

29TH ANNUAL BUSINESS & INDUSTRY'S

Sustainability & Environmental, Health and Safety



S Y M P O S I U M

Workshop CC

**Best Practices for SPCC and SWPPP
Compliance ... Obtaining a 'Grasp' on
Secondary Containment**

**Wednesday, March 25, 2020
8:00 a.m. to 9:15 p.m.**

Biographical Information

Stephanie A. Miller, Senior Consultant
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Stephanie Miller is a senior environmental consultant with Trinity Consultants' Columbus, Ohio office. She began her career with Trinity in Pittsburgh in 2014, where she served a number of industry sectors throughout Pennsylvania, West Virginia, and Ohio. Stephanie's experience includes air permitting and compliance, air dispersion modeling, Environmental Management Information Systems (EMIS), Spill Prevention Control and Countermeasure (SPCC), Toxic Release Inventory (TRI), and a number of other environmental specialties. Her work encompasses a wide variety of industries, including oil & gas, metal manufacturing, chemical manufacturing, among other manufacturing industries. Stephanie earned a Master of Science degree in Environmental Science from the University of Cincinnati, where she conducted research on drinking water treatment at the U.S. EPA. She earned a Bachelor of Science degree in Biology from Kent State University.

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Laura began her career with the Kellogg Company in 2017, working in the Safety Department completing data entry for the OSHA 300/ 300A, entering all incidents into an internal system, updating employee files for training and ordering supplies. Laura then took on more responsibility in the department training current and new employees on all aspects of EHS in the facility.

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Kayla started her career at Kellogg in 2009 as an Operations Supervisor. She transitioned to the Quality and Food Safety Department as the Sanitation Supervisor for 6 years then was promoted to Food Safety Manager. During her time at the Food Safety Manager she was asked to step in the EHS Manager role and has been in that role for 2 years. Kayla's primary responsibilities are ensuring the plant is meeting all regulatory EHS requirements, and driving the safety culture by building the teams capabilities.



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Best Practices for SPCC and SWPPP Compliance

Sustainability & Environmental, Health and Safety Symposium ♦ March 25, 2020

Stephanie Miller - Trinity Consultants

Kayla Garber - Kellogg Company

Laura Foster - Kellogg Company

Introduction and Topics

Stephanie Miller
Senior Consultant
Trinity - Columbus

Kayla Garber
EHS Manager
Kellogg's Zanesville Plant

Laura Foster
EHS Technician
Kellogg's Zanesville Plant

> Stephanie Miller

- ❖ Obtaining a Grasp on Secondary Containment
- ❖ SPCC Commonly Asked Questions

> Kayla Garber and Laura Foster

- ❖ SPCC Lessons Learned and SWPPP Inspection Best Practices

Obtaining a Grasp on Secondary Containment

Brief SPCC Overview

- > Spill Prevention, Control, and Countermeasure - 40 CFR 112
- > Thresholds:
 - ❖ Above oil storage $\geq 1,320$ OR underground storage $\geq 42,000$ gallons
 - ◆ Containers equipment with capacity ≥ 55 gallons
 - ◆ Storage containers (fixed and portable), oil-filled operational equipment, and oil-filled manufacturing equipment (transformers, hydraulic equipment, etc.)
 - ❖ There is reasonable expectation of discharge into navigable waters or adjoining shorelines
 - ◆ Includes indirect discharge via POTW or storm water runoff conveyances
- > OIL = petroleum derivatives, vegetable oil, animal fats/oils, etc.
 - ❖ See list of oil and oil-like material:
 - ◆ <https://homeport.uscg.mil/Lists/Content/DispForm.aspx?ID=376>

General SPCC Requirements

- > Have written plan for preventing oil discharge
- > Identify oil storage inventory, loading racks, and transfer areas
- > Spill Prevention measures (i.e., routine inspections)
- > Spill Control measures (i.e., secondary containment)
- > Spill Countermeasures (i.e., spill materials, spill response activities and training)

Oil Inventory

(1/2)

- > Bulk Storage Containers
- > Mobile/Portable Storage Containers
 - ❖ Drums
 - ❖ Totes
- > Oil-filled Operational Equipment
 - ❖ Transformers
 - ❖ Hydraulic equipment
 - ❖ Heat transfer systems
- > Oil-filled Manufacturing Equipment
 - ❖ Flow-through process vessels
 - ❖ Reactors



Oil Inventory

(2/2)

- > Loading/Unloading area

- ❖ Transfer area

- > Loading/Unloading Racks

- ❖ Fixed structure for loading or unloading a tank truck or tank car
- ❖ Includes loading/unloading arm



Oil Inventory - Common Exemptions



- > Motive power containers
 - ❖ Used to power the movement of a motor vehicle
 - ❖ Note - oil transfer activities still regulated
- > Wastewater treatment
 - ❖ Likely to be regulated by NPDES
 - ❖ Exemption does not apply to production, recovery, or recycling of oil; part of facility used to store oil (bulk storage); anything used to satisfy SPCC requirements (i.e., O/W separator used for secondary containment)
- > Permanently closed containers
- > Hot-mix asphalt
 - ❖ Low potential to reach navigable waters since low flow

Oil Inventory Example

(1) Diesel-fired Generator



(2) Diesel & Gasoline Tanks



(3) Hazardous Waste Drum
(~1% Oil)



(4) Diesel-fired Man-Lift



(5) 60-gallon Parts Washer



Which of these items should be included in the Oil Inventory?

What is Secondary Containment?

- > Your last line of physical defense in keeping oil spills from discharging off-site
- > When inspections, maintenance, and primary containers have failed
- > BIG part of SPCC compliance - don't wait until your five-year recertification to understand your requirements!

Secondary Containment

- > Two categories: GENERAL and SIZED
- > “General” secondary containment must be designed to prevent an offsite discharge of oil - 40 CFR 112.7(c)
 - ❖ Applies to all SPCC-regulated containers and oil-handling areas (e.g., oil inventory list), except Qualified OFOE
- > “Sized” secondary containment must be designed to hold the entire capacity of the largest single container and sufficient freeboard to contain precipitation - 40 CFR 112.7(h)(1), 112.8(c)(2), 112.8/12(c)(11)
 - ❖ Applies only to loading/unloading racks, bulk storage containers, and mobile/portable containers

GENERAL Secondary Containment (1/2)

- > Required for ALL activities and containers subject to SPCC, including:
 - ❖ Bulk storage tanks
 - ❖ Portable/mobile containers
 - ❖ Oil-filled operational equipment
 - ❖ Oil transfer areas
 - ❖ Loading racks
 - ❖ Piping
- > Determine the best method using engineering judgement to contain the most likely discharge of oil until cleanup occurs
- > When sized secondary containment is required, the sized secondary containment fulfills the general secondary containment requirements (ex: storage tanks, loading racks, etc.)

GENERAL Secondary Containment (2/2)

- > When determining the method for general secondary containment, consider the most likely failure mode of the equipment
 - ❖ Ex: Container overflow, pump malfunction, tank rupture
- > Consider oil flow rate, employee response time, and maximum duration discharge could occur



SIZED Secondary Containment (1/2)

- > Required for:
 - ❖ Bulk storage tanks
 - ❖ Portable and mobile containers
 - ❖ Loading racks
- > Requirements for Loading/Unloading Racks
[§112.7(h)]
 - ❖ Where drainage does not flow into a catchment basin or treatment facility designed to handle discharges, use a quick drainage system (device that drains oil away from area to some means of secondary containment)
 - ❖ Must be designed to hold the max capacity of any single compartment of a tank car or tank truck loaded or unloaded at the facility

SIZED Secondary Containment (2/2)

> Requirements for Bulk Storage [§112.8(c)(2)] Containers:

- ❖ Must be designed to hold the entire capacity of the largest single container plus sufficient freeboard for precipitation
- ❖ Sufficient freeboard - Not defined in the rule
 - ◆ Some state spill plans require 110% of total volume (PA, MI)
 - ◆ 2002 rule preamble states:
 - “While we believe that the 25-year, 24-hour storm event standard is appropriate for most facilities and protective of the environment, we are not making it a rule standard because of the difficulty and expense for some facilities of securing recent information concerning such storm events at this time. (67 FR 47117, July 17, 2002)”

Sufficient Freeboard

- > NOAA data available online to search by location:
 - ❖ https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html

NOAA's National Weather Service
Hydrometeorological Design Studies Center
Precipitation Frequency Data Server (PFDS)

Home Site Map News Organization

NOAA ATLAS 14 POINT PRECIPITATION FREQUENCY ESTIMATES: OH

Data description

Data type: Units: Time series type:

Select location

1) Manually:

a) By location (decimal degrees, use "-" for S and W): Latitude: Longitude:

b) By station ([list of OH stations](#)):

c) By address

2) Use map (if ESRI interactive map is not loading, try adding the host: <https://js.arcgis.com/> to the firewall, or contact us at hdsc.questions@noaa.gov):

Terrain

a) Select location
Move crosshair or double click

b) Click on station icon
 Show stations on map

Location information:
Name: Westerville, Ohio, USA*
Latitude: 40.1482°
Longitude: -82.9275°

Sufficient Freeboard

PF tabular

PF graphical

Supplementary information

 Print page

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)¹

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.355 (0.324-0.389)	0.424 (0.388-0.466)	0.509 (0.464-0.558)	0.575 (0.523-0.628)	0.657 (0.595-0.718)	0.721 (0.650-0.786)	0.783 (0.702-0.851)	0.845 (0.754-0.920)	0.928 (0.821-1.01)	0.988 (0.868-1.07)
10-min	0.551 (0.503-0.604)	0.662 (0.605-0.727)	0.791 (0.720-0.868)	0.887 (0.807-0.970)	1.01 (0.910-1.10)	1.09 (0.985-1.19)	1.18 (1.06-1.28)	1.26 (1.13-1.37)	1.37 (1.21-1.48)	1.44 (1.26-1.56)
15-min	0.676 (0.617-0.741)	0.810 (0.740-0.889)	0.971 (0.885-1.07)	1.09 (0.993-1.19)	1.24 (1.12-1.36)	1.35 (1.22-1.48)	1.46 (1.31-1.59)	1.57 (1.40-1.71)	1.70 (1.51-1.85)	1.80 (1.58-1.96)
30-min	0.894 (0.816-0.980)	1.08 (0.990-1.19)	1.33 (1.21-1.46)	1.52 (1.38-1.66)	1.75 (1.59-1.92)	1.93 (1.74-2.11)	2.11 (1.90-2.30)	2.29 (2.04-2.49)	2.52 (2.23-2.74)	2.70 (2.37-2.93)
60-min	1.09 (0.996-1.20)	1.33 (1.22-1.46)	1.67 (1.52-1.83)	1.93 (1.75-2.11)	2.28 (2.06-2.49)	2.55 (2.30-2.78)	2.83 (2.53-3.07)	3.11 (2.77-3.38)	3.49 (3.09-3.80)	3.79 (3.33-4.12)
2-hr	1.28 (1.17-1.40)	1.55 (1.42-1.70)	1.95 (1.78-2.14)	2.26 (2.06-2.48)	2.70 (2.44-2.94)	3.04 (2.74-3.32)	3.40 (3.05-3.70)	3.78 (3.36-4.10)	4.30 (3.79-4.66)	4.71 (4.12-5.11)
3-hr	1.36 (1.24-1.49)	1.64 (1.50-1.80)	2.06 (1.88-2.25)	2.39 (2.18-2.61)	2.86 (2.59-3.11)	3.23 (2.92-3.51)	3.63 (3.25-3.93)	4.04 (3.60-4.37)	4.61 (4.07-5.00)	5.07 (4.43-5.49)
6-hr	1.61 (1.48-1.77)	1.94 (1.78-2.13)	2.42 (2.22-2.65)	2.81 (2.57-3.07)	3.37 (3.06-3.66)	3.82 (3.46-4.15)	4.31 (3.87-4.67)	4.83 (4.30-5.22)	5.56 (4.90-6.01)	6.16 (5.38-6.65)
12-hr	1.89 (1.74-2.08)	2.27 (2.08-2.50)	2.81 (2.57-3.09)	3.26 (2.97-3.57)	3.90 (3.54-4.26)	4.43 (4.00-4.83)	5.00 (4.48-5.44)	5.61 (4.98-6.08)	6.48 (5.68-7.02)	7.18 (6.24-7.79)
24-hr	2.19 (2.02-2.39)	2.62 (2.42-2.86)	3.22 (2.97-3.51)	3.72 (3.42-4.04)	4.42 (4.05-4.80)	5.00 (4.55-5.43)	5.61 (5.08-6.09)	6.25 (5.62-6.81)	7.15 (6.38-7.81)	7.88 (6.97-8.63)
2-day	2.53 (2.34-2.74)	3.02 (2.80-3.28)	3.69 (3.41-3.99)	4.24 (3.91-4.59)	5.01 (4.60-5.43)	5.64 (5.15-6.12)	6.30 (5.72-6.84)	6.98 (6.31-7.60)	7.94 (7.09-8.68)	8.71 (7.70-9.57)
3-day	2.72 (2.52-2.94)	3.24 (3.01-3.50)	3.95 (3.66-4.26)	4.52 (4.18-4.88)	5.32 (4.90-5.75)	5.97 (5.48-6.46)	6.65 (6.06-7.20)	7.35 (6.66-7.97)	8.32 (7.47-9.07)	9.09 (8.08-9.96)
4-day	2.90 (2.70-3.13)	3.46 (3.22-3.73)	4.21 (3.91-4.53)	4.80 (4.45-5.18)	5.64 (5.20-6.08)	6.31 (5.80-6.81)	7.00 (6.40-7.56)	7.71 (7.02-8.35)	8.70 (7.84-9.46)	9.48 (8.47-10.4)
7-day	3.48 (3.24-3.74)	4.14 (3.85-4.45)	5.01 (4.66-5.38)	5.71 (5.29-6.12)	6.68 (6.17-7.17)	7.47 (6.87-8.02)	8.27 (7.57-8.90)	9.11 (8.29-9.83)	10.3 (9.26-11.1)	11.2 (10.00-12.2)
10-day	3.97 (3.72-4.25)	4.71 (4.42-5.04)	5.63 (5.28-6.02)	6.37 (5.96-6.81)	7.38 (6.88-7.88)	8.18 (7.60-8.73)	8.99 (8.32-9.61)	9.82 (9.04-10.5)	10.9 (9.99-11.8)	11.8 (10.7-12.8)
20-day	5.53 (5.22-5.85)	6.52 (6.16-6.91)	7.65 (7.22-8.10)	8.53 (8.05-9.04)	9.71 (9.12-10.3)	10.6 (9.95-11.2)	11.5 (10.7-12.2)	12.4 (11.5-13.2)	13.5 (12.5-14.4)	14.4 (13.2-15.4)
30-day	6.92 (6.55-7.31)	8.14 (7.71-8.60)	9.45 (8.94-9.97)	10.4 (9.87-11.0)	11.7 (11.0-12.4)	12.6 (11.9-13.4)	13.5 (12.7-14.3)	14.4 (13.5-15.3)	15.5 (14.5-16.5)	16.3 (15.2-17.4)
45-day	8.82 (8.37-9.29)	10.4 (9.83-10.9)	11.9 (11.3-12.5)	13.0 (12.4-13.7)	14.5 (13.7-15.2)	15.5 (14.7-16.4)	16.5 (15.6-17.4)	17.4 (16.4-18.4)	18.6 (17.4-19.7)	19.4 (18.1-20.6)
60-day	10.7 (10.1-11.2)	12.5 (11.8-13.1)	14.2 (13.5-15.0)	15.5 (14.7-16.4)	17.2 (16.2-18.1)	18.4 (17.4-19.4)	19.5 (18.4-20.6)	20.6 (19.4-21.7)	21.9 (20.5-23.2)	22.8 (21.3-24.2)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Estimates from the table in CSV format:

[/hds/pfds/pfds_map_cont.html#Table_Section](#)

Secondary Containment Methods

- > Passive measures = fixed, permanent containment structure which requires no action
 - ❖ Concrete dike
 - ❖ Facility drainage system
 - ❖ Double-walled tank
 - ❖ Earthen berm
- > Active measures = requires deployment or action to be taken
 - ❖ Use of spill kit sorbent materials in response to a spill (booms, absorbent pads, kitty litter)
 - ❖ Covering storm drains prior to initiating oil transfer or before oil reaches drain
 - ❖ Emergency deployment of dikes, curbs, etc.

Active vs. Passive Containment

- > Engineering discretion must be used when determining whether active measures are adequate
- > Consider the potential spill volume, effectiveness of the proposed method, timeliness of implementing the response
- > Usually reserved for small quantities of oil-with low risk of discharge from facility

Sufficiently Impervious

- > For bulk storage containers, diked areas must be sufficiently impervious to contain oil
- > Must be able to hold the oil to prevent a discharge and until cleanup can occur
- > Not defined in the rule, so at discretion of certifying PE
- > Plan must describe how “sufficiently impervious” requirement is met

Wastewater Treatment System

- > My facility storm drains lead to our oil/water separator (OWS) / wastewater treatment plan (WWTP). Does that count as containment?
- > Yes, if...
 - ❖ The OWS/WWTP is adequately sized based on the general/sized secondary containment requirements
 - ❖ There is a means to shut off discharge from the facility in the event that a spill occurs
 - ◆ Ex: Sensors that detect organics in the WW stream trip an automatic shutoff valve
 - ◆ Ex: Employee response time from spill detection to time of shut off is adequate to prevent off site discharge

Buildings



- > All my tanks are located indoors. Can the building function as secondary containment?
- > Yes, if...
 - ❖ Sufficiently impervious - Walls must be structurally sound and in contact with floor to establish a seal (so outdoor sheds may not cut it)
 - ❖ Floor drains - If any present, find out where they lead (to storm sewer? WWTP?) May need to move oil source away from drain, or use drain covers as active secondary containment
- > Buildings can be intentionally designed to act as secondary containment, with curbing at entryways and sloped floors

Double-Walled Tanks



- > Do double-walled tanks count as containment?
- > Yes, if...
 - ❖ Container is shop-fabricated and meets industry standards
 - ❖ There is a means of monitoring the interstitial space (space between the internal and external walls). Could be sight glass or automated gauge
 - ❖ Overfill prevention measures are in place to contain overfill from tank vents
 - ◆ Either overfill alarm and automatic flow restrictor/shut-off OR
 - ◆ Equip container with active or passive secondary containment for most likely quantity from tank vents

Portable and Mobile Equipment

> We have a designated storage area for 55 gallon drums. What secondary containment should be used?

> Options:

- ❖ Spill pallets work well outdoors
 - ◆ Must inspect and promptly remove accumulated liquid
- ❖ If indoors, building can be sufficient
- ❖ If indoors near building opening, consider adding active measures, such as nearby spill kits



Drainage Requirements

- > Valves and pumps that are equipped to remove water and other liquids from containment structures must be manually open/close or manually activated
 - ❖ Ex: A sump pump may need to be kept unplugged; A valve may need to be locked with the SPCC coordinator in charge of the key
- > All accumulated liquids must be inspected for oil prior to discharge

Exercise (1/2)

ACME Manufacturing Co. operates an emergency diesel generator with fuel provided by a 500 gallon diesel tank. The tank is refilled as needed by a third party fuel supplier who pumps diesel into the tank from a tank truck using a flexible hose. The facility exceeds the 1,320 above-ground oil storage threshold and has storm drains that discharge to a nearby creek.

- 1. What equipment and activities should be included in the facility's SPCC Plan?*
 - ◆ Diesel tank*
 - ◆ Tank Refilling (oil transfer)*
 - ◆ Tank truck does not need to be included*
- 2. What are the secondary containment requirements for each subject piece of equipment/activity?*
 - ◆ Diesel tank - Sized secondary containment*
 - ◆ Tank Refilling - General secondary containment*

Exercise (2/2)

- > **Determine secondary containment for the diesel tank**
 - ❖ The 24-hour 25-year storm event volume is 4.8". Assume the secondary containment structure is 8 ft. x 6 ft.
 - ◆ *Containment area = 8 ft x 6 ft = 48 ft²*
 - ◆ *Sufficient Freeboard = 48 ft² x 4.8 in / 12 ft = 19.2 ft³ = 144 gal*
 - ◆ *Total volume needed = 500 + 144 = 644 gallons = 86 ft³*
 - ◆ *Containment height must be at least 86 ft³ / 48 ft² = 2 ft*

- > **Determine secondary containment for the fuel transfer**
 - ❖ Most likely failure mode? Probably overflow from refilling
 - ❖ Pump rate varies depending on tank truck. Assume 50 gallons/minute
 - ❖ Employee response time - Assume 30 seconds (if employee is supervising transfer)
 - ❖ *50 gal/min / 60 seconds x 30 seconds = 25 gallons*
 - ◆ General secondary containment must be able to contain 25 gallons

Qualified Oil-Filled Operational Equipment (1/2)

- > Oil-filled operational equipment (OFOE) [§112.2]:

“Equipment that includes an oil storage container (or multiple containers) in which the oil is present solely to support the function of the apparatus or the device...does not include oil-filled manufacturing equipment (flow-through process).”

- > Ex: hydraulic systems, lubricating systems, transformers
- > General secondary containment required unless qualification criteria are met

Qualified Oil-Filled Operational Equipment (2/2)

> Qualification Criteria:

- ❖ Facility has no single discharge from OFOE >1,000 gal or 2 discharges > 42 gal each within a 12-month period in the 3 years prior to SPCC Plan certification date

> Alternative requirements:

- ❖ Implement a monitoring program to detect equipment failure/discharge
- ❖ Include the following in your SPCC Plan (unless you have submitted a Facility Response Plan under 112.20)
 - ◆ An Oil Spill Contingency Plan in accordance with 40 CFR Part 109
 - ◆ A written commitment of manpower, equipment, materials, required to expeditiously control and remove any quantity of oil discharged that may be harmful

Impracticability Determination

> Impracticability

- ❖ When secondary containment cannot be installed by any reasonable method (space and geographical limitations, local zoning ordinances, fire codes, safety)
- ❖ Must be a PE certified plan (not available for self-certifiers)

> Requirements if secondary containment is impracticable [§112.7(d)]:

- ❖ Must clearly explain why secondary containment measures are not practicable at the facility
- ❖ Implement an oil-spill contingency plan
- ❖ Periodic integrity testing of bulk storage containers
- ❖ Periodic integrity testing and leak testing of valves and piping
- ❖ Written commitment of manpower

Inspection Checklists



- > Regularly inspect secondary containment for the following:
 - ❖ Accumulated stormwater
 - ❖ Trash, debris, and other materials
 - ❖ Cracks or holes in containment walls
 - ❖ Vegetation
 - ❖ Rust or other signs of deterioration

SPCC Inspections

- > **Aboveground storage containers, valves, piping**
 - ❖ Check for leaks and signs of container damage
- > **Containment areas**
 - ❖ Check for pollutant accumulation, cracks, holes
 - ❖ Ensure valves in containment are CLOSED
- > **Spill kits**
 - ❖ Re-stock sorbent materials that have been used
- > **Loading/unloading areas**
 - ❖ Ensure area remains neat and free of obstacles
- > **Perimeter security**
 - ❖ Ensure measures are adequate

Common Containment Issues

- > Insufficient secondary containment
 - ❖ Not aware of requirements
 - ❖ Not understanding “General” vs. “Sized”
- > No means of monitoring interstitial spaces of double-walled tanks
- > Sufficient freeboard not adequately addressed
- > Issues with containment area
 - ❖ Containment valves left open
 - ❖ Cracks in containment walls
 - ❖ Oil present in containment area
 - ❖ Storm water in containment area
 - ❖ Containment area used as “storage” for portable containers or other debris

SPCC and SWPPP

Laura Foster and Kayla Garber

Laura Foster, EHS Technician Kellogg Company
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SPCC- Secondary Containment

- How do you know when you need secondary containment? In your SPCC it may tell you what you need but what about an area that you have that does not have secondary containment, your plan has been signed off on for many years, you think your in alignment with your plan, until one day.....

The PE now with more experience looks over your SPCC and asks if your storage tanks are double walled and or have a containment wall...

Is your containment sufficient if you have a leak?

What counts as secondary containment?

Are you in violation?

SPCC- Secondary Containment

- This is a situation that happens more often than you think.
- At our facility we had this exact situation. We have close loop glycol jacketed silos that are tested once a month through a sample that is taken, if the purity of the sample is off then we know there is a leak of some sort into the jacket. In our minds this was sufficient, but not according to the PE.

The PE stated before he would re certify our plan we had to build secondary containment. We trusted the vendor we were working with but pushed back before building the containment. We wanted to have a better understanding of why. Was there a regulation change, was there a change at the facility? After many conversations we found out that the PE had more experience and was able to explain in a way that warranted building the containment. We also had to ensure we created a procedure to drain the containment once it was built after inclement weather.

SWPPP - Inspections

- Understanding what you are inspecting and what you would expect to see.
 - New to the role at the facility when completing the required quarterly inspections of our outfalls we were not sure what normal looked like. Therefore, we developed a process to help us understand.
 - We started by collecting samples at our outfalls after inclement weather if there was water present. We would use clear labeled containers so we could see if there were any changes over a two day period. This was simply for our benefit we did not send them out to be analyzed.
 - Pictures are worth a 1000 words and will help you remember over a quarterly basis. We would take pictures of the containers, as well as the outfalls themselves and compare each sampling cycle.
 - Completing this over the past 2 years has helped us understand what normal should look like and easy to detect if there is an issue.

SPCC Commonly Asked Questions

Updating the SPCC Plan

- > **Q.** When does my SPCC plan need to be updated?
- > **A.** When there is a change in the facility design, construction, operation, or maintenance that materially affects its potential for a discharge.
 - ❖ An amendment must be prepared within six months, and implemented as soon as possible, but not later than six months following preparation of the amendment.

Five-Year Review

- > **Q.** Can I wait to update the plan until the five-year review cycle?
- > **A.** No! The five-year review is not a catch-up for missed technical amendments. The five-year review is to determine if more effective prevention and control technology if the technology has been field-proven at the time of the review and will significantly reduce the likelihood of a discharge.
 - ❖ Amend the plan within six months of the review

Reasonable Expectation of Discharge

- > **Q.** There are no bodies of water in or around my facility. Could there still be a “reasonable expectation of discharge”?
- > **A.** Consider both direct and indirect means of discharge. Are there storm drains on site? If yes, there is most likely a “reasonable expectation”, whether drainage leads to city sewer or body of water.

Tank Closures

- > **Q.** We stopped using oil tanks A, B, and C. Can I remove them from the SPCC Plan?
- > **A.** To meet the exemption for a permanently closed tank, the following requirements must be met:
 - ❖ All liquid/sludge removed from the container and connecting line;
 - ❖ Connecting lines and piping blanked off;
 - ❖ Valves closed and locked;
 - ❖ Sign posted on each container stating that it is permanently closed, and noting the date of closure;
 - ❖ Label tanks as “permanently closed” on site diagram.

Tank Closures

- > **Q.** We need to start using tanks A, B, and C for oil storage again. What now?
- > **A.** The tanks are once again subject to all applicable SPCC requirements. The SPCC plan will need to have a technical amendment made within 6 months to ensure the tanks are addressed.
 - ❖ PE stamp required (if non-self certifying facility)
 - ❖ Note the update in a change log (date, name, description)

Additional Resources

- > U.S. EPA's SPCC Guidance for Regional Inspectors

- ❖ https://www.epa.gov/sites/production/files/2014-04/documents/spcc_guidance_fulltext_2014.pdf