

5.1 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 disposal of your waste materials is regulated by state and/or federal agencies. Understanding and correctly interpreting waste regulations can be difficult and confusing. In Wisconsin, your local Department of Natural Resources district office can help you to understand what regulations and requirements apply to you.

The following list specifies the types of waste which may be subject to federal and/or state regulations. Note that for regulatory purposes these definitions may vary from state to state.

Solid Waste: 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 waste water 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.

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: Hazardous waste is any *solid waste* (see above) which is defined as hazardous. A solid waste is defined as hazardous if it is either 1) listed as hazardous by the EPA or a state's regulatory agency; or 2) has hazardous characteristics.

- 1) 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); 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) 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.); and toxicity (e.g. as determined by the "TCLP" laboratory test).

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 noncontact cooling water. Pollutants are generally characterized as either 1) "conventional," which includes such things as total suspended solids (TSS), biochemical oxygen demand (BOD), phosphorus, oil and grease, or 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 "nonpoint" 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 above-ground 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 or 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 because of its quantity, concentration, physical, chemical, or infectious characteristics. 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 Wisconsin) 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; and storage tanks situated in an enclosed underground area such as a basement.

Sources:

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