

OIL AND FUEL STORAGE
The Regulations for Storage and Responsibilities for Reporting
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During the process of developing an Emergency Response Plan module for the Michigan Turfgrass Environmental Stewardship Program (MTESP) we examined state and federal laws that focused on fuel storage. The clean water act is a federal law that requires facilities to develop a plan that deals with proper storage and containment of the oil stored and is called the Spill Prevention Control and Countermeasures (SPCC) Plan. In addition, the State of Michigan recently released (August 2001) a new regulation called the Part 5 Rules for polluting materials. The definition of polluting materials in these rules includes petroleum products and a list of chemicals, some of which are stored at golf courses. If you exceed the storage thresholds in the Michigan rules for polluting materials (petroleum or chemicals), you are required to develop a plan called a Pollution Incident Prevention Plan (PIPP). The thresholds required for a SPCC or PIPP plan and what must be included are discussed below.

BACKGROUND ON THE LAW

The Oil Pollution Act of 1990 is an amendment of Title 40, Code of Federal Regulations, Part 112 of Section 311 (j)(1)(C) of the Clean Water Act of the Environmental Protection Agency's Oil Pollution Prevention Regulation that was published in 1973. The U.S. uses over 250 billion gallons of oil and petroleum products each year and these regulations were issued to prevent oil spills from reaching the navigable waters of the U.S. Any spill, no matter how small can have a serious impact on the environment and can cause a threat to human and wildlife health. The remediation required to clean up a spill can go beyond the boundaries of your property and results in costly cleanups. It may take years for an ecosystem to recover from the damage caused by an oil spill. The EPA may levy heavy fines and penalties, especially if you were negligent in your requirement of developing a prevention plan.

WHAT FACILITIES ARE REGULATED UNDER THE OIL POLLUTION REGULATION?

If a facility meets all of the following criteria, it must comply with the SPCC regulations:

1. The facility must be non-transportation related.
2. For **above ground storage** the facility must have the storage capacity of greater than **660** gallons for a single container or a total storage capacity greater than **1,320** gallons in multiple containers or a total **underground storage** capacity of greater than **42,000** gallons.
3. Must have a reasonable expectation of a discharge of oil or petroleum products to navigable waters or adjoining shorelines of the United States.

4. WHAT IS THE DEFINITION OF OIL?

Under the SPCC regulations, oil is defined as “oil of any kind or in any form, including but not limited to:

1. **Petroleum**
2. **Fuel Oil**
3. **Sludge**
4. **Oil refuse**
5. **Oil mixed with wastes other than dredged spoil**
6. **Oily mixtures**

This also includes non-petroleum oils, animal, and vegetable oils.

What does this mean at the golf course?

All petroleum products stored at the golf course are counted as part of the threshold levels for “oil” storage for that facility.

STORAGE CONTAINERS THAT ARE PART OF YOUR TOTAL STORAGE NUMBERS

1. Gasoline storage tanks
2. Diesel storage tanks
3. New oil drums
4. Waste oil drums/tanks
5. Pails of new or used oils
6. Heating oil tanks
7. Gasoline storage tanks for gas carts
8. Any petroleum products stored any where at the facility
9. Any oil in quart containers or larger

The golf course is considered as one facility, so any oil product that is stored on the property is a part of the **1,320 gallon** threshold for petroleum storage. The threshold levels deal with potential storage capacity not with total amounts stored at that facility. So, if you had a 500 gallon tank for gasoline storage, but never had it filled more than half full, it would still count as 500 gallons rather than 250 gallons toward your total storage threshold of 1,320 gallons.

UNDER THE OIL POLLUTION ACT WHAT REQUIREMENTS DO GOLF COURSES NEED TO COMPLY WITH?

1. Golf courses fall under the requirements for non-transportation related facilities.
2. Depending on the amount of petroleum products that are **potentially** stored at your facility this is where golf courses are either exempted out of this regulation or are required to develop this regulation plan. The definition of oil storage containers include, but are not limited to, tanks, containers, pails, drums, quart containers, transformers, oil-filled equipment, and mobile or portable totes.

3. The determination of whether your facility could reasonably discharge oil into or upon navigable waters or adjoining shorelines of the United States is based on geographical aspects and location of the facility. The location of a facility must be considered in relation to a water body. The distance to navigable waters, volume of material stored, worse case weather conditions, drainage patterns, land contours, soil conditions, and more must be taken into consideration. In most situations, if you have any type of water body on or in the area surrounding your facility, it will mostly be determined that you could reasonably discharge oil into navigable waters of the United States.

WHAT ARE THE PART 5 RULES AND HOW DO THEY AFFECT GOLF COURSES?

In August of 2001 the Waste Management Division authorized the Part 5 Rules addressing spillage and storage of oil and polluting materials. These Part 5 Rules deal with the storage amounts of polluting materials at any on-land or oil storage facility. The definition of a polluting material in the Part 5 Rules includes oil, salt, and lists many specific chemicals.

Oil in the Part 5 Rules is defined similar to the definition in the Clean Water Act as any of the following:

1. Petroleum
2. Gasoline
3. Fuel Oil
4. Grease
5. Oily sludges
6. Oil refuse
7. Oil mixed with waste

Salt is defined as sodium chloride, potassium chloride, calcium chloride, and magnesium chloride, and solutions or mixtures of these compounds in solid or liquid form. The list of other polluting materials is quite large and I have compared the list against the most frequently used pesticides in turf and have concluded the majority of golf courses do not store enough of those chemicals to meet the thresholds for polluting materials. The thresholds for these polluting materials are **440 pounds** stored at an outdoor storage location or **2,200 pounds** stored at an indoor storage location. There is also an exemption for any facility if the polluting materials are managed in containers that do not individually exceed **10 gallons** or **100 pounds** in capacity and are located indoors at a facility that is designed, constructed, maintained, and operated to prevent any spilled polluting material from being released directly or indirectly to the surface or groundwaters of the state. Because of this exemption and due to the fact that most golf courses don't store enough of the polluting materials to meet the thresholds; we are most concerned with the oil storage thresholds of the Part 5 Rules.

THRESHOLDS FOR OIL STORAGE IN THE PART 5 RULES

The thresholds in the Part 5 Rules are similar to those for the Oil Protection Act. For aboveground storage tanks (AST) the thresholds are **660 gallons** for a single container and a combined total of **1,320 gallons** for multiple tanks. For underground storage tanks (UST) the thresholds are **42,000 gallons**. In either case, if the threshold is met for petroleum product storage only and the facility does not store any of the other polluting materials in excess of their threshold, only a SPCC plan must be developed. If the facility also stores other polluting materials in excess of their thresholds, then a PIPP plan must developed to address those materials.

Examples:

Golf Course A

Petroleum products stored on site

| | |
|---|--------------------------------------|
| 1 | 750 gallon Gasoline tank |
| 1 | 250 gallon Diesel tank |
| 1 | 55 gallon drum of S.A.E. 30 Oil |
| 1 | 55 gallon drum Used Oil |
| 2 | 30 gallon drum of Hydraulic Oil |
| 2 | 5 gallon pails of transmission fluid |

TOTAL of 1,180 gallons of petroleum products

In the case of Golf Course A the total amount of petroleum products that are stored at that facility is below the threshold for multiple aboveground storage tanks but, because of the single **750 gallon** tank they exceed the threshold of **660 gallons** for a single tank, they must develop a response plan. At this site they don't have any other polluting materials over the thresholds so they must develop only a SPCC plan.

Golf Course B

Petroleum products stored on site

Polluting materials

| | | |
|---|---------------------------|---------------------|
| 1 | 1000 gallon Gasoline tank | 5 tons of road salt |
| 1 | 500 gallon Diesel tank | |
| 1 | 55 gallon 10W-30 Oil drum | |
| 1 | 55 gallon used oil drum | |

In this situation the golf course exceeds the thresholds for both petroleum products and other polluting materials, so they would have to develop a SPCC plan for their petroleum products and a PIPP plan for their other polluting materials.

Golf Course C

Petroleum products stored on site

| | |
|----|--------------------------------------|
| 1 | 500 gallon Gasoline tank |
| 1 | 500 gallon Diesel tank |
| 1 | 55 gallon drum of 10W-30 oil |
| 1 | 55 gallon drum of used oil |
| 1 | 30 gallon drum of hydraulic oil |
| 2 | 5 gallon pails of transmission fluid |
| 12 | 1 quart bottles of 10W-40 oil |

In this situation the golf course's total petroleum storage is **1,153 gallons**. This amount is below the thresholds for multiple tanks and they do not have any single container that is larger than 660 gallons. For this golf course no response plan is required.

WHAT TO DO IF YOU HAVE TO DEVELOP A PLAN

If your facility meets the requirements for developing a Spill Prevention Control and Countermeasures Plan (SPCC) the facility owner/operator is required to prepare a SPCC Plan for that facility within 6 months of becoming operational and to implement the SPCC Plan within 12 months of the start of facility operations. The plan must be well thought out and prepared in accordance with good engineering practices. No matter who prepares the SPCC Plan it is the owner/operator who is ultimately responsible for complying with the regulations.

Even though each facility is unique there are certain elements that must be included in the SPCC Plan in order for it to comply with the Oil Pollution Act. Those areas that must be addressed in the plan are:

1. Operating procedures implemented to prevent oil spills at the facility.
2. Control measures installed to prevent a spill from entering the navigable waters or adjoining shorelines.
3. Countermeasures to contain, cleanup, and mitigate the effects of an oil spill.

Some of the important elements that must be addressed in the SPCC Plan include but are not limited to the following:

- Professional Engineer (PE) certification
- Plan must follow the sequence of Oil Pollution Act

Facility Information including:

1. Name of facility.
 2. Name(s) of the owner or operator of the facility.
 3. Address of the facility.
 4. Date and year of initial facility operation.
 5. Maximum storage or handling capacity of the facility and normal daily throughput.
- Site map including:
 1. Buildings and storage areas for other oil products.
 2. Wells
 3. Direction of flow in case of discharge (include an arrow pointing north)
 4. Distance to surface waters, storm drains, or other conduit to surface waters.
 5. Location of spill cleanup materials
 6. Location of covered storage for contaminated materials.
 7. Spill exit locations from property.
 - Three-year Plan review
 - Oil Spill History and corrective actions
 - Spill predictions and potential for equipment failure
 - Containment and Diversionary structures
 - Oil loading and unloading procedures
 - Facility inspections
 - Facility security
 - Training and spill briefings
 - Emergency Response Phone numbers

The SPCC Plan is not required to be filed with the U.S. EPA, but a copy must be available for on-site review by the regional administrator during normal working hours. The SPCC plan must be submitted to the U.S. EPA Region V regional administrator and the Michigan DEQ along with the other information specified in Part 112 if either of the following occurs:

1. The facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the United States in a single event.

2. The facility discharges more than 50 gallons of oil into or upon the navigable waters of the United States in two spill events within any twelve-month period.

Spill information must be reported to U.S. EPA Region V and the Michigan DEQ within 60 days if either of the above thresholds are reached.

WHERE DO I GET MORE INFORMATION?

If you have questions regarding the U.S. EPA, Region 5 Oil Prevention Program call or write to:

Section Chief, Oil Planning and Response Section (SE-5J)
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard
Chicago, IL 60604
(312) 353-8200

To visit the Oil Prevention Program's website go to:

www.epa.gov/oilspill