

# The Green Glossary –

## An Environmental Dictionary for Beginners by Tom Paxton, Floortec.net

### A

**Absorption:** Process by which a substance or particle is drawn into the structure of another.

**ACH:** See "[Air Changes Per Hour](#)."

**Acid Rain:** The precipitation of dilute solutions of strong mineral acids, formed by the mixing in the atmosphere of various industrial pollutants (primarily sulfur dioxide and nitrogen oxides) with naturally occurring oxygen and water vapor.

**Acute Exposure:** A single exposure to a toxic substance that may result in severe biological harm or death. Acute exposures are usually characterized as lasting no longer than a day, as compared to longer, continuing exposure over a period of time.

**Acute Toxicity:** The ability of a substance to cause severe biological harm or death soon after a single exposure or dose. Also, any poisonous effect that results from a single short-term exposure to a toxic substance.

**Adaptive Reuse:** Renovation of a building or site to include elements that allow a particular use or uses to occupy a space that originally was intended for a different use.

**Adsorbent:** Material that is capable of the binding and collection of substances or particles on its surface without chemically altering them.

**Aerobic Treatment :** Process by which microbes decompose complex organic compounds in the presence of oxygen and use the liberated energy for reproduction and growth.

**Aerosol:** Suspended droplets of liquid or liquid dispersions in air.

**Air Changes Per Hour (ACH):** Number of times per hour a volume of air, equivalent to the volume of space, enters that space.

**Air Exchange Rate:** The rate at which outside air replaces indoor air in a given space. Also see "[Air Changes Per Hour](#)."

**Air Handling Unit:** Equipment that includes a fan or blower, heating and/or cooling coils, regulator controls, condensate drain pans, and air filters.

**Air Plenum:** Any space used to convey air in a building, furnace or structure. The space above a suspended ceiling is often used as an air plenum.

**Air Pollutant:** Any substance in air that could, in high enough concentration, harm man, other animals, vegetation or material. Pollutants may include almost any natural or artificial composition of matter capable of being airborne. They may be in the form of solid particles, liquid droplets, gases or any combination thereof. Air pollutants are often grouped in categories for ease in classification. Some of these categories are solids, sulfur compounds, volatile organic chemicals, particulate matter, nitrogen compounds, oxygen compounds, halogen compounds, radioactive compounds and odors.

**Air Pollution:** The presence of contaminants or pollutant substances in the air that interfere with human health or welfare, or produce other harmful environmental effects.

**Air Toxics:** Any air pollutant for which a National Ambient Air Quality Standard (NAAQS) does not exist that may reasonably be anticipated to cause serious or irreversible chronic or acute health effects in humans.

**Airborne Particulates:** Total suspended particulate matter found in the atmosphere as solid particles or liquid droplets. Chemical composition of particulates varies widely, depending on location and time of year. Sources of airborne particulates include dust, emissions from industrial processes, combustion products from the burning of wood and coal, combustion products associated with motor vehicle or non-road engine exhausts, and reactions to gases in the atmosphere.

**Alternative Energy:** Energy from a source other than the conventional fossil-fuel sources of oil, natural gas and coal (i.e., wind, running water, the sun). Also referred to as "alternative fuel."

**Ambient Air:** The surrounding air.

**Antimicrobial:** An agent that kills microbes.

**ASHRAE :** American Society of Heating, Refrigeration and Air Conditioning Engineers.

### B

**BACT -Best Available Control Technology:** An emission limitation based on the maximum degree of emission reduction (considering energy, environmental and economic impacts) achievable through application of production processes and available methods, systems and techniques. BACT does not permit emissions in excess of those allowed under any applicable Clean Air Act provisions. Use of the BACT concept is allowable on a case-by-case basis for major new or modified emissions sources in attainment areas and applies to each regulated pollutant.

**Bake-out:** Process by which a building is heated in an attempt to accelerate VOC emissions from furniture and materials.

**Benefit/Cost Analysis:** An economic method for assessing the benefits and costs of achieving alternative health-based standards at given levels of health protection.

**Bioaccumulants:** Substances that increase in concentration in living organisms as they take in contaminated air, water or food because the substances are very slowly metabolized or excreted.

**Biocide:** Product typically used to kill microorganisms.

**Biodegradable:** Waste material composed primarily of constituent parts that occur naturally, are able to be decomposed by bacteria or fungi, and are absorbed into the ecosystem. Wood, for example, is biodegradable, while plastics are not.

**Biodiversity:** A large number and wide range of species of animals, plants, fungi and microorganisms. Ecologically, wide biodiversity is conducive to the development of all species.

**Biological Contamination:** Contamination of a building environment caused by bacteria, molds and their spores, pollen, viruses, and other biological materials. It is often linked to poorly designed and maintained HVAC systems. People exposed to biologically contaminated environments may display allergic-type responses or physical symptoms such as coughing, muscle aches and respiratory congestion.

**Biological Oxygen Demand (BOD):** A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. BOD is used as an indirect measure of the concentration of biologically degradable material present in organic wastes. It usually reflects the amount of oxygen consumed in five days by biological processes breaking down organic waste. BOD can also be used as an indicator of pollutant level, where the greater the BOD, the greater the degree of pollution. Also referred to as "biochemical oxygen demand."

**Biosphere:** The part of the earth and its atmosphere in which living organisms exist or that is capable of supporting life.

1. The ecosystem composed of the earth and the living organisms inhabiting it.

**Brownfields:** Abandoned, idled or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

**Building Envelope:** The exterior surface of a building's construction - the walls, windows, roof and floor. Also referred to as "building shell."

**Building-related Illness:** Diagnosable illness whose cause and symptoms can be directly attributed to a specific pollutant source within a building (i.e., Legionnaire's disease, hypersensitivity, pneumonitis). Also see "[Sick Building Syndrome](#)."

**By-product :** Material, other than the principal product, generated as a consequence of an industrial process or as a breakdown product in a living system.

## C

**Carbon Dioxide:** Odorless gas commonly sourced by respiration, and which has been used widely as a measure of the ventilation adequacy of a space.

**Carbon Monoxide:** A colorless, odorless and highly toxic gas commonly created during combustion.

**Carbon Tax:** A charge on fossil fuels (coal, oil, natural gas) based on their carbon content. When burned, the carbon in these fuels becomes carbon dioxide in the atmosphere, a significant greenhouse gas.

**Carcinogen:** Any substance capable of causing cancer.

**Carrying Capacity:**

1. In recreation management, the amount of use a recreation area can sustain without loss of quality.
2. In wildlife management, the maximum number of animals an area can support during a given period.

**CFM:** See "[cubic foot./min](#)"

**Chemical Oxygen Demand (COD):** A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.

**Chlorofluorocarbons (CFCs):** Stable, artificially created chemical compounds containing carbon, chlorine, fluorine and sometimes hydrogen. Chlorofluorocarbons, used primarily to facilitate cooling in refrigerators and air conditioners, have been found to deplete the stratospheric ozone layer which protects the earth and its inhabitants from excessive ultraviolet radiation.

**CITES:** Convention on International Trade in Endangered Species of Wild Fauna and Flora (U.S. Fish and Wildlife Service) provides lists of endangered species of timber and other natural products.

**Climate Change:** The term "climate change" is sometimes used to refer to all forms of climatic inconsistency, but because the earth's climate is never static, the term is more properly used to imply a significant change from one climatic condition to another. In some cases, "climate change" has been used synonymously with the term "global warming"; scientists,

however, tend to use the term in the wider sense to also include natural changes in climate. Also referred to as "global climate change." Also see "Global Warming."

**Closed-loop Recycling:** When a used product is recycled into a similar product; a recycling system in which a particular mass of material (possibly after upgrading) is remanufactured into the same product (e.g., glass bottles into glass bottles).

**Co-products:** Materials that are intentionally, or incidentally, produced when making another product.

**Commissioning:** Process by which the operating systems of a building are tested and adjusted prior to occupancy.

**Comparative Risk Analysis:** An environmental decision-making tool used to systematically measure, compare and rank environmental problems or issue areas. The process typically focuses on the risks a problem poses to human health, the natural environment and quality of life, and results in a list (or lists) of issue areas ranked in terms of relative risk.

**Compost:** Process whereby organic wastes, including food wastes, paper and yard wastes, decompose naturally, resulting in a product rich in minerals and ideal for gardening and farming as a soil conditioner, mulch, resurfacing material or landfill cover

**Concentration:** Amount of a material per unit volume; i.e., milligrams per liter.

**Conservation:** Preserving and renewing, when possible, human and natural resources. The use, protection and improvement of natural resources according to principles that will ensure their highest economic or social benefits.

**Contaminant:** Any physical, chemical, biological or radiological substance or matter that has an adverse effect on air, water or soil.

**Contamination:** Introduction into water, air and soil of microorganisms, chemicals, toxic substances, wastes or wastewater in a concentration that makes the medium unfit for its next intended use. Also applies to surfaces of objects, buildings, and various household and agricultural use products.

**Cradle-to-Cradle:** A term used in life-cycle analysis to describe a material or product that is recycled into a new product at the end of its defined life

**Cubic ft./min. (CFM):** Cubic feet per minute, a common measure of airflow.

## D

**Decay Rate:** Math function that reflects the declining emissions of a product over time.

**Deep-well Injection:** Deposition of raw or treated, filtered hazardous waste by pumping it into deep wells, where it is contained in the pores of permeable subsurface rock.

**Demand-side Waste Management:** Process whereby consumers use purchasing decisions to communicate to product manufacturers that they prefer environmentally sound products packaged with the least amount of waste, made from recycled or recyclable materials, and containing no hazardous substances.

**Dioxin:** Any of several heterocyclic hydrocarbons that occur especially as persistent toxic impurities in herbicides. Also formed by burning plastics that contain chlorine, i.e. PVC

**Disposal:** Final placement or destruction of toxic, radioactive or other wastes; surplus or banned pesticides or other chemicals; polluted soils; and drums containing hazardous materials from removal actions or accidental releases. Disposal may be accomplished through use of approved secure landfills, surface impoundments, land farming, deep-well injection, ocean dumping or incineration.

**Dose-response:** Relationship between exposure levels and adverse effects.

**Dynamic Environmental Chamber:** Well-controlled system (including temperature, relative humidity (RH) and air quality/purity) that utilizes realistic air flows for the assessment of chemical emissions from products and materials

## E

**Ecology:** A branch of science concerned with the interrelationship of organisms and their environment.

**Ecosystem:** An interconnected and symbiotic grouping of animals, plants, fungi and micro-organisms that sustains life through biological, geological and chemical activity.

**Embodied Energy:** The amount of energy used in the construction, production, and transportation of materials.

**Emission Controls:** Any measure that reduces emissions into air, water or soil. The most effective emission controls involve the redesign of the process so less waste is produced at the source. Common emission controls are wastewater treatment plants, stack scrubbers and in-plant, solid waste reduction programs.

**Emission Factor:** Quantity of a substance or substances released from a given area or mass of a material at a set point in time; i.e., milligrams per square meter per hour.

**Emissions:** The release of gases, liquids and/or solids from any process or industry. Liquid emissions are commonly referred to as effluents.

**Environmental Footprint:** For an industrial setting, this is a company's environmental impact determined by the amount of depletable raw materials and nonrenewable resources it consumes to make its products, and the quantity of wastes and emissions that are generated in the process. Traditionally, for a company to grow, the footprint had to get larger. Today, finding ways to reduce the environmental footprint is a priority for leading companies.

**Environmental Impact:** Any change to the environment, whether adverse or beneficial, wholly or partially resulting from human activity, industry or natural disasters.

**Environmental Restoration:** The act of repairing damage to a site caused by human activity, industry or natural disasters. The ideal environmental restoration, though rarely achieved, is to restore the site as closely as possible to its natural condition before it was disturbed.

**Environmental Tobacco Smoke:** Secondhand tobacco smoke exposure.

**Estuary:** A bay or inlet, often at the mouth of a river, in which large quantities of freshwater and seawater mix together. These unique habitats are necessary nursery grounds for many marine fishes and shellfishes

**Etiological:** Relating to cause, such as of disease or disorder.

**ETS:** See "[Environmental Tobacco Smoke](#)."

**Exposure:** Amount of radiation or pollutant present in a given environment that represents a potential health threat to living organisms.

## F

**Fly Ash:** A fine, glass-powder recovered from the gases of burning coal during the production of electricity. These micron-sized earth elements consist primarily of silica, alumina and iron. When mixed with lime and water the fly ash forms a cementitious compound with properties very similar to that of portland cement. Because of this similarity, fly ash can be used to replace a portion of cement in the concrete, providing some distinct quality advantages. The concrete is denser resulting in a tighter, smoother surface with less bleeding. Fly Ash concrete offers a distinct architectural benefit with improved textural consistency and sharper detail.

Fly ash with a low LOI (carbon content) is used as a substitute for portland cement in concrete. Regulations vary from state to state, however, ASTM suggests that fly ash must not contain more than 6% unburned carbon to be used for its cementitious qualities. Otherwise, concrete companies use it as a fine aggregate in concrete block. Others use it for filling old coal mines, seaside docking areas and as a lining for hazardous waste dumps.

**Formaldehyde:** It is a flammable, poisonous, colorless gas with a suffocating odor. Formaldehyde is prepared commercially by passing methanol vapor mixed with air over a catalyst, e.g., hot copper, to cause oxidation of the methanol; it is also prepared by the oxidation of natural gas. It has been identified as a carcinogen.

**Fossil Fuel:** A fuel, such as coal, crude oil and natural gas, produced by the decomposition of ancient (fossilized) plants and animals; compare to "[Alternative Energy](#)."

**Fungicide:** Pesticides that are used to control, deter or destroy fungi.

**Fungus (Fungi):** Molds, mildews, yeasts, mushrooms and puffballs; a group of organisms that are lacking in chlorophyll and usually non-mobile, filamentous and multicellular. Some grow in soil; others attach themselves to decaying trees and other plants to obtain nutrients. Some are pathogens; others stabilize sewage and digest composted waste.

## G

**Gas Chromatography:** Analytical process by which chemical mixtures are separated into individual components for quantitative and perhaps qualitative analysis.

**Global Warming:** A process that raises the air temperature in the lower atmosphere due to heat trapped by greenhouse gases, such as carbon dioxide, methane, nitrous oxide, CFCs and ozone. It can occur as the result of natural influences, but the term is most often applied to the warming predicted to occur as a result of human activities (i.e., emissions of greenhouse gases).

**Green Design:** A design, usually architectural, conforming to environmentally sound principles of building, material and energy use. A green building, for example, might make use of solar panels, skylights and recycled building materials.

**Green Roof:** A roofing system that utilizes vegetation to absorb rain water and reduce heat reflection.

**Greenhouse Effect:** The warming of earth's surface and lower atmosphere as a result of carbon dioxide and water vapor in the atmosphere, which absorb and reradiate infrared radiation.

**Greenwash:** Disinformation disseminated by an organization so as to present an environmentally responsible public image.

## H

**Habitat**

1. The natural home of an animal or plant.
2. The sum of the environmental conditions that determine the existence of a community in a specific place.

**Hydrocarbons (HC):** Chemical compounds that consist entirely of carbon and hydrogen.

**Hydrophilic:** Having a strong affinity for water; attracting, dissolving in or absorbing water.

**Hydrophobic:** Having a strong aversion to water; repelling water.

1. **Hypersensitivity:** Exaggerated immune system response to an allergen. An intensification of this warming effect brought about by increased levels of carbon dioxide in the atmosphere, resulting from the burning of fossil fuels.

## I

**IAQ:** See "[Indoor Air Quality](#)."

**Indoor Air Quality (IAQ):** ASHRAE defines acceptable indoor air quality as air in which there are no known contaminants at harmful concentrations as determined by cognizant authorities and with which 80% or more people exposed do not express dissatisfaction

**Integrated Waste Management:** The complementary use of a variety of practices to handle solid waste safely and effectively. Techniques include source reduction, recycling, composting, combustion and landfilling.

## J

## K

## L

### Landfills

1. Sanitary landfills are disposal sites for nonhazardous solid wastes spread in layers, compacted to the smallest practical volume and covered by material applied at the end of each operating day.
2. Secure chemical landfills are disposal sites for hazardous waste, selected and designed to minimize the chance of release of hazardous substances into the environment.

**Life Cycle of a Product:** All stages of a product's development, from extraction of fuel for power to production, marketing, use and disposal.

**Life Cycle Analysis (LCA):** The assessment of a product's full environmental costs, from raw material to final disposal, in terms of consumption of resources, energy and waste.

**Life Cycle Inventory (LCI):** An accounting of the energy and waste associated with the creation of a new product through use and disposal.

**Living Roof:** See "Green Roof"

**Lowest Observed Adverse Effect Level (LOAEL):** The lowest level of a stressor that causes statistically and biologically significant differences in test samples as compared to other samples subjected to no stressor.

## M

**Mass Spectrum:** Characteristic fingerprint of a substance, which makes its identification possible.

**Methane:** A colorless, nonpoisonous, flammable gas created by anaerobic decomposition of organic compounds. A major component of natural gas used in the home.

**Microbial Growth:** The amplification or multiplication of microorganisms such as bacteria, algae, diatoms, plankton and fungi.

**Microbiological Organism:** Broad range of living organisms, which typically can be viewed only through a microscope.

**Micron:** A measure of length; one millionth of a meter.

## N

**National Ambient Air Quality Standards (NAAQS):** Standards established by the EPA that apply to outdoor air throughout the country.

**Nitric Oxide (NO):** A gas formed by combustion under high temperature and high pressure in an internal combustion engine, and then converted by sunlight and photochemical processes in ambient air to nitrogen oxide. Nitric oxide is a precursor of ground-level ozone pollution, or smog.

**Nitrogen Oxide (NOx):** The result of photochemical reactions of nitric oxide in ambient air. It is a major component of photochemical smog, a product of combustion from transportation and stationary sources, and a major contributor to the formation of ozone in the lower atmosphere and to acid deposition.

**No Observable Adverse Effect Level (NOAEL):** An exposure level at which there are no statistically or biologically significant increases in the frequency or severity of adverse effects between the exposed population and its appropriate control; some effects may be produced at this level, but they are not considered as adverse, or as precursors to adverse effects. In an experiment with several NOAELs, the regulatory focus is primarily on the highest one, leading to the common usage of the term NOAEL as the highest exposure without adverse effects.

**Nonrenewable Energy:** Energy derived from depletable fuels (oil, gas, coal) created through lengthy geological processes and existing in limited quantities on the earth.

**Nonrenewable Resource:** A resource that cannot be replaced in the environment (i.e., [fossil fuels](#)) because it forms at a rate far slower than its consumption.

## O

**Odor Threshold:** The minimum odor of a water or air sample that can just be detected after successive dilutions with odorless water. Also referred to as "threshold odor."

**Open-loop Recycling:** A recycling system in which a product made from one type of material is recycled into a different type of product (e.g., used newspapers into toilet paper). The product receiving recycled material itself may or may not be recycled.

**Organic Compound:** Vast array of substances typically characterized as principally carbon and hydrogen, but that may also contain oxygen, nitrogen and a variety of other elements as structural building blocks.

**OSHA:** Occupational Safety and Health Administration

**Ozone Depletion:** Destruction of the earth's ozone layer, which can be caused by the photolytic breakdown of certain chlorine- and/or bromine-containing compounds (e.g., [chlorofluorocarbons](#)), which catalytically decompose ozone molecules.

**Ozone Hole:** A thinning break in the ozone layer. Designation of amount of such depletion as an "ozone hole" is made when the detected amount of depletion exceeds 50 percent. Seasonal ozone holes have been observed over the Antarctic and arctic regions, part of Canada, and the extreme northeastern United States.

**Ozone Layer:** The protective layer in the atmosphere, about 12-15 miles above sea level, that absorbs some of the sun's ultraviolet rays, thereby reducing the amount of potentially harmful radiation that reaches the earth's surface.

**Ozone (O<sub>3</sub>):** A naturally occurring, highly reactive, irritating gas comprising triatomic oxygen formed by recombination of oxygen in the presence of ultraviolet radiation. This gas builds up in the lower atmosphere as smog pollution, while in the upper atmosphere it forms a protective layer that shields the earth and its inhabitants from excessive exposure to damaging ultraviolet radiation.

## P

**Particulate Pollution:** Pollution made up of small liquid or solid particles suspended in the atmosphere or water supply.

**Particulate:** Fine dust or particles (i.e., smoke).

1. Of or relating to minute discrete particles.
2. A particulate substance.

**Pathogens:** Microorganisms (i.e., bacteria, viruses or parasites) that can cause disease in humans, animals and plants.

**Petroleum:** Crude oil or any fraction thereof that is liquid under normal conditions of temperature and pressure. The term includes petroleum-based substances comprising a complex blend of hydrocarbons derived from crude oil through the process of separation, conversion, upgrading and finishing, such as motor fuel, jet oil, lubricants, petroleum solvents and used oil.

**Photochemical Oxidants:** Air pollutants formed by the action of sunlight on oxides of nitrogen and hydrocarbons.

**Photochemical Smog:** Air pollution caused by chemical reactions of various pollutants emitted in the presence of sunlight.

**Pollution:** Generally, the presence of a substance in the environment that, because of its chemical composition or quantity, prevents the functioning of natural processes and produces undesirable environmental and health effects. Under the Clean Water Act, for example, the term has been defined as the man-made or man-induced alteration of the physical, biological, chemical and radiological integrity of water and other media.

**Pollution Prevention:** Techniques that eliminate waste prior to treatment, such as changing ingredients in a chemical reaction.

1. Identifying areas, processes and activities that create excessive waste products or pollutants in order to reduce or prevent them through alteration or elimination of a process.

2. The EPA has initiated a number of voluntary programs in which industrial or commercial "partners" join with the EPA in promoting activities that conserve energy, conserve and protect the water supply, reduce emissions or find ways of utilizing them as energy resources, and reduce the waste stream.

**Post-consumer Material:** Any household or commercial product that has served its original, intended use.

**Post-consumer Recycle Content:** A product composition that contains some percentage of material that has been reclaimed from the same or another end use at the end of its former, useful life.

**Post-industrial Material:** Industrial manufacturing scrap or waste; also called pre-consumer material

**Post-industrial Recycle Content:** product composition that contains some percentage of manufacturing waste material that has been reclaimed from a process generating the same or a similar product. Also called pre-consumer recycle content.

**ppb:** parts per billion.

**ppm:** Parts per million.

**Pyrolysis:** Decomposition of a chemical by extreme heat.

## Q

## R

**Reclamation:** Restoration of materials found in the waste stream to a beneficial use that may be other than the original use.

**Recycling:** Process by which materials that would otherwise become solid waste are collected, separated or processed and returned to the economic mainstream to be reused in the form of raw materials or finished goods.

**Relative Humidity:** Ratio of the amount of water vapor in air at a specific temperature to the maximum capacity of the air at that temperature.

**Renewable Resources:** A resource that can be replenished at a rate equal to or greater than its rate of depletion; i.e., solar, wind, geothermal and biomass resources.

**Resource Conservation:** Practices that protect, preserve or renew natural resources in a manner that will ensure their highest economic or social benefits.

**Respirable:** Particles or aerosols capable of being inhaled into the deep lung, < 3 microns in diameter.

**Reuse:** Using a product or component of municipal solid waste in its original form more than once.

**RH:** See "[Relative Humidity](#)."

**Risk:** A measure of the probability of an adverse effect on a population under a well-defined exposure scenario.

**Risk Factor:** Characteristics (i.e., race, sex, age, obesity) or variables (i.e., smoking, occupational exposure level) associated with increased probability of a toxic effect.

## S

**Sanitary Sewers:** Underground pipes that carry off only domestic or industrial waste, but not storm water.

**Sanitary Survey:** An on-site review of the water sources, facilities, equipment, operation and maintenance of a public water system to evaluate the adequacy of those elements for producing and distributing safe drinking water.

**Sanitary Water:** Water discharged from sinks, showers, kitchens or other nonindustrial operations, but not from commodes. Also referred to as "gray water."

**Sick Building Syndrome:** A building whose occupants experience acute health and/or comfort affects that appear to be linked to time spent therein, but where no specific illness or cause can be identified. Complaints may be localized in a particular room or zone, or may spread throughout the building and may abate on leaving the building. Also see "[Building-related Illness](#)."

**Source Reduction:** The design, manufacture, purchase or use of materials to reduce the amount or toxicity of waste in an effort to reduce pollution and conserve resources (i.e., reusing items, minimizing the use of products containing hazardous compounds, extending the useful life of a product and reducing unneeded packaging).

1. Practices that reduce the amount of any hazardous substance, pollutant or contaminant entering any waste stream or otherwise being released into the environment. Such practices also reduce the risk to public health and the environment associated with such releases. Term includes equipment or technology modifications, substitution of raw materials, and improvements in housekeeping, maintenance, training or inventory control.

**Stack Effect:** Flow of air resulting from warm air rising, creating a positive pressure area at the top of a building and negative pressure area at the bottom. This effect can overpower the mechanical system and disrupt building ventilation and air circulation.

**Sterilizer:** One of three groups of antimicrobials registered by the EPA for public health uses. The EPA considers an antimicrobial to be a sterilizer when it destroys or eliminates all forms of bacteria, viruses, and fungi and their spores. Because spores are considered the most difficult form of microorganism to destroy, the EPA considers the term "sporicide" to be synonymous with "sterilizer."

**Sulfur Dioxide (SO<sub>2</sub>):** A heavy, smelly gas that can be condensed into a clear liquid; used to make sulfuric acid, bleaching agents, preservatives and refrigerants; a major source of air pollution in industrial areas.

**Sustainability:** Practices that would ensure the continued viability of a product or practice well into the future.

**Sustainable Development:** An approach to progress that meets the needs of the present without compromising the ability of future generations to meet their needs.

## T

**Thermal Pollution:** The addition of heat to a body of water that may change the ecological balance

**Threshold Limit Value (TLV):** The concentration of an airborne substance to which an average person can be repeatedly exposed without adverse effects. TLVs may be expressed in three ways:

1. TLV-TWA-Time-weighted average, based on an allowable exposure averaged over a normal 8-hour workday or 40-hour workweek.
2. TLV-STEL-Short-term exposure limit, or maximum concentration for a brief specified period of time, depending on a specific chemical (TWA must still be met).
3. TLV-C-Ceiling exposure limit, or maximum exposure concentration not to be exceeded under any circumstances (TWA must still be met).

**Tipping Fee:** Charge for the unloading or dumping of waste at a recycling facility, composting facility, landfill, transfer station or waste-to-energy facility.

**TLV:** See "[Threshold Limit Value](#)."

**Total Volatile Organic Compounds:** The total mass, typically in milligrams per cubic meter, of the organic compounds collected in air.

**Toxic:** Capable of having an adverse effect on an organism; poisonous; harmful or deadly.

**TVOC:** See "[Total Volatile Organic Compounds](#)"

## U

**Urea-formaldehyde:** a thermosetting synthetic resin made by condensing urea with formaldehyde. Used in the construction of plywood, particle board, MDF, laminated wood products.

## V

**Ventilation:** Process by which outside air is conveyed to an indoor space.

**Volatile Organic Compound (VOC):** Organic substances capable of entering the gas phase from either a liquid or solid form.

## W

**Waste to Energy:** Burning of industrial waste to provide steam, heat or electricity. Sometimes referred to as waste-to-fuel process

## X

## Y

## Z