

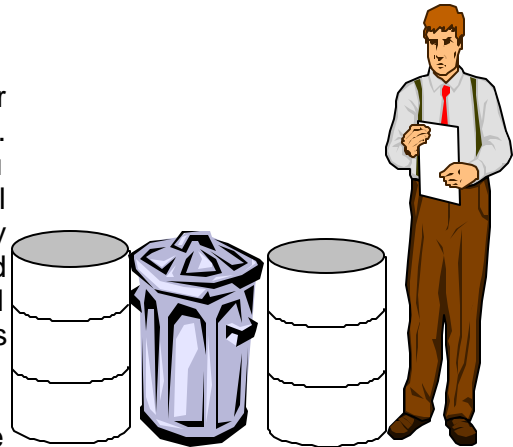
ENVIRONMENTAL  
REGULATIONS:  
A SMALL BUSINESS  
PRIMER

# ENVIRONMENTAL REGULATIONS: A SMALL BUSINESS PRIMER

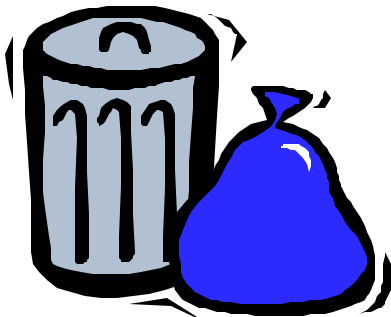
## TYPES OF WASTES WHICH MAY BE REGULATED

As a small business you must be aware of your responsibilities for proper disposal of your waste materials. This section provides background information to help you determine if state and/or federal agencies regulate disposal of your waste materials. Understanding and correctly interpreting waste regulations can be difficult and confusing. In Oklahoma, the Department of Environmental Quality (DEQ) can help you to understand what regulations and requirements apply to you.

The following list specifies the types of waste that may be subject to federal and/or state regulations



**SOLID WASTE** generally refers to any garbage, refuse, sludge, and other discarded or salvageable material, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities. This does not include solids or dissolved materials in domestic sewage, dissolved or suspended solids in industrial wastewater effluent, or other common water pollutants.



*Note:* Wastes that are "solid" in their physical state are not always considered "solid wastes" from a regulatory standpoint. If a waste conforms to the above definition and is not considered to be hazardous (i.e. is not listed by the EPA as hazardous or doesn't have hazardous characteristics, as detailed below), then it can be categorized as a solid waste.

### **Is it or isn't it solid waste?**

Typical solid wastes include paper; wood; yard debris; food wastes; plastics; leather; rubber and other combustibles; and noncombustible materials such as glass and rock.

**HAZARDOUS WASTE** is any solid waste (see above) which is defined as hazardous. A solid waste is defined as hazardous if it is:

- 1) A waste **listed** as hazardous by the EPA or a state's regulatory agency. The EPA-issued hazardous wastes lists include:
  - Wastes generated by *non-specific sources* (e.g. Spent halogenated solvents)
  - Wastes generated by *specific sources* (e.g., Distillation bottoms from the production of acetaldehyde from ethylene)

### **Listed hazardous waste**

- \* **non-specific sources**
- \* **specific sources**
- \* **commercial products**

- *Acutely hazardous* commercial chemical products and manufacturing chemical intermediates which may be hazardous under certain conditions; and *toxic* commercial chemical and manufacturing chemical intermediates which may be hazardous in certain circumstances.

2) A waste which has hazardous **characteristics**. The criteria for determining whether a solid waste has hazardous characteristics include:

- *Ignitability* (e.g. Flash point less than 140° f)
- *Corrosivity* (e.g. pH less than 2 or greater than 12.5)
- *Reactivity* (e.g., Reacts violently with water, normally unstable, generates toxic fumes, etc.)
- *Toxicity* (e.g. as determined by the Toxic Characteristic Leaching Procedure (TCLP) laboratory test).

### **Characteristics**

- \* **Ignitability**
- \* **Corrosivity**
- \* **Reactivity**
- \* **Toxicity**

*Typical hazardous wastes include: mineral spirits; 1,1,1-trichloroethane; toluene; xylene; methylene chloride; perchloroethylene; valclene; spent cyanide plating, cleaning and bath solutions; waste treatment sludge; spent cyanide heat treating bath solutions; and metalworking quenching wastewaters.*



**MIXED/CONTAMINATED WASTE** Mixed/contaminated waste refers to (non-hazardous) solid waste which has been mixed with, or contaminated by, a hazardous waste or substance.

**Note:** If a solid waste is mixed with (or contaminated by) a "characteristic" hazardous waste it is considered hazardous **only** if the resulting mixture retains the hazardous characteristic. **A mixture of a "listed" hazardous waste with a non-hazardous solid waste is generally considered hazardous unless certain specific criteria can be met.**

Typical mixed/contaminated wastes: used motor oil, used engine coolant, paint booth filters, and empty containers.

**AIR EMISSIONS** Air emissions refer to the release or discharge of a pollutant into the ambient air either

- 1) by means of a stack, or
- 2) as a fugitive dust, mist or vapor as a result inherent to the manufacturing or formulating process.

Typical air emissions include: overspray and drying from painting or coating operations; evaporating solvents from parts cleaning/degreasing operations; perchloroethylene from dry cleaning operations; and aerosols containing ozone depleting compounds.



**WASTEWATER DISCHARGE** Wastewater discharge refers to any direct discharge of a pollutant from a "point source" (i.e. an identifiable source such as a pipe, ditch, or outfall) to surface waters, groundwaters, such as through septic systems, or to a publicly owned treatment plant (POTW).



*Note:* The term "pollutant" is very broadly defined and even includes heat from non-contact cooling water. Pollutants are generally characterized in two ways:

- 1) "conventional," which includes such things as total suspended solids (TSS), biochemical oxygen demand (BOD), phosphorus, oil and grease
- 2) "toxic," which consists of various chemicals or chemical compounds which have toxic effects on human health, wildlife, fish or aquatic life.

Typical wastewater discharges include: wastewater from vehicle washing operations; wastewater from food processing; spent aqueous cleaning solutions; industrial process wastewaters; and boat sewage discharge.

***STORMWATER RUNOFF/DISCHARGE*** Stormwater runoff refers to water from rainfall and snow melt that runs off buildings, sidewalks, etc., and flows over the ground surface returning to a water body, potentially collecting pollutants from air and/or land along the way. As the runoff "leaves" a particular site it is considered (for regulatory purposes) "stormwater discharge." Stormwater discharge is usually considered a "point source" pollution as it actually originates from a particular site, or a discreet point source. Stormwater discharges are sometimes referred to collectively as "urban runoff" which is generally considered "non-point" source pollution.

Typical stormwater runoff/discharge pollutants include: oil and grease from vehicle maintenance; sediments from construction sites; pesticides from groundskeeping activities; detergents from vehicle washing; and hazardous liquids from leaking aboveground storage tanks.



## **OTHER (NON-WASTE) REGULATORY CONCERNS**

***Hazardous Substances:*** The term "hazardous substance" usually means any substance or combination of substances which may cause or significantly contribute to an increase in mortality; an increase in serious irreversible or incapacitating reversible illness; or which may pose a substantial present or potential hazard to human health or the environment. These results may be attributed to the quantity, concentration, physical, chemical, or infectious characteristic of these substances. This term includes, but is not limited to, substances which are toxic, corrosive, flammable, irritants, strong sensitizers, or explosives as determined by a regulatory agency.

***Underground Storage Tanks (USTs):*** An underground tank is generally defined as a tank and any associated pipes having 10 percent of its volume or more beneath the surface of the ground. USTs containing petroleum products or hazardous substances, or (in some states, including

Oklahoma) any flammable or combustible liquids, are generally subject to regulation. Exceptions often include:

- Farm or residential tanks of 1,100 gallons or less used for storing motor fuel for noncommercial purposes
- Tanks used for the storage of heating oil for consumptive use on the premises where stored
- Certain pipeline facilities
- Surface impoundments, pits, ponds or lagoons; stormwater or wastewater collection systems
- Liquid traps or gathering lines related to oil or gas production
- Storage tanks situated in an enclosed underground area such as a basement

## **TYPES OF ENVIRONMENTAL REGULATIONS IN OKLAHOMA**

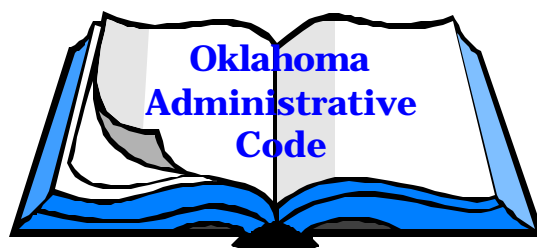
The following list contains brief summaries of the regulations governing waste generation in Oklahoma. Consult the state regulatory agency, DEQ, for more complete information as well as for any changes that might occur in the regulations.

**SOLID WASTE REGULATIONS** Oklahoma state regulation for solid waste management states that *"... any person who collects, transports, or disposes of solid waste, shall be subject to the provisions of OAC 252:520. Any person who operates or proposes to operate a municipal solid waste landfill shall be subject to the provisions of OAC 252:510"*.

Additionally, many solid waste items have been banned from state landfills and licensed incinerators and thus must be managed in an alternative manner. *"Disposal sites shall not accept any quantity of hazardous waste. Non-hazardous industrial solid wastes may be accepted upon written approval of the Department and are to be handled in accordance with procedures approved by the Department"*. Other wastes, including used refrigerants from appliances and automobiles, must first be removed from their "host materials" and then reclaimed or otherwise properly managed.

**HAZARDOUS WASTE REGULATIONS** Oklahoma's regulatory framework for hazardous waste management is substantially patterned after the federal Resource Conservation and Recovery Act (RCRA). A summary of requirements for generators of hazardous waste in the Oklahoma is shown in Table 1.

**MIXED/CONTAMINATED WASTE REGULATIONS:** Mixed/contaminated wastes that are deemed hazardous are subject to Hazardous Waste Regulations. A treatment permit may be necessary if mixing wastes. Mixed/contaminated wastes that are deemed non-hazardous are subject to Solid Waste Regulations.



**All DEQ regulations may be accessed through the agency web site:**

**<http://www.deq.state.ok.us>**

**AIR EMISSIONS REGULATIONS:** Oklahoma's air pollution regulations are based on the federal Clean Air Act and the 1990 Clean Air Act Amendments. The specific requirements that apply to a particular business/facility are dependent on several factors, including:

- 1) where the business is located (i.e., whether the business/facility is located in a "marginal attainment" or an "attainment" area)
- 2) the kinds of pollutants the business/facility emits into the air
- 3) the amount/quantities released.

Businesses located in Tulsa may face additional regulations, requiring them to reduce the VOCs released into the air through their processes. VOCs are a common cause of ozone. Lithographic printers, users of industrial adhesives, motor vehicle refinishers, companies using solvents to clean metal parts, and wood finishers are examples of affected business types.

Several federal air regulations apply to specific industry types, requiring them to reduce their use of hazardous air pollutants (HAPs). HAPs are known to cause harmful health effects to humans as well as damage to the environment. Dry cleaners, chromium electroplaters, users of halogenated solvent cleaning products, and wood furniture manufacturers currently face these air pollution regulations.

In addition to these state and federal regulations, the DEQ regulates emissions from process lines, visible emission (particulate matter), internal combustion engines, and mobile sources.

Some businesses/facilities may be required to obtain construction or operating permits that include enforceable emission limitations, compliance schedules, monitoring and reporting requirements, and payment of annual fees based on emission quantities. Businesses that do not need a permit may still be subject to certain regulations, including emission limitations and reporting requirements. As with hazardous waste generators, air emission generators may be subject to inspection by the DEQ, and both civil and criminal penalties may be imposed for compliance violations. (Specific reporting information pertaining to air emissions is made available to the public by the DEQ.)



***Tulsa or Oklahoma City?  
Painting?  
Cleaning?  
Plating?***

***Businesses that do  
not need a permit  
may still be subject  
to certain regulations***

***...***

**TABLE 1**  
**A SUMMARY OF HAZARDOUS WASTE GENERATOR REQUIREMENTS**

**You are a**

**Large Quantity Generator**

*if in a calendar month you:*

- generate 2.2 or more pounds of acutely hazardous wastes
- generate 2,200 or more pounds of hazardous wastes

*therefore you must:*

- identify all hazardous wastes
- Obtain an EPA identification number
- Properly package wastes
- Properly label and mark containers
- Accumulate hazardous waste on-site no more than **90 days**
- Placard waste for shipment
- comply with state and federal DOT transportation requirements
- Use a manifest to ship hazardous wastes and maintain copies of the manifests for three years
- Use only transporters registered with DEQ and with EPA ID numbers
- Use only storage, treatment and disposal facilities with EPA ID numbers
- Ship waste to regulated hazardous waste facilities within **90 days**
- Recycle hazardous waste on-site within **90 days**
- Prepare contingency plans, emergency procedures, and personnel training
- Meet preparedness and prevention requirements
- Keep records
- Submit quarterly reports to ODEQ
- Pay Fees
- Maintain current disposal plan
- Maintain current EPA notification of hazardous waste activity

**Small Quantity Generator**

*if in a calendar month you:*

- generate between 220 and 2,200 pounds of hazardous wastes

*therefore you must:*

- identify all hazardous wastes
- Obtain an EPA identification number
- Properly package wastes
- Properly label and mark containers
- Accumulate hazardous waste on-site no more than **180 days** or 270 days if transporting more than 200 miles
- Placard waste for shipment
- comply with state and federal DOT transportation requirements
- Use a manifest to ship hazardous wastes and maintain copies of the manifests for three years
- Use only transporters registered with DEQ and with EPA ID numbers
- Use only storage, treatment and disposal facilities with EPA ID numbers
- Ship waste to regulated hazardous waste facilities within **180 days**
- Recycle hazardous waste on-site within **180 days**
- Prepare modified contingency plans, emergency procedures, and personnel training
- Meet preparedness and prevention requirements
- Keep records
- Pay Fees
- Maintain current EPA notification of hazardous waste activity

**Conditionally Exempt Small Quantity Generator**

*if in a calendar month you:*

- generate less than 2.2 pounds of acutely hazardous waste
- generate less than 220 pounds of hazardous waste

*therefore you must:*

- identify all hazardous waste
- ensure delivery of hazardous waste to a permitted treatment, storage, or disposal facility
- recycle hazardous waste on-site
- never accumulate at any time more than 2,200 pounds of hazardous waste



**WASTEWATER DISCHARGE REGULATIONS:** Oklahoma regulations governing wastewater discharge are based on the federal Clean Water Act and Water Quality Act. State law regulates two types of wastewater discharges:

- 1) A direct discharge of a pollutant from a "point source" to water - The Oklahoma Pollutant Discharge Elimination System (OPDES) program specifies that all direct wastewater discharges from a point-source to water (including natural or artificial surface water and/or groundwater) require an OPDES permit. The permit sets the limit on the amount of wastewater that the permit holder may discharge. The particular limit is based on

- a) the industry type (and accordingly the available pollution control technology for that industry and the particular facility's production rate)
- b) the impact of the discharge on the quality of the receiving water. Because the OPDES program applies to groundwater discharges as well as surface waters, permits are generally required where liquid waste is discharged onto land or land spread.

The permit system relies largely on self-reporting to assure compliance, which requires the submission of a monthly discharge monitoring report providing information on the discharge of each of the permitted pollutants. Failure to submit these reports or falsification of the reports can lead to civil or criminal prosecution. These monitoring reports are made available to the public by the DEQ.

**Discharging to  
the POTW?**

**NOTIFY!!**

- 2) Discharge to a publicly owned treatment works (POTW) - Discharges to a publicly-owned treatment works (POTW) require that first a discharger notify the DEQ and the POTW as to the types of pollutants to be discharged to the POTW. Second, dischargers are subject to pretreatment standards, which means reducing the amount of pollutants, or altering the pollutants' properties to a less harmful state, before discharging to a POTW. General pretreatment standards require industrial dischargers to do the following:
  - a) prevent the introduction into a POTW of pollutants that will interfere with POTW operations or sludge disposal
  - b) prevent the introduction into a POTW of pollutants that will pass through untreated or interfere with treatment operations
  - c) improve opportunities for recycling and reclamation of industrial wastewaters and sludge. Industrial dischargers that fail to comply with applicable requirements could face an enforcement action brought by its municipality (i.e. POTW), the DEQ, or the EPA.

**STORM WATER RUNOFF/DISCHARGE REGULATIONS** The Federal Clean Water Act of 1972 mandated that all waters of the United States should be 'fishable' and 'swimmable'. In 1987, Congress amended the Clean Water Act mandating that EPA address storm water from industrial and municipal sources. EPA issued baseline general permits in 1992. The base line permit required that industrial and construction activities obtain NPDES storm water permits for storm water



runoff. Additionally, the permit also required preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for each facility. In 1995 EPA issued the Multi-Sector storm water permit that is a more detailed, industry-specific version of the baseline general industrial permit.

Oklahoma should assume permitting authority from EPA on construction activities in September 1997. DEQ should have permitting authority from EPA for industrial activities by January 1, 1998.

**Industrial Activities** The baseline general permit for industrial activity was issued on September 9, 1992, for a period of 5 years and expired on September 9, 1997. The baseline permit was not renewed and permittees must move for coverage under the Multi-Sector Industrial General Permit. There are 29 separate industrial groupings under the Multi-Sector Industrial permit. DEQ is currently using the EPA Multi-Sector Industrial General Permit issued on September 29, 1995. A state general permit to replace the EPA permit is under development and expected to be available by January 2000. The application of the industrial storm water permit is generally determined by their SIC number, 10 through 45 plus 5015, 5093 & 5171. Monitoring and reporting of storm water quality is required of many industries. Every industry under a permit is required to conduct visual monitoring. Every industrial facility is required to prepare a Storm Water Pollution Prevention Plan (SWP3) and maintain a "Best Management Practices" document that outlines good housekeeping practices. Elements of this SWP3 include; site map with buildings, drives and parking, controls, spills, maintenance areas, storage etc.; pollution prevention team; good housekeeping; preventive maintenance; inspections; spill prevention; team training and monitoring procedure. The SWPPP is a working document and must be updated to reflect facility changes. The SWPPP, site inspection reports and other related information is to be kept on site for review by DEQ staff as part of a site visit.

On some industrial activities where the storm water comes into contact with the process wastewater activity an "individual permit" can be required. The need for this type permit is determined on a case by case basis. There are discharge limits included in individual OPDES permits.

**Construction Activities** The Baseline Construction General Permit for activity was also issued on September 9, 1992 for a period of 5 years and expired on September 9, 1997. EPA has since modified the construction permit. DEQ developed and issued a state-specific Storm Water Construction General Permit for construction activities referred to as GP-005, then modified the permit on February 1, 1999 called the GP-005A, and based on the EPA modification. Construction permits have been issued and regulated by DEQ since September 1997 and Notice of Intent (NOI) forms are sent to DEQ. The Modified Permit, NOI, and Notice of Termination can be found on the DEQ web site.

**... all waters of  
the United States  
should be  
'fishable' and  
'swimmable'**

**Each permitted  
industry is required  
to prepare and  
implement a  
Storm Water  
Pollution  
Prevention Plan**

**Construction  
permit required if  
disturbing more  
than five acres**

The "operator" (owner/developer/general contractor) of a construction project (common plan of development or sale that will disturb 5 acres or more) shall apply for DEQ construction permit coverage. The "operator" shall prepare and follow a site specific SWP3. The elements of this SWP3 include; site map with drainage patterns and slopes, areas to be disturbed and not disturbed, controls, etc.; nature of activity with sequence of the major work elements; storm water management; inspections and record keeping. The SWPPP, site inspection reports and other related information must be available for review by DEQ staff as part of a site visit.

With the assumption of the storm water program by DEQ will come enforcement of the DEQ storm water rules. EPA retains enforcement of that part of the storm water program not given to DEQ that includes Indian Lands and oil and gas development and pipelines construction.

### **OTHER (NON-WASTE) REGULATIONS**

**Hazardous Substances:** Based on the federal 1986 Emergency Planning and Community Right to Know Act (EPCRA), Oklahoma regulation requires disclosure of information and reporting obligations concerning the use and release of hazardous materials. (Note: This relates to the normal manufacture, management, and use of hazardous substances. When such substances become wastes they are subject to hazardous waste regulations, and when they are spilled in significant quantities they are subject to hazardous remediation regulations.)



***What's in my backyard?***

Depending on the industry type, number of employees at the facility, and the nature of the hazardous substances, specific regulatory requirements may include:

1. Notifying state and local emergency planning committees about "extremely hazardous" substances which the facility has on-site, appointing a representative to the local emergency planning committee, and reporting releases to these and other national emergency organizations
2. Submitting lists or material safety data sheets (MSDSs) for chemicals which the facility has on site in excess of a specified quantity
3. Submitting annual inventory forms containing estimates of the maximum- and daily-average amount of chemicals present at the facility, and the locations of these chemicals at the facility
4. Submitting a "Form R" release report specifying chemicals used at the facility and releases of these chemicals to the environment. In addition, emergency release notification must be made to the 24-hour spill Hotline at DEQ. Oklahoma also has an "employee right to know" provision that provides employees the right to obtain chemical lists and training with respect to chemical substances used within a facility. Any person violating any of these regulations may be subject to civil or criminal penalties.

***Industry type?***

***Number of employees?***

***Chemicals?***

***REPORT!!***

**Underground Storage Tanks (USTs):** Oklahoma regulations for underground storage tanks are guided by the federal Resource Conservation and Recovery Act.

**Property Contamination and Liability:** Under the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), current owners of contaminated property/facilities may be held liable for cleanup/remediation (and other) costs. This liability may apply even if they did not own the property/facilities when they became contaminated — by improper hazardous waste disposal, leaking underground storage tanks, accidental hazardous substance releases, etc. Past owners may also be held liable for these costs. Environmental site assessments should be undertaken before purchasing any property which is suspected of present, or past, contamination.

## FOR MORE INFORMATION

### Oklahoma Department of Environmental Quality

Customer Services Division

Pollution Prevention Program & Small Business Assistance Program

Phone: (405) 702-9100 or (800) 869-1400 Fax: (405) 702-9101



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