an unauthorized discharge that causes an emergency condition the law requires you to make two phone calls as soon as possible within the first hour of the emergency:
  - Call the 24-hour Louisiana Emergency Hazardous Materials Hotline at **(225) 925-6595**; and
  - Call the National Response Center at **(800) 424-8802**.
- In the event on a non-emergency, call the LDEQ Single Point of Contact (SPOC) at **(225) 342-1234**.

SPCC Plan Training – Integrity Testing

- 40 CFR 112.8(c)(6) requirements for bulk storage containers:
  - Test on a regular schedule and whenever material repairs are made;
  - Frequency of testing must take into account tank size and design; and
  - Must be in accordance with industry standards (STI, API, etc.) and may include visual inspection, hydrostatic, radiographic, ultrasonic, acoustic emissions, or other non-destructive testing techniques.

SPCC Plan Training – Integrity Testing

- 40 CFR 112.8(d)(1) requirements for buried piping:
  - Buried piping installed or replaced after 2002 must have a protective wrapping and coating.
  - If a section of buried piping is exposed for any reason, it must be carefully inspected for deterioration. If there is corrosion damage, corrective action must be taken and additional examination must be made to determine full extent of damage.

SPCC Plan Training – Integrity Testing

- Steel Tank Institute Standard SP001: Standard for Inspection of Aboveground Storage Tanks.
- Developed for shop-built and field-erected steel, atmospheric, non-refrigerated ASTs.
- Risk-based standard developed in direct response to need for inspection standard created by change in SPCC rules.
- Development committee included U.S. Environmental Protection Agency (USEPA), states, and industry representatives.
- Integrity testing inspections performed at Lafayette Airport typically conducted under this standard.
- Visual inspections by a certified inspector must be conducted every twenty years for tanks greater than 5,000 gallons but less than or equal to 50,000 gallons.

SPCC Plan Training – Performing Inspections

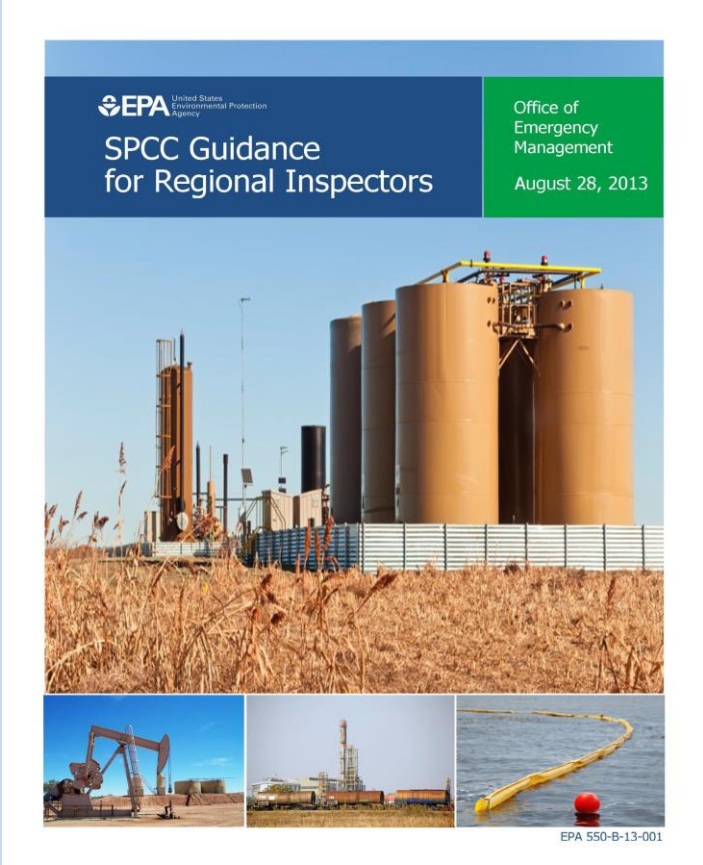
- Visual tank inspections should be made by operating personnel daily to observe signs of deterioration, potential leaks, and the accumulation of material in the curbed areas.
- Aboveground valves, pipe supports, pipes, and pipelines should also be inspected on a regular basis.
- STI SP001 allows bulk storage container owner to visually inspect containers on monthly basis for:
  - Containment integrity
  - Leak detection
  - Container attachments and appurtenances
  - Other conditions

SPCC Plan Training – Performing Inspections

- Double-walled tanks must have interstitial space inspected visually (unless leak detection equipment in interstitial space).
- Containment dike drainage must remain closed until storm water in each area is inspected. Retained water in containment areas must be inspected for evidence of oil, such as film, sheen, or discoloration, prior to draining.
  - The drain valve in the containment area for the fuel farms must remains closed under normal operating conditions be controlled to prevent discharge of oil (dike valves closed, drainage inspected and documented).
  - Results inspections and the drainage of rainwater should be maintained by the operators

SPCC Plan Training – Latest Information

- In August 2013, EPA updated the 2005 SPCC Guidance for Regional Inspectors, a summary of EPA's approach for SPCC regulation implementation.
- http://www.epa.gov/emergencies/docs/oil/spcc/SPCCGuidanceRevisions.pdf



SPCC Plan Training – Group Discussion

Double-walled containers have faded labels.

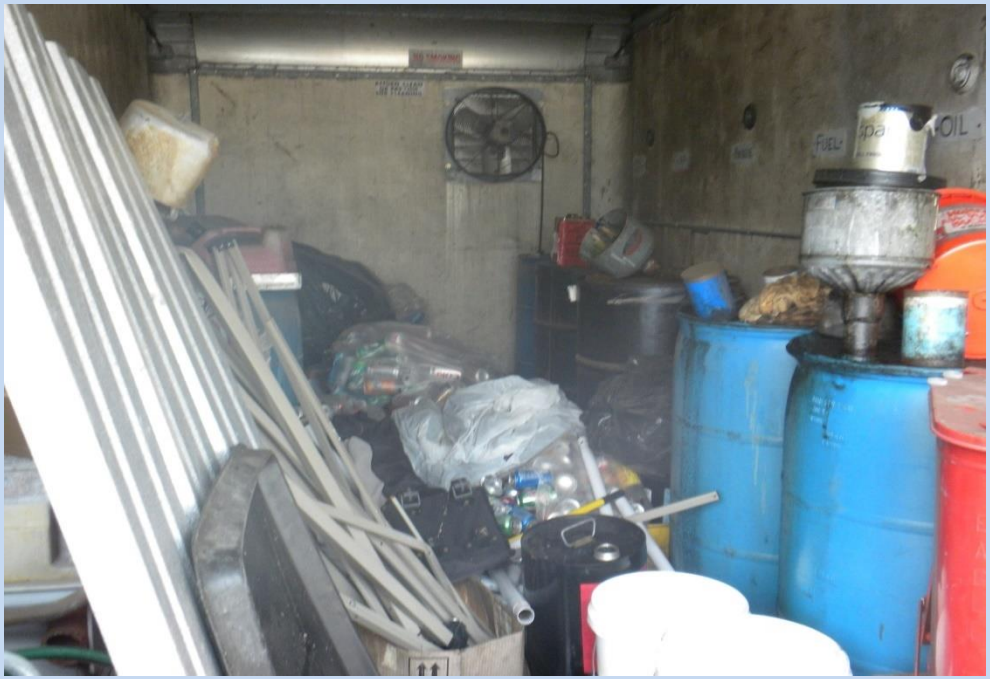
SPCC Plan Training – Group Discussion

What's wrong with this picture?

The drain port is left open. It must remain closed to prevent discharge of oil.

SPCC Plan Training – Group Discussion

What's wrong with this picture?



Poor housekeeping (trash/debris stored with bulk containers).

SPCC Plan Training – Group Discussion

What's wrong with this picture?

Nicely Painted bulk container has corrosion at base that needs to be addressed.

Questions?

(Have you filled all of those forms out yet?)

We are committed to providing continued support and service to the Lafayette Airport and its tenants. We can be reached by phone or email if you have any questions regarding this information. Thank you for your time.

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