2021

Stormwater Pollution Prevention Plan Virtual Training Workshop Palm Beach County Department of Airports

(PBI, LNA, F₄₅, PHK)





Housekeeping

- Due to COVID-19, SWPPP training remains virtual.
- Emails with links for WebEx, Test and Training Materials
- General Presentation is for all airports. If you have airport specific questions, please ask during the Q&A or email us.
- Participation is documented via your attendance and test completion today.
- Training Certification will be provided based on attendance and receipt of passing test documentation.
- Certificates will be emailed.







Presented By:

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NPDES Multi-Sector Generic Permit (MSGP)



National Pollutant Discharge Elimination System

Clean water is the lifeblood of our community and

NPDES MSGP - "stormwater discharges associated with Industrial Activity" per 40 CFR 122.26(b)(14)

- "industrial activity" = "point source"
- Includes 11 categories including chemical, mining, manufacturing, land application/disposal, recycling, *transportation*, treatment plants, construction and light industry







What is stormwater runoff?

Water from rain that does not immediately infiltrate into the ground and flows over impervious areas accumulating pollutants and sediments. Discharging into our waterways.









NPDES MSGP Coverage

What is **Covered** under the Airport's Permit?

Stormwater runoff from Airport facilities

- Runways and taxiways
- Parking areas
- Building and hangar roofs

What is **Not Covered** under the Permit?

- Non-stormwater runoff
 - Vehicle, Equipment & Aircraft washing
 - Fire fighting activities and fire hydrant flushing
 - A/C condensate, lawn watering, potable line flushing
- Use of glycol based deicing fluids that exceeds > 100,000 gallons/year.
- Use of urea that exceeds > 10 tons/year.







Who is covered by the DOA MSGP?

The DOA MSGP is for airport operations only:

- DOA Facilities
- Aircraft and vehicle servicing, repairing, maintaining
- Equipment cleaning and maintenance
- Mechanical repairs, Painting, Fueling, Lubrication
- Deicing/anti-icing operations







Who is covered by the DOA MSGP?

Some Tenants require a separate NPDES permit:

- Operations covered by a separate MSGP
 - Petroleum bulk stations (e.g., fuel farms)
 - Motor Freight Transportation
 - Miscellaneous Manufacturing
 - Fabricated Metal Products (e.g., electroplating)
- Aircraft and vehicle washwaters
- Land disturbance greater than 1 acre







Why are you here?

Airport's NPDES Multi-Sector Generic Permit (MSGP) for Industrial Activities at Airports requires:

- SWPPP
- Annual Training Workshops
- Annual Inspections









What is a SWPPP?

A Storm Water Pollution Prevention Plan (SWPPP) is a site-specific document that:

- Identifies potential sources of stormwater pollution,
- Describes control measures to reduce/ eliminate pollutants in discharges,
- Identifies procedures to comply with the NPDES permit.







What are we going to discuss?

Training Agenda

- **1.** SWPPP Goals
- 2. Your role and importance of your participation
- 3. SWPPP Components
- **4.** Who to Call?
- 5. Know your Airport
- 6. Best Management Practices (BMPs)







1. What is our goal today?

- <u>Discuss</u> the Airport's SWPPP
- <u>Inform</u> you of the Airport's spill containment protocol
- <u>Promote airport/tenant ownership of the SWPPP and Spill</u>
 Prevention Control and Countermeasures (SPCC) Plan
- <u>Share information!</u>







2. Tenant/Employee Role

- <u>Integrate</u> employee/tenant feedback into training and BMP implementation.
- Employees/ tenants must know how and to whom they can report problems and solutions.
- <u>Encourage</u> employee/tenants to become active players in pollution prevention.







3. What is included the SWPPP?

- **1.** Organization Plan
- **2.** Airport Site and Drainage Maps
- **3.** Potential Stormwater Pollutant Sources
- **4.** Best Management Practices (BMPs)
- 5. Monitoring and Inspections
- 6. Record keeping







4. Storm Water Team Leader

SWPPP Manager

Javier (Javi) Gämboa-Villamil (561) 656-5989 jgamboa@pbia.org

The SWPPP Team Leader and/or the authorized representative is responsible for maintaining and implementing the SWPPP!







5. Know your Facility!

- Boundary of your lease;
- Terminal Areas;
- FBOs;
- Runways, taxiways, & aprons;
- Vehicle parking lots;
- Hangars & buildings;
- Fuel farms and tanks;
- Waste collection areas;
- Nearest drainage structure of your lease;
- How does the water flow;
- What do if there is a spill.







5. Airport Layout: Drainage

- NPDES oufalls, ponds, ditches, swales, pipes.
- Stormwater flow direction.
 - Review SWPPP Appendix E to identify nearest inlet to your Facility
- Identifies commingling areas.
- Divides airport into sub-basins.
- Identify stormwater structures and their connection to each other.
- Identify the connection of stormwater structures with offsite drainage







6. Potential Sources of Pollutants

- Fuel farms Fuel
- Airport warehouse –
 fertilizers, pesticide, paint, herbicide, cleaners, etc.
- FBOs *oil*, degreaser, paint, fuel, *solvents*, etc.
- Aircraft/vehicle traffic *oil, rubber, etc.*
- Taxiways & grassy areas dust and landscape waste
 - Wildlife animal waste









6. What is a BMP?

<u>Best Management Practices</u> (BMPs) are programs, practices, techniques, processes, measures, and devices that control, prevent, remove, or reduce water pollution.

- Structural
- Non-Structural











General Stormwater BMPs

- Minimize use of contaminants
- Source <u>control</u>
- Minimize exposure
- Maximize infiltration
- Inspect/maintain structural measures (ditch, pond, OWS)
- Spill <u>prevention</u> and control
- Materials management and storage







BMPs: Structural

- Ditches and Swales
- Retention/Detention ponds
- Oil-water separators
- Buffer zones/vegetative stabilization
- Dikes, check dams, weirs
- Riprap
- Berms











BMPs: Non-Structural Housekeeping and Procedural

- Clean or sweep daily.
- Provide ample uncluttered work space.
- Keep walkways/passageways accessible.
- Have a usable, up-to-date fire extinguisher.
- Spill procedures & kits
- Proper storage of significant materials









Stormwater BMPs for Airport Activities

Airport BMP Areas

- Aircraft, Vehicle and Equipment Maintenance Areas
- Significant Materials Storage
- Pest Management and Landscaping Maintenance
- Fire Fighting Foam Discharge
- Aircraft, Vehicle, Equipment Painting and Storage
- Waste and Material Management
- Aircraft, Vehicle and Equipment Fueling

Airport BMPs

- Dust Control
- Spill Plan
- Erosion and Sediment Control
- Oil/Water Separator
- Runway Rubber Removal
- SWPPP Training and Education
- Minimize outdoor storage of fuels, oils, wastes, solvents, etc.
- Inspections







BMPs: Aircraft, Vehicle and Equipment Maintenance Areas

- Use drip pans.
- Drain and properly dispose of all fluids and batteries from aircraft, vehicles, and equipment.
- Recycle/properly dispose of grease, oil, brake fluid, cleaning solutions, hydraulic fluid, batteries, transmission fluid, filters, etc.
- Conduct maintenance activities indoors or under covered areas.
- Use designated areas to clean equipment (parts washer).
- Regularly clean catch basins.
- Inspect, clean, and maintain sump and oil/water separators.
- Keep hazardous waste containers covered.
- Properly label hazardous materials.
- Do not pour used/leftover materials into storm drains.
- Clean shop floors.







BMPs: Aircraft and Vehicle Maintenance



















BMPs: Significant Materials Storage

- Store materials in their original or approved containers .
- Label all chemical containers.
- Store drums and containers on spill containment pallets.
- Protect all significant materials from rainfall, run-off, and wind dispersal.
- Maintain a spill response plan near the material or waste storage area.
- Store like solvents, solutions together.
- Do not store bleach with oils or fuel.
- Maintain an up to date <u>Safety Data Sheet binder</u>.
- Use fire proof storage cabinets.
- Keep hazardous waste containers covered.
- Properly dispose of used oil and fluids.







BMPs: Significant Materials Storage



















BMPs - Aircraft, Vehicle and Equipment Cleaning Areas

- Use "dry" washing and surface preparation techniques.
- Keep wash area clean and free of waste.
- Collect stormwater runoff from cleaning area and provide treatment or recycling.
- Include proper signage to prohibit the discharge of waste oils into the drains.
- Keep degreasing activities in a fully enclosed area.
- Properly manage and dispose of cleaning/degreasing waste.









BMPs: Aircraft, Vehicle and Equipment Painting and Storage

- Use efficient paint equipment to reduce over spray waste.
- Use tarps, drip pans, or other spill control devices to prevent from entering stormwater drainage.
- Waste paint, paint thinner and solvents should be disposed of properly or stored in cabinets away from stormwater drainage.
- Sanding should be performed inside in a well ventilated area.
- Work areas should be clean and clear to prevent wind from carrying dust into stormwater drainage.







BMPs: Waste Management

- Waste handling and storage areas should be covered.
- Use covered dumpsters and keep them closed and locked.
- Maintain waste storage areas in a clean and orderly condition.
- Inspect waste management areas for spills and leaks.
- Eliminate waste collection piles.
- Ensure that sediments and wastes are prevented from being washed, leached, or otherwise carried off-site.
- Schedule waste pickup frequently to avoid overloaded/overfilled disposal containers.
- Segregate and separate wastes.
- Do not dispose of liquid wastes into dumpsters.







BMPs: Litter Control

- Provide sufficient garbage receptacles, strategically placed.
- Anchor covered garbage receptacles outdoors.
- Make sure garbage cans do not leak.
- Implement a recycling program.
- Provide recycling containers.











BMP: Oil/Water Separator

- Separators must be inspected and cleaned frequently to be effective stormwater quality controls.
- Oil absorbent pads are to be replaced as needed, but should always be replaced prior to the wet season.
- The effluent shutoff valve will be closed during cleanup operations.
- Any standing water removed during the cleanup operation must be disposed of in accordance with all regulatory requirements and replaced with clean water to prevent oil carry-over through the outlet.





BMP: Lavatory Waste Management

- Only discharge lavatory waste to sanitary sewer connections at triturator facilities.
- Drain the aircraft connecting hose as completely as possible into the storage tank after servicing an aircraft.
- Use only surfactants and disinfectants approved for discharge to the sanitary sewer system.
- Utilize buckets or pans to capture drippage from aircraft lavatory access fittings.
- Carry absorbent and other containment equipment on the lavatory service equipment.









BMP: Outdoor Waste and Material Handling

- Use seals or door skirts between vehicles and structures to prevent material exposure to rainfall.
- Contain and absorb leaks during transfers and spillage from hose disconnections; dispose of residue properly.



- Avoid transferring or using materials in close proximity to storm drain inlets.
- Use drip pans to contain small releases.
- Transfer and use liquids only in paved areas.
- Provide contractors and haulers with copies of pertinent BMPs.









BMPs: Pest Management and Landscape Maintenance

- Incorporate areas of landscape into project design to reduce runoff discharge from a site.
- Incorporate design considerations such as leaving or planting native vegetation to reduce irrigation, fertilizer and pesticide needs.
- Minimize the use of pesticides, herbicides and fertilizers.
- Properly dispose of landscape waste, wash water, sweepings and sediments.
- Select landscaping plants that require little maintenance and/or pest control.







BMPs: Landscape Management

- For sandy soils, apply fertilizer half the recommended rate but 2x as often.
- Do not over water!
- Leave grass clippings on turf areas.
- Compost leaves.
- Use Integrated Pest Management.
- Promptly clean spills on impervious surfaces.






BMPs: Sediment and Erosion Control

- Leave as much plant cover as possible.
- Sod immediately.
- Divert flow to grassy areas.
- Install and inspect silt screens.
- Locate staging areas in disturbed areas.
- Provide drainage ways for increased runoff.









BMPs: Dust Control

- Do not expose large areas of soil during drought conditions.
- Leave buffer/planted areas between graded areas.
- Plant areas not subject to traffic.
- Mulch areas to control dust.
- Minimize impact by using tarps and other surface treatments.
- Install temporary or permanent surface stabilization measures after completing land grading.
- Reduce speed limits on roads that generate dust.









BMPs: Parking Areas

- Collect all waste, liquid and solid, for appropriate disposal.
- Protect storm drains, gutters or off-site migration points from any liquid or solid waste during maintenance or repair work.
- Regularly clean parking lots to remove dirt, accumulations of grease and oil, general debris and trash.
 - If a wet cleaning method is used, ensure storm drains or off-site migration points are protected.









BMP: Runway Rubber Removal

- Place devices that will capture rubber and dirt particulates over storm drain culverts.
- Use manual or mechanical cleaning methods.









BMPs: Aircraft, Vehicle and Equipment Fueling

- Use absorbent materials and spot cleaning for small spills.
- Properly dispose of any fuel spills and leaks.
- Use pigs/mats over catch basins during fueling activity.
- Provide curbing or posts around fuel pumps to prevent collisions from vehicles.
- Store fuel drums indoors, when possible.
- Employ secondary containment or cover when transferring fuel from a fuel truck to a fuel tank.
- Avoid topping off fuel tanks.
- Instruct operators how to use and dispose of absorbent material.
- Fuel dispensing equipment should be equipped with "breakaway" hose connections that will provide emergency shut-down of flow should the fueling connection be broken through movement.
- Inspect, clean and maintain sumps and oil/water separators at appropriate intervals.
- Automatic shut-off mechanisms should be in place on fuel tankers.







BMPs: Aircraft, Vehicle and Equipment Fueling



















BMPs: Preflight Fuel Sample

- Pour sump fuel in waste fuel container.
- Sump fuel containers are provided.
- Use fuel testers, which separate out all non-fuel contaminants.
- Provide educational brochures on sump fuel.









BMP: Spill Plan

Spill Prevention Control and Countermeasures Plan (SPCC) are required for facilities:

- Storage capacity greater than 1,320 gallons of oil, petroleum or oil-based material
- May be inclusive of several facilities which may not be adjacent to one another







BMP: Spill Plan

Spill plans should include the following:

- Description of the facility.
- Site plan showing location of chemical storage areas, storm drains, site drainage patterns, fire extinguishing locations, and description of devices used to contain spills, (i.e., positive shut-off control valves).
- Notification procedures to be implemented in the event of a spill.
- Spill prevention, containment and cleanup procedures.
- Designated personnel with spill response cleanup responsibility.
- Annual training required for compliance with federal regulations.







BMP: Spill Kits

- Make spill clean up materials accessible fuel farms, FBOs, mobile fuel truck, vehicles, hangars, maintenance canopy
- Replenish spill kit materials regularly.
- Evaluate the need/feasibility of retrofitting fuel trucks with vacuum pumps for spill response.













Spill Procedures

What to do in a spill!

- **1.** Identify and stop the source.
- **2.** Contain the spill in the smallest area possible.
- 3. Establish "spill perimeter zone."
- **4.** Clean up spill and use absorbent material.
- 5. If the spill is too large to contain, place absorbent materials around nearest storm drain.
- 6. Notify the Proper Authority **FOR ANY SIZE SPILL** –

ALL AIRPORTS:	PBI Communications Center (24/7) – ALL SPILLS (561) 471-7420
LNA:	Stellar Aviation – Aaron Klein
	Office: (561) 656-9815 Cell: (561) 445-7991
F45 & PHK:	<u>Signature Flight Support – José Oliveira</u>
	Office: (561) 626-2706

7. Complete spill report.*

* Spills over 25 Gallons requires the submittal of a Discharge Reporting Form to FDEP.







Spill Procedures: Continued





1. Identify the Source and Stop the Flow of Fuel

 Emergency shutoff valve, place container under source of leaking fuel, reconnect hoses, etc.

2. Contain the Spill

- Spread absorbent materials (oil-dri, absorbent pads, pigs)
- Set up absorbent materials around any nearby storm drains to protect from fuel entering stormwater system

3. Set Up "Perimeter Zone"

- Alert PBI Comm. Center
- Clear the area of unnecessary personnel (only spill responders, fire-rescue, and operations personnel should be in area of spill)
- Direct traffic away from area





Summary of Spills (2020 – 2021)

- Four spills were been reported at PBIA in 2020 and nine in 2021.
- Majority of spills were caused by <u>human error</u> such as overfilling fuel tanks, driver error, and improper hose connections.



The remaining spills were caused by <u>equipment malfunction</u> such as faulty gauges, malfunctioning wing vents, and hose failures.









Spill Prevention/Preparation

Human Error:

- Enforce proper training procedures for fueling, spill response, and inspections
- Employees <u>must</u> be diligent and pay attention, do not leave trucks unattended, etc.
- Evaluate upgrading equipment to minimize spil potential (e.g., auto shut-off on dispensers, high level audio/visual alarms, reconfigure/enhance dispenser location/area, etc.)

Equipment Malfunction:

- Regularly inspect equipment (daily inspection checklists) & routine maintenance
- Recommend logging routine inspections, can use SPCC inspection checklists to prepare inspection sheet
- Red-tag equipment and establish procedure for timely repair/disposal/replacement





Monthly Inspection Checklist

This inspection record must be completed *each month*. Provide further description and omments, if necessary, on a separate sheet of paper and attach to this sheet. *Any item that ecvives "yes" as an answer must be described and addressed immediately.

	Y*	N	& Comments	
Storage tanks				
Tank surfaces show signs of leakage				
Tanks are damaged, rusted or deteriorated)		
Bolts, rivets, or seams are damaged				
Tank supports are deteriorated or buckled		2		
Tank foundations have eroded or settled				
Level gauges or alarms are inoperative				
Vents are obstructed				
Secondary containment is damaged or stained				
Water/product in interstice of double-walled tank				
Piping				
Valve seals, gaskets, or other appurtenances are leaking				
Pipelines or supports are damaged or deteriorated				
Joints, valves and other appurtenances are leaking				
Buried piping is exposed				
Loading/unloading and transfer equipment				
Connections are not capped or blank-flanged				
Secondary containment is damaged or stained				
Security		2		10
Fencing, gates, or lighting is non-functional				
Pumps and valves are locked if not in use				
Response Equipment			8	
Response equipment inventory is complete				



Spill Prevention/Preparation

- Know your facility prior to conducting fuel activities, especially the location of <u>ALL</u> nearby storm drains and spill kits
- Proper spill kits on fuel trucks and fuel farms
 - Evaluate retrofitting fuel trucks with vacuum pump and small tank or a separate spill cart equipped with vacuum pump and two empty 55gal drums for spills greater than 25 gallons, annual training on equipment use
- Fuel handlers/managers required to have annual spill training and an exercise.











Spill Prevention/Preparation

- Maintain a list of environmental/ remediation firms for large spills (vacuum trucks, tow companies, etc.)
 - FDEP 24-Hour Emergency Environmental/ Remediation Contractors are listed in the following link:

https://floridadep.gov/sites/default/files/24%20Contractors%20list%20 updated%209-19-2019_0.pdf

First responders and/or crew members need to provide detailed site information (i.e., size and cause of spill, location, type of hazardous material, etc.) when communicating with the environmental/ remediation firms so they are able to respond in a timely manner, and with the necessary equipment and supplies.









Spills Happen...















Spill Procedures

Discharge Reporting Form

- Spills over 25 gallons or when sheen present on surface water:
 - Call FDEP Emergency Response (800) 320-0519
 - Submit Discharge Reporting Form to FDEP

WIN HOTETON AND	Disc	harge Reporti	ing Form	DEP Form # 62-761.990(1)
ELOPIDA T	\	PLEASE PRINT OR T	YPE	Form Title <u>Discharge Reporting Form</u> Effective Date
	Instructions ar	e on the reverse side. Please com	plete all applicable blanks	
1. Facility ID Number (if r	registered):	2. Date	of form completion:	
3. General information Facility name:				
Facility Owner or Operate	or:	Talashana sumbar /		C
Facility Mailing address		relephone number: (/	county:
Location of discharge (fa	cility street address):			
Latitude and Longitude o	f discharge (If known.)			
4. Date of receipt of test	results or	A 74	5. Estimated number of	f gallons discharged:
ascovery of confirmed	discharge:	month/day/year		
6. Discharge affected:	[] Air [] Soil [Ground water [] Drinking	water well(s) [] Shoreli	ine [] Surface water (water body name
7. Method of discovery (cl	heck all that apply)			
Liquid detector (autom	natic or manual)	[] Internal inspection	Closure/Closure Asse	essment
Vapor detector (autom	atic or manual)	I Inventory control	Groundwater analytic	cal samples
Tightness test		Monitoring wells	Soil analytical tests or samples	
Statistical Inventory Re	econciliation	Automatic tank gauging Manual tank gauging	Other	
8 Type of regulated subst:	ance discharged: (cho	ck one)		
L I Unknown	I I Used/waste oil	I I let fuel	[]] Heating oil	[] Newfube oil
Gasoline	Aviation gas	[] Diesel	Kerosine	1 Mineral acid
Hazardous substance -	includes CERCLA sub	stances from USTs above reporta	ble quantities, pesticides, an	nmonia, chlorine, and derivatives
(write in name or Chen	nical Abstract Service (CAS) number)	Contraction of the second second	
Other				
9. Discharge originated fro	om a: (check all that ap	oply)		
Dispensing system	Pipe	[]Barge	[] Pipeline	[] Vehicle
Tank	[] Fitting	[] Tanker ship	Railroad tankca	r [] Airplane
Unknown	Valve failure	Other Vessel	Tank truck	Drum
Other				
10. Cause of the discharge	: (check all that apply)			
Loose connection	Puncture	[] Spill	Collision	Corrosion
Fire/explosion Other	[] Overfill	[] Human error	[] Vehicle Accide	nt [] Installation failure
11. Actions taken in respon	nse to the discharge: _			
12. Comments:				
13. Agencies notified (as a	pplicable):	Castar Li Eir Doord	11County Tester	Decomon L I DED (distriction of the
1 1 Mate warning Point	F F National Respo	nse Center Fire Depart	ment. County Tanks	Program []DEP (district/person)
(90.1) 188-1320	1-800-174-880	,		

Printed Name of Owner, Operator or Authorized Representative

Signature of Owner, Operator or Authorized Representative.







FDEP Spill Response Contacts

FDEP Office Hours: M-F; 8am – 5pm FDEP Office Phone: (561) 681-6767

Brett Postelli, Professional Responder Cell: (954) 658-8020 (new contact)







Calculating Spill Volume

Approximate Volume Spilled (in gallons)

(V) = Area (A) (ft²) x height (h) (ft) x Conversion (C=7.48).

Area (A) = length x width (measured on the ground)

height (h) varies for <u>flat, impervious surfaces</u> use 0.02 – 0.04'



- If the spill has pooled and is measurable (i.e., along containment berm), a measurement will be taken to determine the height of the spill.
- If spill occurs on a pervious surface where infiltration can occur (sand, soil), the depth of the spill can be substituted for height.







BMP: SWPPP Training and Education

- Adequately train employees in the use of spill response equipment and materials.
- SWPPP education programs should contain the following elements:
 - Promote the proper storage, use and disposal of potentially harmful chemicals.
 - Promote the use of safer alternative products such as: short-lived pesticides, non-chlorinated solvents, water-based paints, nonaerosol products.
 - Increase awareness of the detrimental environmental impacts that results when harmful chemicals and wastes are dumped onto the ground or into storm drains.
 - Increase awareness of possible penalties and fines associated with discharge of pollutants into storm drains.







Monitoring and Inspections

- Non-stormwater discharge
- Stormwater structures
- Facilities fuel farms, parking areas, waste collection areas, etc.
- Industrial Tenants
- Fuel Tanks
- Security







Visual Inspections: Non-Stormwater Discharge Form





Palm Beach County International Airport Stormwater Pollution Prevention Plan

ANNUAL NON-STORMWATER DISCHARGE COMPLIANCE INSPECTION FORM

Name	Date
Test Type: Visual Inspection	

Inspectors Signature:

(Please check if the outfall has discharge or not and check the boxes that applies and/or fill in the blanks)

Outfall #1 - East of East/North Pump House Station

	no discharge has discharge other
	Water has/is: 🔲 soap suds 📋 oil film/sheen 📋 clear 🔲 cloudy
The real	Potential discharge source:
	Comments:

INSPECTOR CERTIFICATION

certify under penalty of law that I completed these visual inspections

print full name to the best of my knowledge and that I am qualified to gather and evaluate the information necessary to determine if the discharge is from stormwater nunoff or from an illicit source. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector's Signature: _

Date: _







Visual Inspections: Stormwater Structures

- Is the pond choked with water plants?
- Are there dead fish?
- Is the water green?
- Is the pipe cracked?
- Is there silt in the pipe or ditch?
- Are there dying plants around the structure?
- Integrity and condition













Inspections: Industrial Tenants

- Cleanliness
- Floor drain/storm drain
- Safety
- Waste management
- Record keeping
- Structural BMPs
- Storage
- Secondary containment
- Significant materials use











Facility Inspections: Fuel Farm

- Double walled tank
- Concrete pad
- Concrete wall for containment













Facility Inspections: Fuel Farm

- Emergency procedures posted
- Bollards to protect tank
- Spill kit & fire extinguisher
- Fence and padlock for security















Facility Inspections: Fuel Tanks*

Daily

- Sump Fuel Check
- Check Hoses for Damages
- Fuel receiving quality

Monthly

- Filter membrane color test.
- Bonding cable electrical continuity test
- Dike integrity condition
- Test and inspect storm water pumps and pipes
- Clean and inspect nozzle screens.
- Inspect and replace signs, placards and product labeling.

* FBO's responsibility









Facility Inspections: Fuel Tanks*

Quarterly Inspections

- •Emergency fuel shut off system test.
- •Water defense mechanism test and repair, if necessary.

Annual Inspections

- Tank integrity inspection.
- Valve flow inspection.
- •Filter inspection and/or replacement.
- Filter separator and coalescer elements.
- •Full flow monitor and micronic filter elements.
- Check/calibrate dispenser.
- •Check pressure gauges and pressure controller for accuracy.
 - * FBO's responsibility







Visual Inspections: Security Measures

- Fencing
- Padlock and Key
- Daily check
- Badge entry system
- Electronic key pad entry system
- Airport limits access only!







Record Keeping

- Inspection records
- Maintenance records
- Corrective actions records
- Changes to the Plan
- Annual reports
- Training records

No documentation = Non compliance











Review

What is in the SWPPP?

- Organization plan
- Airport layout/drainage maps
- Potential sources of pollutants
- BMPs
- Monitoring/Inspections
- Record keeping

What can you do?

- Generate less waste.
- Keep your hangars/buildings clean!
- Share your ideas with the airport.
- Follow our Airport plan and rules!
- Prevent pollution (P2)!







11,



Next Steps

Initial Inspections

- To be completed following training
- COVID protocols
- "As Builts"

Follow Up Inspections

- To be conducted 30 days after distribution of the initial inspection results.
- Provide documentation of corrective actions of action plan







2020 Inspection Summary of Results

- No flammable cabinet; flammable materials not stored inside flammable cabinet
- No spill kit or spill containment procedures posted
 - Insufficient spill equipment/materials
- No drip pans
- No oily rag bin
- Outdoor storage of materials not covered
- HAZMAT, waste and/or oil storage near building exit
- HAZMAT, waste, and/or chemical containers not labeled properly
- Fire extinguisher expired
- SDS reports not available
- Oil drips on the floor
- No secondary containment or insufficient
- Waste dumpster not covered; trash debris around dumpster
- Use of toxic surfactants and/or detergents









SWPPP Workshop Test

1. A stormwater pollution plan (SWPPP) does which of the following:

- A. Identifies a pollution prevention team
- C. Establishes Best Management Practices D. All of the above

2. What is a potential source of pollution?

- A. Fuel
- C. Curb and Gutter

B. Fixed Based Operator

B. Identifies potential pollution

D. None of the above

3. What does BMP stand for?

- A. Bitmap
- **B. Best Management Practices**

- **B. Best Manufacturing Practices**
- D. None of the above






SWPPP Workshop Test

4. What is stormwater?

A. Water produced by severe thunderstormsC. Rainwater that runs off rooftops, streets, etc.

5. What do you do for a spill?

A. Identify and stop the sourceC. Contain the spill in the smallest area possible

6. What does SDS stand for?

- A. Safety Data Sheet
- B. All of the above

- B. State Dance Society
- D. None of the above







- B. Water that comes from the faucet
- D. Water that has been contaminated with pollutants
 - B. Notify proper authorities
- D. All of the above

SWPPP Workshop Test

7. When should you report a spill to PBI Communications Center?

A. Any size spillB. 10 gallonsC. 725 gallonsD. 15 gallons

8. What are examples of security measures?

A. FencingC. Padlock and key

B. Identification badges

D. All of the above

9. What are examples of structural BMPs?

A. Oil water separator

B. Swale

D. All of the above



B. Concrete pad





SWPPP Workshop Test

10. How many times should you attend SWPPP training?

A. Once a year

C. Once every two years

B. Twice a year

D. Never

THANK YOU!

