



Spill Prevention, Control, and Countermeasure (SPCC) Training *for City of Madison Facilities*



Course Introduction

Welcome to the online Spill Prevention Control & Countermeasure (SPCC) training course for City of Madison facilities. All oil-handling personnel must receive at least **ANNUAL** training to respond properly to spills in their work areas.

The following City facilities require an SPCC plan:

- Metro Transit
- Summit Parks Maintenance
- Fire Station #7
- Odana Golf Course
- Olin Transfer Station
- Yahara Hills Golf Course
- Nakoosa Trail Fleet
- Forest Hill Parks Maintenance (not required)





Course Objectives

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

- Why your facility has a SPCC Plan and what's in it?
- Where does your facility store oil?
- What are realistic spill scenarios?
- How do I prevent spills?
- How do I safely respond to minor and major spills?
- How do I report spills?
- How do I conduct inspections and keep records?

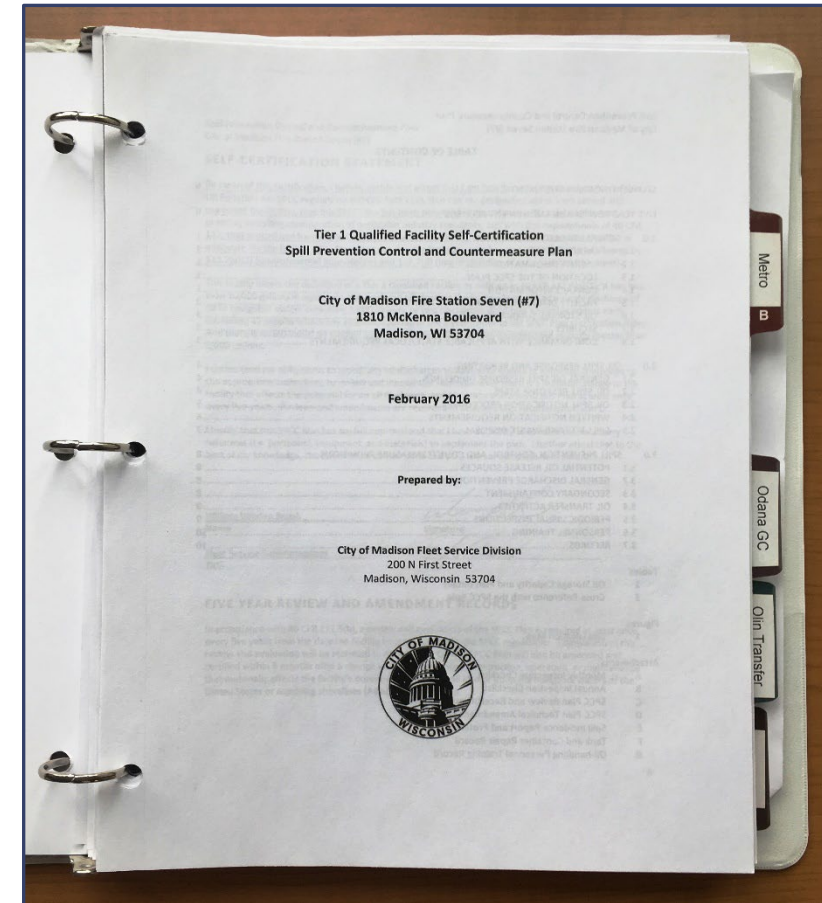
This training does not replace reading your facility's SPCC plan! Please reference your facility's plan as you proceed for site-specific information.



Written SPCC Plan Requirements

The SPCC Plan written for your facility includes the following mandatory information:

- Certification and approval
- Location and description of all oil storage tanks/containers and their contents
- Description of secondary containment
- Potential release scenarios and spill control
- Regular inspections and record-keeping
- Personnel training
- Proper spill response
- Notification and reporting



What is the SPCC Rule?



Spill Prevention Control and Countermeasure (SPCC) Plans are required under the Clean Water Act with the goal of preventing the discharge of oil to navigable waters or adjoining shorelines.

An SPCC plan is required for facilities with:

- More than 1,320 gallons of oil storage in aboveground containers 55-gallons or greater in volume; OR
- More than 42,000 gallons of oil in underground tanks; AND
- There is a reasonable potential for an oil spill to reach navigable waters (directly or via the storm sewer)



What is the SPCC Rule?

Let's break this down more:

This means the rule only applies if all of your aboveground tanks and drums add up to more than 1,320 gallons of storage.

Example:

1000-gal diesel tank

300-gal gasoline tank

+ 55-gal drum of motor oil

1,355-gal of total storage

SPCC plan is required!

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What is the SPCC Rule?

Let's break this down more:

A leak from any outside tank has a chance to reach 'navigable waters' via the storm sewer.

Imagine if you have a tank failure in the middle of a downpour—will runoff carry oil with it into the storm sewer?

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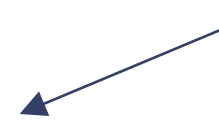
What kind of oils and containers count?

Applicable Container **SIZES:**

- All containers and oil-filled equipment 55-gallons or greater in volume are counted, even if only partially filled.
- Examples include: Tanks for vehicle fueling, hydraulic motor oil, asphalt emulsion, used motor oil, and all 55-gallon drums.
- 5-gallon or 30-gallon containers do not count toward the total volume of oil in an SPCC plan.



FROM



TO



What kind of oils and containers count?

Applicable Oil **TYPES:**

- Gasoline and diesel vehicle fueling tanks
- Hydraulic motor oil
- Used motor oil
- Asphalt emulsion
- Used cooking oil
- Other applicable oils include: animal fat/oil/grease, synthetic oils, heating oil, crude, oily sludge
- **Liquids NOT covered: antifreeze, brine, washer fluid, pesticides, fertilizer, etc.**





Mini-Quiz!

1. Which of the following are NOT counted in an SPCC Plan:

- A. 5-gallon bucket of motor oil
- B. 55-gallon drum hydraulic oil
- C. 500-gallon tank of diesel
- D. 300-gallon tank containing only 30 gallons of diesel
- E. Answer A and D

Answer A: Even if a tank is only kept partially filled, EPA still counts the total volume on an SPCC Plan.

2. Does the following site need an SPCC plan?

- 500-gallon diesel tank
- 500-gallon gasoline tank
- Six 55-gallon drums of various liquids

- A. Yes
- B. No
- C. More information is needed.

Answer C: The total storage at this site is 1,330 gallons. If all of the drums contain oil, an SPCC is needed. If one or more drums contains a non-oil liquid (e.g. antifreeze), then an SPCC Plan is NOT required, but still recommended.



City of Madison Sources

Fire Station #7 – 1810 McKenna Blvd

- 1000-gal diesel
- 1000-gal unleaded gasoline





City of Madison Sources

Metro Transit – 1101 E. Washington Ave.

- 550-gal diesel
 - 550-gal unleaded gasoline
 - 550-gal unleaded gasoline
 - 550-gal used oil
 - 2,205-gal motor oil (15W40)
 - 550-gal motor oil (SAE 40)
 - 1,128-gal transmission fluid
 - 55-gal drums (various)
- 3-compartment
outside tank
- Inside



City of Madison Sources

Odana Hills Golf Course – 4635 Odana Rd.

- 500-gal diesel
- 1000-gal unleaded gasoline
- Waste oil drum (inside)





City of Madison Sources

Olin Transfer Station – 121 E. Olin Ave.

- 5,000-gal diesel
- 5,000-gal unleaded gasoline
- 3,000-gal asphalt emulsion
- 300-gal waste oil
- 55-gal drums (motor/hydraulic oil)
- 150-gal transformer
- 140-gal hydraulic elevator reservoir
- 2 400-gal hydraulic compactors

Inside



City of Madison Sources

Parks Summit Maintenance Facility – 1902 Freeport Rd.

- 1000-gal diesel
- 1000-gal unleaded gasoline
- 55-gal motor oil (inside)



City of Madison Sources

Yahara Hills Golf Course – 6701 Hwy 12 & 18

- 500-gal unleaded gasoline
- 500-gal unleaded gasoline (club house)
- 1,000-gal diesel





City of Madison Sources

Nakoosa Trail Fleet Facility

- 6,000-gal unleaded gas
- 4,000-gal diesel
- 1,000-gal used oil
- 250-gal ATF
- Split 650-gal 10W-20/5W-30
- Split 500-gal hydraulic/ATF
- Split 500-gal hydraulic/75W-90
- 500-gal motor oil (10W-30)
- 55-gal drums (misc. oils)

Inside



City of Madison Sources

Forest Hill Parks Maintenance

- 550-gal unleaded gasoline
- 550-gal diesel



Realistic Spill Scenarios

Potential Major Spills:

- Release from oil delivery equipment during unloading at fill ports
- A truck hitting an outdoor used oil tank/drum not protected by safety bollards.
- Catastrophic tank or pipe failure (*low probability*)

Potential Minor Spills:

- Minor overfill at fill port
- Automatic stop failure on pump
- Leakage of fuel dispenser
- Spills during transfer from drums or containers



How do you prevent spills?

Spill prevention is achieved through:

1. Installation of required equipment and secondary containment
2. Good oil transfer practices and material handling
3. Regular inspections – As-Used, Monthly, and Annually





1. Preventing Spills: Secondary Containment

All oil sources listed in your facility's SPCC plan are required to be designed with appropriate secondary containment to contain the entire capacity of the tank. Outdoor containers must also have sufficient freeboard to contain rainwater. Common examples of secondary containment include:

- Double-wall tank construction
- Concrete containment berm
- Spill pallets for portable drums
- Oil/water separators
- Nearby spill kits or sorbent materials





2. Preventing Spills: Oil Transfer Practices



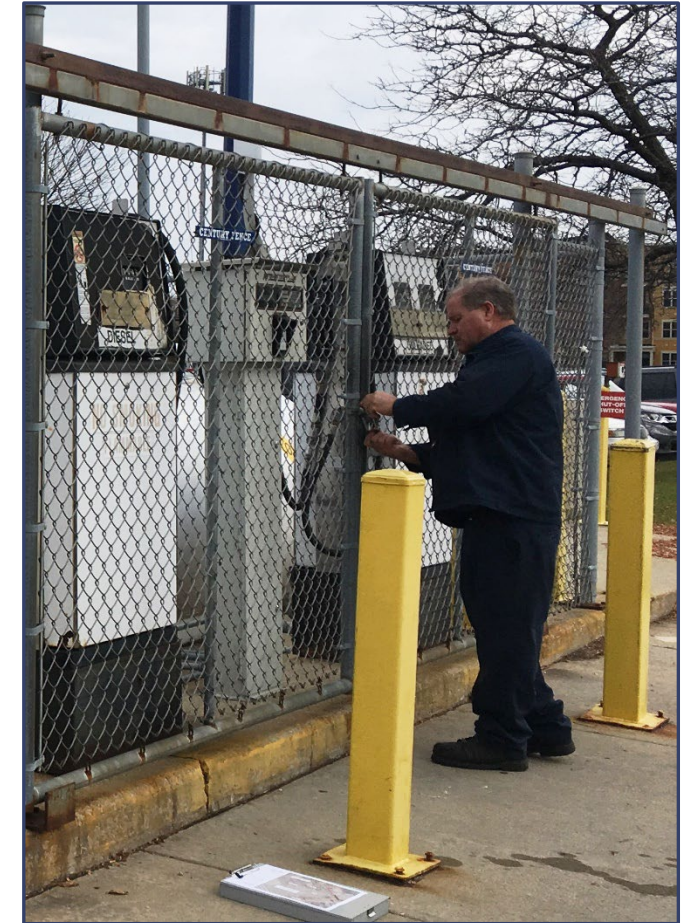
Oil transfers at your facility may include filling, emptying, dispensing, or transferring oil from tanks to containers. During such activities, use the following practices to prevent discharges:

- Provide a visual gauge or high-level sensing alarm for all containers.
- Anyone filling or emptying a tank (including a vehicle tank) must be actively supervising the transfer. No sitting inside the truck!
- Drain lines to the tank before disconnecting.
- Ensure appropriate containment beneath connections.
- Request that tankers be equipped with overflow shut-off valves.
- Use a funnel or pump when adding or removing small quantities to drums/tanks.

3. Preventing Spills: Regular Inspections

Visual inspection of tanks and piping, dispensing equipment and tank supports shall be conducted on an as-used, monthly, and annual basis:

- Complete monthly and annual inspections using the plan checklists (**Attachments A and B**).
- Maintain/repair equipment as needed (**Attachment F**).
- Review inspection logs to promptly follow-up on corrective actions.
- Report all small leaks and unusual observations to maintenance supervisors before they become problems.
- Keep inspection records on file for 3 years.





How do you conduct an inspection?

Refer to the monthly inspection form in your SPCC plan (**Attachment A**). 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.

If you find an issue—address it immediately by referencing the contacts at the end of this training!

ATTACHMENT A
Monthly Inspection Checklist
Fire Station Seven (#7)
1810 McKenna Blvd., Madison, WI

Signature: _____ Date: _____

This inspection record will be completed each month for all tanks and containers as indicated on Table 1, except in months when an annual inspection is performed. Provide further description and comments on another sheet of paper and attach, if necessary. Any item receiving a "yes" will be described and addressed immediately.

Aboveground Storage Tanks	1000-gal diesel oil (yes/no)	1000-gal unleaded gas (yes/no)	Description and Comments
Visible signs of leakage around tank/drum, concrete pad, containment, or ground			
Visual site gauge or alarm is inoperative or not visible			
Water in secondary containment, interstice, or spill container			
Debris or fire hazard in containment			
Tank or drum area is obstructed by equipment, vegetation, or debris			
Pump and/or fillbox is unlocked			
Pipelines and connections show signs of leakage			
Excess materials or waste debris stacked on drums	N/A	N/A	
Drums are unlabeled or outdated	N/A	N/A	
Drum lids are not tightly closed	N/A	N/A	

How do you conduct an inspection?

There are various methods to determine if a tank is potentially leaking, including:

- *Interstitial leak detection gauge* – The gauge will pop up when liquid (water or oil) is detected.
- *Visual gauge* – The Summit tanks have a glass pane (“site glass”) on the front bottom of the tank to visually observe leakage.
- *Electronic monitoring* – The Olin Transfer convault tanks have electronic alarm
- *Visual spillage* – Look for leaking or spillage on the underlying concrete.





How do you conduct an inspection?

Does the storage area have debris or unlabeled containers?



Is the tank locked or within a locked enclosure?



Is the emergency shutoff and fire extinguisher clearly visible?





How do you conduct an inspection?

Annual inspections should include checking
(**Attachment B**):

- Secondary containment for evidence of damage
- Tank foundation and support structures for signs of settlement, corrosion or damage
- Tank exterior coatings for signs of rust or other indications that cleaning/painting is needed.
- Tank or container liquid level and overflow prevention sensing devices
- Spill kits for replacement/replenishment of spill response materials



The above rusty tank needs repainting. See the end of the training for references and resources.



Mini-Quiz!

1. Which of the following is adequate secondary containment for a tank?

- A. Double-walled construction
- B. Nearby spill kits
- C. Oil/water separator
- D. Concrete containment berm
- E. All of the above

Answer E: All of the above are adequate secondary containment.

2. It is OK to re-enter your vehicle during refueling, especially during the winter.

- A. True
- B. False

Answer B: When refueling a vehicle, DO NOT LEAVE IT UNATTENDED. The majority of spills at the City of Madison occur due to failure of the automatic pump shut-off.



How do you safely respond to a spill?

Much of an SPCC plan deals with preventing a spill. However, if a release occurs, evaluate if it's a minor or major spill to determine the best response:

Minor (Incidental) Spills

- Discharge is small (less than 5 gallons)
- Discharge is easily contained
- Discharge is unlikely to reach storm drain or waterway
- Proper response and personal protective equipment is available.

If you have been trained in how to properly clean up small spills, proceed with spill control and clean up.

Major (Non-Incidental) Spills

- Discharge is large and cannot be easily contained.
- Discharge may reach a storm drain or waterway.
- Discharge poses a hazard to human health or the environment.
- There is danger of fire or explosion.

Major spills require response by the Fire Department. Call 911.



Spill Control: Minor Spills

For **MINOR SPILLS**, use the following response steps:

1. Secure the site.
2. Locate the nearest storm drain or receptor.
3. Control and contain the spill using materials in nearby spill kit.
4. Notify your On-Duty Supervisor.
5. Clean up the spill using a spill kit. Place used sorbent materials into plastic bags or 5-gallon buckets for disposal by City's oil recycling contractor.
6. Complete the *Spill Incident Report* form (**Attachment E**).





Small Oil Spill Cleanup Demonstration VIDEO



Small Oil Spill Cleanup

Click the video to the left or the link below for a short video by UW-Madison on conducting a minor oil spill cleanup.

<https://www.youtube.com/watch?v=85wfNG1gX00>



Spill Control: Major Spill

For **MAJOR spills**, use the following response steps:

1. Secure the site.
2. Contact the On-Duty Supervisor.
3. Contact the Fire Department (**Call 911**).
4. Complete the *Spill Incident Report* form for use by emergency responders (**Attachment E**).
5. Contact a spill response contractor (**Section 1.4**). Control and clean up spill as directed by the Fire Department or response contractor.
6. Determine if additional State or Federal notification is required (**Section 2.3**)





Spill Response Materials

Granular absorbent can be poured on incidental drips and swept up. Spill pads can be placed on small spills to assist clean up.



An absorbent sock or boom can be placed around spills to protect trench or floor drains. Protecting floor drains is critical since it means the difference between a controlled spill and one beyond your control.

Place used sorbents in a bucket or drum for disposal by the City's waste oil contractor.





Spill Response Materials

This is an example of a weatherproof spill kit. It should be placed near oil tanks and drums. It contains:

- Granular absorbent
- Absorbent pads, pillows, and socks
- Personal protective equipment (gloves, glasses, mask)
- Bottle of Quick Seal to plug drums/tanks
- Plastic disposal bags

Know the location and contents of your spill kit! It should be checked annually to make sure it's adequately stocked and restock regularly!





Spill Reporting and Documentation

In the event of a spill, the employee discovering the spill shall immediately consult the response procedures in your facility's SPCC plan to make the appropriate notifications (**Section 2.3**).

1. Report all spills to the On-Call Supervisor.
2. For the following situations, also call the **WDNR's Spill Hotline (1.800.943.0003)**:
 - 1 gallon or more of a flammable liquid (e.g. gasoline) onto an unpaved surface
 - 5 gallons or more of a combustible liquid (e.g. diesel) onto an unpaved surface
 - Discharge that threatens public health, welfare, or the environment
 - Discharge that produces a sheen or threatens navigable waters (e.g. release that reaches a storm drain)
3. Refer to the *Oil Spill Notification Procedures* (**Section 2.3**) of your facility's SPCC plan for additional reporting requirements.



Recordkeeping and Training

ATTACHMENT B
Annual Inspection Checklist
Summit Maintenance Facility
1902 Freepoint Rd., Madison

Signature: Karina Brown Date: 1/17/17 ^{LB}

This inspection record will be completed each month for all tanks and containers as indicated on Table 1, except in months when an annual inspection is performed. Provide further description and comments on another sheet of paper and attach, if necessary. Any item receiving a "yes" will be described and addressed immediately.

	AST1 1000-gal diesel (yes/no)	AST2 1000-gal unleaded gas (yes/no)	(new tank) (yes/no)	Description and Comments
Aboveground Storage Tanks				
Visible signs of leakage around tank/drum, concrete pad, containment, or ground	no	no		
Debris or fire hazard in containment	no	no		snow.
Visual site gauge or alarm is inoperative or not visible	no	no		
Water in secondary containment, interstice, or spill container	no	no		
Pump and/or fill box is unlocked	yes	yes		currently in use
Normal and emergency tank vents require cleaning or maintenance	no	no		
Coatings of exterior tanks require maintenance, cleaning, or painting	no	no		
Pipelines and connections show signs of leakage	no	no		no pipelines
Evidence that tank supports have deteriorated or buckled	no	no		
Evidence of tank settlement or foundation washout	no	no		
Tank area is obstructed by equipment, vegetation, or debris	no	no		
Containment structure shows signs of damage or staining	no	no		
Spill kits require replenishment of response materials	no	no		

EPA requires facilities to maintain SPCC records for at least 3 years. Facilities are required to retain all records (paper or digital) for the following:

- Monthly and annual inspection forms (**Attachments A and B**)
- 5-year recertification (**Attachment C**)
- Spill incident reports and reporting logs (**Attachment E**)
- Tank and container repair records (**Attachment F**)
- ANNUAL training records of ALL oil-handling personnel (**Attachment G**)



Additional Resources

For questions regarding:

Gas/diesel tanks for refueling vehicles, dispenser issues (e.g. leakage, low flow) or cracked pump hoses:

Tank regulations, inspection training, or adding additional tanks to your facility:

Recertifying or updating your SPCC plan, training/recordkeeping requirements:

Contact:

Brett Rosenau

Fleet Acquisitions, EV Charging, & Fuel Manager
brosenau@cityofmadison.com, 608-577-2831

Amanda Hornung

Fire Prevention Officer, Fire Department
ahornung@cityofmadison.com, 608-261-9842

Angie Wilcox-Hull

Hydrogeologist, Engineering Division
awilcox-hull@cityofmadison.com, 608-267-1986



Course Completion Quiz

In order to obtain credit for participating in this training, you must click on the link below and correctly complete the quiz. (It is OK to use the training for reference while taking the quiz).

<https://forms.office.com/g/zRsDPfhB7u>

Thank you for participating this SPCC training program!

