Vocabulary/Ch. 22

Withgott

**waste**: Any unwanted material or substance that results from a human activity or process.

**municipal solid waste:** Nonliquid waste that is not especially hazardous and that comes from homes, institutions, and small businesses.

**industrial solid waste:** Nonliquid waste that is not especially hazardous and that comes from production of consumer goods, mining, petroleum extraction and refining, and agriculture.

**hazardous waste:** Liquid or solid waste that is toxic, chemically reactive, flammable, or corrosive.

**waste management:** Strategic decision making to minimize the amount of waste generated and to dispose of waste safely and effectively.

**waste stream:** The flow of waste as it moves from its sources toward disposal destinations.

**source reduction:** The reduction of the amount of material that enters the waste stream to avoid the costs of disposal and recycling, help conserve resources, minimize pollution, and save consumers and businesses money.

**recovery:** Waste management strategy composed of recycling and composting.

**recycling:** The process by which materials are collected and then broken down and reprocessed to manufacture new items.

**cradle-to-cradle:** An approach to waste management and industrial design in which the materials from products are recovered and reused to create new products.

**composting:** The conversion of organic waste into mulch or humus by encouraging, in a controlled manner, the natural biological processes of decomposition.

**material recovery facilities (MRFs):** A recycling facility where items are sorted, cleaned, shredded, and prepared for reprocessing into new items.

**bottle bills:** A law establishing a program whereby consumers pay deposit on bottles or cans upon purchase—often 5 or 10 cents per container—and then receive a refund when they return them to stores after use. It reduces litter, raises recycling rates, and decreases the waste stream.

**sanitary landfill:** A site at which solids waste is buried in the ground or piled up in large mounds for disposal, designed to prevent the waste from contaminating the environment.

**Resource Conservation and Recovery Act (RCRA):** U.S. law (enacted in 1976 and amended in 1984) that specifies, among other things, how to manage sanitary landfills to protect against environmental contamination.

**leachate:** Liquid that results when substances from waste dissolve in water as rainwater percolates downward. It may sometimes seep through liners of a sanitary landfill and leach into the soil underneath.

**incineration:** A controlled process of burning solid waste for disposal in which mixed garbage is combusted at very high temperatures.

**waste-to-energy- (WTE) facilities:**  An incinerator that uses heat from its furnace to boil water to create steam that drives electricity generation or that fuels heating systems.

**landfill gas:** A mix of gases that consists of roughly half methane produced by anaerobic decomposition deep inside landfills.

**industrial ecology:** A holistic approach to industry that integrates principles from engineering, chemistry, ecology, economics, and other disciplines and seeds to redesign industrial systems in order to reduce resource inputs and minimize inefficiency.

**life-cycle analysis:** A quantitative analysis of inputs and outputs across the entire life cycle of a product—from its origins, through its production, transport, sale, and use, and finally its disposal—in an attempt to judge the sustainability of the process and make it more ecologically efficient.

**electronic waste (e-waste):** Discarded electronic products such as computers, monitors, printers, televisions, DVD players, cell phones, and other devices. Heavy metals in these products mean that this waste may be judged hazardous.

**surface impoundment:** (1) A disposal method for hazardous waste or mining waste in which waste in liquid or slurry form is placed into a shallow depression lined with impervious material such as clay and allowed to evaporate, leaving a sold residue on the bottom (2) The site of such disposal.

**deep-well injection:** A hazardous waste disposal method in which a well is drilled deep beneath an area’s water table into porous rock below an impervious soil layer. Wastes are then injected into the well, so that they will be absorbed into the porous rock and remain deep underground, isolated from groundwater and human contact.

**Superfund:** A program administered by the Environmental Protection Agency in which experts identify sites polluted with hazardous chemicals, protect groundwater near these sites, and clean up the pollution. Established by the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) in 1980.

**brownfield:** an area of land whose redevelopment or reuse is complicated by the presence or potential presence of hazardous material.