



UNIVERSITY OF WISCONSIN SYSTEM

**SPILL PREVENTION, CONTROL &
COUNTERMEASURE (SPCC) TRAINING TEMPLATE**

for University of Wisconsin campuses

Revised: May 2017

COURSE INTRODUCTION

Welcome to the UWSA Spill Prevention Control & Countermeasure (SPCC) training presentation, which is intended for use by University of Wisconsin campuses as a template and to be supplemented with facility-specific information.

This training will orient you to the United States Environmental Protection Agency (USEPA) SPCC rule, which applies to certain facilities storing oil products. All oil-handling personnel must receive at least annual training to respond properly to spills in their work areas.

COURSE INTRODUCTION

This training course discusses the applicability of the SPCC rule and the details you should be aware of, including information on:

- Regulatory overview
- Facility sources
- Spill prevention and control
- Spill countermeasures
- Spill reporting
- Inspections and recordkeeping

You also need to be familiar with the SPCC plan written for your facility. Your facility's SPCC plan documents facility-specific information you should be aware of and contains the training and inspection forms you will be learning more about. Please reference your facility's SPCC plan as you proceed.

REGULATORY OVERVIEW

What is the SPCC Rule?

The Spill Prevention Control & Countermeasure (SPCC) rule is part of the federal Oil Pollution Prevention regulations (40 CFR 112) issued under the Clean Water Act, which aim to prevent the discharge of oil in harmful quantities into or upon the navigable waters or adjoining shorelines of the United States.

An SPCC plan as required under these regulations should be used as a reference for proper oil storage, as a tool for spill prevention, as a guide for facility inspections and tank testing, and as a resource during emergency response to control, contain and clean up an oil release.

REGULATORY OVERVIEW

Applicability

Under the Clean Water Act, facilities require an SPCC plan if they meet the following conditions:

- Aboveground oil storage capacity of more than 1,320 gallons in all containers 55 gallons or greater in volume; or
- Underground oil storage capacity of more than 42,000 gallons; and
- There is reasonable potential for a release to reach waters of the U.S.

Waters of the U.S. include conveyances to water such as storm drains, dry ditches, wetlands, mudflats and sandflats.

REGULATORY OVERVIEW

Applicability

Storage volumes are based on container capacity, and only containers and oil-filled equipment 55-gallons or greater in volume are counted.

For example, 5-gallon containers, 30-gallon containers and containers that are permanently closed are not counted toward the total volume of oil in regards to an SPCC plan.



REGULATORY OVERVIEW

Applicability

Oil is defined by the Clean Water Act as *“oil of any kind or in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil and oily mixtures.”* Under the SPCC rule, this definition encompasses:

- Petroleum and non-petroleum based oils
- Crude oil
- Refined products
- Animal fats, oils and greases
- Vegetable oils

Examples: crop oil, diesel fuel, gasoline, hydraulic oil, synthetic oils and vegetable oils from crops.

Milk and milk product containers are now exempt from the SPCC capacity calculations and rule requirements.

REGULATORY OVERVIEW

Written SPCC Plan Requirements

The SPCC plan is certified by a registered Professional Engineer and must be maintained on site at your facility. The SPCC plan written for your facility covers the following mandatory information:

- Facility and operation description
- Certification and approval
- Reportable spill record
- Description of petroleum and other hazardous materials
- Location and description of storage tanks, containers and equipment
- Potential release scenarios and spill control materials
- Facility drainage
- Inspections
- Security
- Personnel training
- Notification and reporting

FACILITY SOURCES

Please refer to your facility's SPCC Plan for a complete list of oil storage and location maps at your UW campus.

[Insert photos and descriptions of oil storage sources at specific campus or facility here.]

SPILL PREVENTION & CONTROL

Secondary Containment

All oil sources listed in your facility's SPCC plan are required to be designed with appropriate containment and/or diversionary structures to prevent the most likely discharge anticipated.

Common examples of secondary containment include:

- Double-wall tank construction
- Concrete containment berms
- Spill pallets for portable drums
- Nearby sorbent materials/spill kits
- Oil/water separators
- Self-contained concrete-floored rooms

SPILL PREVENTION & CONTROL

Oil Transfer Activities

Oil transfers at your facility may include filling, emptying, dispensing or transferring oil from tanks and containers. During oil transfer activities, facility personnel should follow control measures to prevent discharges, such as:

- Overseeing major oil loading/unloading activities
- Temporarily covering nearby drains with magnetic covers
- Using wheel chocks/similar barriers to prevent movement of transfer vehicles
- Requesting tanker trucks be equipped with overflow shut-off valves
- Inspecting oil transfer vehicles for leaks before and after loading/unloading
- Requiring direct audible communication between person dispensing from tanker truck and person filling receiving tank or container
- Using funnel or pump when adding or removing smaller quantities of oil to tanks, containers, or filling oil-filled electrical equipment reservoirs

Use of the *Fuel Transfer Checklist* in your facility SPCC plan is recommended for oil transfers conducted by outside vendors. The *Notice to Petroleum Vendors/Employees* should be posted prominently in key fuel transfer areas.

SPILL COUNTERMEASURES

When should I respond to a oil release?

Much of an SPCC plan deals with preventing spills. However, if a release does occur, when should you respond and when should you call authorities? If your job description includes cleanup of small spills AND you have been properly trained by your supervisor/employer, then go ahead and clean it up using information in your facility's SPCC plan and this training course.

All spills must be cleaned up. However, you are not required to respond to catastrophic releases. If a drum or tank becomes punctured, you would most likely evacuate the area and call for professional assistance.

SPILL COUNTERMEASURES

Oil Spill Release Criteria

Incidental (Minor) Discharge

An incidental discharge is defined as one that poses no significant harm or threat to human health or the environment. Incidental discharges are generally those where:

- The discharge is small (e.g., less than 20 gallons)
- The discharge can be easily contained
- The discharge is unlikely to reach a navigable waterway, storm sewer or sanitary drain
- Clean-up procedures do not pose a health or safety hazard
- Proper response equipment is available for a safe cleanup
- Response by facility personnel may be possible for the above types of discharges

SPILL COUNTERMEASURES

Oil Spill Release Criteria

Non-incidenta (Major) Discharge

A non-incidenta discharge is defined as one that cannot be safely controlled or cleaned up by facility personnel, such as when:

- The discharge is large enough to spread beyond the immediate area
- The discharge cannot be contained
- The discharge may reach a navigable waterway, storm sewer or sanitary drain
- The discharge requires special equipment or training to clean up
- There is danger of fire or explosion

The above discharges require response by the Fire Department – call 911.

SPILL COUNTERMEASURES

Oil Spill Release Response Steps

Incidental (Minor) Discharge

- 1) Secure the site
- 2) Control and contain the spill
- 3) Notify the Facility Emergency Coordinator
- 4) Clean up the spill
- 5) Complete the *Spill Incident Report* form

Refer to your facility's SPCC plan for more detail, including notification information and reporting forms.

SPILL COUNTERMEASURES

Oil Spill Release Response Steps

Non-incidental (Major) Discharge

- 1) Secure the site
- 2) Contact the Facility Emergency Coordinator
- 3) Contact the Fire Department
- 4) Complete the *Spill Incident Report* form
- 5) Control and contain the spill
- 6) Clean up the spill (by or as directed by Fire Department or by an outside contractor)

Refer to your facility's SPCC plan for more detail, including notification information and reporting forms.

SPILL COUNTERMEASURES

Spill Response Materials

Granular Absorbents and Spill Pads

Granular absorbents can be poured on incidental drips and around small spills to stop the spill from spreading and facilitate cleanup.

Spill pads can be used to absorb oil from incidental drips and small spills on impervious surfaces.



SPILL COUNTERMEASURES

Spill Response Materials

Drain Covers & Blockers

A sock like the one shown here can be placed around spills to protect trench or floor drains. Temporary drain covers can also be used to cover floor drains in the event of a spill. Socks and other oil-only absorbent spill response materials should be kept inside spill kits.

Protecting floor drains is critical since it means the difference between a controlled spill and a spill that is beyond your control (and perhaps into the environment).



SPILL COUNTERMEASURES

Spill Response Materials

Spill Kits

This is an example of a weatherproof spill kit. There are absorbent pads, booms and socks inside the barrel, as well as temporary drain covers. Kits like these should be placed near oil storage tanks, drums and oil-containing equipment.



SPILL REPORTING

Certain spills must be reported to both internal personnel and external agencies (federal, state or local agencies). Should a reportable release of oil or hazardous materials to the environment occur from your facility, the appropriate agencies must be contacted immediately.

In the event of a spill, the employee discovering the release shall immediately consult the response procedures within the SPCC plan to make the appropriate notifications.

Please review the *Oil Spill Notification Procedures* section of your facility's SPCC plan. An example is given on the next slide.

SPILL REPORTING

An example of oil spill notification procedures outlined in an SPCC plan is shown here.

In addition to the notifications specified in your facility SPCC plan, your safety department needs to be notified of any spills.

[Insert EH&S/Safety phone number here.]

Oil Spill Notification Procedures			
Agency/ Organization	Contact	Circumstances	When to Notify
State Agencies WDNR State Spill Reporting Hotline	1-800-943-0003	1. Discharge that threatens public health, welfare or the environment, or 2. Discharge that produces a sheen on water and/or threaten navigable waters, or 3. One (1) gallon or more of flammable liquid (e.g., gasoline) onto unpaved ground, or 4. Five (5) gallons or more of combustible liquid (e.g., diesel) onto unpaved ground.	Immediately (verbal)
Federal Agencies National Response Center (NRC)	1-800-424-8802 www.nrc.uscg.mil	Discharge reaching navigable waters.	Immediately (verbal)
EPA Region V (hotline)	1-800-621-8431	Discharge reaching navigable waters.	Immediately (verbal)
EPA Region V Regional Administrator	USEPA Region 5 77 W. Jackson Blvd. Chicago, IL 60604	Discharge of 1,000 gallons or more; or second discharge of 42 gallons or more over a 12-month period.	Written notification within 60 days (see Section 2.4)
Local Agencies Fire Department	911	Discharge that pose emergency conditions, regardless of the volume discharged.	Immediately (verbal)
Oneida County Emergency Management	715-361-5167	Discharge that pose emergency conditions, regardless of the volume discharged.	Immediately (verbal)
Response and cleanup contractors	See page 3	Discharge that exceeds the capacity of facility personnel to respond and cleanup.	As needed

SPILL REPORTING

Wisconsin Spill Reporting Requirements

Spills must be reported to the Wisconsin Department of Natural Resources (DNR) if:

- One gallon or more of a flammable liquid (e.g., gasoline) is discharged onto an unpaved surface
- Five gallons or more of a combustible liquid (e.g., diesel) is discharged onto an unpaved surface
- Discharge threatens public health, welfare or the environment
- Discharge produces a sheen on water and/or threatens navigable waters

Wisconsin Spill Reporting Hotline: (800) 943-0003

INSPECTIONS & RECORDKEEPING

As part of the SPCC rule, your facility is required to inspect equipment to ensure that it is well maintained. This is performed as a spill prevention measure.

Visual inspection of tanks and piping, dispensing equipment and tank support structures should be conducted on an as-used basis. Formal, documented inspections of oil storage containers and equipment are to be conducted monthly and annually. Checklists for documenting these inspections are included in the appendix of your facility's SPCC plan.

Any discrepancies noted during the inspections must be corrected or identified to appropriate personnel. Repairs should be recorded on the *Tank and Container Repair Record* form, which is also located in the appendix of your facility's SPCC plan.

INSPECTIONS & RECORDKEEPING

Monthly inspections should include checking:

- Storage areas for signs of debris that may block access
- Storage areas for unlabeled or outdated containers
- Tanks, containers and associated piping for evidence of leakage or spillage
- Tanks and containers for water or oil in the tank interstice or secondary containment

An example of a monthly inspection checklist is shown here.

ATTACHMENT A
Monthly Inspection Checklist

This inspection record will be completed **each month** for all tanks and containers indicated in **Table 1**, including the months when an annual inspection is performed. If completing the annual inspection form for the ASTs, only the drum storage area (D1) section of this form is required. Provide further description and comments, if necessary, on a separate sheet of paper and attach to this sheet. *Any item receiving a "yes" will be described and addressed immediately.*

Aboveground Storage Tanks (AST1-AST3)	Yes	No	Description and Comments
Tank surfaces show signs of leakage			
Level gauges or overfill alarms are inoperative			
Water/oil in interstice of double-walled tank			
Debris, residue, and/or water in the spill catchment basin (at fill port)			
Drain valve not operational on the spill catchment basin (at fill port)			
Physical damage to visual or mechanical liquid level devices			
Spill and overfill equipment not operational (press test button)			
Pumps and valves are unlocked			
Tank Areas and Piping (AST1-AST3)	Yes	No	Description and Comments
Concrete pad or ground below tank shows signs of leakage			
Pipelines, valves, and/or connections show signs of leakage			
Tank area is obstructed by equipment, vegetation, or waste debris			
Drum Storage Area (D1)	Yes	No	Description and Comments
Drums show signs of leakage or deterioration			
Drums show signs of spillage on their tops, sides, or surrounding ground			
Drum area is obstructed by equipment, or waste debris			
Drum lids are not tightly closed			
Drums are unlabeled or outdated			
Egress pathways blocked and gates/doors inoperative			
Drums being stored outside the designated storage area			
Noticeable drum distortions, buckling, denting, or bulging			

AST1	AST2	AST3	D1
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 Inspected by: _____ Date: _____

INSPECTIONS & RECORDKEEPING

Annual inspections should include checking:

- Secondary containment for evidence of damage
- Tank foundation and support structures for signs of settlement, corrosion or damage
- Tank container exterior coatings, normal and emergency vents for needed cleaning or maintenance
- Tank or container liquid level and overflow prevention devices
- Spill kits for replacement/ replenishment of spill response materials

An example of an annual inspection checklist is shown here.

ATTACHMENT B
Annual Inspection Checklist

This inspection record will be completed **each year** for all tanks and containers indicated in **Table 1**. Provide further description and comments, if necessary, on a separate sheet of paper and attach to this sheet. *Any item receiving a "yes" will be described and addressed immediately.*

Aboveground Storage Tanks (AST1-AST3)	Yes	No	Description and Comments
Tank surfaces show signs of leakage			
Tanks show signs of damage, rust, or deterioration			
Bolts, rivets, or seams are damaged			
Level gauges or overflow alarms are inoperative			
Water/oil in interstice of double-walled tank			
Debris, residue, and/or water in the spill catchment basin (at fill port)			
Drain valve not operational on the spill catchment basin (at fill port)			
Physical damage to visual or mechanical liquid level devices			
Spill and overflow equipment not operational (press test button)			
Pumps and valves are unlocked			
Normal and emergency tank vents require cleaning or maintenance			
Coatings of exterior tanks require maintenance, cleaning, or painting			
Tank Areas and Piping (AST1-AST3)	Yes	No	Description and Comments
Concrete pad or ground below tank shows signs of leakage			
Concrete pad cracking or spalling			
Water not draining away from tank			
Pipelines and connections show signs of leakage or deterioration			
Tank supports are deteriorated or buckled			
Tank foundations have eroded or settled			
Tank area is obstructed by equipment, vegetation, or waste debris			
Containment structure shows signs of damage or staining			
Spill Kits	Yes	No	Description and Comments
Spill kits require replenishment of response materials			

AST1	AST2	AST3
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Inspected by: _____ Date: _____

INSPECTIONS & RECORDKEEPING

Record Retention

EPA requires facilities to maintain SPCC records for no less than three years. Per University of Wisconsin policy, facilities are required to retain all records that have been stored with a facility's SPCC plan including:

- SPCC training records
- Inspection forms
- Spill incident reports and reporting logs
- Tank and container repair records
- Oil spill disposal records

ADDITIONAL RESOURCES

UWSA Spill and SPCC Information:

www.wisconsin.edu/ehs/environmental/spill-prevention-control-and-countermeasure

Small Oil Spill Cleanup Demonstration VIDEO:

www.youtube.com/watch?feature=player_embedded&v=rKmS8VfNNgQ

Questions?

Contact your SPCC plan *Facility Emergency Coordinator* for specific facility information.

Contact the *UWSA Senior Environmental Health Specialist* for general SPCC information:
www.wisconsin.edu/ehs