

GLOSSARY

Aeration - The process of exposing waste material, such as compost, to air to promote aerobic decomposition. *Forced aeration* refers to the use of blowers in compost piles.

Aerobic - A biochemical process or condition occurring in the presence of oxygen.

Agricultural Waste - "Domestic animal manure or residuals in liquid or solid form generated in the production of poultry, livestock, fur-bearing animals, and their products. Agricultural waste includes residuals generated in the production and harvesting but not of subsequent processing of all agricultural, horticultural, or aquacultural commodities. Agricultural waste does not include land clearing debris unless the cleared land is intended solely for agricultural purposes." (COMAR 26.04.07.02)

Air Classification - A process in which a stream of air is used to separate mixed material according to the size, density and aerodynamic drag of the pieces.

Anaerobic - A biochemical process or condition occurring in the absence of oxygen.

Baler - A machine used to compress recyclables into bundles to reduce volume. *Balers* are often used on newspaper, plastics and corrugated cardboard.

Biodegradable Material - Waste material which is capable of being broken down by microorganisms into simple, stable compounds such as carbon dioxide and water. Most organic wastes, such as food wastes and paper, are *biodegradable*.

Biosolids - A recently adopted industry term for wastewater treatment sludge.

Borrow Pit- A facility that provides daily cover and capping material for sanitary landfills. Heavy equipment and adequate roads are required for the excavation and transport of earth materials that are mined for landfill cover.

Bulking Agent - A material used to add volume to another material to make it more porous to air flow. For example, municipal solid waste may act as a *bulking agent* when mixed with water treatment sludge.

Bulky Waste - Large items of refuse including, but not limited to, appliances, furniture, large auto parts, non-hazardous construction, demolition materials, trees, branches and stumps which cannot be handled by normal solid waste processing, collection and disposal methods.

Buy-Back Center - A facility where recyclable materials are bought from citizens. The materials are collected in separate disposal containers for different categories of recyclable materials.

Co-composting - Simultaneous composting of two or more waste types.

Co-disposal Plants: Facilities that burn sewage sludge combined with either prepared processed or unprocessed municipal solid waste.

Co-fired Plants- Facilities that burn coal and highly processed RDF.

Co-generation- The production of electric power or steam for sale by a non-utility which is then sold to a regulated utility in accordance with contracted guidelines.

Commercial Waste - Waste materials originating in wholesale, retail, institutional or service establishments, such as office buildings, stores, markets, theaters, hotels or warehouses.

Commingled Recyclables - A mixture of several recyclable materials in one container.

Compactor - Power-driven device used to compress materials to a smaller volume.

Compost - The relatively stable decomposed organic material resulting from the composting process. Also referred to as humus.

Composting - "The process in which organic solid waste is biologically decomposed under controlled conditions to yield a nuisance-free humus-like product." (COMAR 26.04.07.02)

Construction and Demolition Waste - Materials resulting from the construction, remodeling, repair or demolition of buildings, bridges, pavements and other structures.

Corrugated Paper - Paper or cardboard manufactured in a series of wrinkles or folds, or into alternating ridges and grooves.

Cullet - Clean, generally color-sorted, crushed glass used to make new glass products.

Curbside Collection - Programs where recyclable materials are collected at the curb, often from special containers, to be brought to various processing facilities.

Decomposition - Breaking down into component parts or basic elements

Diversion Rate - A measure of the material being diverted for recycling compared with the total amount that was previously thrown away.

Drop-off Center - A method of collecting recyclable or compostable materials in which the materials are taken by individuals to collection sites and deposited into designated containers.

Emission - Discharge of a gas into atmospheric circulation.

Enterprise Fund - A fund for a specific purpose that is self-supporting from the revenue it generates.

Ferrous Metals - Metals that are derived from iron. They can be removed using large magnets at separation facilities.

Flow Control - A legal or economic means by which waste is directed to particular destinations. For example, an ordinance requiring that certain wastes be sent to a combustion facility is waste *flow control*.

Garbage - Spoiled or waste food that is thrown away, generally defined as wet food waste. It is used as a general term for all products discarded.

Ground water - Water beneath the earth's surface that fills underground pockets (known as aquifers) and moves between soil particles and rock, supplying wells and springs.

Hammermill - A type of crusher or shredder used to break up waste materials into smaller pieces.

Hazardous Waste - Waste material that may pose a threat to human health or the environment, the disposal and handling of which is regulated by federal law.

Hazardous Waste Landfill. A sanitary (lined) landfill that accepts hazardous waste. Hazardous waste may pose a threat to human health or the environment; therefore, the handling and disposal of the waste is strictly regulated by federal law. Waste processing procedures and facilities are highly dependant on the type of waste disposed at the landfill.

Heavy Metals - Hazardous elements including cadmium, mercury and lead which may be found in the waste stream as part of discarded items such as batteries, lighting fixtures, colorants and inks.

High Grade Paper - Relatively valuable types of paper such as computer printout, white ledger, and tab cards. Also used to refer to industrial trimmings at paper mills that are recycled.

Humus - Organic materials resulting from decay of plant or animal matter. Also referred to as compost.

Incinerator. A facility in which the combustion of solid waste (e.g., municipal, medical) occurs. The recovery of energy from the combustion process may or may not occur. Incinerators are generally classified as a mass-burn facility, a refuse derived fuel facility, or waste to energy facility.

Mass-Burn Facility. An incinerator where the incoming waste is not processed prior to combustion is a mass-burn facility. Bulky and non-processible objects (e.g., white

goods, furniture, etc.) are removed prior to processing; however, the waste is not shredded or separated further. A mass-burn facility may or may not provide energy recovery from the combustion process. The components of a mass-burn facility include facilities for waste handling and storage, a combustion unit, energy recovery (optional), ash collection, and air emission pollution control equipment.

Refuse Derived Fuel Facility. An incinerator where the incoming waste is processed prior to combustion to improve the fuel properties of the waste is a refuse derived fuel (RDF) facility. The purpose of a RDF facility is recover energy from the combustion of waste. After the removal of non-processible waste and bulky items, the waste is shredded and screened to produce RDF. RDF consists of waste materials which are usually one to six inches in length. Ferrous material is removed from the RDF by magnetic separators and collected for shipment to scrap metal markets. Components of a RDF facility include facilities for waste handling and storage, a combustion unit, energy recovery, ash collection, and air emission pollution control equipment.

Waste-to-Energy Facility (WTEF). A centralized facility that reduces the quantity of MSW and recovers energy (as steam or electricity) through the combustion of MSW. A WTEF generally includes the following components: (1) a waste handling and storage facility (e.g., storage pit, cranes, front-end loaders, etc.); (2) a combustion unit; (3) energy recovery facilities (boiler, turbine, generator, etc.); (4) ash collection; and (5) air emission pollution control equipment (e.g. bag house, electrostatic precipitators, scrubbers, etc.). A WTEF may be either a mass-burn or a refuse derived fuel facility.

Incinerator Ash - Remnants of solid waste after combustion, including non-combustibles (e.g., metals) and soot.

Industrial Waste - "Any liquid, gaseous solid, or other waste substance, or combination thereof, resulting from: a) any process of industry, manufacturing, trade or business; or b) the development of any natural resource, including agriculture." (COMAR 26.08.01.01)

Infectious Waste - "Any waste that comes from a hospital, clinic, or laboratory and that is known or suspected to be contaminated with organisms capable of producing disease or infection in humans. Infectious waste includes disposable equipment, instruments, utensils, contaminated needles, scalpels, and razor blades, human tissue and organs that result from surgery, obstetrics, or autopsy, feces, urine, vomitus, and suctionings, live vaccines for human use, blood and blood products, laboratory specimens such as tissue, blood elements, excreta, and secretions." (COMAR 26.04.07.02)

Institutional Waste - Waste materials originating in schools, hospitals, prisons, research institutions and other public buildings.

Integrated Solid Waste Management - A practice of using several alternative waste management techniques to manage and dispose of specific components of the municipal solid

waste stream. Waste management alternatives include source reduction, recycling, composting, energy recovery and landfilling.

Intermediate Disposal - "The preliminary or incomplete disposal of solid waste including, but not limited to, transfer stations, incineration, or processing." (COMAR 26.04.07.02)

In-Vessel Composting - A composting method in which the compost is produced in an enclosed mechanical reactor under controlled environmental conditions.

Land-Clearing Debris- A facility for the land disposal of land clearing and naturally occurring debris. Land-clearing wastes must be compacted to the greatest extent possible, and thus may include processing equipment such as grinders crushers, and shredders. These facilities do not require liners.

Landfill - (Sanitary Landfill) "an engineered method of disposing of solid wastes on land in a manner that minimizes public health and environmental hazards, and is designed, installed, and operated according to the provision of these regulations." (COMAR 26.04.07.02)

Leachate - Liquid that has percolated through solid waste or another medium and has extracted, dissolved, or suspended materials from it, which may include potentially harmful materials. *Leachate* collection and treatment is of primary concern at municipal waste landfills.

Magnetic Separation - A system to remove ferrous metals from other materials in a mixed municipal waste stream. Magnets are used to attract the ferrous metals.

Manual Separation - The separation of recyclable or compostable materials from waste by hand sorting.

Mass Burn - A municipal waste combustion technology in which the municipal solid waste is burned in a controlled system without prior sorting or processing.

Materials Recovery Facility (MRF)- A centralized facility that receives, separates, processes and/or market recyclable materials that have been previously separated from the municipal solid waste stream. A MRF for separated recyclables can be designed to handle all types of recyclables or just certain categories (e.g., paper, corrugated, plastics, glass, steel, aluminum, etc.), and may include a variety of processing equipment such as balers, crushers, air classifiers, magnetic separators, optical separation systems (for glass), and loading and transportation equipment.

Mechanical Separation - The separation of waste into various components using mechanical means such as cyclones, trommels and screens.

Methane - An odorless, colorless, flammable and explosive gas produced by municipal solid waste undergoing anaerobic decomposition. *Methane* is emitted from municipal solid waste landfills.

Microorganisms - Microscopically small living organisms that digest decomposable materials through metabolic activity. *Microorganisms* are active in the composting process.

Mixed Waste Processing Facility (MWPF). A centralized facility that receives, separates, processes and/or markets recoverable fractions of municipal solid waste, including recyclable materials, combustible materials and compostable materials. Processing equipment may include balers, crushers, air classifiers, magnetic separators, optical separation systems (for glass), rotating screens (trommels), wood grinders, compactors and loading and transportation equipment.

Modular Incinerator - Smaller-scale waste combustion units prefabricated at a manufacturing facility and transported to the Municipal Waste Combustion (MWC) facility site.

Monitoring Well - "Any hole made in the ground to examine groundwater." (COMAR 26.04.07.02)

Municipal Solid Waste Composting - The controlled degradation of municipal solid waste after some form of preprocessing to remove non-compostable inorganic materials.

Mulch - Ground wood waste used as a protective ground covering around plants to prevent evaporation of moisture and freezing of roots and to nourish the soil.

Municipal Sanitary Landfill - An engineered solid waste acceptance facility permitted under the requirements of MDE. The facility is designed, installed, and operated to minimize public health and environmental hazardous. The municipal sanitary landfill is the final disposal site for wastes generated by a community with the exception of those wastes specifically prohibited by MDE and Charles County regulations.

Municipal Solid Waste - Includes non-hazardous waste generated in households, commercial and business establishments, institution and light industrial wastes, agricultural wastes, mining waste and sewage sludge.

Municipal Solid Waste (MSW) Drop-off Center- A facility where MSW can be dropped off by individual citizens at the County's sanitary landfill or at regional drop-off centers; includes vehicle access to disposal containers.

Municipal Solid Waste Landfill- A county owned, centralized facility for the long-term land disposal of MSW without creating nuisances or hazards to public health or safety. A state-of-the-art municipal waste landfill includes the following technologies and operating features: (1) covering the disposed MSW with clean soil or other suitable cover material at the

end of each day; (2) composite, double, or double composite liners; (3) leachate collection and storage systems; (4) leachate treatment; (5) landfill gas control and recovery; (6) proper closure and capping of filled landfill cells; and (7) environmental protection monitoring (i.e., check of incoming landfill wastes for hazardous or other unsuitable materials, groundwater monitoring wells, domestic water supply monitoring, etc.). Operation of a municipal waste landfill requires heavy machinery for distributing and compacting the MSW; excavating; hauling and stockpiling cover material; and constructing new landfill cells and closing old landfill cells.

Open Dump - "A land disposal site that is not designed and operated in accordance with the requirements for a sanitary landfill as defined in COMAR

Organic Waste - Waste material containing carbon. The organic fraction of municipal solid waste includes paper, wood, food wastes, plastics and yard wastes.

Participation Rate - A measure of the number of people participating in a recycling program compared to the total number that could be participating.

Processing Facility - A combination of structures, machinery, or devices used to reduce or alter the volume, chemical, or physical characteristics of solid waste. For the purpose of these regulations, collection points serving rural residential areas are not considered to be processing facilities, provided that solid waste is not transferred from collection vehicles to another transportation unit. A generator who processes his or her own solid waste at the site of generation and disposes of the processed solid waste off the site of generation at a disposal site permitted by the Department is not considered to be a processing facility." (COMAR 26.04.07.02)

Recyclables - Materials that still have useful physical or chemical properties after serving their original purpose and that can, therefore, be reused or remanufactured into additional products.

Recycling - The process by which materials otherwise destined for disposal are collected, reprocessed or remanufactured and reused.

Recycling Drop-off Center- A facility where recyclable materials can be dropped-off for collection by the agency. Facilities similar to MSW drop-off center (and could be combined with an MSW, yard waste, or waste oil and antifreeze drop-off center), including separate disposal containers for different categories of recyclable materials.

Refuse - See Solid Waste

Refuse-Derived Fuel (RFD)- Product of mixed waste processing system in which certain recyclable and non-combustible materials are removed, and the remaining combustible material is converted for use as a fuel to create energy.

RDF, Coarse - Shredded municipal waste with minimal separation of recyclable materials.

RDF, Prepared - Municipal waste is shredded and mechanically processed to remove recyclable metals and glass. Optionally the material can be further shredded to produce a "fluff", or compacted into pellets prior to incineration.

Residential Waste - Waste materials generated in single and multiple-family homes.

Residue - Materials remaining after processing, incineration, composting, or recycling have been completed. *Residues* are usually disposed of in landfills.

Resource Recovery - A term describing the extraction and utilization of materials and energy from the waste stream. The term is sometimes used synonymously with energy recovery.

Resource Recovery Facility - "A processing facility at which component materials of solid waste are recovered for use as raw material or energy sources." (*COMAR 26.04.07.02*)

Retention Basin - An area designed to retain runoff and prevent erosion and pollution.

Reuse - The use of a product more than once in its same form for the same purpose; e.g., a soft-drink bottle is reused when it is returned to the bottling company for refilling.

Rubble Material Recovery Facility- A centralized facility that receives, separates and processes land-clearing and construction and demolition (LC&C&D) debris, such as trees, brush, rock, concrete, asphalt, brick, plaster and steel. Rubble processing may utilize crushers and grinders to reduce the volume of LC&C&D wastes, and thus maximize the efficiency and handling of such wastes. LC&C&D wastes can be processed for reuse and recycling (e.g., crushed rock, wood compost, scrap metal, etc.) or for disposal in a rubble landfill.

Scrap - Discarded or rejected industrial waste material often suitable for recycling.

Scrap Tire Collection Facility. A facility for the collection and temporary storage of scrap tires.

Septage - Material removed from chemical toilets, septic tanks, seepage pits, privies or cesspools.

Sewage - "The water-carried human, domestic and other wastes and includes all human and animal excreta." (*COMAR 26.04.02.01*)

Sludge - A semi-liquid residue remaining from the treatment of municipal and industrial water and wastewater.

Sludge Storage Facility. A facility designed to hold (temporarily) sewage sludge for a period of time prior to disposal, processing, or land application.

Soil Liner - Landfill liner composed of compacted soil used for the containment of leachate.

Solid Waste - "Any garbage, refuse, sludge, or liquid from industrial, commercial, mining, or agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage or in irrigation return flows." (COMAR 26.03.03.01)

Solid Waste Acceptance Facility - "Any landfill, incinerator, transfer station, or processing facility whose primary purpose is to dispose of, treat, or process solid waste." (COMAR 26.04.07.02)

Solid Waste Management - "The systematic administration of activities which provide for the collection, source separation, storage, transportation, transfer, processing, treatment, re-use, or disposal of solid waste." (COMAR 26.03.03.01)

Source Reduction - The design, manufacture, acquisition and reuse of materials so as to minimize the quantity and/or toxicity of waste produced. *Source reduction* prevents waste either by redesigning products or by otherwise changing societal patterns of consumption, use and waste generation.

Source Separation - The segregation of specific materials at the point of generation for separate collection. Residences source separate recyclables as part of a curbside recycling program.

Special Medical Waste - See Infectious Waste.

Special Waste - Refers to items that require special or separate handling, such as household hazardous wastes, bulky wastes, tires and used oil.

Solid Waste Transfer Station. A centralized facility where waste is unloaded from several small collection vehicles and loaded into larger vehicles for hauling to processing or disposal facilities; could include the use of loading and compacting machinery.

Subtitle C - The hazardous waste section of the Resource Conservation and Recovery Act (RCRA).

Subtitle D - The solid, non-hazardous waste section of the Resource Conservation and Recovery Act (RCRA).

Tipping Fee - A fee, usually dollars per ton, for the unloading or dumping of waste at a landfill, transfer station, recycling center, or waste-to-energy facility; also called a disposal or service fee.

Transfer Station - A centralized facility where waste is unloaded from several small collection vehicles and loaded into larger vehicles for hauling to processing or disposal facilities; could include the use of loading and compacting machinery.

Tub Grinder - Machine to grind yard and wood wastes for mulching, composting or size reduction.

Variable Container Rate - A charge for solid waste services based on the volume of waste generated measured by the number of containers set out for collection.

Volume Reduction - The processing of waste materials so as to decrease the amount of space the materials occupy, usually by compacting or shredding (mechanical), incineration (thermal), or composting (biological).

Waste Oil and Antifreeze Drop-off Facility- A facility where used motor oil and antifreeze can be dropped-off for collection by the agency or private operator, includes vehicle access to drop-off tanks for oil and antifreeze.

Waste Stream - A term describing the total flow of solid waste from homes, businesses, institutions and manufacturing plants that must be recycled, burned or disposed of in landfills; or any segment thereof, such as the "residential waste stream" or the "recyclable waste stream."

Waste-to-Energy - Conversion of solid waste to energy, generally through the combustion of processed or raw refuse to produce steam and electricity.

Water Table - Level below the earth's surface at which the ground becomes saturated with water. Landfills and composting facilities are designed with respect to the water table in order to minimize potential contamination.

Wet Scrubber - Anti-pollution device in which a lime slurry (dry lime mixed with water) is injected into the flue gas stream to remove acid gases and particulates.

Wetland - Area that is regularly wet or flooded and has a water table that stands at or above the land surface for at least part of the year. Coastal wetlands extend back from estuaries and include salt marshes, tidal basins, marshes and mangrove swamps. Inland non-tidal wetlands consist of swamps, marshes and bogs. Federal regulations apply to landfills sited at or near wetlands.

White Goods - Large household appliances such as refrigerators, stoves, air conditioners and washing machines.

Windrow - A large, elongated pile of composting material.

Yard Waste - leaves, grass clippings, brush, prunings, and other natural organic matter discarded from yards and gardens.

Yard Waste Composting Facility- A centralized facility that receives and processes yard waste (e.g., grass clippings, weeds, brush, trees, leaves and other plant materials) into compost.

Centralized (e.g., municipal, commercial) yard waste composting facilities usually require several acres of land to grind, pile and turn the yard waste during the decomposition process, and to process and store the final composted product. Facilities that accept trees, stumps, brush and other wood wastes require the use of chippers and grinders for processing. Front-end loaders are used to move and pile the wastes for composting, and front-end loaders and specially designed windrow turning machines are used to periodically turn the compost piles. Trommels and other screening machines are used to sort and remove large materials from the final compost product. Centralized facilities would also include drop-off and staging areas, as well as compost pick-up areas.

Yard Waste/Sludge Composting Facility- A facility where yard wastes and sewage sludge are combined to create a compost. The yard waste is processed in a similar manner to that described for yard waste composting, but is mixed with nutrient-rich sewage sludge. The facilities used for yard waste/sludge composting are similar to those used for yard waste composting, except that composting with sludge may require building the compost piles over a paved pad and enclosing the piles for odor control.

Yard Waste Drop-off Facility- A facility or at regional drop-off centers are where citizens can drop-off compostable yard waste. Facilities include roll-off containers and vehicle access.

Many of the definitions in this glossary were obtained from EPA's Decision Maker's Guide to Solid Waste Management, Volume II, (EPA 530-R-95-023), 1995. Project Co-Directors: Phillip R. O'Leary and Patrick W. Walsh, Solid and Hazardous Waste Education Center, University of Wisconsin-Madison/Extension.