

# **Chapter 10**

## **Recycling, Storage & Material Management**

### **Used Oil**

The regulations covering the management, generation, storage, use and disposal of used oil are located in the Ohio Administrative Code (OAC) Chapter 3745-279. Used oil is defined as “any oil that has been refined from crude oil, or any synthetic oil, that has been used and, as a result of that use, is contaminated by physical or chemical impurities.” (OAC 3745-279-01 (A) (12)). Companies will fall into one or more of the following categories:

1. Exempt from used oil regulations
  2. Governed by used oil regulations
  3. Governed by hazardous waste regulations
- 
1. Exemptions from regulation under OAC 3745-279 can be found for household do-it-yourselfers, vessels at sea or port, mixtures of used oil and diesel fuel for use by the generator’s own vehicles and farming operations generating on average less than 25 gallons per month in a calendar year. Definitions for these categories can be found in OAC 3745-279-20 (A) 1-4. Even if you are exempt from the used oil regulations, a management plan should be implemented and followed at all facilities to prohibit any negative environmental impact.
  2. Used oil will not be regulated under the OAC 3745-279 if it is defined as hazardous waste under OAC Chapters 3745-50 to 3745-69, 3745-218, 3745-248 and 3745-270. If the used oil is defined as hazardous waste, all applicable rules and regulations should be followed.
  3. If a used oil program is governed under OAC 3745-279, regulated procedures must be followed for the generation, storage, burning and disposal of the used oil.

### **Storage**

#### **The storage of used oil**

Spill Prevention Control & Countermeasure (SPCC) Plan  
-40 CFR Part 112

#### **Guidelines to Follow**

OAC 3745-279-20 to 3745-279-24

## **Underground Tanks**

OAC 1301:7-9  
OAC 3745-279-01  
OAC 3745-54 to 3745-57  
OAC 3745-218 or  
OAC 3745-65 to 3745-69

OAC 3745-248  
OAC 3745-270  
OAC 3745-279-22 A-D

## **Burning**

### **1. For Heat OAC 3745-279-23 A-C**

The used oil can be used for space heaters if the heater only uses oil that the owner or operator generates or used oil received from household do-it-yourself used oil generators. The heater maximum capacity is less than 0.5 million BTU per hour, and combustion gases from the heater are vented to ambient air.

### **2. For Energy Recovery OAC 3745-279-12 (C) 1-3**

Used oil may be burned for energy recovery if the unit is an industrial furnace as identified in OAC 3745-50-10, a boiler as defined in rule OAC 3745-50-10 or a hazardous waste incinerator as regulated under OAC 3745-57-40 to 3745-57-51 or OAC 3745-68-40 to 3745-68-52.

### **3. Disposal / Off-Site Shipments**

If used oil is to be collected on site for disposal or processing, applicable standards must be followed for collection, transportation and processing. Collection centers and aggregation points must follow OAC 3745-279-30 to 3745-279-32. All transportation and transfer facilities must follow OAC 3745-279-40 to 3745-279-47 and OAC 3745-24 A-C.

## **Prohibitions**

### **Surface Impoundment Prohibition**

Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under Chapters 3745-54 to 3745-57 AND 3745-281 or 3745-65 to 3745-69 AND 3745-248 of the Administrative Code.

### **Use as a Dust Suppressant**

The use of used oil as a dust suppressant is prohibited.

## **Burning in Particular Units**

Off-specification used oil fuel shall be burned for energy recovery in only the following devices:

- Industrial furnaces identified in rule 3745-50-10 of the Administrative Code;
- Boilers, as defined in rule 3745-50-10 of the Administrative Code, that are identified as follows:
  1. Industrial boilers located on the site of a facility engaged in manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;
  2. Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or
  3. Used oil-fired space heaters provided that the burner meets the provisions of rule 3745-279-23 of the Administrative Code.
- Hazardous waste incinerators subject to regulation under rules 3745-57-40 to 3745-57-51 or 3745-68-40 to 3745-68-52 of the Administrative Code.

## **Underground Storage Tanks**

The rules governing underground storage tanks (USTs) in Ohio can be found in the Code of Federal Regulations (CFR), Title 40. CFR 40, Part 280 details the technical standards and corrective action requirements for owners and operators of USTs, and CFR 40, Part 281 details the approval of state underground storage tank programs.

Rules relating to USTs can also be found in the Ohio Revised Code (ORC), Section 3737.87 through 3737.99 and in the Ohio Administrative Code (OAC), Sections 1301.7 through 1301.9.

Information relating to USTs can also be obtained through the Ohio Department of Commerce and the Division of the State Fire Marshall and the Bureau of Underground Storage Tank Regulations.

Underground Storage Tanks (USTs) are defined as one or any combination of tanks, including the underground pipes connected thereto, that are used to contain an accumulation of regulated substances the volume of which, including the volume of the underground pipes connected thereto, is ten percent or more beneath the surface of the ground. Exemptions from the UST Program are: Pipeline facilities regulated under the "Natural Gas Pipeline Safety Act of 1968", farm or residential tanks of 1100 gallons or less capacity used for storing motor fuel for non-commercial purposes, heating fuel tanks for on-site consumption, surface impoundments - pits/ponds/lagoons, storm or wastewater collection systems, flow-through process tanks, tanks located in underground areas including basements/cellars/mines/drifts/shafts/tunnels as long as the tank is on or above the floor surface, septic tanks, liquid traps or associated gathering lines directly related to oil or gas production and gathering operations. The regulated substances

discussed in this manual will include hazardous substances as defined by OAC 1301:7-9-03 and petroleum products but will not include hazardous waste as defined by OAC 3745-50 to 3745-69.

### **Annual Registration**

Annual registration is required for current underground storage tanks and underground storage tanks taken out of use after January 1, 1974, on or before August 1, 1991, and not later than the first day of July of each subsequent year. The UST owners must submit annual registration application to the fire marshal. New tanks or transfer of ownership of UST requires registration within 30 days.

### **Financial Responsibility**

Owners and operators of petroleum UST systems shall maintain and demonstrate a valid certificate of coverage in the event that corrective action or third party compensation is required for an accidental release. The amount of financial responsibility required is \$1,000,000 for owners of 100 tanks or less and \$2,000,000 for owners of 101 tanks or more.

### **The compliance dates for demonstrating financial responsibility are:**

November 1, 1990	100 or more tanks or \$20 million tangible net worth
December 1, 1990	From 13 to 99 tanks
December 31, 1990	7-12 tanks not described above
December 31, 1993	6 or less and not state or political subdivision
February 18, 1994	Owner is a state or political subdivision

### **Financial responsibility can be demonstrated by the following methods:**

Self Insured	OAC 1301:7-9-05(L)
Guarantee plus Standby Trust Fund	OAC 1301:7-9-05(M) & (R)
Insurance and Risk Retention Group Coverage	OAC 1301:7-9-05(N)
Surety Bond plus Standby Trust Fund	OAC 1301:7-9-05(O) & (R)
Letters of Credit plus Standby Trust Fund	OAC 1301:7-9-05(P) & (R)
Trust Fund	OAC 1301:7-9-05(Q)
Standby Trust Fund	OAC 1301:7-9-05(R)
Financial Assurance Fund	ORC 3737.91 to 3737.92

### **Leak Detection**

As of December 22, 1998, all old and new underground storage tanks and piping have to meet the current standards set forth in OAC 1301:7-9-07 D-F. Tanks that are 550 gallons or less in capacity can use manual tank gauging in compliance with OAC 1301:7-9-07 E2 to E20 of this rule as the sole method of release detection. Tanks that are greater than 550 gallons in capacity must be in compliance with OAC 1301:7-9-07 E-F. All detection systems used after December 22, 1990, except for methods permanently installed before

that date, shall have a probability of detection of 0.95 (95%) and a probability of falsely indicating a release of 0.05 (5%).

### **Sensitive Areas**

If a facility is located in a sensitive area as defined under OAC 1301:7-9-09B, the standard guidelines for underground tanks is covered by OAC 1301:7-9-10 in lieu of OAC 1301:7-9-6 and 7.

### **Record Keeping**

Underground storage tanks require an extensive amount of record keeping for registrations, financial responsibilities, design, construction, installation, upgrading, leak detection, sensitive area monitoring and other requirements as outlined in OAC 1301:7-9-14. All records should not only be thorough in content, but they should be safely stored for the applicable time frame as designated in the rules and regulations.

### **Lead-Acid Batteries**

Lead-acid batteries are used in cars, trucks and any other associated equipment that requires starting of a fuel driven motor. Batteries have a tendency to accumulate at facilities that do on-site maintenance. The typical battery weighs 36 pounds of which about 18 pounds is lead and 8 pounds is sulfuric acid. The housing on the batteries consists of a protective plastic usually made from polycarbonate, polypropylene, or polystyrene. Because of the potential harm to the environment and its inhabitants, Ohio regulations prohibit disposal of lead-acid batteries in solid waste landfills and incinerators after January 1, 1993. When handling spent lead-acid batteries, steps should be taken to minimize exposure to the harmful components. Examples include, but are not limited to: heavy rubber gloves, clothing that covers exposed skin, boots, and eye protection. If a battery must be stored on-site until it can be recycled, it should be kept in an area that does not expose it to rain and freezing temperatures. Local battery recyclers can be found on the Ohio EPA's main web site, with the best source for recycling batteries usually being the locations where the new batteries are being sold.

### **References**

#### **Used Oil**

Code of Federal Regulations-Title 40-Part 112

Ohio Administrative Code (OAC)

3745-279-01

3745-279-(10-12)

3745-279-(20-24)

3745-279-(30-32)

3745-279-(40-47)

3745-50 to 3745-69

3745-218  
3745-248  
3745-270  
1301:7-9

### **Tanks**

Code of Federal Regulations-Title 40-Part 280-281  
Ohio Revised Code (ORC) 3737-(87-99)  
Ohio Administrative Code (OAC) 1301:7-9  
Ohio Department of Commerce - Division of State Fire Marshall - Bureau of  
Underground Storage Tanks

### **Internet Resources**

<http://www.epa.gov/>: U.S Environmental Protection Agency  
<http://www.epa.state.oh.us>: Ohio Environmental Protection Agency  
<http://www.epa.gov/oust>: U.S. EPA Underground Storage Tank  
<http://www.odh.state.oh.us>: Ohio Department of Health  
<http://www.petroboard.com>: Ohio UST Release Compensation Board  
<http://www.com.state.oh.us/odoc/sfm/bustr>: Ohio Bureau of Underground Storage Tank  
Regs.  
<http://www.epa.gov/oust/states/statcon1.htm>: Directory of State UST Program Contacts  
<http://www.epa.gov/oust/states/stateurl.htm>: Directory of State UST Program Sites  
<http://www.api.org/>: American Petroleum Institute  
<http://www.nfpa.org>: National Fire Protection Association  
<http://www.pei.org>: Petroleum Equipment Institute