



# Terms Of Environment

## Glossary, Abbreviations And Acronyms



**U.S. Environmental Protection Agency  
Region 5, Library (PL-12J)  
77 West Jackson Boulevard, 12th Floor  
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## Introduction

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*Terms Of Environment* defines in non-technical language the more commonly used environmental terms appearing in EPA publications, news releases, and other Agency documents available to the general public, students, the media, and Agency employees. The definitions do not constitute the Agency's official use of terms and phrases for regulatory purposes, and nothing in this document should be construed to alter or supplant any other federal document. Official terminology may be found in the laws and related regulations as published in such sources as the Congressional Record, Federal Register, and elsewhere.

The terms and acronyms selected included herein, are derived from previously published lists, internal glossaries produced by various programs and specific suggestions made by personnel in many Agency offices. The chemicals and pesticides selected for inclusion are limited to those most frequently referred to in Agency publications or which are the subject of major regulatory or program activities. Acronyms or Abbreviations for EPA units are automated to office-level designation.

Definitions or information about substances or program activities not included herein may be found in EPA libraries or scientific/technical reference documents, or may be obtained from various program offices.

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## A

**A—Scale Sound Level:** A measurement of sound approximating the sensitivity of the human ear, used to note the intensity or annoyance level of sounds.

**Abandoned Well:** A well whose use has been permanently discontinued or which is in a state of such disrepair that it cannot be used for its intended purpose.

**Abatement:** Reducing the degree or intensity of, or eliminating, pollution.

**Absorption:** The passage of one substance into or through another; e.g., an operation in which one or more soluble components of a gas, liquid, or solid mixture are dissolved in a liquid.

**Accelerator:** In radiation science, a device that speeds up charged particles such as electrons or protons.

**Accident Site:** The location of an unexpected occurrence, failure or loss, either at a plant or along a transportation route, resulting in a release of hazardous materials.

**Acclimatization:** The physiological and behavioral adjustments of an organism to changes in its environment.

**Acetylcholine:** A substance in the human body having important neurotransmitter effects on various internal systems; often used as a bronchoconstrictor.

**Acid Deposition:** A complex chemical and atmospheric phenomenon that occurs when emissions of sulfur and nitrogen compounds and other substances are transformed by chemical processes in the atmosphere, often far from the original sources, and then deposited on earth in either wet or dry form. The wet forms, popularly called "acid rain," can fall as rain, snow, or fog. The dry forms are acidic gases or particulates.

**Acid Rain:** (See: acid deposition)

**Action Levels:** 1. Regulatory levels recommended by EPA for enforcement by FDA and USDA when pesticide residues occur in food or feed commodities for reasons other than the direct application of the pesticide. As opposed to "tolerances" which are established for residues occurring as a direct result of proper usage, action levels are set for inadvertent residues resulting from previous legal use or accidental contamination. 2. In the Superfund program, the existence of a contaminant concentration in the environment high enough to warrant action or trigger a response under SARA and the National Oil and Hazardous Substances Contingency Plan. The term is also used in other regulatory programs. (See: tolerances.)

**Activated Carbon:** A highly adsorbent form of carbon used to remove odors and toxic substances from liquid or gaseous emissions. In waste treatment it is used to remove dissolved organic matter from waste water. It is also used in motor vehicle evaporative control systems.

**Activated Sludge:** Product that results when primary effluent is mixed with bacteria-laden sludge and then agitated and aerated to promote biological treatment, speeding the breakdown of organic matter in raw sewage undergoing secondary waste treatment.

**Activator:** A chemical added to a pesticide to increase its activity.

**Active Ingredient:** In any pesticide product, the component that kills, or otherwise controls, target pests. Pesticides are regulated primarily on the basis of active ingredients.

**Activity Plans:** Written procedures in a school's asbestos management plan that detail the steps a Local Education Agency (LEA) will follow in performing the initial and additional cleaning, operation and maintenance-program tasks; periodic surveillance; and reinspections required by the Asbestos Hazard Emergency Response Act (AHERA).

**Acute Exposure:** A single exposure to a toxic substance which results 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 poisonous effects resulting in severe biological harm or death soon after a single exposure or dose. Also, any severe poisonous effect resulting from a single short-term exposure to a toxic substance. (See: chronic toxicity, toxicity.)

**Adaptation:** Changes in an organism's structure or habits that help it adjust to its surroundings.

**Add-on Control Device:** An air pollution control device such as carbon absorber or incinerator that reduces the pollution in an exhaust gas. The control device usually does not affect the process being controlled and thus is "add-on" technology, as opposed to a scheme to control pollution through altering the basic process itself.

**Adequately Wet:** Asbestos containing material that is sufficiently mixed or penetrated with liquid to prevent the release of particulates.

**Adhesion:** Molecular attraction that holds the surfaces of two substances in contact.

**Administrative Order On Consent:** A legal agreement signed by EPA and an individual, business, or other entity

through which the violator agrees to pay for correction of violations, take the required corrective or cleanup actions, or refrain from an activity. It describes the actions to be taken, may be subject to a comment period, applies to civil actions, and can be enforced in court.

**Administrative Order:** A legal document signed by EPA directing an individual, business, or other entity to take corrective action or refrain from an activity. It describes the violations and actions to be taken, and can be enforced in court. Such orders may be issued, for example, as a result of an administrative complaint whereby the respondent is ordered to pay a penalty for violations of a statute.

**Administrative Procedures Act:** A law that spells out procedures and requirements related to the promulgation of regulations.

**Administrative Record:** All documents which EPA considered or relied on in selecting the response action at a Superfund site, culminating in the record of decision for remedial action or, an action memorandum for removal actions.

**Adsorption:** 1. Adhesion of molecules of gas, liquid, or dissolved solids to a surface. 2. An advanced method of treating waste in which activates carbon and removes organic matter from wastewater

**Adulterants:** Chemical impurities or substances that by law do not belong in a food, or pesticide.

**Adulterated:** 1. Any pesticide whose strength or purity falls below the quality stated on its label. 2. A food, feed, or product that contains illegal pesticide residues.

**Advanced Treatment:** A level of wastewater treatment more stringent than secondary treatment; requires an 85-percent reduction in conventional pollutant concentration or a significant reduction in non-conventional pollutants.

**Advanced Wastewater Treatment:** Any treatment of sewage that goes beyond the secondary or biological water treatment stage and includes the removal of nutrients such as phosphorus and nitrogen and a high percentage of suspended solids. (See primary, secondary treatment.)

**Advisory:** A non-regulatory document that communicates risk information to those who may have to make risk management decisions.

**Aerated Lagoon:** A holding and/or treatment pond that speeds up the natural process of biological decomposition of organic waste by stimulating the growth and activity of bacteria that degrade organic waste.

**Aeration:** A process which promotes biological degradation of organic matter in

water. The process may be passive (as when waste is exposed to air), or active (as when a mixing or bubbling device introduces the air).

**Aeration Tank:** A chamber used to inject air into water.

**Aerobic Treatment:** Process by which microbes decompose complex organic compounds in the presence of oxygen and use the liberated energy for reproduction and growth. (Such processes include extended aeration, trickling filtration, and rotating biological contactors.)

**Aerobic:** Life or processes that require, or are not destroyed by, the presence of oxygen. (See: anaerobic.)

**Aerosol:** A suspension of liquid or solid particles in a gas.

**Affected Public:** The people who live and/or work near a hazardous waste site.

**Afterburner:** In incinerator technology, a burner located so that the combustion gases are made to pass through its flame in order to remove smoke and odors. It may be attached to or be separated from the incinerator proper.

**Agent Orange:** A toxic herbicide and defoliant used in the Vietnam conflict, containing 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) and 2,4-dichlorophenoxyacetic acid (2,4-D) with trace amounts of dioxin.

**Agglomeration:** The process by which precipitation particles grow larger by collision or contact with cloud particles or other precipitation particles.

**Agglutination:** The process of uniting solid particles coated with a thin layer of adhesive material or of arresting solid particles by impact on a surface coated with an adhesive.

**Agricultural Pollution:** Farming wastes, including runoff and leaching of pesticides and fertilizers; erosion and dust from plowing; improper disposal of animal manure and carcasses; crop residues, and debris.

**AHERA Designated Person (ADP):** A person designated by a Local Education Agency to ensure that the AHERA requirements for asbestos management and abatement are properly implemented.

**Air Changes Per Hour (ACH):** The movement of a volume of air in a given period of time; if a house has one air change per hour, it means that all of the air in the house will be replaced in a one-hour period.

**Air Contaminant:** Any particulate matter, gas, or combination thereof, other than water vapor. (See: air pollutant.)

**Air Curtain:** A method of containing oil spills. Air bubbling through a perforated pipe causes an upward water flow that

slows the spread of oil. It can also be used to stop fish from entering polluted water.

**Air Mass:** A large volume of air with certain meteorological or polluted characteristics-e.g., a heat inversion or smogginess-while in one location. The characteristics can change as the air mass moves away.

**Air Monitoring:** (See: monitoring)

**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 airborne matter capable of being airborne. They may be in the form of solid particles, liquid droplets, gases, or in combination thereof. Generally, they fall into two main groups: (1) those emitted directly from identifiable sources and (2) those produced in the air by interaction between two or more primary pollutants, or by reaction with normal atmospheric constituents, with or without photoactivation. Exclusive of pollen, fog, and dust, which are of natural origin, about 100 contaminants have been identified and fall into the following categories: solids, sulfur compounds, volatile organic chemicals, nitrogen compounds, oxygen compounds, halogen compounds, radioactive compounds, and odors.

**Air Pollution Episode:** A period of abnormally high concentration of air pollutants, often due to low winds and temperature inversion, that can cause illness and death. (See: episode, pollution.)

**Air Pollution Control Device:** Mechanism or equipment that cleans emissions generated by an incinerator by removing pollutants that would otherwise be released to the atmosphere.

**Air Pollution:** The presence of contaminant or pollutant substances in the air that do not disperse properly and interfere with human health or welfare, or produce other harmful environmental effects.

**Air Quality Criteria:** The levels of pollution and lengths of exposure above which adverse health and welfare effects may occur.

**Air Quality Control Region:** An area designated by the federal government in which communities share a common air pollution problem, sometimes embracing several states.

**Air Quality Standards:** The level of pollutants prescribed by regulations that may not be exceeded during a given time in a defined area.

**Air Stripping:** A treatment system that removes volatile organic compounds (VOCs) from contaminated ground water or surface water by forcing an airstream through the water and causing the compounds to evaporate.

**Air Toxics:** Any air pollutant for which a national ambient air quality standard (NAAQS) does not exist (i.e., excluding ozone, carbon monoxide, PM-10, sulfur dioxide, nitrogen oxide) that may reasonably be anticipated to cause cancer, developmental effects, reproductive dysfunctions, neurological disorders, heritable gene mutations, or other 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. Airborne particulates include: windblown dust, emissions from industrial processes, smoke from the burning of wood and coal, and motor vehicle or non-road engine exhausts. exhaust of motor vehicles.

**Airborne Release:** Release of any chemical into the air.

**Alachlor:** A herbicide, marketed under the trade name Lasso, used mainly to control weeds in corn and soybean fields.

**Alar:** Trade name for daminozide, a pesticide that makes apples redder, firmer, and less likely to drop off trees before growers are ready to pick them. It is also used to a lesser extent on peanuts, tart cherries, concord grapes, and other fruits.

**Albedo:** Ability of a surface to reflect incoming electromagnetic radiation, measured from 0 to 1; surfaces with albedos of 1 reflect all incoming radiation, those with 0 albedo absorb all of it.

**Aldicarb:** An insecticide sold under the trade name Temik. It is made from ethyl isocyanate.

**Algae:** Simple rootless plants that grow in sunlit waters in proportion to the amount of available nutrients. They can affect water quality adversely by lowering the dissolved oxygen in the water. They are food for fish and small aquatic animals.

**Algal Blooms:** Sudden spurts of algal growth, which can affect water quality adversely and indicate potentially hazardous changes in local water chemistry.

**Alpha Particle:** A positively charged particle composed of 2 neutrons and 2 protons released by some atoms undergoing radioactive decay. The particle is identical to the nucleus of a helium atom.

**Alternate Fuels:** Fuels such as ethanol, methane, LPG, and natural gas that can be

used instead of gasoline to run automobiles and other engines.

**Alternate Method:** Any method of sampling and analyzing for an air pollutant that is not a reference or equivalent method but that has been demonstrated in specific cases-to EPA's satisfaction-to produce results adequate for compliance monitoring.

**Alternative Remedial Contract Strategy Contractors:** Government contractors who provide project management and technical services to support remedial response activities at National Priorities List sites.

**Ambient Air Quality Standards:** (See: Criteria Pollutants and National Ambient Air Quality Standards.)

**Ambient Air:** Any unconfined portion of the atmosphere: open air, surrounding air.

**Anadromous:** Fish that spend their adult life in the sea but swim upriver to freshwater spawning grounds to reproduce.

**Anaerobic:** A life or process that occurs in, or is not destroyed by, the absence of oxygen.

**Antagonism:** The interaction of two chemicals having an opposing, or neutralizing effect on each other.

**Antarctic "Ozone Hole":** Refers to the seasonal depletion of ozone in a large area over Antarctica.

**Anti-Degradation Clause:** Part of federal air quality and water quality requirements prohibiting deterioration where pollution levels are above the legal limit.

**Antibodies:** Proteins produced in the body by immune system cells in response to antigens, and capable of combining with antigens.

**Antigen:** A substance that causes production of antibodies when introduced into animal or human tissue.

**Applicable or Appropriate Requirements (ARARs):** Any state or federal statute that pertains to protection of human life and the environment in addressing specific conditions or use of a particular cleanup technology at a Superfund site,

**Aquifer:** An underground geological formation, or group of formations, containing usable amounts of groundwater that can supply wells and springs.

**Arbitration:** Resolution of disputes by means of an impartial arbitrator selected by the parties; the decisions are usually binding. (See: mediation.)

**Area of Review:** In the UIC program, the area surrounding an injection well that is reviewed during the permitting process to determine if flow between aquifers will be induced by the injection operation.

**Area Source:** Any small source of non-natural air pollution that is released over a relatively small area but which cannot be classified as a point source. Such sources may include vehicles and other small engines, small businesses and household activities.

**Aromatics:** A type of hydrocarbon, such as benzene or toluene, added to gasoline in order to increase octane. Some aromatics are toxic.

**Arsenicals:** Pesticides containing arsenic.

**Asbestos:** A mineral fiber that can pollute air or water and cause cancer or asbestosis when inhaled. EPA has banned or severely restricted its use in manufacturing and construction.

**Asbestos Abatement:** Procedures to control fiber release from asbestos-containing materials in a building or to remove them entirely, including removal, encapsulation, repair, enclosure, encasement, and operations and maintenance programs.

**Asbestos-Containing Waste Materials (ACWM):** Mill tailings or any waste that contains commercial asbestos and is generated by a source covered by the Clean Air Act Asbestos NESHAPS.

**Asbestosis:** A disease associated with inhalation of asbestos fibers. The disease makes breathing progressively more difficult and can be fatal.

**Asbestos Program Manager:** A building owner or designated representative who supervises all aspects of the facility asbestos management and control program.

**Ash:** The mineral content of a product remaining after complete combustion.

**Assessment:** In the asbestos-in-schools program, the evaluation of the physical condition and potential for damage of all friable asbestos containing materials and thermal insulation systems.

**Assimilation:** The ability of a body of water to purify itself of pollutants.

**Assimilative Capacity:** The capacity of a natural body of water to receive wastewaters or toxic materials without deleterious effects and without damage to aquatic life or humans who consume the water.

**Atmosphere [an]:** A standard unit of pressure representing the pressure exerted by a 29.92-inch column of mercury at sea level at 45° latitude and equal to 1000 grams per square centimeter.

**Atmosphere [the]:** The whole mass of air surrounding the earth, comprising oxygen, nitrogen, carbon dioxide, and trace gases..

**Atomize:** To divide a liquid into extremely minute particles, either by impact with a jet of steam or compressed air, or by passage through some mechanical device.

**Attainment Area:** An area considered to have air quality as good as or better than the national ambient air quality standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a non-attainment area for others.

**Attenuation:** The process by which a compound is reduced in concentration over time, through absorption, adsorption, degradation, dilution, and/or transformation.

**Attractant:** A chemical or agent that lures insects or other pests by stimulating their sense of smell.

**Attrition:** Wearing or grinding down of a substance by friction. Dust from such processes contributes to air pollution.

**Autotroph:** An organism that produces its food nutrients from inorganic substances.

**Availability Session:** Informal meeting at a public location where interested citizens can talk with EPA and state officials on a one-to-one basis.

## B

**Background Level:** In air pollution control, the concentration of air pollutants in a definite area during a fixed period of time prior to the starting up or on the stoppage of a source of emission under control. In toxic substances monitoring, the average presence in the environment, originally referring to naturally occurring phenomena.

**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.

**Bacteria:** (Singular: bacterium) Microscopic living organisms that can aid in pollution control by metabolizing organic matter in sewage, oil spills or other pollutants. However, bacteria in soil, water or air can also cause human, animal and plant health problems.

**Baffle Chamber:** In incinerator design, a chamber designed to promote the settling of fly ash and coarse particulate matter by changing the direction and/or reducing the velocity of the gases produced by the combustion of the refuse or sludge.

**Baghouse Filter:** Large fabric bag, usually made of glass fibers, used to eliminate intermediate and large (greater than 20 microns in diameter) particles. This device operates like the bag of an electric vacuum cleaner, passing the air and smaller particles while entrapping the larger ones.

**Baling:** Compacting solid waste into blocks to reduce volume and simplify handling.

**Ballistic Separator:** A machine that sorts organic from inorganic matter for composting.

**Band Application:** The spreading of chemicals over, or next to, each row of plants in a field.

**Banking:** A system for recording qualified air emission reductions for later use in bubble, offset, or netting transactions. (See: emissions trading.)

**Bar Screen:** In wastewater treatment, a device used to remove large solids.

**Barrier Coating(s):** A layer of a material that obstructs or prevents passage of something through a surface that is to be protected, e.g. grout, caulk, or various sealing compounds; sometimes used with polyurethane membranes to prevent corrosion or oxidation of metal surfaces, chemical impacts on various materials, or, for example, to prevent radon infiltration through walls, cracks, or joints in a house.

**Basal Application:** In pesticides, the application of a chemical on plant stems or tree trunks just above the soil line.

**BEN:** EPA's computer model for analyzing a violator's economic gain from not complying with the law.

**Bench-scale Tests:** Laboratory testing of potential cleanup technologies (See: treatability studies.)

**Benthic Organism:** A form of aquatic plant or animal life that is found at or near the bottom of a stream, lake or ocean.

**Benthic Region:** The bottom layer of a body of water.

**Beryllium:** An airborne metal hazardous to human health when inhaled. It is discharged by machine shops, ceramic and propellant plants, and foundries.

**Best Available Control Measures (BAC-M):** A term used to refer to the most effective measures (according to EPA guidance) for controlling small or dispersed particulates from sources such as roadway dust, soot and ash from woodstoves and open burning of rush, timber, grasslands, or trash.

**Best Demonstrated Available Technology (BDAT):** As identified by EPA, the most effective commercially available means of treating specific types of hazardous waste. The BDATs may change with advances in treatment technologies..

**Beta Particle:** An elementary particle emitted in radioactive decay that may cause skin burns, but can be halted by a thin sheet of paper or foil.

**Bimetal:** Beverage containers with steel bodies and aluminum tops; handled differently from pure aluminum in recycling.

**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. (See: biological magnification.)

**Bioassay:** Study of living organisms to measure the effect of a substance, factor, or condition by comparing before-and-after exposure or other data.

**Biochemical Oxygen Demand (BOD):** A measure of the amount of oxygen consumed in the biological processes that break down organic matter in water. The greater the BOD, the greater the degree of pollution.

**Biodegradable:** Capable of decomposing rapidly under natural conditions.

**Biological Control:** In pest control, the use of animals and organisms that eat or otherwise kill or out-compete pests.

**Biological Magnification:** Refers to the process whereby certain substances such as pesticides or heavy metals move up the food chain, work their way into rivers or lakes, and are eaten by aquatic organisms such as fish, which in turn are eaten by large birds, animals or humans. The substances become concentrated in tissues or internal organs as they move up the chain. (See: bioaccumulative.)

**Biological Oxidation:** Decomposition of complex organic materials by microorganisms. Occurs in self-purification of water bodies and in activated sludge wastewater treatment.

**Biological Treatment:** A treatment technology that uses bacteria to consume organic waste.

**Biologicals:** Vaccines, cultures and other preparations made from living organisms and their products, intended for use in diagnosing, immunizing, or treating humans or animals, or in related research.

**Biomass:** All of the living material in a given area; often refers to vegetation.

**Biome:** Entire community of living organisms in a single major ecological area. (See: biotic community.)

**Biomonitoring:** 1. The use of living organisms to test the suitability of effluents for discharge into receiving waters and to test the quality of such waters downstream from the discharge. 2. Analysis of blood, urine, tissues, etc., to measure chemical exposure in humans.

**Bioremediation:** Use of living organisms to clean up oil spills or remove other pollutants from soil, water, or wastewater; use of organisms such as non-harmful insects to remove agricultural pests or counteract diseases of trees, plants, and garden soil.

**Biosphere:** The portion of Earth and its atmosphere that can support life.

**Biostabilizer:** A machine that converts solid waste into compost by grinding and aeration.

**Biota:** The animal and plant life of a given region.

**Biotechnology:** Techniques that use living organisms or parts of organisms to produce a variety of products (from medicines to industrial enzymes) to improve plants or animals or to develop microorganisms to remove toxics from bodies of water, or act as pesticides.

**Biotic Community:** A naturally occurring assemblage of plants and animals that live in the same environment and are mutually sustaining and interdependent. (See: biome.)

**Black Lung:** A disease of the lungs caused by habitual inhalation of coal dust.

**Blackwater:** Water that contains animal, human, or food waste.

**Blood Products:** Any product derived from human blood, including but not limited to blood plasma, platelets, red or white corpuscles, and derived licensed products such as interferon.

**Bloom:** A proliferation of algae and/or higher aquatic plants in a body of water; often related to pollution, especially when pollutants accelerate growth.

**BOD5:** The amount of dissolved oxygen consumed in five days by biological processes breaking down organic matter.

**Bog:** A type of wetland that accumulates appreciable peat deposits. Bogs depend primarily on precipitation for their water source, and are usually acidic and rich in plant residue with a conspicuous mat of living green moss.

**Boom:** 1. A floating device used to contain oil on a body of water. 2. A piece of equipment used to apply pesticides from a tractor or truck. (See: sonic boom.)

**Botanical Pesticide:** A pesticide whose active ingredient is a plant-produced chemical such as nicotine or strychnine. Also called a plant-derived pesticide.

**Bottle Bill:** Proposed or enacted legislation which requires a returnable deposit on beer or soda containers and provides for retail store or other redemption. Such legislation is designed to discourage use of throwaway containers.

**Bottom Ash:** The non-airborne combustion residue from burning pulverized coal in a



boiler; the material which falls to the bottom of the boiler and is removed mechanically; a concentration of the non-combustible materials, which may include toxics.

**Bottom Land Hardwoods:** Forested freshwater wetlands adjacent to rivers in the southeastern United States, especially valuable for wildlife breeding, nesting and habitat.

**Brackish Water:** A mixture of fresh and salt water.

**Brine Mud:** Waste material, often associated with well-drilling or mining, composed of mineral salts or other inorganic compounds.

**Building Cooling Load:** The hourly amount of heat that must be removed from a building to maintain indoor comfort (measured in British Thermal Units (Btus).

**Broadcast Application:** The spreading of pesticides over an entire area.

**Bubble Policy:** (See: emissions trading.)

**Bubble:** A system under which existing emissions sources can propose alternate means to comply with a set of emissions limitations; under the bubble concept, sources can control more than required at one emission point where control costs are relatively low in return for a comparable relaxation of controls at a second emission point where costs are higher.

**Buffer Strips:** Strips of grass or other erosion-resisting vegetation between or below cultivated strips or fields.

**Bulk Sample:** A small portion (usually thumbnail size) of a suspect asbestos-containing building material collected by an asbestos inspector for laboratory analysis to determine asbestos content.

**Bulky Waste:** Large items of waste materials, such as appliances, furniture, large auto parts, trees, stumps.

**Burial Ground (Graveyard):** A disposal site for radioactive waste materials that uses earth or water as a shield.

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

## C

**Cadmium (Cd):** A heavy metal element that accumulates in the environment.

**Cancellation:** Refers to Section 6 (b) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) which authorizes cancellation of a pesticide registration if unreasonable adverse effects to the environment and public health develop when a product is used according to widespread and commonly recognized practice, or if its labeling

or other material required to be submitted does not comply with FIFRA provisions.

**Cap:** A layer of clay, or other impermeable material installed over the top of a closed landfill to prevent entry of rainwater and minimize leachate.

**Capacity Assurance Plan:** A statewide plan which supports a state's ability to manage the hazardous waste generated within its boundaries over a twenty year period.

**Capture Efficiency:** The fraction of organic vapors generated by a process that are directed to an abatement or recovery device.

**Carbon Absorber:** An add-on control device that uses activated carbon to absorb volatile organic compounds from a gas stream. (The VOCs are later recovered from the carbon.)

**Carbon Adsorption:** A treatment system that removes contaminants from ground water or surface water by forcing it through tanks containing activated carbon treated to attract the contaminants. contaminants.

**Carbon Dioxide (CO<sub>2</sub>):** A colorless, odorless, non-poisonous gas, which results from fossil fuel combustion and is a normal constituent of the ambient air.

**Carbon Monoxide (CO):** A colorless, odorless, poisonous gas produced by incomplete fossil fuel combustion.

**Carboxyhemoglobin:** Hemoglobin in which the iron is bound to carbon monoxide (CO) instead of oxygen.

**Carcinogen:** Any substance that can cause or aggravate cancer.

**Carcinogenic:** Cancer-producing.

**Carrier:** The inert liquid or solid material added to an active ingredient in a pesticide.

**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.

**Cask:** A thick-walled container (usually lead) used to transport radioactive material. Also called a coffin.

**Catalytic Converter:** An air pollution abatement device that removes pollutants from motor vehicle exhaust, either by oxidizing them into carbon dioxide and water or reducing them to nitrogen and oxygen.

**Catalytic Incinerator:** A control device that oxidizes volatile organic compounds (VOCs) by using a catalyst to promote the combustion process. Catalytic incinerators

require lower temperatures than conventional thermal incinerators, thus saving fuel and other costs.

**Catanadramous Fish:** Those that swim downstream to spawn.

**Categorical Exclusion:** A class of actions which either individually or cumulatively would not have a significant effect on the human environment and therefore would not require preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act (NEPA).

**Categorical Pretreatment Standard:** A technology-based effluent limitation for an industrial facility discharging into a municipal sewer system. Analogous in stringency to Best Availability Technology (BAT) for direct dischargers.

**Cathodic Protection:** A technique to prevent corrosion of a metal surface by making it the cathode of an electrochemical cell.

**Caustic Soda:** Sodium hydroxide, an alkaline substance; the cleaning agent in some detergents.

**Cells:** 1. In solid waste disposal, holes where waste is dumped, compacted, and covered with layers of dirt on a daily basis. 2. The smallest structural part of living matter capable of functioning as an independent unit.

**Cementitious:** Densely packed and nonfibrous friable materials.

**Central Collection Point:** Location where a generator of regulated medical waste consolidates wastes originally generated at various locations in his facility. The wastes are gathered together for treatment on-site or for transportation elsewhere for treatment and/or disposal. This term could also apply to community hazardous waste collections, industrial and other waste management systems.

**Centrifugal Collector:** A mechanical system using centrifugal force to remove aerosols from a gas stream or to de-water sludge.

**Cesium (Cs):** A silver-white, soft ductile element of the alkali metal group that is the most electropositive element known. Used especially in photoelectric cells.

**Channelization:** Straightening and deepening streams so water will move faster, a marsh-drainage tactic that can interfere with waste assimilation capacity, disturb fish and wildlife habitats, and aggravate flooding.

**Characteristic:** Any one of the four categories used in defining hazardous waste: ignitability, corrosivity, reactivity, and toxicity.

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

**Chemical Treatment:** Any one of a variety of technologies that use chemicals or a variety of chemical processes to treat waste.

**Chemnet:** Actual aid network of chemical shippers and contractors that assigns a contracted emergency response company to provide technical support if a representative of the firm whose chemicals are involved in an incident is not readily available.

**Chemosterilant:** A chemical that controls pests by preventing reproduction.

**Chemterc:** The industry-sponsored Chemical Transportation Emergency Center; provides information and/or emergency assistance to emergency responders.

**Chilling Effect:** The lowering of the Earth's temperature because of increased particles in the air blocking the sun's rays. (See: greenhouse effect.)

**Chlorinated Hydrocarbons:** These include a class of persistent, broad-spectrum insecticides that linger in the environment and accumulate in the food chain. Among them are DDT, aldrin, dieldrin, heptachlor, chlordane, lindane, endrin, mirex, hexachloride, and toxaphene. Other examples include TCE, used as an industrial solvent.

**Chlorinated Solvent:** An organic solvent containing chlorine atoms, e.g., methylene chloride and 1,1,1-trichloromethane, used in aerosol spray containers and in highway paint.

**Chlorination:** The application of chlorine to drinking water, sewage, or industrial waste to disinfect or to oxidize undesirable compounds.

**Chlorinator:** A device that adds chlorine, in gas or liquid form, to water or sewage to kill infectious bacteria.

**Chlorine-Contact Chamber:** That part of a water treatment plant where effluent is disinfected by chlorine.

**Chlorofluorocarbons (CFCs):** A family of inert, nontoxic, and easily liquified chemicals used in refrigeration, air conditioning, packaging, insulation, or as solvents and aerosol propellants. Because CFCs are not destroyed in the lower atmosphere they drift into the upper atmosphere where their chlorine components destroy ozone.

**Chlorosis:** Discoloration of normally green plant parts caused by disease, lack of nutrients, or various air pollutants.

**Cholinesterase:** An enzyme found in animals that regulates nerve impulses. Cholinesterase inhibition is associated with a variety of acute symptoms such as nausea,

vomiting, blurred vision, stomach cramps, and rapid heart rate.

**Chromium:** (See: heavy metals.)

**Chronic Effect:** An adverse effect on a human or animal in which symptoms recur frequently or develop slowly over a long period of time.

**Chronic Toxicity:** The capacity of a substance to cause long-term poisonous human health effects. (See: acute toxicity.)

**Clarification:** Clearing action that occurs during wastewater treatment when solids settle out. This is often aided by centrifugal action and chemically induced coagulation in wastewater.

**Clarifier:** A tank in which solids settle to the bottom and are subsequently removed as sludge.

**Clean Coal Technology:** Any technology not in widespread use prior to the Clean Air Act amendments of 1990. This Act will achieve significant reductions in pollutants associated with the burning of coal.

**Clean Fuels:** Blends or substitutes for gasoline fuels, including compressed natural gas, methanol, ethanol, liquified petroleum gas, and others.

**Cleanup:** Actions taken to deal with a release or threat of release of a hazardous substance that could affect humans and/or the environment. The term "cleanup" is sometimes used interchangeably with the terms remedial action, removal action, response action, or corrective action.

**Clear Cut:** Harvesting all the trees in one area at one time, a practice that can encourage fast rainfall or snowmelt runoff, erosion, sedimentation of streams and lakes, flooding, and destroys vital habitat.

**Cloning:** In biotechnology, obtaining a group of genetically identical cells from a single cell; making identical copies of a gene.

**Closed-Loop Recycling:** Reclaiming or reusing wastewater for non-potable purposes in an enclosed process.

**Closure:** The procedure a landfill operator must follow when a landfill reaches its legal capacity for solid waste: ceasing acceptance of solid waste and placing a cap on the landfill site.

**Coagulation:** Clumping of particles in wastewater to settle out impurities, often induced by chemicals such as lime, alum, and iron salts.

**Coal-Fired Boilers:** Facilities using coal as their energy source (e.g., public utility and private industry power plants.)

**Coastal Zone:** Lands and waters adjacent to the coast that exert an influence on the uses of the sea and its ecology, or whose uses and ecology are affected by the sea.

**Coefficient of Haze (COH):** A measurement of visibility interference in the atmosphere.

**Coke Oven:** An industrial process which converts coal into coke, one of the basic materials used in blast furnaces for the conversion of iron ore into iron.

**Cold Temperature CO:** A standard for automobile carbon monoxide (CO) emissions to be met at a low temperature (i.e. 20 degrees Fahrenheit). Conventional automobile catalytic converters are less efficient upon start-up at low temperatures.

**Coliform Index:** A rating of the purity of water based on a count of fecal bacteria.

**Coliform Organism:** Microorganisms found in the intestinal tract of humans and animals. Their presence in water indicates fecal pollution and potentially adverse contamination by pathogens.

**Collector Sewers:** Pipes used to collect and carry wastewater from individual sources to an interceptor sewer that will carry it to a treatment facility.

**Combined Sewer Overflows:** Discharge of a mixture of stormwater and domestic waste when the flow capacity of a sewer system is exceeded during rainstorms.

**Combined Sewers:** A sewer system that carries both sewage and storm-water runoff. Normally, its entire flow goes to a waste treatment plant, but during a heavy storm, the volume of water may be so great as to cause overflows of untreated mixtures of storm water and sewage into receiving waters. Storm-water runoff may also carry toxic chemicals from industrial areas or streets into the sewer system.

**Combustion:** 1. Burning, or rapid oxidation, accompanied by release of energy in the form of heat and light. A basic cause of air pollution. 2. Refers to controlled burning of waste, in which heat chemically alters organic compounds, converting into stable inorganics such as carbon dioxide and water.

**Combustion Chamber:** The actual compartment where waste is burned in an incinerator.

**Combustion Product:** Substance produced during the burning or oxidation of a material.

**Command Post:** Facility located at a safe distance upwind from an accident site, where the on-scene coordinator, responders, and technical representatives make response decisions, deploy manpower and equipment, maintain liaison with news media, and handle communications.

**Comment Period:** Time provided for the public to review and comment on a proposed EPA action or rulemaking after publication in the Federal Register.

**Commercial Waste Management Facility:** A treatment, storage, disposal, or transfer facility which accepts waste from a variety of sources, as compared to a private

facility which normally manages a limited waste stream generated by its own operations.

**Commercial Waste:** All solid waste emanating from business establishments such as stores, markets, office buildings, restaurants, shopping centers, and theaters.

**Commingled Recyclables:** Mixed recyclables that are collected together.

**Comminuter:** A machine that shreds or pulverizes solids to make waste treatment easier.

**Comminution:** Mechanical shredding or pulverizing of waste. Used in both solid waste management and wastewater treatment.

**Community Relations:** The EPA effort to establish two-way communication with the public to create understanding of EPA programs and related actions, to assure public input into decision-making processes related to affected communities, and to make certain that the Agency is aware of and responsive to public concerns. Specific community relations activities are required in relation to Superfund remedial actions.

**Community Water System:** A public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

**Compaction:** Reduction of the bulk of solid waste by rolling and tamping.

**Compliance Coating:** A coating whose volatile organic compound content does not exceed that allowed by regulation.

**Compliance Schedule:** A negotiated agreement between a pollution source and a government agency that specifies dates and procedures by which a source will reduce emissions and, thereby, comply with a regulation.

**Composite Sample:** A series of water samples taken over a given period of time and weighted by flow rate.

**Compost:** The relatively stable humus material that is produced from a composting process in which bacteria in soil mixed with garbage and degradable trash break down the mixture into organic fertilizer.

**Composting:** The controlled biological decomposition of organic material in the presence of air to form a humus-like material. Controlled methods of composting include mechanical mixing and aerating, ventilating the materials by dropping them through a vertical series of aerated chambers, or placing the compost in piles out in

the open air and mixing it or turning it periodically.

**Concentration:** The relative amount of a specific substance mixed into another and usually larger substance. An example is five parts per million (ppm) of carbon monoxide in air.

**Conditional Registration:** Under special circumstances, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) permits registration of pesticide products that is "conditional" upon the submission of additional data. These special circumstances include a finding by the EPA Administrator that a new product or use of an existing pesticide will not significantly increase the risk of unreasonable adverse effects. A product containing a new (previously unregistered) active ingredient may be conditionally registered only if the Administrator finds that such conditional registration is in the public interest, that a reasonable time for conducting the additional studies has not elapsed, and the use of the pesticide for the period of conditional registration will not present an unreasonable risk.

**Conditionally Exempt Generators (CE):** Persons or enterprises which produce less than 220 pounds of hazardous waste per month. Exempt from most regulation, they are required merely to determine whether their waste is hazardous, notify appropriate state or local agencies, and ship it by permitted facility for proper disposal. (See: an authorized transporter to a small quantity generator.)

**Cone of Depression:** A depression in the water table that develops around a pumped well.

**Confined Aquifer:** An aquifer in which ground water is confined under pressure which is significantly greater than atmospheric pressure.

**Consent Decree:** A legal document, approved by a judge, that formalizes an agreement reached between EPA and potentially responsible parties (PRPs) through which PRPs will conduct all or part of a cleanup action at a Superfund site; cease or correct actions or processes that are polluting the environment; or otherwise comply with EPA initiated regulatory enforcement actions to resolve the contamination at the Superfund site involved. The consent decree describes the actions PRPs will take and may be subject to a public comment period.

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

**Construction and Demolition Waste:** Waste building materials, dredging materials, tree stumps, and rubble resulting from construction, remodeling, repair, and demolition of homes, commercial buildings and other structures and pavements. May contain lead, asbestos, or other hazardous substances.

**Contact Pesticide:** A chemical that kills pests when it touches them, instead of by ingestion. Also, soil that contains the minute skeletons of certain algae that scratch and dehydrate waxy-coated insects.

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

**Contingency Plan:** A document setting out an organized, planned, and coordinated course of action to be followed in case of a fire, explosion, or other accident that releases toxic chemicals, hazardous waste, or radioactive materials that threaten human health or the environment. (See: National Oil and Hazardous Substances Contingency Plan.)

**Continuous Discharge:** A routine release to the environment that occurs without interruption, except for infrequent shut-downs for maintenance, process changes, etc.

**Contour Plowing:** Soil tilling method that follows the shape of the land to discourage erosion.

**Contract Labs:** Laboratories under contract to EPA, which analyze samples taken from waste, soil, air, and water or carry out research projects.

**Contrails:** Long, narrow vapor trails caused by high-flying in a jet aircraft.

**Control Technique Guidelines (CTG):** A series of EPA documents designed to assist states in defining reasonable available control technology (RACT) for major sources of volatile organic compounds (VOC).

**Controlled Reaction:** A chemical reaction under temperature and pressure conditions maintained within safe limits to produce a desired product or process.

**Conventional Pollutants:** Statutorily listed pollutants understood well by scientists. These may be in the form of organic waste, sediment, acid, bacteria, viruses, nutrients, oil and grease, or heat.

**Conventional Systems:** Systems that have been traditionally used to collect municipal wastewater in gravity sewers and convey it to a central primary or secondary treatment plant prior to discharge to surface waters.

**Coolant:** A liquid or gas used to reduce the heat generated by power production in nuclear reactors, electric generators, various industrial and mechanical processes, and automobile engines.

**Cooling Electricity Use:** Amount of electricity used to meet the building cooling load. (See: building cooling load.)

**Cooling Tower:** A structure that helps remove heat from water used as a coolant; e.g., in electric power generating plants.

**Cooperative Agreement:** An assistance agreement whereby EPA transfers money, property, services or anything of value to a state for the accomplishment of CERCLA-authorized activities or tasks.

**Core:** The uranium-containing heart of a nuclear reactor, where energy is released.

**Core Program Cooperative Agreement:** An assistance agreement whereby EPA supports states or tribal governments with funds to help defray the cost of non-itspecific administrative and training activities.

**Corrosion:** The dissolution and wearing away of metal caused by a chemical reaction such as between water and the pipes, chemicals touching a metal surface, or contact between two metals.

**Corrosive:** A chemical agent that reacts with the surface of a material causing it to deteriorate or wear away.

**Cost-Effective Alternative:** An alternative control or corrective method identified after analysis as being the best available in terms of reliability, performance, and cost. Although costs are one important consideration, regulatory and compliance analysis does not require EPA to choose the least expensive alternative. For example, when selecting a method for cleaning up a site on the Superfund National Priorities List, the Agency balances costs with the long-term effectiveness of the methods proposed.

**Cost Recovery:** A legal process by which potentially responsible parties who contributed to contamination at a Superfund site can be required to reimburse the Trust Fund for money spent during any cleanup actions by the federal government.

**Cover Material:** Soil used to cover compacted solid waste in a sanitary landfill.

**Cover:** Vegetation or other material providing protection as ground cover.

**Cradle-to-Grave or Manifest System:** A procedure in which hazardous materials are identified and followed as they are produced, treated, transported, and disposed of by a series of permanent, linkable, descriptive documents (e.g., manifests). Commonly referred to as the cradle-to-grave system.

**Crawl Space:** In some types of houses, which are constructed so that the floor is raised slightly above the ground, an area beneath the floor which allows access to utilities and other services. This is in contrast to slab-on-grade or basement-type houses.

**Criteria Pollutants:** The 1970 amendments to the Clean Air Act required EPA to set National Ambient Air Quality Standards for certain pollutants known to be hazardous to human health. EPA has identified and set standards to protect human health and welfare for six pollutants: ozone, carbon monoxide, total suspended particulates, sulfur dioxide, lead, and nitrogen oxide. The term, "criteria pollutants" derives from the requirement that EPA must describe the characteristics and potential health and welfare effects of these pollutants. It is on the basis of these criteria that standards are set or revised.

**Criteria:** Descriptive factors taken into account by EPA in setting standards for various pollutants. These factors are used to determine limits on allowable concentration levels, and to limit the number of violations per year. When issued by EPA, the criteria provide guidance to the states on how to establish their standards.

**Cubic Feet Per Minute (CFM):** A measure of the volume of a substance flowing through air within a fixed period of time. With regard to indoor air, refers to the amount of air, in cubic feet, that is exchanged with indoor air in a minute's time, i.e., the air exchange rate.

**Cullet:** Crushed glass.

**Cultural Eutrophication:** Increasing rate at which water bodies "die" by pollution from human activities.

**Cultures and Stocks:** Infectious agents and associated biologicals including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; waste from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures. (See: regulated medical waste.)

**Cumulative Working Level Months (CWLM):** The sum of lifetime exposure to radon working levels expressed in total working level months.

**Curbside Collection:** Method of collecting recyclable materials at homes, community districts or businesses.

**Curie:** A quantitative measure of radioactivity equal to  $3.7 \times 10^{10}$  disintegrations of radioactive particles per second.

**Cutiey-Pie:** An instrument used to measure radiation levels.

**Cyclone Collector:** A device that uses centrifugal force to pull large particles from polluted air.

## D

**Data Call-In:** A part of the Office of Pesticide Programs (OPP) process of developing key required test data, especially on the long-term, chronic effects of existing pesticides, in advance of scheduled Registration Standard reviews. Data Call-In from manufacturers is an adjunct of the Registration Standards program intended to expedite reregistration.

**DDT:** The first chlorinated hydrocarbon insecticide chemical name: Dichloro-Diphenyl-Trichloroethane. It has a half-life of 15 years and can collect in fatty tissues of certain animals. EPA banned registration and interstate sale of DDT for virtually all but emergency uses in the United States in 1972 because of its persistence in the environment and accumulation in the food chain.

**Decay Products:** Degraded radioactive materials, often referred to as "daughters" or "progeny"; radon decay products of most concern from a public health standpoint are polonium-214 and polonium-218.

**Dechlorination:** Removal of chlorine from a substance by chemically replacing it with hydrogen or hydroxide ions in order to detoxify a substances.

**Decibel (dB):** A unit for measuring the relative loudness of sound, approximately to the smallest degree of difference of loudness ordinarily detectable by the human ear, the range of which includes about 130 decibels on a scale beginning with 1 for the faintest available sound.

**Decomposition:** The breakdown of matter by bacteria and fungi, changing the chemical makeup and physical appearance of materials.

**Decontamination:** Removal of harmful substances such as noxious chemicals, harmful bacteria or other organisms, or radioactive material from exposed individuals, rooms and furnishings in buildings, or the exterior environment.

**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.

**Deflocculating Agent:** A material added to a suspension to prevent settling.

**Defoliant:** A herbicide that removes leaves from trees and growing plants.

**Degradation:** The process by which a chemical is reduced to a less complex form.

**Delamination:** Separation of one layer from another.

**Delegated State:** A state (or other governmental entity such as a tribal government) that has received authority to administer an environmental regulatory program in lieu of a federal counterpart. As used in connection with NPDES, UIC, and PWS programs, the term does not connote any transfer of federal authority to a state.

**Delist:** Use of the petition process to have a facility's toxic designation rescinded.

**Demand-side Waste Management:** Prices 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.

**Denitrification:** The anaerobic biological reduction of nitrate to nitrogen gas.

**Depletion Curve:** In hydraulics, a graphical representation of water depletion from storage-stream channels, surface soil, and groundwater. A depletion curve can be drawn for base flow, direct runoff, or total flow.

**Depressurization:** A condition that occurs when the air pressure inside a structure is lower than the air pressure outside. Depressurization can occur when household appliances such as fireplaces or furnaces, that consume or exhaust house air, are not supplied with enough makeup air. Radon may be drawn into a house more rapidly under depressurized conditions.

**Dermal Toxicity:** The ability of a pesticide or toxic chemical to poison people or animals by contact with the skin. (See: contact pesticide.)

**DES:** A synthetic estrogen, diethylstilbestrol is used as a growth stimulant in food animals. Residues in meat are thought to be carcinogenic.

**Desalinization:** Removing salt from ocean or brackish water.

**Desiccant:** A chemical agent that absorbs moisture; some desiccants are capable of drying out plants or insects, causing death.

**Design Capacity:** The average daily flow that a treatment plant or other facility is designed to accommodate.

**Designated Pollutant:** An air pollutant which is neither a criteria nor hazardous pollutant, as described in the Clean Air Act, but for which new source performance standards exist. The Clean Air Act does require states to control these pollutants, which include acid mist, total reduced sulfur (TRS), and fluorides.

**Designated Uses:** Those water uses identified in state water quality standards that must be achieved and maintained as re-

quired under the Clean Water Act. Uses can include cold water fisheries, public water supply, irrigation, etc.

**Designer Bugs:** Popular term for microbes developed through biotechnology that can degrade specific toxic chemicals at their source in toxic waste dumps or in ground water.

**Destination Facility:** The facility to which regulated medical waste is shipped for treatment and destruction, incineration, and/or disposal.

**Destroyed Medical Waste:** Regulated medical waste that has been ruined, torn apart, or mutilated through thermal treatment, melting, shredding, grinding,

tearing, or breaking, so that it is no longer generally recognized as medical waste, but has not yet been treated (excludes compacted regulated medical waste.)

**Destruction and Removal Efficiency (DRE):** A percentage that represents the number of molecules of a compound removed or destroyed in an incinerator relative to the number of molecules entered the system (e.g., a DRE of 99.99 percent means that 9,999 molecules are destroyed for every 10,000 that enter; 99.99 percent is known as "four nines." For some pollutants, the RCRA removal requirement may be as stringent as "six nines.")

**Destruction Facility:** A facility that destroys regulated medical waste by mashing or mutilating it.

**Desulfurization:** Removal of sulfur from fossil fuels to reduce pollution.

**Detectable Leak Rate:** The smallest leak (from a storage tank), expressed in terms of gallons-or liters-per-hour, that a test can reliably discern with a certain probability of detection or false alarm.

**Detection Criterion:** A predetermined rule to ascertain whether a tank is leaking or not. Most volumetric tests use a threshold value as the detection criterion. (See: volumetric tank tests.)

**Detergent:** Synthetic washing agent that helps to remove dirt and oil. Some contain compounds which kill useful bacteria and encourage algae growth when they are in wastewater that reaches receiving waters.

**Developer:** A person, government unit, or company that proposes to build a hazardous waste treatment, storage, or disposal facility.

**Development Effects:** Adverse effects such as altered growth, structural abnormality, functional deficiency, or death observed in a developing organism.

**Diatomaceous Earth (Diatomite):** A chalk-like material (fossilized diatoms) used to

filter out solid waste in wastewater treatment plants, also used as an active ingredient in some powdered pesticides.

**Diazinon:** An insecticide. In 1986, EPA banned its use on open areas such as sod farms and golf courses because it posed a danger to migratory birds. The ban did not apply to agricultural, home lawn or commercial establishment uses.

**Dibenzofurans:** A group of highly toxic organic compounds.

**Dicofol:** A pesticide used on citrus fruits.

**Differentiation:** The process by which single cells grow into particular forms of specialized tissue, e.g., root, stem, leaf.

**Diffused Air:** A type of aeration that forces oxygen into sewage by pumping air through perforated pipes inside a holding tank.

**Digester:** In wastewater treatment, a closed tank; in solid waste conversion, a unit in which bacterial action is induced and accelerated in order to break down organic matter and establish the proper carbon to nitrogen ratio.

**Digestion:** The biochemical decomposition of organic matter, resulting in partial gasification, liquefaction, and mineralization of pollutants.

**Dike:** A low wall that can act as a barrier to prevent a spill from spreading.

**Diluent:** Any liquid or solid material used to dilute or carry an active ingredient.

**Dilution Ratio:** The relationship between the volume of water in a stream and the volume of incoming water. It affects the ability of the stream to assimilate waste.

**Dinocap:** A fungicide used primarily by apple growers to control summer diseases. EPA proposed restrictions on its use in 1986 when laboratory tests found it caused birth defects in rabbits.

**Dinoseb:** A herbicide that is also used as a fungicide and insecticide. It was banned by EPA in 1986 because it posed the risk of birth defects and sterility.

**Dioxin:** Any of a family of compounds known chemically as dibenzo-p-dioxins. Concern about them arises from their potential toxicity and contaminants in commercial products. Tests on laboratory animals indicate that it is one of the more toxic man-made compounds.

**Direct Discharger:** A municipal or industrial facility which introduces pollution through a defined conveyance or system such as outlet pipes; a point source.

**Disinfectant:** A chemical or physical process that kills pathogenic organisms in water. Chlorine is often used to disinfect

sewage treatment effluent, water supplies, wells, and swimming pools.

**Dispersant:** A chemical agent used to break up concentrations of organic material such as spilled oil.

**Disposables:** Consumer products, other items, and packaging used once or a few times and discarded.

**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.

**Dissolved Oxygen (DO):** The oxygen freely available in water, vital to fish and other aquatic life and for the prevention of odors. DO levels are considered a most important indicator of a water body's ability to support desirable aquatic life. Secondary and advanced waste treatment are generally designed to ensure adequate DO in waste-receiving waters.

**Dissolved Solids:** Disintegrated organic and inorganic material in water. Excessive amounts make water unfit to drink or use in industrial processes.

**Distillation:** The act of purifying liquids through boiling, so that the steam condenses to a pure liquid and the pollutants remain in a concentrated residue.

**Diversion Rate:** The percentage of waste materials diverted from traditional disposal such as landfilling or incineration to be recycled, composted, or re-used.

**DNA Hybridization:** Use of a segment of DNA, called a DNA probe, to identify its complementary DNA; used to detect specific genes.

**Dose Response:** How a biological organism's response to a toxic substance quantitatively shifts as its overall exposure to the substance changes (e.g., a small dose of carbon monoxide may cause drowsiness; a large dose can be fatal.)

**Dose:** In radiology, the quantity of energy or radiation absorbed.

**Dosimeter:** An instrument that measures exposure to radiation.

**DOT Reportable Quantity:** The quantity of a substance specified in U.S. Department of Transportation regulation that triggers labelling, packaging and other requirements related to shipping such substances.

**Draft Permit:** A preliminary permit drafted and published by EPA; subject to public review and comment before final action on the application.

**Dredging:** Removal of mud from the bottom of water bodies. This can disturb the ecosystem and causes silting that kills aquatic life. Dredging of contaminated muds can expose biota to heavy metals and other toxics. Dredging activities may be subject to regulation under Section 404 of the Clean Water Act.

**Drop-off:** Recyclable materials collection method in which individuals bring them to a designated collection site.

**Dump:** A site used to dispose of solid waste without environmental controls.

**Dust:** Particles light enough to be suspended in air.

**Dustfall Jar:** An open container used to collect large particles from the air for measurement and analysis.

**Dystrophic Lakes:** Acidic, shallow bodies of water that contain much humus and/or other organic matter; contain many plants but few fish..

## E

**Ecological Impact:** The effect that a man-made or natural activity has on living organisms and their non-living (abiotic) environment.

**Ecology:** The relationship of living things to one another and their environment, or the study of such relationships.

**Economic Poisons:** Chemicals used to control pests and to defoliate cash crops such as cotton.

**Ecosphere:** The "bio-bubble" that contains life on earth, in surface waters, and in the air. (See: biosphere.)

**Ecosystem:** The interacting system of a biological community and its non-living environmental surroundings.

**Effluent:** Wastewater-treated or untreated that flows out of a treatment plant, sewer, or industrial outfall. Generally refers to wastes discharged into surface waters.

**Effluent Guidelines:** Technical EPA documents which set effluent limitations for given industries and pollutants.

**Effluent Limitation:** Restrictions established by a State or EPA on quantities, rates, and concentrations in wastewater discharges.

**Effluent Standard:** (See effluent limitation.)

**Electrodialysis:** A process that uses electrical current applied to permeable membranes to remove minerals from water. Often used to desalinize salty or brackish water.

**Electrostatic Precipitator (ESP):** A device that removes particles from a gas stream (smoke) after combustion occurs. The ESP

imparts an electrical charge to the particles, causing them to adhere to metal plates inside the precipitator. Rapping on the plates causes the particles to fall into a hopper for disposal.

**Eligible Costs:** The construction costs for waste-water treatment works upon which EPA grants are based.

**Emergency (Chemical):** A situation created by an accidental release or spill of hazardous chemicals that poses a threat to the safety of workers, residents, the environment, or property.

**Emergency Episode:** (See: air pollution episode.)

**Emergency Response Values:** Concentrations of chemicals, published by various groups, defining acceptable levels for short-term exposures in emergencies.

**Eminent Domain:** Government taking-or forced acquisition-of private land for public use, with compensation paid to the landowner.

**Emission:** Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities; from residential chimneys; and from motor vehicle, locomotive, or aircraft exhausts.

**Emission Factor:** The relationship between the amount of pollution produced and the amount of raw material processed. For example, an emission factor for a blast furnace making iron would be the number of pounds of particulates per ton of raw materials.

**Emission Inventory:** A listing, by source, of the amount of air pollutants discharged into the atmosphere of a community; used to establish emission standards.

**Emission Standard:** The maximum amount of air polluting discharge legally allowed from a single source, mobile or stationary.

**Emissions Trading:** EPA policy that allows a plant complex with several facilities to decrease pollution from some facilities while increasing it from others, so long as total results are equal to or better than previous limits. Facilities where this is done are treated as if they exist in a bubble in which total emissions are averaged out. Complexes that reduce emissions substantially may "bank" their "credits" or sell them to other industries.

**Encapsulation:** The treatment of asbestos-containing material with a liquid that covers the surface with a protective coating or embeds fibers in an adhesive matrix to prevent their release into the air.

**Enclosure:** Putting an airtight, impermeable, permanent barrier around asbestos-containing materials to prevent the release of asbestos fibers into the air.



**Endangered Species:** Animals, birds, fish, plants, or other living organisms threatened with extinction by man-made or natural changes in their environment. Requirements for declaring a species endangered are contained in the Endangered Species Act.

**Endangerment Assessment:** A study to determine the nature and extent of contamination at a site on the National Priorities List and the risks posed to public health or the environment. EPA or the state conduct the study when a legal action is to be taken to direct potentially responsible parties to clean up a site or pay for it. An endangerment assessment supplements a remedial investigation.

**Energy Recovery:** Obtaining energy from waste through a variety of processes (e.g., combustion.)

**Enforceable Requirements:** Conditions or limitations in permits issued under the Clean Water Act, Section 402 or 404 that, if violated, could result in the issuance of a compliance order or initiation of a civil or criminal action under federal or applicable state laws. If a permit has not been issued, the term includes any requirement which, in the Regional Administrator's judgement, would be included in the permit when issued. Where no permit applies, the term includes any requirement which the RA determines is necessary for the best practical waste treatment technology to meet applicable criteria.

**Enforcement:** EPA, state, or local legal actions to obtain compliance with environmental laws, rules, regulations, or agreements and/or obtain penalties or criminal sanctions for violations. Enforcement procedures may vary, depending on the requirements of different environmental laws and related implementing regulations. Under CERCLA, for example, EPA will seek to require potentially responsible parties to clean up a Superfund site, or pay for the cleanup, whereas under the Clean Air Act the agency may invoke sanctions against cities failing to meet ambient air quality standards that could prevent certain types of construction or federal funding. In other situations, if investigations by EPA and state agencies uncover willful violations, criminal trials and penalties are sought.

**Enforcement Decision Document (EDD):** A document that provides an explanation to the public of EPA's selection of the cleanup alternative at enforcement sites on the National Priorities List. Similar to a Record of Decision.

**Enhanced Inspection and Maintenance (I & M):** An improved automobile inspection and maintenance program aimed at reducing automobile emissions that contains,

at a minimum, more vehicle types and model years, tighter inspection, and better management practices. It may also include annual computerized or centralized inspections, under-the-hood inspection for signs of tampering with pollution control equipment, and increased repair waiver cost.

**Enrichment:** The addition of nutrients (e.g., nitrogen, phosphorus, carbon compounds) from sewage effluent or agricultural runoff to surface water, greatly increases the growth potential for algae and other aquatic plants.

**Environment:** The sum of all external conditions affecting the life, development and survival of an organism.

**Environmental Assessment:** An environmental analysis prepared pursuant to the National Environmental Policy Act to determine whether a federal action would significantly affect the environment and thus require a more detailed environmental impact statement.

**Environmental Audit:** An independent assessment of the current status of a party's compliance with applicable environmental requirements or of a party's environmental compliance policies, practices, and controls.

**Environmental Impact Statement:** A document required of federal agencies by the National Environmental Policy Act for major projects or legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and cites alternative actions.

**Environmental Response Team:** EPA experts located in Edison, N.J., and Cincinnati, OH, who can provide around-the-clock technical assistance to EPA regional offices and states during all types of hazardous waste site emergencies and spills of hazardous substances.

**Epidemiology:** Study of the distribution of disease, or other health-related states and events in human populations, as related to age, sex, occupation, ethnic, and economic status in order to identify and alleviate health problems and promote better health.

**Episode (Pollution):** An air pollution incident in a given area caused by a concentration of atmospheric pollutants under meteorological conditions that may result in a significant increase in illnesses or deaths. May also describe water pollution events or hazardous material spills.

**Equilibrium:** In relation to radiation, the state at which the radioactivity of consecutive elements within a radioactive series is neither increasing nor decreasing.

**Equivalent Method:** Any method of sampling and analyzing for air pollution which

has been demonstrated to the EPA Administrator's satisfaction to be, under specific conditions, an acceptable alternative to normally used reference methods.

**Erosion:** The wearing away of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building, or logging.

**Estuary:** Regions of interaction between rivers and nearshore ocean waters, where tidal action and river flow mix fresh and salt water. Such areas include bays, mouths of rivers, salt marshes, and lagoons. These brackish water ecosystems shelter and feed marine life, birds, and wildlife. (See: wetlands.)

**Ethylene Dibromide (EDB):** A chemical used as an agricultural fumigant and in certain industrial processes. Extremely toxic and found to be a carcinogen in laboratory animals, EDB has been banned for most agricultural uses in the United States.

**Eutrophic Lakes:** Shallow, murky bodies of water with concentrations of plant nutrients causing excessive production of algae. (See: dystrophic lakes.)

**Eutrophication:** The slow aging process during which a lake, estuary, or bay evolves into a bog or marsh and eventually disappears. During the later stages of eutrophication the water body is choked by abundant plant life due to higher levels of nutritive compounds such as nitrogen and phosphorus. Human activities can accelerate the process.

**Evaporation Ponds:** Areas where sewage sludge is dumped and dried.

**Evapotranspiration:** The loss of water from the soil both by evaporation and by transpiration from the plants growing in the soil.

**Exceedance:** Violation of the pollutant levels permitted by environmental protection standards.

**Exclusion:** In the asbestos program, one of several situations that permit a Local Education Agency (LEA) to delete one or more of the items required by the Asbestos Hazard Emergency Response Act (AHERA), e.g., records of previous asbestos sample collection and analysis may be used by the accredited inspector in lieu of AHERA bulk sampling.

**Exclusionary Ordinance:** Zoning that excludes classes of persons or businesses from a particular neighborhood or area.

**Exempt Solvent:** Specific organic compounds not subject to requirements of regulation because they are deemed by EPA to be of negligible photochemical reactivity.

**Exempted Aquifer:** Underground bodies of water defined in the Underground Injection Control program as aquifers that are potential sources of drinking water though not being used as such, and thus exempted from regulations barring underground injection activities.

**Experimental Use Permit:** Obtained by manufacturers for testing new pesticides or uses of thereof whenever they conduct experimental field studies to support registration on 10 acres or more on land or one acre or more of water.

**Explosive Limits (chemical):** The amounts of vapor in the air that form explosive mixtures; limits are expressed as lower and upper limits and give the range of vapor concentrations in air that will explode if an ignition source is present.

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

**Extraction Procedure (E P Toxic):** Determining toxicity by a procedure which simulates leaching; if a certain concentration of a toxic substance can be leached from a waste, that waste is considered hazardous, i.e., "E P Toxic."

**Extremely Hazardous Substances:** Any of 406 chemicals identified by EPA as toxic, and listed under SARA Title III. The list is subject to periodic revision.

## F

**Fabric Filter:** A cloth device that catches dust particles from industrial emissions.

**Facilities Plans:** Plans and studies related to the construction of treatment works necessary to comply with the Clean Water Act or RCRA. A facilities plan investigates needs and provides information on the cost effectiveness of alternatives, a recommended plan, an environmental assessment of the recommendations, and descriptions of the treatment works, costs, and a completion schedule.

**Facility Emergency Coordinator:** Representative of a facility covered by environmental law (e.g. a chemical plant) who participates in the emergency reporting process with the Local Emergency Planning Committee (LEPC).

**Fact Sheet:** (1) A document prepared by EPA to inform the public about its permitting process and EPA's tentative decision with regard to a permit application. (2) Document distributed with newly promulgated rules and/or newly enacted laws to summarize the relevant facts for interested parties and the public.

**Feasibility Study:** 1. Analysis of the practicability of a proposal; e.g., a description

and analysis of potential cleanup alternatives for a site such as one on the National Priorities List. The feasibility study usually recommends selection of a cost-effective alternative. It usually starts as soon as the remedial investigation is underway; together, they are commonly referred to as the "RI/FS". 2. A small-scale investigation of a problem to ascertain whether a proposed research approach is likely to provide useful data.

**Fecal Coliform Bacteria:** Bacteria found in the intestinal tracts of mammals. Their presence in water or sludge is an indicator of pollution and possible contamination by pathogens.

**Federal Implementation Plan:** Under current law, a federally implemented plan to achieve attainment of air quality standards, used when a state is unable to develop an adequate plan.

**Feedlot:** A confined area for the controlled feeding of animals. Tends to concentrate large amounts of animal waste that cannot be absorbed by the soil and, hence, may be carried to nearby streams or lakes by rainfall runoff.

**Fen:** A type of wetland that accumulates peat deposits. Fens are less acidic than bogs, deriving most of their water from groundwater rich in calcium and magnesium. (See: wetlands.)

**Fermentation:** Chemical reactions produced by living microbes that are supplied with nutrients in the presence of heat, pressure, and light.

**Fertilizer:** Materials such as nitrogen and phosphorus that provide nutrients for plants. Commercial fertilizers may contain other chemicals or may be sold in the form of processed sewage sludge.

**FIFRA Pesticide Ingredient:** An ingredient of a pesticide that must be registered with EPA under the Federal Insecticide, Fungicide, and Rodenticide Act. Products making pesticide claims must register under FIFRA and may be subject to labeling and use requirements.

**Filling:** Depositing dirt, mud or other materials into aquatic areas to create more dry land, usually for agricultural or commercial development purposes, often with ruinous ecological consequences.

**Filtration:** A treatment process, under the control of qualified operators, for removing solid (particulate) matter from water by means of porous media such as sand or a man-made filter; often used to remove particles that containing pathogens.

**Financial Assurance for Closure:** Documentation or proof that an owner or operator of a facility such as a landfill or other waste repository is capable of paying the projected costs of closing the facility and

monitoring it afterwards as provided in RCRA regulations.

**Finding of No Significant Impact:** A document prepared by a federal agency showing why a proposed action would not have a significant impact on the environment and thus would not require preparation of an Environmental Impact Statement. An FNSI is based on the results of an environmental assessment.

**First Draw:** The water that comes out when a tap is first opened, likely to have the highest level of lead contamination from plumbing materials.

**Flare:** A control device that burns hazardous materials to prevent their release into the environment; may operate continuously or intermittently, usually on top a stack.

**Flash Point:** The lowest temperature at which combustible vapors ignite in air when exposed to flame.

**Floc:** A clump of solids formed in sewage by biological or chemical action.

**Flocculation:** Process by which clumps of solids in water or sewage aggregate through biological or chemical action so they can be separated from water or sewage.

**Floor Sweep:** Capture of heavier-than-air gases that collect at floor level.

**Flow Rate:** The rate, expressed in gallons- or liters-per-hour, at which a fluid escapes from a hole or fissure in a tank. Such measurements are also made of liquid waste, effluent, and surface water movement.

**Flowmeter:** A gauge indicating the velocity of wastewater moving through a treatment plant or of any liquid moving through various industrial processes.

**Flue Gas Desulfurization:** A technology that employs a sorbent, usually lime or limestone, to remove sulfur dioxide from the gases produced by burning fossil fuels. Flue gas desulfurization is current state-of-the-art technology for major SO<sub>2</sub> emitters, like power plants.

**Flue Gas:** The air coming out of a chimney after combustion in the burner it is venting. It can include nitrogen oxides, carbon oxides, water vapor, sulfur oxides, particles and many chemical pollutants.

**Fluidized Bed Incinerator:** An incinerator that uses a bed of hot sand or other granular material to transfer heat directly to waste. Used mainly for destroying municipal sludge.

**Flume:** A natural or man-made channel that diverts water.

**Fluorides:** Gaseous, solid, or dissolved compounds containing fluorine that result from industrial processes. Excessive amounts in food can lead to fluorosis.



**Fluorocarbon (FCs):** Any of a number of organic compounds analogous to hydrocarbons in which one or more hydrogen atoms are replaced by fluorine. Once used in the United States as a propellant for domestic aerosols, they are now found mainly in coolants and some industrial processes. FCs containing chlorine are called chlorofluorocarbons (CFCs). They are believed to be modifying the ozone layer in the stratosphere, thereby allowing more harmful solar radiation to reach the Earth's surface.

**Fluorosis:** An abnormal condition caused by excessive intake of fluorine, characterized chiefly by mottling of the teeth.

**Flush:** 1. To open a cold-water tap to clear out all the water which may have been sitting for a long time in the pipes. In new homes, to flush a system means to send large volumes of water gushing through the unused pipes to remove loose particles of solder and flux. 2. To force large amounts of water through liquid to clean out piping or tubing, storage or process tanks.

**Fly Ash:** Non-combustible residual particles expelled by flue gas.

**Fogging:** Applying a pesticide by rapidly heating the liquid chemical so that it forms very fine droplets that resemble smoke or fog. Used to destroy mosquitoes, black flies, and similar pests.

**Food Chain:** A sequence of organisms, each of which uses the next, lower member of the sequence as a food source.

**Formaldehyde:** A colorless, pungent, and irritating gas, CH<sub>2</sub>O, used chiefly as a disinfectant and preservative and in synthesizing other compounds like resins.

**Formulation:** The substances comprising all active and inert ingredients in a pesticide.

**Fresh Water:** Water that generally contains less than 1,000 milligrams-per-liter of dissolved solids,

**Friable Asbestos:** Any material containing more than one percent asbestos, and that can be crumbled or reduced to powder by hand pressure. (May include previously non-friable material which becomes broken or damaged by mechanical force.)

**Friable:** Capable of being crumbled, pulverized, or reduced to powder by hand pressure.

**Fuel Economy Standard:** The Corporate Average Fuel Economy Standard (CAFE) effective in 1978. It enhanced the national fuel conservation effort imposing a miles-per-gallon floor for motor vehicles.

**Fugitive Emissions:** Emissions not caught by a capture system.

**Fume:** Tiny particles trapped in vapor in a gas stream.

**Fumigant:** A pesticide vaporized to kill pests. Used in buildings and greenhouses.

**Functional Equivalent:** Term used to describe EPA's decision-making process and its relationship to the environmental review conducted under the National Environmental Policy Act (NEPA). A review is considered functionally equivalent when it addresses the substantive components of a NEPA review.

**Fungi:** (Singular: Fungus) Molds, mildews, yeasts, mushrooms, and puffballs, a group of organisms lacking in chlorophyll (i.e., are not photosynthetic) and which are usually non-mobile, filamentous, and multicellular. Some grow in soil, others attach themselves to decaying trees and other plants whence they obtain nutrients. Some are pathogens, others stabilize sewage and digest composted waste.

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

**Fungistat:** A chemical that keeps fungi from growing.

**Future Liability:** Refers to potentially responsible parties' obligations to pay for additional response activities beyond those specified in the Record of Decision or Consent Decree.

## G

**Game Fish:** Species like trout, salmon, or bass, caught for sport. Many of them show more sensitivity to environmental change than "rough" fish.

**Gamma Radiation:** Gamma rays are similar to x-rays, are the most energetic and most penetrating electromagnetic waves of radiant nuclear energy. Best blocked by dense materials such as lead.

**Garbage:** Animal and vegetable waste resulting from the handling, storage, sale, preparation, cooking, and serving of foods.

**Gas Chromatography/Mass Spectrometer:** Highly sophisticated instrument that identifies the molecular composition and concentrations of various chemicals in water and soil samples.

**Gasification:** Conversion of solid material such as coal into a gas for use as a fuel.

**Gasoline Volatility:** The property of gasoline whereby it evaporates into a vapor. Gasoline vapor is a volatile organic compound.

**Geiger Counter:** A device that detects the presence of certain types of radioactivity.

**Gene Library:** A collection of DNA fragments from living cells or organisms. So far, no simple way for sorting the contents

of gene libraries has been devised. However, DNA pieces can be moved into bacterial cells where sorting according to gene function becomes feasible.

**Gene:** A segment of DNA that directs the synthesis of a protein.

**General Permit:** A permit applicable to a class or category of dischargers.

**General Reporting Facility:** A facility having one or more hazardous chemicals above the 10,000 pound threshold for planning quantities. Such facilities must file MSDS and emergency inventory information with the SERC and LEPC and local fire departments.

**Generator:** 1. A facility or mobile source that emits pollutants into the air or releases hazardous waste into water or soil. 2. Any person, by site, whose act or process produces regulated medical waste or whose act first causes such waste to become subject to regulation. In a case where more than one person (e.g., doctors with separate medical practices) is located in the same building, each business entity is a separate generator.

**Genetic Engineering:** A process of inserting new genetic information into existing cells in order to modify any organism for the purpose of changing one of its characteristics.

**Germicide:** Any compound that kills disease-causing microorganisms.

**Glovebag:** A polyethylene or polyvinyl chloride bag-like enclosure affixed around an asbestos-containing source (most often thermal system insulation) permitting the material to be removed while minimizing release of airborne fibers in the surrounding atmosphere.

**Grain Loading:** The rate at which particles are emitted from a pollution source. Measurement is made by the number of grains per cubic foot of gas emitted.

**Granular Activated Carbon Treatment:** A filtering system often used in small water systems and individual homes to remove organics. GAC can be highly effective in removing elevated levels of radon from water.

**Gray Water:** Domestic wastewater composed of washwater from kitchen, bath room, and laundry sinks, tubs, and washers.

**Greenhouse Effect:** The warming of the Earth's atmosphere attributed to a build-up of carbon dioxide or other gases; some scientists think that this build-up allows the sun's rays to heat the Earth, while in far-red radiation makes the atmosphere opaque to a counterbalancing loss of heat

**Grinder Pump:** A mechanical device that shreds solids and raises sewage to a higher elevation through pressure sewers.

**Gross Alpha Particle Activity:** Total activity due to emission of alpha particles, used as a screening measurement for radioactivity generally due to naturally-occurring radionuclides. Commonly measured in picocuries.

**Gross Beta Particle Activity:** Total activity due to emission of beta particles, used as a screening measurement for radioactivity from man-made radionuclides such as beta particle and gamma ray emitters. Activity is commonly measured in picocuries.

**Ground Cover:** Plants grown to keep soil from eroding.

**Ground Water:** The supply of fresh water found beneath the Earth's surface, usually in aquifers, which supply wells and springs. Because ground water is a major source of drinking water, there is growing concern over contamination from leaching agricultural or industrial pollutants or leaking underground storage tanks.

## H

**Habitat:** The place where a population (e.g., human, animal, plant, microorganism) lives and its surroundings, both living and non-living.

**Half-Life:** 1. The time required for a pollutant to lose half its affect on the environment. For example, the biochemical half-life of DDT in the environment is 15 years of Radium. 1,580 years. 2. The time required for half of the atoms of a radioactive element to undergo self-transmutation or decay. 3. The time required for the elimination of one half a total dose from the body.

**Halogen:** Any of a group of five chemical-related nonmetallic elements that includes bromine, fluorine, chlorine, iodine, and astatine.

**Halon:** Bromine-containing compounds with long atmospheric lifetimes whose breakdown in the stratosphere causes depletion of ozone. Halons are used in fire-fighting.

**Hammermill:** A high-speed machine that uses hammers and cutters to crush, grind, chip, or shred solid waste.

**Hard Water:** Alkaline water containing dissolved salts that interfere with some industrial processes and prevent soap from sudsing.

**Hauler:** Garbage collection company that offers complete refuse removal service; many also will also collect recyclables.

**Hazard Communication Standard:** An OSHA regulation that requires chemical manufacturers, suppliers, and importers to

assess the hazards of the chemicals that they make, supply, or import, and to inform employers, customers, and workers of these hazards through MSDS sheets.

**Hazardous Air Pollutants:** Air pollutants which are not covered by ambient air quality standards but which, as defined in the Clean Air Act, may reasonably be expected to cause or contribute to irreversible illness or death. Such pollutants include asbestos, beryllium, mercury, benzene, coke oven emissions, radionuclides, and vinyl chloride.

**Hazardous Chemical:** An EPA designation for any hazardous material requiring an MSDS under OSHA's Hazard Communication Standard. Such substances are capable of producing fires and explosions or adverse health effects like cancer and dermatitis. Hazardous chemicals are distinct from hazardous waste. (See: Hazardous Waste.)

**Hazardous Ranking System:** The principle screening tool used by EPA to evaluate risks to public health and the environment associated with abandoned or uncontrolled hazardous waste sites. The HRS calculates a score based on the potential of hazardous substances spreading from the site through the air, surface water, or ground water, and on other factors such as density and proximity of human population. This score is the primary factor in deciding if the site should be on the National Priorities List and, if so, what ranking it should have compared to other sites on the list.

**Hazardous Substance:** 1. Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive. 2. Any substance designated by EPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or if otherwise released into the environment.

**Hazardous Waste:** By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed. Possesses at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), or appears on special EPA lists.

**Hazardous Waste Landfill:** An excavated or engineered site where hazardous waste is deposited and covered.

**Hazards Analysis:** Procedures used to (1) identify potential sources of release of hazardous materials from fixed facilities or transportation accidents; (2) determine the vulnerability of a geographical area to a release of hazardous materials; and (3) compare hazards to determine which present greater or lesser risks to a community.

**Hazards Identification:** Providing information on which facilities have extremely

hazardous substances, what those chemicals are, how much there is at each facility, how the chemicals are stored, and whether they are used at high temperatures.

**Health Assessment:** An evaluation of available data on existing or potential risks to human health posed by a Superfund site. The Agency for Toxic Substances and Disease Registry (ATSDR) of the Department of Health and Human Services (DHHS) is required to perform such an assessment at every site on the National Priorities List.

**Heat Island Effect:** A "dome" of elevated temperatures over an urban area caused by structural and pavement heat fluxes, and pollutant emissions.

**Heavy Metals:** Metallic elements with high atomic weights, e.g., mercury, chromium, cadmium, arsenic, and lead; can damage living things at low concentrations and tend to accumulate in the food chain.

**Heptachlor:** An insecticide that was banned on some food products in 1975 and all of them 1978. It was allowed for use in seed treatment until 1983. More recently it was found in milk and other dairy products in Arkansas and Missouri where dairy cattle were illegally fed treated seed.

**Herbicide:** A chemical pesticide designed to control or destroy plants, weeds, or grasses.

**Herbivore:** An animal that feeds on plants.

**Heterotrophic Organisms:** Species that are dependent on organic matter for food.

**High-Density Polyethylene:** A material used to make plastic bottles and other products that produces toxic fumes when burned.

**High-Level Radioactive Waste (HLW):** Waste generated in core fuel of a nuclear reactor, found at nuclear reactors or by nuclear fuel reprocessing; is a serious threat to anyone who comes near the waste without shielding. (See: low-level radioactive waste.)

**High-Level Nuclear Waste Facility:** Plant designed to handle disposal of used nuclear fuel, high-level radioactive waste, and plutonium waste.

**Holding Pond:** A pond or reservoir, usually made of earth, built to store polluted runoff.

**Homeowner Water System:** Any water system which supplies piped water to a single residence.

**Homogeneous Area:** In accordance with Asbestos Hazard and Emergency Response Act (AHERA) definitions, an area of surfacing materials, thermal surface insulation, or miscellaneous material that is uniform in color and texture.

**Hood Capture Efficiency:** Ratio of the emissions captured by a hood and directed into a control or disposal device, expressed as a percent of all emissions.

**Host:** 1. In genetics, the organism, typically a bacterium, into which a gene from another organism is transplanted. 2. In medicine, an animal infected or parasitized by another organism.

**Household Waste (Domestic Waste):** Solid waste, composed of garbage and rubbish, which normally originated in a private home or apartment house. Domestic waste may contain a significant amount of toxic or hazardous waste.

**Humus:** Decomposed organic material.

**Hybrid:** A cell or organism resulting from a cross between two unlike plant or animal cells or organisms.

**Hybridoma:** A hybrid cell that produces monoclonal antibodies in large quantities.

**Hydraulic Gradient:** In general, the direction of groundwater flow due to changes in the depth of the water table.

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

**Hydrogen Sulfide (HS):** Gas emitted during organic decomposition. Also a by product of oil refining and burning. Smells like rotten eggs and, in heavy concentration, can kill or cause illness.

**Hydrogeology:** The geology of ground water, with particular emphasis on the chemistry and movement of water.

**Hydrology:** The science dealing with the properties, distribution, and circulation of water.

## I

**Identification Code or EPA I.D. Number:** The unique code assigned to each generator, transporter, and treatment, storage, or disposal facility by regulating agencies to facilitate identification and tracking of chemicals or hazardous waste.

**Ignitable:** Capable of burning or causing a fire.

**Immediately Dangerous to Life and Health (IDLH):** The maximum level to which a healthy individual can be exposed to a chemical for 30 minutes and escape without suffering irreversible health effects or impairing symptoms. Used as a "level of concern." (See: level of concern.)

**Impervious:** Describes a material that does not allow another substance to penetrate or pass through.

**Impoundment:** A body of water or sludge confined by a dam, dike, floodgate, or other barrier.

**In Vitro:** 1. "In glass"; a test-tube culture. 2. Any laboratory test using living cells taken from an organism.

**In Vivo:** In the living body of a plant or animal. In vivo tests are those laboratory experiments carried out on whole animals or human volunteers.

**Incident Command Post:** A facility located at a safe distance from an emergency site, where the incident commander, key staff, and technical representatives can make decisions and deploy emergency manpower and equipment.

**Incident Command System (ICS):** The organizational arrangement wherein one person, normally the Fire Chief of the impacted district, is in charge of an integrated, comprehensive emergency response organization and the emergency incident site, backed by an Emergency Operations Center staff with resources, information, and advice.

**Incineration:** A treatment technology involving destruction of waste by controlled burning at high temperatures, e.g., burning sludge to remove the water and reduce the remaining residues to a safe, non-burnable ash that can be disposed of safely on land, in some waters, or in underground locations.

**Incineration at Sea:** Disposal of waste by burning at sea on specially-designed incinerator ships.

**Incinerator:** A furnace for burning waste under controlled conditions.

**Incompatible Waste:** A waste unsuitable for mixing with another waste or material because it may react to form a hazard.

**Indicator:** In biology, an organism, species, or community whose characteristics show the presence of specific environmental conditions, good or bad.

**Indirect Discharge:** Introduction of pollutants from a non-domestic source into a publicly owned waste-treatment system. Indirect dischargers can be commercial or industrial facilities whose wastes enter local sewers.

**Indoor Air:** The breathing air inside a habitable structure or conveyance.

**Indoor Air Pollution:** Chemical, physical, or biological contaminants in indoor air.

**Indoor Climate:** Temperature, humidity, lighting, and noise levels in a habitable structure or conveyance. Indoor climate can affect indoor air pollution.

**Industrial Pollution Prevention:** Combination of industrial source reduction and toxic chemical use substitution

**Industrial Source Reduction:** Practices that reduce the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment; Also reduces the threat 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.

**Industrial Waste:** Unwanted materials from an industrial operation; may be liquid, sludge, solid, or hazardous waste.

**Inert Ingredient:** Pesticide components such as solvents, carriers, dispersants, and surfactants that are not active against target pests. Not all inert ingredients are innocuous.

**Inert:** Lacking the ability to chemically react with other substances.

**Inertial Separator:** A device that uses centrifugal force to separate waste particles.

**Infectious Agent:** Any organism, such as a virus or bacterium, that is pathogenic and capable of being communicated by invasion and multiplication in body tissues.

**Infectious Waste:** Hazardous waste with infectious characteristics, including: contaminated animal waste; human blood and blood products; isolation waste, pathological waste; and discarded sharps (needles, scalpels or broken medical instruments.)

**Infiltration:** 1. The penetration of water through the ground surface into sub-surface soil or the penetration of water from the soil into sewer or other pipes through defective joints, connections, or manhole walls. 2. The technique of applying large volumes of waste water to land to penetrate the surface and percolate through the underlying soil. (See: percolation.)

**Inflow:** Entry of extraneous rain water into a sewer system from sources other than infiltration, such as basement drains, manholes, storm drains, and street washing.

**Influent:** Water, wastewater, or other liquid flowing into a reservoir, basin, or treatment plant.

**Information File:** In the Superfund program, a file that contains accurate, up-to-date documents on a Superfund site. The file is usually located in a public building (school, library, or city hall) convenient for local residents.

**Injection Well:** A well into which fluids are injected for purposes such as waste disposal, improving the recovery of crude oil, or solution mining.

**Injection Zone:** A geological formation receiving fluids through a well.

**Innovative Technologies:** New or inventive methods to treat effectively hazardous waste and reduce risks to human health and the environment.

**Inoculum:** 1. Bacterium placed in compost to start biological action. 2. A medium containing organisms that is introduced into cultures or living organisms.

**Inorganic Chemicals:** Chemical substances of mineral origin, not of basically carbon structure.

**Insecticide:** A pesticide compound specifically used to kill or prevent the growth of insects.

**Inspection and Maintenance (I/M):** 1. Activities to assure that vehicles' emissions-controls work properly. 2. Also applies to wastewater treatment plants and other anti-pollution facilities and processes.

**Instream Use:** Water use taking place within a stream channel, e.g., hydro-electric power generation, navigation, water quality improvement, fish propagation, recreation.

**In-Situ Stripping:** Treatment system that remove or "strips" volatile organic compounds from contaminated ground or surface water by forcing an airstream through the water and causing the compounds to evaporate.

**Integrated Pest Management (IPM):** A mixture of chemical and other, non-pesticide, methods to control pests.

**Integrated Waste Management:** Using a variety of practices to handle municipal solid waste; can include source reduction, recycling, incineration, and landfilling.

**Interceptor Sewers:** Large sewer lines that, in a combined system, control the flow of sewage to the treatment plant. In a storm, they allow some of the sewage to flow directly into a receiving stream, thus keeping it from overflowing onto the streets. Also used in separate systems to collect the flows from main and trunk sewers and carry them to treatment points.

**Interim (Permit) Status:** Period during which treatment, storage and disposal facilities coming under RCRA in 1980 are temporarily permitted to operate while awaiting a permanent permit. Permits issued under these circumstances are usually called "Part A" or "Part B" permits.

**Interstate Carrier Water Supply:** A source of water for drinking and sanitary use on planes, buses, trains, and ships operating in more than one state. These sources are federally regulated.

**Interstate Commerce Clause:** A clause of the U.S. Constitution which reserves to the federal government the right to regulate

the conduct of business across state lines. Under this clause, for example, the U.S. Supreme Court has ruled that states may not inequitably restrict the disposal out-of-state wastes in their jurisdictions.

**Interstate Waters:** Waters that flow across or form part of state or international boundaries, e.g., the Great Lakes, the Mississippi River, or coastal waters.

**Interstitial Monitoring:** The continuous surveillance of the space between the walls of an underground storage tank.

**Inventory (TSCA):** Inventory of chemicals produced pursuant to Section 8 (b) of the Toxic Substances Control Act.

**Inversion:** A layer of warm air preventing the rise of cooling air and pollutants trapped beneath it. Can cause an air pollution episode.

**Ion:** An electrically charged atom that can be drawn from waste water during electro-dialysis.

**Ion Exchange Treatment:** A common water-softening method often found on a large scale at water purification plants that remove some organics and radium by adding calcium oxide or calcium hydroxide to increase the pH to a level where the metals will precipitate out.

**Ionization Chamber:** A device that measures the intensity of ionizing radiation.

**Ionizing Radiation:** Radiation that can strip electrons from atoms, i.e., alpha, beta, and gamma radiation.

**Irradiated Food:** Food subject to brief radioactivity, usually gamma rays, to kill insects, bacteria, and mold, and to permit storage without refrigeration.

**Irradiation:** Exposure to radiation of wavelengths shorter than those of visible light (gamma, x-ray, or ultraviolet), for medical purposes, to sterilize milk or other foodstuffs, or to induce polymerization of monomers or vulcanization of rubber.

**Irrigation:** Applying water or wastewater to land areas to supply the water and nutrient needs of plants.

**Irritant:** A substance that can cause irritation of the skin, eyes, or respiratory system. Effects may be acute from a single high level exposure, or chronic from repeated low-level exposures to such compounds as chlorine, nitrogen dioxide, and nitric acid.

**Isotope:** A variation of an element that has the same atomic number of protons but a different weight because of the number of neutrons. Various isotopes of the same element may have different radioactive behaviors, some are highly unstable..

**Karst:** A geologic formation of irregular limestone deposits with sinks, underground streams, and caverns.

**Kinetic Rate Coefficient:** A number that describes the rate at which a water constituent such as a biochemical oxygen demand or dissolved oxygen rises or falls.

## L

**Lagoon:** 1. A shallow pond where sunlight, bacterial action, and oxygen work to purify wastewater; also used for storage of wastewater or spent nuclear fuel rods. 2. Shallow body of water, often separated from the sea by coral reefs or sandbars.

**Land Application:** Discharge of wastewater onto the ground for treatment or reuse. (See: irrigation.)

**Land Ban:** Phasing out of land disposal of most untreated hazardous wastes, as mandated by the 1984 RCRA amendments.

**Land Farming (of waste):** A disposal process in which hazardous waste deposited on or in the soil is degraded naturally by microbes.

**Landfills:** 1. Sanitary landfills are disposal sites for non-hazardous 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.

**Large Quantity Generator:** Person or facility generating more than 2200 pounds of hazardous waste per month. Such generators produce about 90 percent of the nation's hazardous waste, and are subject to all RCRA requirements.

**Lateral Sewers:** Pipes that run under city streets and receive the sewage from homes and businesses, as opposed to domestic feeders and main trunk lines.

**LC50/Lethal Concentration:** Median level concentration, a standard measure of toxicity. It tells how much of a substance is needed to kill half of a group of experimental organisms in a given time. (See: LD50.)

**LD 50/Lethal Dose:** The dose of a toxicant that will kill 50 percent of the test organisms within a designated period. The lower the LD 50, the more toxic the compound.

**Leachate:** Water that collects contaminants as it trickles through wastes, pesticides or fertilizers. Leaching may occur in farming areas, feedlots, and landfills, and may result in hazardous substances entering surface water, ground water, or soil.

## K

**Leachate Collection System:** A system that gathers leachate and pumps it to the surface for treatment.

**Leaching:** The process by which soluble constituents are dissolved and filtered through the soil by a percolating fluid. (See: leachate.)

**Lead (Pb):** A heavy metal that is hazardous to health if breathed or swallowed. Its use in gasoline, paints, and plumbing compounds has been sharply restricted or eliminated by federal laws and regulations. (See: heavy metals.)

**Leaded Gasoline:** Gasoline to which lead has been added to raise its octane level.

**Level of Concern (LOC):** The concentration in air of an extremely hazardous substance above which there may be serious immediate health effects to anyone exposed to it for short periods. **Lift:** In a sanitary landfill, a compacted layer of solid waste and the top layer of cover material.

**Lifting Station:** (See: pumping station.)

**Limestone Scrubbing:** Use of a limestone and water solution to remove gaseous stackpipe sulfur before it reaches the atmosphere.

**Limited Degradation:** An environmental policy permitting some degradation of natural systems but terminating at a level well beneath an established health standard.

**Limiting Factor:** A condition whose absence or excessive concentration, is incompatible with the needs or tolerance of a species or population and which may have a negative influence on their ability to thrive. survive.

**Limnology:** The study of the physical, chemical, hydrological, and biological aspects of fresh water bodies.

**Liner:** 1. A relatively impermeable barrier designed to keep leachate inside a landfill. Liner materials include plastic and dense clay. 2. An insert or sleeve for sewer pipes to prevent leakage or infiltration.

**Lipid Solubility:** The maximum concentration of a chemical that will dissolve in fatty substances. Lipid soluble substances are insoluble in water. They will very selectively disperse through the environment via uptake in living tissue.

**Liquefaction:** Changing a solid into a liquid.

**Liquid Injection Incinerator:** Commonly used system that relies on high pressure to prepare liquid wastes for incineration breaking them up into tiny droplets to allow easier combustion.

**List:** Shorthand term for EPA list of violating facilities or firms debarred from obtaining government contracts because they

violated certain sections of the Clean Air or Clean Water Acts. The list is maintained by The Office of Enforcement and Compliance Monitoring.

**Listed Waste:** Wastes listed as hazardous under RCRA but which have not been subjected to the Toxic Characteristics Listing Process because the dangers they present are considered self-evident.

**Litter:** The highly visible portion of solid waste carelessly discarded outside the regular garbage and trash collection and disposal system.

**Local Education Agency (LEA):** In the asbestos program, an educational agency at the local level that exists primarily to operate schools or to contract for educational services, including primary and secondary public and private schools. A single, unaffiliated school can be considered an LEA for AHERA purposes.

**Local Emergency Planning Committee (LEPC):** A committee appointed by the state emergency response commission, as required by SARA Title III, to formulate a comprehensive emergency plan for its jurisdiction.

**Low NO<sup>x</sup> Burners:** One of several combustion technologies used to reduce emissions of Nitrogen Oxides (NO<sup>x</sup>.)

**Low-Level Radioactive Waste (LLRW):** Wastes less hazardous than most of those associated with nuclear reactor; generated by hospitals, research laboratories, and certain industries. The Department of Energy, Nuclear Regulatory Commission, and EPA share responsibilities for managing them. (See: high-level radioactive wastes.)

**Lower Explosive Limit (LEL):** The concentration of a compound in air below which a flame will not conflagrate if the mixture is ignited.

**Lowest Achievable Emission Rate:** Under the Clean Air Act, the rate of emissions that reflects (a) the most stringent emission limitation in the implementation plan of any state for such source unless the owner or operator demonstrates such limitations are not achievable; or (b) the most stringent emissions limitation achieved in practice, whichever is more stringent. A proposed new or modified source may not emit pollutants in excess of existing new source standards.

## M

**Magnetic Separation:** Use of magnets to separate ferrous materials from mixed municipal waste stream.

**Mandatory Recycling:** Programs which by law require consumers to separate trash so

that some or all recyclable materials are recovered for recycling rather than going to landfills.

**Manual Separation:** Hand sorting of recyclable or compostable materials in waste.

**Major Modification:** This term is used to define modifications of major stationary sources of emissions with respect to Prevention of Significant Deterioration and New Source Review under the Clean Air Act.

**Major Stationary Sources:** Term used to determine the applicability of Prevention of Significant Deterioration and new source regulations. In a nonattainment area, any stationary pollutant source with potential to emit more than 100 tons per year is considered a major stationary source. In PSD areas the cutoff level may be either 100 or 250 tons, depending upon the source.

**Majors:** Larger publicly owned treatment works (POTWs) with flows equal to at least one million gallons per day (mgd) or servicing population equivalent to 10,000 persons; certain other POTWs having significant water quality impacts. (See: minors.)

**Management Plan:** Under the Asbestos Hazard Emergency Response Act (AHERA), a document that each Local Education Agency is required to prepare, describing all activities planned and undertaken by a school to comply with AHERA regulations, including building inspections to identify asbestos-containing materials, response actions, and operations and maintenance programs to minimize the risk of exposure.

**Manifest System:** Tracking of hazardous waste from "cradle to grave" (generation through disposal) with accompanying documents known as manifests. (See: Cradle to Grave.)

**Manual Separation:** Hand separation of compostable or recyclable material from waste.

**Manufacturers Formulation:** A list of substances or component parts as described by the maker of a coating, pesticide, or other product containing chemicals or other substances.

**Marine Sanitation Device:** Any equipment or process installed on board a vessel to receive, retain, treat, or discharge sewage.

**Marsh:** A type of wetland that does not accumulate appreciable peat deposits and is dominated by herbaceous vegetation. Marshes may be either fresh or saltwater, tidal or non-tidal. (See: wetlands.)

**Material Category:** In the asbestos program, broad classification of materials into

thermal surfacing insulation, surfacing material, and miscellaneous material.

**Materials Recovery Facility:** A facility that processes residentially collected mixed recyclables into new products available for market.

**Material Type** is classification of suspect material by its specific use or application, e.g., pipe insulation, fireproofing, and floor tile.

**Material Safety Data Sheet (MSDS):** A compilation of information required under the OSHA Communication Standard on the identity of hazardous chemicals, health, and physical hazards, exposure limits, and precautions. Section 311 of SARA requires facilities to submit MSDSs under certain circumstances.

**Materials Recovery Facility (MRF):** Facility that processes residentially collected mixed recyclables into new products.

**Maximum Contaminant Level:** The maximum permissible level of a contaminant in water delivered to any user of a public system. MCLs are enforceable standards.

**Mechanical Aeration:** Use of mechanical energy to inject air into water to cause a waste stream to absorb oxygen.

**Mechanical Separation:** Using mechanical means to separate waste into various components.

**Mechanical Turbulence:** Random irregularities of fluid motion in air caused by buildings or other non-thermal processes.

**Media:** Specific environments-air, water, soil-which are the subject of regulatory concern and activities.

**Medical Surveillance:** A periodic comprehensive review of a worker's health status; acceptable elements of such surveillance program are listed in the Occupational Safety and Health Administration standards for asbestos.

**Medical Waste:** Any solid waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals, excluding hazardous waste identified or listed under 40 CFR Part 261 or any household waste as defined in 40 CFR Sub-section 261.4 (b)(1)).

**Mercury:** A heavy metal that can accumulate in the environment and is highly toxic if breathed or swallowed. (See: heavy metals.)

**Metabolites:** Any substances produced by biological processes, such as those from pesticides.

**Methane:** A colorless, nonpoisonous, flammable gas created by anaerobic decomposition of organic compounds.

**Method 18:** An EPA test method which uses gas chromatographic techniques to

measure the concentration of volatile organic compounds in a gas stream.

**Method 24:** An EPA reference method to determine density, water content and total volatile content (water and VOC) of coatings.

**Method 25:** An EPA reference method to determine the VOC concentration in a gas stream.

**Microclimate:** The localized climate conditions with in an urban area or neighborhood.

**Microbes:** Microscopic organisms (algae, animals, viruses, bacteria, fungus, and protozoa), some of which cause diseases. (See: microorganism.)

**Microbial Pesticide:** A microorganism that is used to control a pest, but of minimum toxicity to man.

**Microorganism:** Living organisms so small that individually it can only be seen through a microscope.

**Million-gallons Per Day (MGD):** A measure of water flow.

**Minimization:** A comprehensive program to minimize or eliminate wastes, usually applied to wastes at their point of origin. (See: waste minimization.)

**Minors:** Publicly owned treatment works with flows less than 1 million gallons per day. (See: majors.)

**Miscellaneous ACM:** Interior asbestos-containing building material or structural components, members or fixtures, such as floor and ceiling tiles; does not include surfacing materials or thermal system insulation.

**Miscellaneous materials:** Interior building materials on structural components, such as floor or ceiling tiles.

**Miscible Liquids:** Two or more liquids that can be mixed and will remain mixed under normal conditions.

**Missed Detection:** The situation that occurs when a test indicates that a tank is "tight" when in fact it is leaking.

**Mist:** Liquid particles measuring 40 to 500 microns, are formed by condensation of vapor. By comparison, fog particles are smaller than 40 microns.

**Mitigation:** Measures taken to reduce adverse impacts on the environment.

**Mixed Funding:** Settlements in which potentially responsible parties and EPA share the cost of a response action.

**Mixed Liquor:** A mixture of activated sludge and water containing organic matter undergoing activated sludge treatment in an aeration tank.

**Mobile Incinerator Systems:** Hazardous waste incinerators that can be transported from one site to another.

**Mobile Source:** Any non-stationary source of air pollution such as cars, trucks, motorcycles, buses, airplanes, locomotives.

**Model Plant:** A hypothetical plant design used for developing economic, environmental, and energy impact analyses as support for regulations or regulatory guidelines; first step in exploring the economic impact of a potential NSPS.

**Modeling:** Development of a mathematical or physical representation of a system or theory that accounts for all or some its known properties. Models are often used to test the effect of changes of components on the overall performance of the system.

**Molten Salt Reactor:** A thermal treatment unit that rapidly heats waste in a heat-conducting fluid bath of carbonate salt.

**Monitoring Well:** 1. A well used to obtain water quality samples or measure groundwater levels. 2. Well drilled at a hazardous waste management facility or Superfund site to collect ground-water samples for the purpose of physical, chemical, or biological analysis to determine the amounts, types, and distribution of contaminants in the ground water beneath the site.

**Monitoring:** Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, plants, and animals.

**Monoclonal Antibodies:** (Also called MABs and MCAs) 1. Man-made clones of a molecule, produced in quantity for medical or research purposes. 2. Molecules of living organisms that selectively find and attach to other molecules to which their structure conforms exactly. This could also apply to equivalent activity by chemical molecules.

**Moratorium:** During the negotiation process, a period of 60 to 90 days during which EPA and potentially responsible parties may reach settlement but no site response activities can be conducted.

**Morbidity:** Rate of disease incidence.

**Muck Soils:** Earth made from decaying plant materials.

**Mulch:** A layer of material (wood chips, straw, leaves, etc.) placed around plants to hold moisture, prevent weed growth, and enrich or sterilize the soil.

**Multiple Use:** Use of land for more than one purpose; i.e., grazing of livestock, watershed and wildlife protection, recreation, and timber production. Also applies to use of bodies of water for recreational purposes, fishing, and water supply.



**Mutagen:** Any substance capable of producing a change in DNA.

**Mutagenesis:** Any process by which cells are mutated.

**Mutate:** To bring about a change in the genetic constitution of a cell by altering its DNA.

## N

**National Ambient Air Quality Standards (NAAQS):** Standards established by EPA that apply for outside air throughout the country. (See: criteria pollutants, state implementation plans, emissions trading.)

**National Emissions Standards For Hazardous Air Pollutants (NESHAPS):** Emissions standards set by EPA for an air pollutant not covered by NAAQS that may cause an increase in fatalities or in serious, irreversible, or incapacitating illness. Primary standards are designed to protect human health, secondary standards to protect public welfare (e.g., building facades, visibility, crops, and domestic animals).

**National Estuary Program:** A program established under the Clean Water Act Amendments of 1987 to develop and implement conservation and management plans for protecting estuaries and restoring and maintaining their chemical, physical, and biological integrity, as well as controlling point and nonpoint pollution sources.

**National Municipal Plan:** A policy created in 1984 by EPA and the states in 1984 to bring all publicly owned treatment works (POTWs) into compliance with Clean Water Act requirements.

**National Oil and Hazardous Substances Contingency Plan (NOHSCP/NCP):** The federal regulation that guides determination of the sites to be corrected under both the Superfund program and the program to prevent or control spills into surface waters or elsewhere.

**National Pollutant Discharge Elimination System (NPDES):** A provision of the Clean Water Act which prohibits discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a state, or, where delegated, a tribal government on an Indian reservation.

**National Priorities List (NPL):** EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. EPA is required to update the NPL at least once a year. A site must be on the NPL to receive money from the Trust Fund for remedial action.

**National Response Team (NRT):** Representatives of 13 federal agencies that, as a team, coordinate federal responses to nationally significant incidents of pollution—an oil spill, a major chemical release, or a Superfund response action—and provide advice and technical assistance to the responding agency(ies) before and during a response action.

**National Response Center:** The federal operations center that receives notifications of all releases of oil and hazardous substances into the environment; open 24 hours a day, is operated by the U.S. Coast Guard, which evaluates all reports and notifies the appropriate agency.

**Natural Gas:** A natural fuel containing primarily methane and ethane that occurs in certain petrological formations.

**Natural Selection:** The process of survival of the fittest, by which organisms that adapt to their environment survive and those that do not disappear.

**Navigable Waters:** Traditionally, waters sufficiently deep and wide for navigation by all, or specified vessels; such waters in the United States come under federal jurisdiction and are protected by certain provisions of the Clean Water Act.

**Necrosis:** Death of plant or animal cells or tissues. In plants, necrosis can discolor stems or leaves or kill a plant entirely.

**Negotiations:** (Under Superfund) After potentially responsible parties are identified for a site, EPA coordinates with them to reach a settlement that will result in the PRP paying for or conducting the cleanup under EPA supervision. If negotiations fail, EPA can order the PRP to conduct the cleanup or EPA can pay for the cleanup using Superfund monies and then sue to recover the costs.

**Nematocide:** A chemical agent which is destructive to nematodes (round worms or threadworms).

**Neutralization:** Decreasing the acidity or alkalinity of a substance by adding alkaline or acidic materials, respectively.

**New Source Performance Standards (NSPS):** Uniform national EPA air emission and water effluent standards which limit the amount of pollution allowed from new sources or from modified existing sources modified.

**New Source:** Any stationary source built or modified after publication of final or proposed regulations that prescribe a given standard of performance.

**Nitrate:** A compound containing nitrogen that can exist in the atmosphere or as a dissolved gas in water and which can have harmful effects on humans and animals.

Nitrates in water can cause severe illness in infants and domestic animals.

**Nitric Oxide (NO):** A gas formed by combustion under high temperature and high pressure in an internal combustion engine; changes into nitrogen dioxide in the ambient air and contributes to photochemical smog.

**Nitrification:** The process whereby ammonia in wastewater is oxidized to nitrite and then to nitrate by bacterial or chemical reactions.

**Nitritotriacetic Acid (NTA):** A compound now replacing phosphates in detergents:

**Nitrite:** 1. An intermediate in the process of nitrification. 2. Nitrous oxide salts used in food preservation

**Nitrogen Dioxide (NO<sub>2</sub>):** The result of nitric oxide combining with oxygen in the atmosphere; major component of photochemical smog.

**Nitrogen Oxide (NO<sub>x</sub>):** Product of combustion from transportation and stationary sources and a major contributor to the formation of ozone in the troposphere and to acid deposition.

**Nitrogenous Wastes:** Animal or vegetable residues that contain significant amounts of nitrogen.

**Nitrophenols:** Synthetic organopesticides containing carbon, hydrogen, nitrogen, and oxygen.

**No Further Remedial Action Planned:** Determination made by EPA following a preliminary assessment that a site does not pose a significant risk and so requires no further activity under CERCLA.

**Noise:** Product-level or product-volume changes occurring during a test that are not related to a leak but may be mistaken for one.

**Non-Attainment Area:** Area that does not meet one or more of the National Ambient Air Quality Standards for the criteria pollutants designated in the Clean Air Act.

**Non-Binding Allocations of Responsibility (NBAR):** Process for EPA to propose a way for potentially responsible parties to allocate costs among themselves.

**Non-Community Water System:** A public water system that is not a community water system, e.g., the water supply at a camp site or national park.

**Non-Conventional Pollutant:** Any pollutant not statutorily listed or which is poorly understood by the scientific community.

**No Further Remedial Action Planned:** Determination made by EPA following a preliminary assessment that a site does not pose a significant risk and so requires no further activity under CERCLA.

**Non-Point Source:** Diffuse pollution sources (i.e., without a single point of origin or not introduced into a receiving stream from a specific outlet). The pollutants are generally carried off the land by stormwater. Common non-point sources are agriculture, forestry, urban, mining, construction, dams, channels, land disposal, saltwater intrusion, and city streets.

**Non-Contact Cooling Water:** Water used for cooling which does not come into direct contact with any raw material, product, byproduct, or waste.

**Non-degradation:** An environmental policy which disallows any lowering of naturally occurring quality regardless of preestablished health standards.

**Non-ionizing Electromagnetic Radiation:** 1. Radiation that does not change the structure of atoms but does heat tissue and may cause harmful biological effects. 2. Microwaves, radio waves, and low-frequency electromagnetic fields from high-voltage transmission lines.

**Nondischarging Treatment Plant:** A treatment plant that does not discharge treated wastewater into any stream or river. Most are pond systems that dispose of the total flow they receive by means of evaporation or percolation to groundwater, or facilities that dispose of their effluent by recycling or reuse (e.g., spray irrigation or groundwater discharge).

**Nonfriable Asbestos-containing Materials:** Any material containing more than one percent asbestos (as determined by Polarized Light Microscopy) that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

**Non-Road Emissions:** Pollutants emitted by combustion engines on farm and construction equipment, gasoline-powered lawn and garden equipment, and power boats and outboard motors.

**Notice of Deficiency:** An EPA request to a facility owner or operator requesting additional information before a preliminary decision on a permit application can be made.

**Notice of Intent to Deny:** Notification by EPA of its preliminary intent to deny a permit application.

**Nuclear Power Plant:** A facility that converts nuclear energy into usable power; heat produced by a reactor makes steam to drive turbines which produce electricity.

**Nuclear Reactors and Support Facilities:** Uranium mills, commercial power reactors, fuel reprocessing plants, and uranium enrichment facilities.

**Nuclear Winter:** Prediction by some scientists that smoke and debris rising from massive fires of a nuclear war could block sunlight for weeks or months, cooling the

earth's surface and producing climate changes that could, for example, negatively affect world agricultural and weather patterns.

**Nutrient:** Any substance assimilated by living things that promotes growth. The term is generally applied to nitrogen and phosphorus in wastewater, but is also applied to other essential and trace elements.

## O

**Ocean Discharge Waiver:** A variance from Clean Water Act requirements for discharges into marine waters.

**Odor Threshold:** The lowest concentration of vapor in the air that can be smelled. Odor thresholds vary widely among individuals.

**Off-Site Facility:** A hazardous waste treatment, storage or disposal area that is located away from the generating site.

**Oil Fingerprinting:** A method that identifies sources of oil and allows spills to be traced to their source.

**Oil Spill:** An accidental or intentional discharge of oil which reaches bodies of water. Can be controlled by chemical dispersion, combustion, mechanical containment, and/or adsorption. Spills from tanks and pipelines can also occur away from water bodies, contaminating the soil, getting into sewer systems and threatening underground water sources.

**Oligotrophic Lakes:** Deep clear lakes with few nutrients, little organic matter and a high dissolved-oxygen level.

**On-Scene Coordinator (OSC):** The predesignated EPA, Coast Guard, or Department of Defense official who coordinates and directs Superfund removal actions or Clean Water Act oil-or hazardous-spill response actions.

**On-Site Facility:** A hazardous waste treatment, storage or disposal area that is located on the generating site.

**Onboard Controls:** Devices placed on vehicles to capture gasoline vapor during refueling and route them to the engines when the vehicles are starting so that it can be efficiently burned.

**Oncogenic:** A substance that causes tumors, benign or malignant.

**Opacity:** The amount of light obscured by particulate pollution in the air; clear window glass has zero opacity, a brick wall is 100 percent opaque. Opacity is an indicator of changes in performance of particulate control systems.

**Open Burning:** Uncontrolled fires in an open dump.

**Open Dump:** An uncovered site used for disposal of waste without environmental controls. (See: dump.)

**Operable Unit:** Term for each of a number of separate activities undertaken as part of a Superfund site cleanup. A typical operable unit would be removal of drums and tanks from the surface of a site.

**Operating Conditions:** Conditions specified in a RCRA permit that dictate how an incinerator must operate as it burns different waste types. A trial burn is used to identify operating conditions needed to meet specified performance standards.

**Operation And Maintenance:** 1. Activities conducted after a Superfund site action is completed to ensure that the action is effective. 2. Actions taken after construction to assure that facilities constructed to treat waste water will be properly operated and maintained to achieve normative efficiency levels and prescribed effluent limitations in an optimum manner. 3. Ongoing asbestos management plan in a school or other public building, including regular inspections, various methods of maintaining asbestos in place, and removal when necessary.

**Oral Toxicity:** Ability of a pesticide to cause injury when ingested.

**Organic:** 1. Referring to or derived from living organisms. 2. In chemistry, any compound containing carbon.

**Organic Chemicals/Compounds:** Animal or plant-produced substances containing mainly carbon, hydrogen, nitrogen, and oxygen.

**Organic Matter:** Carbonaceous waste contained in plant or animal matter and originating from domestic or industrial sources.

**Organophosphates:** Pesticides that contain phosphorus; short-lived, but some can be toxic when first applied.

**Organotins:** Chemical compounds used in anti-foulant paints to protect the hulls of boats and ships, buoys, and pilings from marine organisms such as barnacles.

**Original AHERA Inspection/Original Inspection/Inspection:** Examination of school buildings arranged by Local Education Agencies to identify asbestos-containing materials, evaluate their condition, take samples of materials suspected to contain asbestos; performed by EPA-accredited inspectors

**Original Generation Point:** Where regulated medical or other material first becomes waste.

**Osmosis:** The tendency of a fluid to pass through a permeable membrane (like the wall of a living cell) into a less concentrated solution, so equalizing the density on both sides.



**Outfall:** The place where effluent is discharged into receiving waters.

**Overburden:** Rock and soil cleared away before mining.

**Overfire Air:** Air forced into the top of an incinerator or boiler to fan the flames.

**Overland Flow:** A land application technique that cleanses waste water by allowing it to flow over a sloped surface. As the water flows over the surface, contaminants are absorbed and the water is collected at the bottom of the slope for reuse.

**Oversized Regulated Medical Waste:** Medical waste that is too large for plastic bags or standard containers.

**Overtum:** One complete cycle of top to bottom mixing of previously stratified water masses. This phenomenon may occur in spring or fall, or after storms, and results in uniformity of chemical and physical properties of water at all depths.

**Oxidant:** A substance containing oxygen that reacts chemically in air to produce a new substance; the primary ingredient of photochemical smog.

**Oxidation:** 1. The addition of oxygen which breaks down organic waste or chemicals such as cyanides, phenols, and organic sulfur compounds in sewage by bacterial and chemical means. 2. Any combination of oxygen with other elements. 3. In chemistry, a process in which electrons are removed from a molecule.

**Oxidation Pond:** A man-made body of water in which waste is consumed by bacteria, used most frequently with other waste-treatment processes; a sewage lagoon.

**Oxygenated Fuels:** Gasoline which has been blended with alcohols or ethers that contain oxygen in order to reduce carbon monoxide and other emissions.

**Oxygenated Solvent:** An organic solvent containing oxygen as part of the molecular structure. Alcohols and ketones are oxygenated compounds often used as paint solvents.

**Ozone (O<sub>3</sub>):** Found in two layers of the atmosphere, the stratosphere and the troposphere. In the *stratosphere* (the atmospheric layer 7 to 10 miles or more above the earth's surface) ozone is a natural form of oxygen that provides a protective layer shielding the earth from ultraviolet radiation. In the *troposphere* (the layer extending up 7 to 10 miles from the earth's surface), ozone is a chemical oxidant and major component of photochemical smog. It can seriously impair the respiratory system and is one of the most widespread of all the criteria pollutants for which the Clean Air Act required EPA to set standards. Ozone in the troposphere is produced

through complex chemical reactions of nitrogen oxides, which are among the primary pollutants emitted by combustion sources; hydrocarbons, released into the atmosphere through the combustion, handling and processing of petroleum products; and sunlight

**Ozonator:** A device that adds ozone to water.

**Ozone Depletion:** Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life. This destruction of ozone is caused by the breakdown of certain chlorine and/or-bromine containing compounds (chlorofluorocarbons or halons), which break down when they reach the stratosphere and then catalytically destroy ozone molecules.

**Ozone Hole:** Thinning break in the stratospheric ozone layer. Designation of amount of such depletion as a "ozone hole" is made when detected amount of depletion exceeds fifty percent. seasonal ozone holes have been observed over both the Antarctic region and the Arctic region and part of Canada and the extreme northeastern United States.

## P

**Packaging:** The assembly of one or more containers and any other components necessary to assure minimum compliance with a program's storage and shipment packaging requirements. Also, the containers, etc., involved.

**Packed Bed Scrubber:** An air pollution control device in which emissions pass through alkaline water to neutralize hydrogen chloride gas.

**Packed Tower:** A pollution control device that forces dirty air through a tower packed with crushed rock or wood chips while liquid is sprayed over the packing material. The pollutants in the air stream either dissolve or chemically react with the liquid.

**Pandemic:** A Widespread throughout an area, nation or the world.

**Paraquat:** A standard herbicide used to kill various types of crops, including marijuana.

**Part A Permit, Part B Permit:** (See: Interim Permit Status.)

**Particulate Loading:** The mass of particulates per unit volume of air or water.

**Participation Rate:** Portion of population participating in a recycling program.

**Particulates:** Fine liquid or solid particles such as dust, smoke, mist, fumes, or smog, found in air or emissions.

**Parts Per Billion (ppb)/Parts Per Million (ppm):** Units commonly used to express contamination ratios, as in establishing the maximum permissible amount of a contaminant in water, land, or air.

**Pathogenic:** Capable of causing disease.

**Pathogens:** Microorganisms that can cause disease in other organisms or in humans, animals and plants (e.g., bacteria, viruses, or parasites) found in sewage, in runoff from farms or rural areas populated with domestic and wild animals, and in water used for swimming. Fish and shellfish contaminated by pathogens, or the contaminated water itself, can cause serious illness.

**Peak Electricity Demand:** The maximum electricity used to meet the cooling load of a building or buildings in a given area.

**Peak Levels:** Levels of airborne pollutant contaminants much higher than average or occurring for short periods of time in response to sudden releases.

**Percolation:** The movement of water downward and radially through sub-surface soil layers, usually continuing downward to ground water; can also involve upward movement of water.

**Performance Data (for incinerators):** Information collected, during a trial burn, on concentrations of designated organic compounds and pollutants found in incinerator emissions. Data analysis must show that the incinerator meets performance standards under operating conditions specified in the RCRA permit. (See: trial burn; performance standards.)

**Performance Standards:** (1) Regulatory requirements limiting the concentrations of designated organic compounds, particulate matter, and hydrogen chloride in emissions from incinerators. (2) Operating standards established by EPA for various permitted pollution control systems, asbestos inspections, and various program operations and maintenance requirements.

**Permeability:** The rate at which liquids pass through soil or other materials in a specified direction.

**Permit:** An authorization, license, or equivalent control document issued by EPA or an approved state agency to implement the requirements of an environmental regulation; e.g., a permit to operate a wastewater treatment plant or to operate a facility that may generate harmful emissions.

**Persistence:** Refers to the length of time a compound stays in the environment, once introduced. A compound may persist for less than a second or indefinitely.

**Persistent Pesticides:** Pesticides that do not break down chemically or break down

very slowly and remain in the environment after a growing season.

**Personal Air Samples:** Air samples taken with a pump is directly attached to the worker with the collecting filter and cassette placed in the worker's breathing zone (required under OSHA asbestos standards and EPA worker protection rule).

**Pest:** An insect, rodent, nematode, fungus, weed or other form of terrestrial or aquatic plant or animal life that is injurious to health or the environment.

**Pesticide Tolerance:** The amount of pesticide residue allowed by law to remain in or on a harvested crop. EPA sets these levels well below the point where the compounds might be harmful to consumers.

**Pesticide:** Substances or mixture thereof intended for preventing, destroying, repelling, or mitigating any pest. Also, any substance or mixture intended for use as a plant regulator, defoliant, or desiccant.

**Phenols:** Organic compounds that are byproducts of petroleum refining, tanning, and textile, dye, and resin manufacturing. Low concentrations cause taste and odor problems in water; higher concentrations can kill aquatic life and humans.

**Pheromone:** Hormones produced by the female of a species to attract a mate.

**Phosphates:** Certain chemical compounds containing phosphorus.

**Phosphogypsum Piles (stacks):** Principal byproduct generated in production of phosphoric acid from phosphate rock. These piles may generate radioactive radon gas.

**Phosphorous Plants:** Facilities using electric furnaces to produce elemental phosphorous for commercial use, such as high grade phosphoric acid, phosphate-based detergent, and organic chemicals use.

**Phosphorus:** An essential chemical food element that can contribute to the eutrophication of lakes and other water bodies. Increased phosphorus levels result from discharge of phosphorus-containing materials into surface waters.

**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 from different sources.

**Photosynthesis:** The manufacture by plants of carbohydrates and oxygen from carbon dioxide mediated by chlorophyll in the presence of sunlight.

**Physical and Chemical Treatment:** Processes generally used in large-scale waste-water treatment facilities. Physical processes may include air-stripping or

filtration. Chemical treatment includes coagulation, chlorination, or ozonation. The term can also refer to treatment of toxic materials in surface and ground waters, oil spills, and some methods of dealing with hazardous materials on or in the ground.

**Phytoplankton:** That portion of the plankton community comprised of tiny plants, e.g., algae, diatoms.

**Phytotoxic:** Harmful to plants.

**Picocurie:** Measurement of radioactivity. A picocurie is a trillionth of a curie, representing about 2.2 radioactive particle disintegrations per minute.

**Picocuries Per Liter pCi/L:** A unit of measure for levels of radon gas.

**Pig:** A container, usually lead, used to ship or store radioactive materials.

**Pilot Tests:** Testing a cleanup technology under actual site conditions to identify potential problems prior to full-scale implementation.

**Plankton:** Tiny plants and animals that live in water.

**Plasma-arc Reactor:** An incinerator that operates at extremely high temperatures; treats highly toxic wastes that do not combust easily.

**Plasmid:** A circular piece of DNA that exists apart from the chromosome and replicates independently of it. Bacterial plasmids carry information that renders the bacteria resistant to antibiotics. Plasmids are often used in genetic engineering to carry desired genes into organisms.

**Plastics:** Non-metallic chemoreactive compounds molded into rigid or pliable construction materials, fabrics, etc.

**Plate Tower Scrubber:** An air pollution control device that neutralizes hydrogen chloride gas by bubbling alkaline water through holes in a series of metal plates.

**Plugging:** 1. Act or process of stopping the flow of water, oil, or gas into or out of a formation through a borehole or well penetrating that formation. 2. Stopping a leak or sealing off a pipe or hose.

**Plume:** 1. A visible or measurable discharge of a contaminant from a given point of origin. Can be visible or thermal in water, or visible in the air as, for example, a plume of smoke. 2. The area of radiation leaking from a damaged reactor. 3. Area downwind within which a release could be dangerous for those exposed to leaking fumes.

**Plutonium:** A radioactive metallic element chemically similar to uranium.

**PM-10:** A new standard for measuring the amount of solid or liquid matter suspended in the atmosphere, i.e. the amount of particulate matter over 10 micrometers in

diameter; smaller PM-10 particles penetrate to the deeper portions of the lung, affecting sensitive population groups such as children and individuals with respiratory ailments.

**Point Source:** A stationary location or fixed facility from which pollutants are discharged; any single identifiable source of pollution, e.g., a pipe, ditch, ship, ore pit, factory smokestack.

**Pollen:** The fertilizing element of flowering plants; background air pollutant.

**Pollutant:** Generally, any substance introduced into the environment that adversely affects the usefulness of a resource.

**Pollution Prevention:** The active process of identifying areas, processes, and activities which create excessive waste byproducts for the purpose of substitution, alteration, or elimination of the process to prevent waste generation.

**Pollutant Standard Index (PSI):** Measure of adverse health effects of air pollution levels in major cities.

**Pollution:** Generally, the presence of matter or energy whose nature, location, or quantity produces undesired environmental effects. Under the Clean Water Act, for example, the term is defined as the man-made or man-induced alteration of the physical, biological, chemical, and radiological integrity of water.

**Polonium:** A radioactive element that occurs in pitchblende and other uranium-containing ores.

**Polyelectrolytes:** Synthetic chemicals that help solids to clump during sewage treatment.

**Polymer:** Basic molecular ingredients in plastic.

**Polyvinyl Chloride (PVC):** A tough, environmentally indestructible plastic that releases hydrochloric acid when burned.

**Population:** A group of interbreeding organisms occupying a particular space; the number of humans or other living creatures in a designated area.

**Post-Closure:** The time period following the shutdown of a waste management or manufacturing facility; for monitoring purposes, often considered to be 30 years.

**Post-Consumer Recycling:** Reuse of materials generated from residential and consumer waste, e.g. converting wastepaper from offices into corrugated boxes or newsprint.

**Potable Water:** Water that is safe for drinking and cooking.

**Potentially Responsible Party (PRP):** Any individual or company-including owners, operators, transporters or generators-potentially responsible for, or contributing to a spill or other contamination at a Superfund site. Whenever possible, through adminis-

trative and legal actions, GPA requires PRPs to clean up hazardous sites they have contaminated.

**Precipitate:** A solid that separates from a solution.

**Precipitation:** Removal of hazardous solids from liquid waste to permit safe disposal; removal of particles from airborne emissions.

**Precipitator:** Pollution control device that collects particles from an air stream.

**Precursor:** In photochemistry, a compound anteceded to a volatile organic compound (VOC). Precursors react in sunlight to form ozone or other photochemical oxidants.

**Preliminary Assessment:** The process of collecting and reviewing available information about a known or suspected waste site or release.

**Pressure Sewers:** A system of pipes in which water, wastewater, or other liquid is pumped to a higher elevation.

**Pretreatment:** Processes used to reduce, eliminate, or alter the nature of wastewater pollutants from non-domestic sources before they are discharged into publicly owned treatment works (POTWs).

**Prevalent Level Samples:** Air samples taken under normal conditions (also known as ambient background samples).

**Prevalent Levels:** Levels of airborne contaminant occurring under normal conditions.

**Prevention of Significant Deterioration (PSD):** EPA program in which state and/or federal permits are required in order to restrict emissions from new or modified sources in places where air quality already meets or exceeds primary and secondary ambient air quality standards.

**Primary Drinking Water Regulation:** Applies to public water systems and specifies a contaminant level, which, in the judgment of the EPA Administrator, will not adversely affect human health.

**Primary Waste Treatment:** First steps in wastewater treatment; screens and sedimentation tanks are used to remove most materials that float or will settle. Primary treatment removes about 30 percent of carbonaceous biochemical oxygen (BOD) demand from domestic sewage.

**Principal Organic Hazardous Constituents (POHCs):** Hazardous compounds monitored during an incinerator's trial burn, selected for high concentration in the waste feed and difficulty of combustion.

**Probability of Detection:** The likelihood, expressed as a percentage, that a test method will correctly identify a leaking tank.

**Process Wastewater:** Any water that comes into contact with any raw material, product, byproduct, or waste.

**Process Weight:** Total weight of all materials, including fuel, used in a manufacturing process; used to calculate the allowable particulate emission rate.

**Product Level:** The level of a product in a storage tank.

**Product:** In relation to underground storage tanks, the contents of a storage tank.

**Products of Incomplete Combustion (PICs):** Organic compounds formed by combustion. Usually generated in small amounts and sometimes toxic, PICs are heat-altered versions of the original material fed into the incinerator (e.g., charcoal is a P.C. from burning wood).

**Propellant:** Liquid in a self-pressurized pesticide product that expels the active ingredient from its container.

**Proposed Plan:** A plan for a site cleanup that is available to the public for comment.

**Proteins:** Complex nitrogenous organic compounds of high molecular weight made of amino acids; essential for growth and repair of animal tissue. Many, but not all, proteins are enzymes.

**Protocol:** A series of formal steps for conducting a test.

**Protoplast:** A membrane-bound cell from which the outer wall has been partially or completely removed. The term often is applied to plant cells.

**Protozoa:** One-celled animals that are larger and more complex than bacteria. May cause disease.

**Public Comment Period:** The time allowed for the public to express its views and concerns regarding an action by EPA (e.g., a *Federal Register* Notice of proposed rulemaking, a public notice of a draft permit, or a Notice of Intent to Deny).

**Public Hearing:** A formal meeting wherein EPA officials hear the public's views and concerns about an EPA action or proposal. EPA is required to consider such comments when evaluating its actions. Public hearings must be held upon request during the public comment period.

**Public Notice:** 1. Notification by EPA informing the public of Agency actions such as the issuance of a draft permit or scheduling of a hearing. EPA is required to ensure proper public notice, including publication in newspapers and broadcast over radio stations. 2. In the safe drinking water program, water suppliers are required to publish and broadcast notices when pollution problems are discovered.

**Public Water System:** A system that provides piped water for human consump-

tion to at least 15 service connections or regularly serves 25 individuals.

**Publicly Owned Treatment Works:** A waste-treatment works owned by a state, unit of local government, or Indian tribe, usually designed to treat domestic wastewaters.

**Pumping Station:** Pumping devices installed in sewer or water systems or other liquid-carrying pipelines to move the liquids to a higher level.

**Putrescible:** Able to rot quickly enough to cause odors and attract flies.

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

## Q

**Quality Assurance/Quality Control:** A system of procedures, checks, audits, and corrective actions to ensure that all EPA research design and performance, environmental monitoring and sampling, and other technical and reporting activities are of the highest achievable quality.

**Quench Tank:** A water-filled tank used to cool incinerator residues or hot materials during industrial processes.

## R

**Radiation:** Any form of electromagnetic energy propagated as rays, waves, or streams of energetic particles.

**Radiation Standards:** Regulations that set maximum exposure limits for protection of the public from radioactive materials.

**Radio Frequency Radiation:** (See Non-ionizing Radiation.)

**Radioactive Substances:** Substances that emit ionizing radiation.

**Radiobiology:** The study of radiation effects on living things.

**Radioisotopes:** Chemical variants of an element with potentially oncogenic, teratogenic, and mutagenic effects on the human body.

**Radionuclide:** Radioactive particle, man-made or natural, with a distinct atomic weight number. Can have a long life as soil or water pollutants.

**Radium:** A highly radioactive white shining metallic element found in pitchblende, carnotite, and other uranic minerals. It emits alpha particles and gamma rays which produce radon gas.

**Radius of Vulnerability Zone:** The maximum distance from the point of release of a hazardous substance in which the airborne concentration could reach the level

of concern under specified weather conditions.

**Radon Decay Products:** A term used to refer collectively to the immediate products of the radon decay chain. These include Po-218, Pb-214, Bi-214, and Po-214, which have an average combined half-life of about 30 minutes.

**Radon:** A colorless naturally occurring, radioactive, inert gas formed by radioactive decay of radium atoms in soil or rocks.

**Rasp:** A machine that grinds waste into a manageable material and helps prevent odor.

**Raw Sewage:** Untreated wastewater and its contents.

**Raw Water:** Intake water prior to any treatment or use.

**Reasonably Available Control Measures (RACM):** A broadly defined term referring to technological and other measures for pollution control.

**Reasonably Available Control Technology (RACT):** Control technology that is both reasonably available, and both technologically and economically feasible. Usually applied to existing sources in nonattainment areas; in most cases is less stringent than new source performance standards.

**Receiving Waters:** A river, lake, ocean, stream or other watercourse into which wastewater or treated effluent is discharged.

**Recharge:** The process by which water is added to a zone of saturation, usually by percolation from the soil surface, e.g., the recharge of an aquifer.

**Recharge Area:** A land area in which water reaches the zone of saturation from surface infiltration, e.g., where rainwater soaks through the earth to reach an aquifer.

**Recombinant Bacteria:** A microorganism whose genetic makeup has been altered by deliberate introduction of new genetic elements. The offspring of these altered bacteria also contain these new genetic elements, i.e. they "breed true."

**Recombinant DNA:** The new DNA that is formed by combining pieces of DNA from different organisms or cells.

**Recommended Maximum Contaminant Level (RMCL):** The maximum level of a contaminant in drinking water at which no known or anticipated adverse affect on human health would occur, and that includes an adequate margin of safety. Recommended levels are nonenforceable health goals. (See: maximum contaminant level.)

**Reconstructed Source:** Facility in which components are replaced to such an extent

that the fixed capital cost of the new components exceed 50 percent of the capital cost of constructing a comparable brand-new facility. New-source performance standards may be applied to sources reconstructed after the proposal of the standard if it is technologically and economically feasible to meet the standard.

**Record of Decision (ROD):** A public document that explains which cleanup alternative(s) will be used at National Priorities List sites where, under CERCLA, Trust Funds pay for the cleanup.

**Recovery Rate:** Percentage of usable recycled materials that have been removed from the total amount of municipal solid waste generated in a specific area or by a specific business.

**Reclamation:** (In recycling) Restoration of materials found in the waste stream to a beneficial use which may be for purposes other than the original use.

**Recycle/Reuse:** Minimizing waste generation by recovering and reprocessing usable products that might otherwise become waste (i.e. recycling of aluminum cans, paper, and bottles, etc.).

**Red Bag Waste:** (See: infectious waste.)

**Red Border:** An EPA document undergoing review before being submitted for final management decision-making.

**Red Tide:** A proliferation of a marine plankton toxic and often fatal to fish, perhaps stimulated by the addition of nutrients. A tide can be red, green, or brown, depending on the coloration of the plankton.

**Reentry Interval:** The period of time immediately following the application of a pesticide during which unprotected workers should not enter a field.

**Reference Dose (RfD):** The concentration of a chemical known to cause health problems; also be referred to as the ADI, or acceptable daily intake.

**Reformulated Gasoline:** Gasoline with a different composition from conventional gasoline (e.g., lower aromatics content) that cuts air pollutants.

**Refuse Reclamation:** Conversion of solid waste into useful products, e.g., composting organic wastes to make soil conditioners or separating aluminum and other metals for recycling.

**Refuse:** (See: solid waste.)

**Regeneration:** Manipulation of cells to cause them to develop into whole plants.

**Regional Response Team (RRT):** Representatives of federal, local, and state agencies who may assist in coordination of activities at the request of the On-Scene Coordinator before and during a significant pollution incident such as an oil spill,

major chemical release, or a Superfund response.

**Registrant:** Any manufacturer or formulator who obtains registration for a pesticide active ingredient or product.

**Registration:** Formal listing with EPA of a new pesticide before it can be sold or distributed. Under the Federal Insecticide, Fungicide, and Rodenticide Act. EPA is responsible for registration (pre-market licensing) of pesticides on the basis of data demonstrating no unreasonable adverse effects on human health or the environment when applied according to approved label directions.

**Registration Standards:** Published documents which include summary reviews of the data available on a pesticide's active ingredient, data gaps, and the Agency's existing regulatory position on the pesticide.

**Regulated Asbestos-Containing Material (RACM):** Friable asbestos material or nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading or has crumbled, or been pulverized or reduced to powder in the course of demolition or renovation operations.

**Regulated Medical Waste:** Under the Medical Waste Tracking Act of 1988, any solid waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. Included are cultures and stocks of infectious agents; human blood and blood products; human pathological body wastes from surgery and autopsy; contaminated animal carcasses from medical research; waste from patients with communicable diseases; and all used sharp implements, such as needles and scalpels, etc., and certain unused sharps. (See: treated medical waste; untreated medical waste; destroyed medical waste.)

**Release:** Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of a hazardous or toxic chemical or extremely hazardous substance.

**Remedial Action (RA):** The actual construction or implementation phase of a Superfund site cleanup that follows remedial design.

**Remedial Design:** A phase of remedial action that follows the remedial investigation/feasibility study and includes development of engineering drawings and specifications for a site cleanup.

**Remedial Investigation:** An in-depth study designed to gather data needed to determine the nature and extent of contamination at a Superfund site; establish site cleanup criteria; identify preliminary

alternatives for remedial action; and support technical and cost analyses of alternatives. The remedial investigation is usually done with the feasibility study. Together they are usually referred to as the "RI/FS".

**Remedial Project Manager (RPM):** The EPA or state official responsible for overseeing on-site remedial action.

**Remedial Response:** Long-term action that stops or substantially reduces a release or threat of a release of hazardous substances that is serious but not an immediate threat to public health.

**Remediation:** 1. Cleanup or other methods used to remove or contain a toxic spill or hazardous materials from a Superfund site; 2. for the Asbestos Hazard Emergency Response program, abatement methods including evaluation, repair, enclosure, encapsulation, or removal of greater than 3 linear feet or square feet of asbestos-containing materials from a building.

**Removal Action:** Short-term immediate actions taken to address releases of hazardous substances that require expedited response. (See: cleanup.)

**Reportable Quantity (RQ):** Quantity of a hazardous substance that triggers reports under CERCLA. If a substance exceeds its RQ, the release must be reported to the National Response Center, the SERC, and community emergency coordinators for areas likely to be affected.

**Repowering:** Replacement of an existing coal-fired boiler with one or more clean coal technologies in order to achieve significantly greater emission reduction relative to the performance of technology in widespread use at the time the Clean Air Act amendments of 1990 were enacted. (See: Clean coal technology.)

**Reregistration:** The reevaluation and relicensing of existing pesticides originally registered prior to current scientific and regulatory standards. EPA reregisters pesticides through its Registration Standards Program.

**Reserve Capacity:** Extra treatment capacity built into solid waste and wastewater treatment plants and interceptor sewers to accommodate flow increases due to future population growth.

**Reservoir:** Any natural or artificial holding area used to store, regulate, or control water.

**Residual:** Amount of a pollutant remaining in the environment after a natural or technological process has taken place, e.g., the sludge remaining after initial wastewater treatment, or particulates remaining in air after it passes through a scrubbing or other process.

**Residual Risk:** The extent of health risk from air pollutants remaining after application of the Maximum Achievable Control Technology (MACT).

**Resistance:** For plants and animals, the ability to withstand poor environmental conditions or attacks by chemicals or disease. May be inborn or acquired.

**Resource Recovery:** The process of obtaining matter or energy from materials formerly discarded.

**Response Action:** 1. Generic term for actions taken in response to actual or potential health-threatening environmental events such as spills, sudden releases, and asbestos abatement/management problems; 2. A CERCLA-authorized action involving either a short-term removal action or a long-term removal response. This may include but is not limited to: removing hazardous materials from a site to an EPA-approved hazardous waste facility for treatment, containment or treating the waste on-site, identifying and removing the sources of ground-water contamination and halting further migration of contaminants; 3. Any of the following actions taken in school buildings in response to AHERA to reduce the risk of exposure to asbestos: removal, encapsulation, enclosure, repair, and operations and maintenance. (See: cleanup).

**Responsiveness Summary:** A summary of oral and/or written public comments received by EPA during a comment period on key EPA documents, and EPA's response to those comments.

**Restoration:** Measures taken to return a site to pre-violation conditions.

**Restricted Use:** A pesticide may be classified (under FIFRA regulations) for restricted use if the it requires special handling because of its toxicity, and, if so, it may be applied only by trained, certified applicators or those under their direct supervision.

**Restriction Enzymes:** Enzymes that recognize specific regions of a long DNA molecule and cut it at those points.

**Reuse:** Using a product or components of municipal solid waste in its original form more than once, e.g., refilling a glass bottle that has been returned or using a coffee can to hold nuts and bolts.

**Reverse Osmosis:** A treatment process used in water systems by adding pressure to force water through a semi-permeable membrane. Reverse osmosis removes most drinking water contaminants. Also used in wastewater treatment. Large-scale reverse osmosis plants are being developed.

**Ribonucleic Acid (RNA):** A molecule that carries the genetic message from DNA to a cellular protein-producing mechanisms.

**Ringlemann Chart:** A series of shaded illustrations used to measure the opacity of air pollution emissions, ranging from light grey through black; used to set and enforce emissions standards.

**Riparian Habitat:** Areas adjacent to rivers and streams with a high density, diversity, and productivity of plant and animal species relative to nearby uplands.

**Riparian Rights:** Entitlement of a land owner to certain uses of water on or bordering his property, including the right to prevent diversion or misuse of upstream waters. Generally a matter of state law.

**Risk:** A measure of the probability that damage to life, health, property, and/or the environment will occur as a result of a given hazard.

**Risk Assessment:** Qualitative and quantitative evaluation of the risk posed to human health and/or the environment by the actual or potential presence and/or use of specific pollutants.

**Risk Communication:** The exchange of information about health or environmental risks among risk assessors and managers, the general public, news media, interest groups, etc.

**Risk Management:** The process of evaluating and selecting alternative regulatory and non-regulatory responses to risk. The selection process necessarily requires the consideration of legal, economic, and behavioral factors.

**River Basin:** The land area drained by a river and its tributaries.

**Rodenticide:** A chemical or agent used to destroy rats or other rodent pests, or to prevent them from damaging food, crops, etc.

**Rotary Kiln Incinerator:** An incinerator with a rotating combustion chamber that keeps waste moving, thereby allowing it to vaporize for easier burning.

**Rough Fish:** Fish not prized for eating, such as gar and suckers. Most are more tolerant of changing environmental conditions than game species.

**Rubbish:** Solid waste, excluding food waste and ashes, from homes, institutions, and work-places.

**Run-Off:** That part of precipitation, snow melt, or irrigation water that runs off the land into streams or other surface-water. It can carry pollutants from the air and land into receiving waters.

## S

**Safener:** A chemical added to a pesticide to keep it from injuring plants.

**Salinity:** The percentage of salt in water.

**Salt Water Intrusion:** The invasion of fresh surface or ground water by salt water. If it comes from the ocean it may be called sea water intrusion.

**Salts:** Minerals that water picks up as it passes through the air, over and under the ground, or from households and industry.

**Salvage:** The utilization of waste materials.

**Sanctions:** Actions taken by the federal government for failure to plan or implement a State Improvement Plan (SIP). Such action may be include withholding of highway funds and a ban on construction of new sources of potential pollution.

**Sand Filters:** Devices that remove some suspended solids from sewage. Air and bacteria decompose additional wastes filtering through the sand so that cleaner water drains from the bed.

**Sanitary Landfill:** (See: landfills.)

**Sanitary Sewers:** Underground pipes that carry off only domestic or industrial waste, 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 (Also known as gray water):** Water discharged from sinks, showers, kitchens, or other nonindustrial operations, but not from commodes.

**Sanitation:** Control of physical factors in the human environment that could harm development, health, or survival.

**Saturated Zone:** A subsurface area in which all pores and cracks are filled with water under pressure equal to or greater than that of the atmosphere.

**Scrap:** Materials discarded from manufacturing operations that may be suitable for reprocessing.

**Screening:** Use of screens to remove coarse floating and suspended solids from sewage.

**Scrubber:** An air pollution device that uses a spray of water or reactant or a dry process to trap pollutants in emissions.

**Secondary Drinking Water Regulations:** Non-enforceable regulations applying to public water systems and specifying the maximum contamination levels that, in the judgment of EPA, are required to protect the public welfare. These regulations apply to any contaminants that may adversely affect the odor or appearance of such water and consequently may cause people

served by the system to discontinue its use.

**Secondary Materials:** Materials that have been manufactured and used at least once and are to be used again.

**Secondary Treatment:** The second step in most publicly owned waste treatment systems in which bacteria consume the organic parts of the waste. It is accomplished by bringing together waste, bacteria, and oxygen in trickling filters or in the activated sludge process. This treatment removes floating and settleable solids and about 90 percent of the oxygen-demanding substances and suspended solids. Disinfection is the final stage of secondary treatment. (See: primary, tertiary treatment.)

**Secure Chemical Landfill:** (See: landfills.)

**Secure Maximum Contaminant Level:** Maximum permissible level of a contaminant in water delivered to the free flowing outlet of the ultimate user, or of contamination resulting from corrosion of piping and plumbing caused by water quality.

**Sedimentation Tanks:** Wastewater tanks in which floating wastes are skimmed off and settled solids are removed for disposal.

**Sedimentation:** Letting solids settle out of wastewater by gravity during treatment.

**Sediments:** Soil, sand, and minerals washed from land into water, usually after rain. They pile up in reservoirs, rivers and harbors, destroying fish and wildlife habitat, and clouding the water so that sunlight cannot reach aquatic plants. Careless farming, mining, and building activities will expose sediment materials, allowing them to wash off the land after rainfall.

**Seed Protectant:** A chemical applied before planting to protect seeds and seedlings from disease or insects.

**Selective Pesticide:** A chemical designed to affect only certain types of pests, leaving other plants and animals unharmed.

**Semi-Confined Aquifer:** An aquifer partially confined by soil layers of low permeability through which recharge and discharge can still occur.

**Senescence:** The aging process. Sometimes used to describe lakes or other bodies of water in advanced stages of eutrophication.

**Septic Tank:** An underground storage tank for wastes from homes not connected to a sewer line. Waste goes directly from the home to the tank, where it is decomposed by bacteria. The sludge settles to the bottom and is pumped out periodically, but effluent flows into the ground through drains.

**Service Connector:** The pipe that carries tap water from a public water main to a building.

**Settleable Solids:** Material heavy enough to sink to the bottom of a wastewater treatment tank.

**Settling Chamber:** A series of screens placed in the way of flue gases to slow the stream of air, thus helping gravity to pull particles into a collection device.

**Settling Tank:** A holding area for wastewater, where heavier particles sink to the bottom for removal and disposal.

**7Q10:** Seven-day, consecutive low flow with a ten year return frequency; the lowest stream flow for seven consecutive days that would be expected to occur once in ten years.

**Sewage:** The waste and wastewater produced by residential and commercial sources and discharged into sewers.

**Sewage Lagoon:** (See: lagoon.)

**Sewage Sludge:** Sludge produced at a Publicly Owned Treatment Works, the disposal of which is regulated under the Clean Water Act.

**Sewer:** A channel or conduit that carries wastewater and stormwater runoff from the source to a treatment plant or receiving stream. Sanitary sewers carry household, industrial, and commercial waste. Storm sewers carry runoff from rain or snow. Combined sewers handle both.

**Sewerage:** The entire system of sewage collection, treatment, and disposal.

**Sharps:** Hypodermic needles, syringes (with or without the attached needle) pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes used in animal or human patient care or treatment, or in medical, research or industrial laboratories. Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips, and unused hypodermic and suture needles, syringes, and scalpel blades.

**Shotgun:** Non-scientific term for the process of breaking up the DNA and then moving each fragment into a bacterium.

**Signal:** The volume or product-level change produced by a leak in a tank.

**Signal Words:** The words used on a pesticide label-Danger, Warning, Caution-to indicate level of toxicity.

**Significant Deterioration:** Pollution resulting from a new source in previously "clean" areas. (See: prevention of significant deterioration.)

**Significant Municipal Facilities:** Those publicly owned sewage treatment plants that discharge a million gallons per day or



more and are therefore considered by states to have the potential for to substantially effect the quality of receiving waters.

**Significant Violations:** Violations by point source dischargers of sufficient magnitude or duration to be a regulatory priority.

**Silt:** Fine particles of sand or rock that can be picked up by the air or water and deposited as sediment.

**Silviculture:** Management of forest land for timber. Sometimes contributes to water pollution, as in clear-cutting.

**Sinking:** Controlling oil spills by using an agent to trap the oil and sink it to the bottom of the body of water where the agent and the oil are biodegraded.

**Site Assessment Program:** A means of evaluating hazardous waste sites through preliminary assessments and site inspections to develop a Hazard Ranking System score.

**Site Inspection:** The collection of information from a Superfund site to determine the extent and severity of hazards posed by the site. It follows and is more extensive than a preliminary assessment. The purpose is to gather information necessary to score the site, using the Hazard Ranking System, and to determine if it presents an immediate threat requiring prompt removal.

**Site Safety Plan:** A crucial element in all removal actions, it includes information on equipment being used, precautions to be taken, and steps to take in the event of an on-site emergency.

**Siting:** The process of choosing a location for a facility.

**Skimming:** Using a machine to remove oil or scum from the surface of the water.

**Slow Sand Filtration:** Passage of raw water through a bed of sand at low velocity, resulting in substantial removal of chemical and biological contaminants.

**Sludge:** A semi-solid residue from any of a number of air or water treatment processes; can be a hazardous waste.

**Slurry:** A watery mixture of insoluble matter resulting from some pollution control techniques.

**Small Quantity Generator (SQG-sometimes referred to as "Squeegee"):** Persons or enterprises that produce 220-2200 pounds per month of hazardous waste; are required to keep more records than conditionally exempt generators. The largest category of hazardous waste generators, SQGs include automotive shops, dry cleaners, photographic developers, and a host of other small businesses. (See: conditionally exempt generators).

**Smelter:** A facility that melts or fuses ore, often with an accompanying chemical change, to separate its metal content. Emissions cause pollution. Smelting is the process involved.

**Smog:** Air pollution associated with oxidants. (See: photochemical smog.)

**Smoke:** Particles suspended in air after incomplete combustion.

**Soft Detergents:** Cleaning agents that break down in nature.

**Soft Water:** Any water that does not contain a significant amount of dissolved minerals such as salts of calcium or magnesium.

**Soil Adsorption Field:** A sub-surface area containing a trench or bed with clean stones and a system of piping through which treated sewage may seep into the surrounding soil for further treatment and disposal.

**Soil Conditioner:** An organic material like humus or compost that helps soil absorb water, build a bacterial community, and take up mineral nutrients.

**Soil Gas:** Gaseous elements and compounds in the small spaces between particles of the earth and soil. Such gases can be moved or driven out under pressure.

**Soil Sterilant:** A chemical that temporarily or permanently prevents the growth of all plants and animals. depending on the chemical.

**Solder:** A metallic compound used to seal the joints between pipes. Until recently, most solder contained 50-percent lead.

**Sole-Source Aquifer:** An aquifer that supplies 50-percent or more of the drinking water of an area.

**Solid Waste:** Non-liquid, non-soluble materials ranging from municipal garbage to industrial wastes that contain complex and sometimes hazardous substances. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes, and mining residues. Technically, solid waste also refers to liquids and gases in containers.

**Solid Waste Disposal:** The final placement of refuse that is not salvaged or recycled.

**Solid Waste Management:** Supervised handling of waste materials from their source through recovery processes to disposal.

**Solidification and Stabilization:** Removal of wastewater from a waste or changing it chemically to make it less permeable and susceptible to transport by water.

**Solvent:** Liquid capable of dissolving or dispersing one or more substances.

**Soot:** Carbon dust formed by incomplete combustion.

**Sorption:** The action of soaking up or attracting substances; process used in many pollution control systems.

**Source Reduction:** Reducing the amount of materials entering the waste stream by redesigning products or patterns of production or consumption (e.g., using returnable beverage containers). Synonymous with waste reduction.

**Source Separation:** Segregating various wastes at the point of generation (e.g., separation of paper, metal and glass from other wastes to make recycling simpler and more efficient.)

**Special Review:** Formerly known as Rebuttable Presumption Against Registration (RPAR), this is the regulatory process through which existing pesticides suspected of posing unreasonable risks to human health, non-target organisms, or the environment are referred for review by EPA. Such review requires an intensive risk/benefit analysis with opportunity for public comment. If risk is found to outweigh social and economic benefits, regulatory actions ranging from label revisions and use-restriction to cancellation or suspended registration can be initiated.

**Special Waste:** Items such as household hazardous waste, bulky wastes (refrigerators, pieces of furniture, etc.) tires, and used oil.

**Species:** A reproductively isolated aggregate of interbreeding organisms.

**Spill Prevention Control and Countermeasures Plan (SPCP):** Plan covering the release of hazardous substances as defined in the Clean Water Act.

**Spoil:** Dirt or rock removed from its original location-destroying the composition of the soil in the process-as in strip-mining, dredging, or construction.

**Sprawl:** Unplanned development of open land.

**Spray Tower Scrubber:** A device that sprays alkaline water into a chamber where acid gases present to aid in the neutralizing of the gas.

**Stable Air:** A motionless mass of air that holds instead of dispersing pollutants.

**Stabilization:** Conversion of the active organic matter in sludge into inert, harmless material.

**Stack:** A chimney, smokestack, or vertical pipe that discharges used air.

**Stabilization Ponds:** (See: lagoon.)

**Stack Effect:** Air, as in a chimney, that moves upward because it is warmer than the ambient atmosphere.

**Stack Gas:** (See: flue gas.)

**Stage II Controls:** Systems placed on service station gasoline pumps to control and capture gasoline vapors during refueling.

**Stagnation:** Lack of motion in a mass of air or water that holds pollutants in place.

**Standards:** Norms that impose limits on the amount of pollutants or emissions produced. EPA establishes minimum standards, but states are allowed to be stricter.

**Start of a Response Action:** The point in time when there is a guarantee or set-aside of funding either by EPA, other federal agencies, states or Principal Responsible Parties in order to begin response actions at a Superfund site.

**State Emergency Response Commission (SERC):** Commission appointed by each state governor according to the requirements of SARA Title III. The SERCs designate emergency planning districts, appoint local emergency planning committees, and supervise and coordinate their activities.

**State Implementation Plans (SIP):** EPA-approved state plans for the establishment, regulation, and enforcement of air pollution standards.

**Stationary Source:** A fixed-site producer of pollution, mainly power plants and other facilities using industrial combustion processes.

**Sterilization:** 1. In pest control, the use of radiation and chemicals to damage body cells needed for reproduction. 2. The destruction of all living organisms in water or on the surface of various materials. By contrast, disinfection is the destruction of most such organisms.

**Storage:** Temporary holding of waste pending treatment or disposal, as in containers, tanks, waste piles, and surface impoundments.

**Storm Sewer:** A system of pipes (separate from sanitary sewers) that carries only water runoff from buildings and land surfaces.

**Stratification:** Separating into layers.

**Stratosphere:** The portion of the atmosphere 10-to-25 miles above the earth's surface.

**Strip-Cropping:** Growing crops in a systematic arrangement of strips or bands that serve as barriers to wind and water erosion.

**Strip-Mining:** A process that uses machines to scrape soil or rock away from mineral deposits just under the earth's surface.

**Structural Deformation:** Distortion in walls of a tank after liquid has been added or removed.

**Sulfur Dioxide (SO<sub>2</sub>):** A pungent, colorless, gaseous pollutant formed primarily by the combustion of fossil fuels.

**Sump:** A pit or tank that catches liquid runoff for drainage or disposal.

**Sump Pump:** A mechanical device that removes water or wastewater from a sump.

**Supercritical Water:** A type of thermal treatment using moderate temperatures and high pressures to enhance the ability of water to break down large organic molecules into smaller, less toxic ones. Oxygen injected during this process combines with simple organic compounds to form carbon dioxide and water.

**Superfund:** The program operated under the legislative authority of CERCLA and SARA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising the cleanup and other remedial actions.

**Superfund Innovative Technology Evaluation:** EPA program to promote development and use of innovative treatment technologies in Superfund site cleanups.

**Surface Impoundment:** Treatment, storage, or disposal of liquid hazardous wastes in ponds.

**Surface Uranium Mines:** Strip mining operations for removal of uranium-bearing ore.

**Surface Water:** All water naturally open to the atmosphere (rivers, lakes, reservoirs, ponds, streams, impoundments, seas, estuaries, etc.) and all springs, wells, or other collectors directly influenced by surface water.

**Surfacing ACM:** Asbestos-containing material that is sprayed or troweled on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members.

**Surfacing Material:** Material sprayed or troweled onto structural members (beams, columns, or decking) for fire protection; or on ceilings or walls for fireproofing, acoustical or decorative purposes. Includes textured plaster, and other textured wall and ceiling surfaces.

**Surfactant:** A detergent compound that promotes lathering.

**Surveillance System:** A series of monitoring devices designed to check on environmental conditions.

**Suspect Material:** Building material suspected of containing asbestos, e.g., surfacing material, floor tile, ceiling tile, thermal

system insulation, and miscellaneous other materials.

**Suspended Solids:** Small particles of solid pollutants that float on the surface of, or are suspended in, sewage or other liquids. They resist removal by conventional means.

**Suspension:** Suspending the use of a pesticide when EPA deems it necessary to prevent an imminent hazard resulting from its continued use. An emergency suspension takes effect immediately; under an ordinary suspension a registrant can request a hearing before the suspension goes into effect. Such a hearing process might take six months.

**Suspension Culture:** Cells growing in a liquid nutrient medium.

**Swamp:** A type of wetland dominated by woody vegetation but without appreciable peat deposits. Swamps may be fresh or salt water and tidal or non-tidal. (See: wetlands.)

**Synergism:** The cooperative interaction of two or more chemicals or other phenomena producing a greater total effect than the sum of their individual effects.

**Synthetic Organic Chemicals (SOCs):** Man-made organic chemicals. Some SOC's are volatile, others tend to stay dissolved in water instead of evaporating.

**Systemic Pesticide:** A chemical absorbed by an organism that makes the organism toxic to pests.

## T

**Tailings:** Residue of raw material or waste separated out during the processing of crops or mineral ores.

**Technical Assistance Grant (TAG):** As part of the Superfund program, Technical Assistance Grants of up to \$50,000 are provided to citizens' groups to obtain assistance in interpreting information related to cleanups at Superfund sites or those proposed for the National Priorities List. Grants are used by such groups to hire technical advisors to help them understand the site-related technical information for the duration of response activities.

**Technology-Based Limitations:** Industry-specific effluent limitations applied to a discharge when it will not cause a violation of water quality standards at low stream flows. Usually applied to discharges into large rivers.

**Technology-Based Standards:** Effluent limitations applicable to direct and indirect sources which are developed on a category-by-category basis using statutory factors, not including water-quality effects.



**Teratogen:** Substance that causes malformation or serious deviation from normal development of blastocysts, embryos and fetuses.

**Terracing:** Dikes built along the contour of sloping farm land that hold runoff and sediment to reduce erosion.

**Tertiary Treatment:** Advanced cleaning of wastewater that goes beyond the secondary or biological stage, removing nutrients such as phosphorus, nitrogen, and most BOD and suspended solids.

**Thermal Pollution:** Discharge of heated water from industrial processes that can kill or injure aquatic organisms.

**Thermal System Insulation (TSI):** Asbestos-containing material applied to pipes, fittings, boilers, breeching, tanks, ducts, or other interior structural components to prevent heat loss or gain or water condensation.

**Thermal Treatment:** Use of elevated temperatures to treat hazardous wastes. (See: incineration; pyrolysis.)

**Threshold Limit Value (TLV):** The concentration of an airborne substance that an average person can be repeatedly exposed to without adverse effects. TLVs may be expressed in three ways: **TLV-TWA-Time weighted average**, based on an allowable exposure averaged over a normal 8-hour workday or 40-hour workweek;

**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); and **TLV-C- Ceiling Exposure Limit** or maximum exposure concentration not to be exceeded under any circumstances. (TWA must still be met.)

**Threshold Planning Quantity:** A quantity designated for each chemical on the list of extremely hazardous substances that triggers notification by facilities to the State Emergency Response Commission that such facilities are subject to emergency planning requirements under SARA Title III.

**Tidal Marsh:** Low, flat marshlands traversed by channels and tidal hollows, subject to tidal inundation; normally, the only vegetation present is salt-tolerant bushes and grasses. (See: wetlands.)

**Time-weighted Average (TWA):** In air sampling, the average air concentration of contaminants during a given period.

**Tolerances:** Permissible residue levels for pesticides in raw agricultural produce and processed foods. Whenever a pesticide is registered for use on a food or a feed crop, a tolerance (or exemption from the tolerance requirement) must be established. EPA establishes the tolerance levels, which

are enforced by the Food and Drug Administration and the Department of Agriculture.

**Tonnage:** The amount of waste that a landfill accepts, usually expressed in tons per month. The rate at which a landfill accepts waste is limited by the landfill's permit.

**Topography:** The physical features of a surface area including relative elevations and the position of natural and man-made features.

**Total Suspended Solids (TSS):** A measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for "total suspended non-filterable solids." (See: suspended solids.)

**Toxic:** Harmful to living organisms.

**Toxic Chemical Release Form:** Information form required of facilities that manufacture, process, or use (in quantities above a specific amount) chemicals listed under SARA Title III.

**Toxic Chemical:** Any chemical listed in EPA rules as "Toxic Chemicals Subject to Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986."

**Toxic Chemical Use Substitution:** Replacing toxic chemicals with less harmful chemicals in industrial processes.

**Toxic Cloud:** Airborne plume of gases, vapors, fumes, or aerosols containing toxic materials.

**Toxic Pollutants:** Materials that cause death, disease, or birth defects in organisms that ingest or absorb them. The quantities and exposures necessary to cause these effects can vary widely.

**Toxic Release Inventory:** Database of toxic releases in the United States compiled from SARA Title III section 313 reports.

**Toxic Substance:** A chemical or mixture that may present an unreasonable risk of injury to health or the environment.

**Toxic Waste:** A waste that can produce injury if inhaled, swallowed, or absorbed through the skin.

**Toxicant:** A poisonous agent that kills or injures animal or plant life.

**Toxicity Testing:** Biological testing (usually with an invertebrate, fish, or small mammal) to determine the adverse effects of a compound or effluent.

**Toxicity:** The degree of danger posed by a substance to animal or plant life. (See: acute, chronic toxicity.)

**Toxicology:** The science and study of poisons control.

**Toxicological Profile:** An examination, summary, and interpretation of a hazard-

ous substance to determine levels of exposure and associated health effects.

**Transformation:** The process of placing genes into a host cell, thereby inducing the host to exhibit functions encoded by the new DNA.

**Transpiration:** The process by which water vapor is lost to the atmosphere from living plants. The term can also be applied to the quantity of water thus dissipated.

**Transportation Control Measures (TCMs):** Steps taken by a locality to adjust traffic patterns (e.g., bus lanes, turnout, right turn on red) or reduce vehicle use (ridesharing, high-occupancy vehicle lanes) to cut vehicular emissions.

**Trash:** Material considered worthless or offensive that is thrown away. Generally defined as dry waste material, but in common usage it is a synonym for garbage, rubbish, or refuse.

**Treatability Studies:** Tests of potential cleanup technologies conducted in a laboratory (See: bench-scale tests.)

**Trash-to-Energy Plan:** Burning trash to produce energy.

**Treated Regulated Medical Waste:** Medical waste treated to substantially reduce or eliminate its pathogenicity, but that has not yet been destroyed.

**Treatment Plant:** A structure built to treat wastewater before discharging it into the environment.

**Treatment, Storage, and Disposal Facility:** Site where a hazardous substance is treated, stored, or disposed of. TSD facilities are regulated by EPA and states under RCRA.

**Treatment:** (1) Any method, technique, or process designed to remove solids and/or pollutants from solid waste, wastestreams, effluents, and air emissions. (2) methods used to change the biological character or composition of any regulated medical waste so as to substantially reduce or eliminate its potential for causing disease.

**Trial Burn:** An incinerator test in which emissions are monitored for the presence of specific organic compounds, particulates, and hydrogen chloride.

**Trichloroethylene (TCE):** A stable, low boiling-point colorless liquid, toxic if inhaled. Used as a solvent or metal degreasing agent, and in other industrial applications.

**Trickling Filter:** A coarse treatment system in which wastewater is trickled over a bed of stones or other material covered with bacteria that break down the organic waste and produce clean water.

**Trihalomethane (THM):** One of a family of organic compounds named as derivative

of methane. THMs are generally by-products of chlorination of drinking water that contains organic material.

**Troposphere:** The lower atmosphere, the portion of the atmosphere up to seven teen miles from the Earth's surface where clouds are formed.

**Trust Fund (CERCLA):** A fund set up under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) to help pay for cleanup of hazardous waste sites and for legal action to force those responsible for the sites to clean them up.

**Tundra:** A type of ecosystem dominated by lichens, mosses, grasses, and woody plants. Tundra is found at high latitudes (arctic tundra) and high altitudes (alpine tundra). Arctic tundra is underlain by permafrost and is usually saturated. (See: wetlands.)

**Turbidimeter:** A device that measures the density of suspended solids in a liquid.

**Turbidity:** 1. Haziness in air caused by the presence of particles and pollutants. 2. A cloudy condition in water due to suspended silt or organic matter.

## U

**Ultra Clean Coal (UCC):** Coal that is washed, ground into fine particles, then chemically treated to remove sulfur, ash, silicone, and other substances; usually briquetted and coated with a sealant made from coal.

**Ultraviolet Rays:** Radiation from the sun that can be useful or potentially harmful. UV rays from one part of the spectrum (UV-A) enhance plant life and are useful in some medical and dental procedures; UV rays from other parts of the spectrum (UV-B) can cause skin cancer or other tissue damage. The ozone layer in the atmosphere partly shields us from ultraviolet rays reaching the earth's surface.

**Underground Injection Control (UIC):** The program under the Safe Drinking Water Act that regulates the use of wells to pump fluids into the ground.

**Underground Sources of Drinking Water:** Aquifers currently being used as a source of drinking water or those capable of supplying a public water system. They have a total dissolved solids content of 10,000 milligrams per liter or less, and are not "exempted aquifers." (See: exempted aquifer.)

**Underground Storage Tank:** A tank located at least partially underground and designed to hold gasoline or other petroleum products or chemicals.

**Unreasonable Risk:** Under the Federal Insecticide, Fungicide, and Rodenticide Act

(FIFRA), "unreasonable adverse effects" means any unreasonable risk to man or the environment, taking into account the medical, economic, social, and environmental costs and benefits of any pesticide.

**Unsaturated Zone:** The area above the water table where soil pores are not fully saturated, although some water may be present.

**Uranium:** A radioactive metallic element, used in nuclear reactors and the production of nuclear weapons, a small percentage of which comprises the fissionable isotope U-235.

**Uranium Mill Tailings Piles:** Former uranium ore processing sites that contain leftover radioactive materials (wastes), including radium and unrecovered uranium.

**Uranium Mill-Tailings Waste Piles:** Licensed active mills with tailings piles and evaporation ponds created by acid or alkaline leaching processes.

**Urban Runoff:** Stormwater from city streets and adjacent domestic or commercial properties that carries pollutants of various kinds into the sewer systems and receiving waters.

**Utility Load:** The total electricity demand for a utility district.

## V

**Vaccine:** Dead or modified antigen used to induce immunity to certain infectious diseases.

**Vapor Capture System:** Any combination of hoods and ventilation system that captures or contains organic vapors so they may be directed to an abatement or recovery device.

**Vapor:** The gaseous phase of substances that are liquid or solid at atmospheric temperature and pressure, e.g., steam.

**Vapor Dispersion:** The movement of vapor clouds in air due to wind, thermal action, gravity spreading, and mixing.

**Vapor Plumes:** Flue gases visible because they contain water droplets.

**Vaporization:** The change of state from liquid to gas.

**Variance:** Government permission for a delay or exception in the application of a given law, ordinance, or regulation.

**Vector:** 1. An organism, often an insect or rodent, that carries disease. 2. Plasmids, viruses, or bacteria used to transport genes into a host cell. A gene is placed in the vector; the vector then "infects" the bacterium.

**Vehicle Miles Travelled (VMT):** A measure of the extent of motor vehicle operation; the total number of vehicle miles

travelled within a specific geographic area over a given period of time.

**Vent:** (1) The connection and piping through which gases enter and exit a piece of equipment; (2) a pipe or duct through which air-borne contaminants exit a building (e.g., from copying machines or laboratory equipment); (3) a ventilation duct in a basement or other part of a building.

**Ventilation/Suction:** The act of admitting fresh air into a space in order to replace stale or contaminated air; achieved by blowing air into the space. Similarly, suction represents the admission of fresh air into an interior space by lowering the pressure outside of the space, thereby drawing the contaminated air outward.

**Venturi Scrubbers:** Air pollution control devices that use water to remove particulate matter from emissions.

**Vinyl Chloride:** A chemical compound, used in producing some plastics, that is believed to be oncogenic.

**Virgin Materials:** Resources extracted from nature in their raw form, such as timber or metal ore.

**Virus:** The smallest form of microorganisms capable of causing disease.

**Volatile:** Any substance that evaporates readily.

**Volatile Organic Compound (VOC):** Any organic compound that participates in atmospheric photochemical reactions except those designated by EPA as having negligible photochemical reactivity.

**Volatile Synthetic Organic Chemicals:** Chemicals that tend to volatilize or evaporate.

**Volume Reduction:** Processing waste materials to decrease the amount of space they occupy, usually by compacting or shredding, incineration, or composting.

**Volumetric Tank Test:** One of several tests to determine the physical integrity of a storage tank; the volume of fluid in the tank is measured directly or calculated from product-level changes. A marked drop in volume indicates a leak.

**Vulnerable Zone:** An area over which the airborne concentration of a chemical accidentally released could reach the level of concern.

**Vulnerability Analysis:** Assessment of elements in the community that are susceptible to damage should a release of hazardous materials occur.

## W

**Waste:** 1. Unwanted materials left over from a manufacturing process. 2. Refuse from places of human or animal habitation.

**Waste Exchange:** Arrangement in which companies exchange their wastes for the benefit of both parties.

**Waste Feed:** The continuous or intermittent flow of wastes into an incinerator.

**Waste Load Allocation:** The maximum load of pollutants each discharger of waste is allowed to release into a particular waterway. Discharge limits are usually required for each specific water quality criterion being, or expected to be, violated. The portion of a stream's total assimilative capacity assigned to an individual discharge.

**Waste Minimization:** Measures or techniques that reduce the amount of wastes generated during industrial production processes; term is also applied to recycling and other efforts to reduce the amount of waste going into the waste stream.

**Waste Reduction:** Using source reduction, recycling, or composting to prevent or reduce waste generation.

**Waste Stream:** The total flow of solid waste from homes, businesses, institutions, and manufacturing plants that are recycled, burned, or disposed of in landfills, or segments thereof such as the "residential waste stream" or the "recyclable waste stream."

**Waste Treatment Plant:** A facility containing a series of tanks, screens, filters and other processes by which pollutants are removed from water.

**Waste Treatment Stream:** The continuous movement of waste from generator to treater and disposer.

**Wastewater:** The spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.

**Wastewater Infrastructure:** The plan or network for the collection, treatment, and disposal of sewage in a community. The level of treatment will depend on the size of the community, the type of discharge, and/or the designated use of the receiving water.

**Wastewater Operations and Maintenance:** Actions taken after construction to assure that facilities constructed to treat wastewater will be operated, maintained, and managed to reach prescribed effluent levels in an optimum manner.

**Water Pollution:** The presence in water of enough harmful or objectionable material to damage the water's quality.

**Water Purveyor:** A public utility, mutual water company, county water district, or municipality that delivers drinking water to customers.

**Water Quality Criteria:** Levels of water quality expected to render a body of water

suitable for its designated use. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes.

**Water Quality Standards:** State-adopted and EPA-approved ambient standards for water bodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses.

**Water Quality-Based Limitations:** Effluent limitations applied to dischargers when mere technology-based limitations would cause violations of water quality standards. Usually applied to discharges into small streams.

**Water Quality-Based Permit:** A permit with an effluent limit more stringent than one based on technology performance. Such limits may be necessary to protect the designated use of receiving waters (i.e., recreation, irrigation, industry or water supply).

**Water Solubility:** The maximum possible concentration of a chemical compound dissolved in water. If a substance is water soluble it can very readily disperse through the environment.

**Water Supplier:** One who owns or operates a public water system.

**Water Supply System:** The collection, treatment, storage, and distribution of potable water from source to consumer.

**Water Table:** The level of groundwater.

**Watershed:** The land area that drains into a stream.

**Well:** A shaft or a dug hole whose depth is greater than the largest surface diameter and whose purpose is to reach underground water supplies or oil, or to store or bury fluids below ground.

**Well Injection:** The subsurface emplacement of fluids into a well.

**Well Monitoring:** Measurement by on-site instruments or laboratory methods of well water quality.

**Well Plug:** A watertight, gastight seal installed in a bore hole or well to prevent movement of fluids.

**Wellhead Protection Area:** A protected surface and subsurface zone surrounding a well or wellfield supplying a public water system to keep contaminants from reaching the well water.

**Wetlands:** An area that is saturated by surface or ground water with vegetation adapted for life under those soil conditions, as swamps, bogs, fens, marshes, and estuaries.

**Wildlife Refuge:** An area designated for the protection of wild animals, within which hunting and fishing are either prohibited or strictly controlled.

**Wood-Burning Stove Pollution:** Air pollution caused by emissions of particulate matter, carbon monoxide, total suspended particulates, and polycyclic organic matter from wood-burning stoves.

**Wood Treatment Facility:** An industrial facility that treats lumber and other wood products for outdoor use. The process employs chromated copper arsenate, which is regulated as a hazardous material.

**Working Level Month (WLM):** A unit of measure used to determine cumulative exposure to radon.

**Working Level (WL):** A unit of measure for documenting exposure to radon decay products, the so-called "daughters".. One working level is equal to approximately 200 picocuries per liter.

## X Y Z

**Xenobiote:** Any biotum displaced from its normal habitat; a chemical foreign to a biological system.

**Yard Waste:** The part of solid waste composed of grass clippings, leaves, twigs, branches, and garden refuse.

**Yellow-Boy:** Iron oxide flocculent (clumps of solids in waste or water); usually observed as orange-yellow deposits in surface streams with excess iron content. (See: floc, flocculation.)

**Z-list:** OSHA's tables of toxic and hazardous air contaminants.

**Zone of Saturation:** (See: saturated zone.)

**Zooplankton:** Tiny aquatic animals eaten by fish.



# Abbreviations And Acronyms

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**A**

- A&I:** Alternative and Innovative (Wastewater Treatment System)
- AA:** Accountable Area/FMSD
- AA:** Adverse Action
- AA:** Advices of Allowance
- AA:** Assistant Administrator
- AA:** Associate Administrator
- AA:** Atomic Absorption
- AAAS:** American Association for the Advancement of Science
- AAEE:** American Academy of Environmental Engineers
- AANWR:** Alaskan Arctic National Wildlife Refuge
- AAP:** Affirmative Action Plan
- AAP:** Affirmative Action Program
- AAP:** Asbestos Action Program
- AAPCO:** American Association of Pesticide Control Officials
- AARC:** Alliance for Acid Rain Control
- AARP:** American Association of Retired Persons
- ABEL:** EPA's computer model for analyzing a violator's ability to pay a civil penalty.
- ABES:** Alliance for Balanced Environmental Solutions
- AC:** Actual Commitment
- AC:** Advisory Circular
- AC:** Alternating Current
- A&C:** Abatement and Control
- ACA:** American Conservation Association
- ACBM:** Asbestos-Containing Building Material
- AC&C:** Abatement, Compliance and Control (Budget Category)
- ACE:** Alliance for Clean Energy
- ACEEE:** American Council for an Energy Efficient Economy
- ACFM:** Actual Cubic Feet Per Minute
- ACL:** Alternate Concentration Limit
- ACL:** Analytical Chemistry Laboratory
- ACM:** Asbestos-Containing Material
- ACP:** Agriculture Control Program (Water Quality Management)
- ACP:** Air Carcinogen Policy
- ACQUIRE:** Aquatic Information Retrieval
- ACQR:** Air Quality Control Region
- ACS:** American Chemical Society
- ACT:** Action
- ACTS:** Asbestos Contractor Tracking System
- ACWA:** American Clean Water Association
- ACWM:** Asbestos-Containing Waste Material
- ADABA:** Acceptable Data Base
- ADB:** Applications Data Base
- ADCO:** Alternate Document Control Officer (FMSD)
- ADI:** Acceptable Daily Intake
- ADP:** Automated Data Processing
- ADP:** AHERA Designated Person
- ADQ:** Audits of Data Quality
- ADR:** Alternate Dispute Resolution
- ADSS:** Air Data Screening System
- ADT:** Average Daily Traffic
- AEA:** Atomic Energy Act
- AEC:** Associate Enforcement Counsels
- AEE:** Alliance for Environmental Education
- AEERL:** Air and Energy Engineering Research Laboratory
- AEM:** Acoustic Emission Monitoring
- AERE:** Association of Environmental and Resource Economists
- AES:** American Electroplating Society
- AES:** Auger Electron Spectrometry
- AFA:** American Forestry Association
- AFBF:** American Farm Bureau Federation
- AFCA:** Area Fuel Consumption Allocation
- AFI:** American Forest Institute
- AFRCE:** Air Force Regional Civil Engineers
- AFS:** AIRS Facility Subsystem
- AFUG:** AIRS Facility Users Group
- AGA:** American Gas Association, Inc.
- AGC:** Associate General Counsel
- AGCA:** Associated General Contractors of America.
- AH:** Allowance Holders
- AHERA:** Asbestos Hazard Emergency Response Act
- AI:** Artificial Intelligence
- AIA:** American Institute of Architects
- AIC:** Active to Inert Conversion
- AICE:** American Institute of Chemical Engineers
- AICUZ:** Air Installation Compatible Use Zones
- AID:** Agency for International Development
- AIF:** Atomic Industrial Forum, Inc.
- AIG:** Assistant Inspector General
- AIHC:** American Industrial Health Council
- AIP:** Auto Ignition Point
- AIRS:** Aerometric Information Retrieval System
- AISI:** American Iron & Steel Institute
- AL:** Acceptable Level
- AL:** Administrative Leave
- AL:** Annual Leave
- ALA:** American Lung Association
- ALA:** Delta-Aminolevulinic Acid
- ALA-O:** Delta-Aminolevulinic Acid Dehydrates
- ALAPO:** Association of Local Air Pollution Control Officers
- ALARA:** As Low As Reasonably Achievable
- ALC:** Application Limiting Constituent
- ALJ:** Administrative Law Judge
- ALMS:** Atomic Line Molecular Spectroscopy
- ALR:** Action Leakage Rate
- AMA:** American Medical Association
- AMAS:** Administrator's Management Accountability System
- AMBIENS:** Atmospheric Mass Balance of Industrially Emitted and Natural Sulfur
- AMC:** Army Material Command/DOD
- AMOS:** Air Management Oversight System
- AMPS:** Automatic Mapping and Planning System
- AMS:** American Meteorological Society
- AMSA:** Association of Metropolitan Sewer Agencies
- ANEC:** American Nuclear Energy Council
- ANPR:** Advance Notice of Proposed Rulemaking
- ANRHRD:** Air, Noise, & Radiation Health Research Division/ORD
- ANSS:** American Nature Study Society
- AO:** Administrative Officer
- AO:** Administrator's Office
- AO:** Administrative Order
- AO:** Area Office
- AO:** Awards and Obligations
- AOAC:** Association of Official Analytical Chemists
- AOC:** Abnormal Operating Conditions
- AOD:** Argon-Oxygen Decarbonization
- AOML:** Atlantic Oceanographic and Meteorological Laboratory
- AP:** Accounting Point
- APA:** American Planning Association
- APA:** Administrative Procedures Act
- APCA:** Air Pollution Control Association
- APCD:** Air Pollution Control District
- APDS:** Automated Procurement Documentation System
- APHA:** American Public Health Association
- API:** American Paper Institute
- API:** American Petroleum Institute
- PPA:** American Public Power Association
- APRAC:** Urban Diffusion Model for Carbon Monoxide from Motor Vehicle Traffic
- APT:** Associated Pharmacists and Toxicologists
- APTI:** Air Pollution Training Institute
- APWA:** American Public Works Association
- AQ-7:** Non-reactive Pollutant Modelling
- AQCCT:** Air-Quality Criteria and Control Techniques
- AQCP:** Air Quality Control Program
- AQCR:** Air-Quality Control Region
- AQD:** Air-Quality Digest
- AQDHS:** Air-Quality Data Handling System
- AQDM:** Air-Quality Display Model
- AQMA:** Air-Quality Maintenance Area
- AQMP:** Air-Quality Maintenance Plan
- AQMP:** Air-Quality Management Plan
- AQSM:** Air-Quality Simulation Model
- AQTAD:** Air-Quality Technical Assistance Demonstration

AR: Administrative Record  
 A&R: Air and Radiation  
 ARA: Assistant Regional Administrator  
 ARA: Associate Regional Administrator  
 ARAR: Applicable or Relevant and Appropriate Standards, Limitations, Criteria, and Requirements  
 ARB: Air Resources Board  
 ARC: Agency Ranking Committee  
 ARCC: American Rivers Conservation Council  
 ARCS: Alternative Remedial Contract Strategy  
 ARD: Air and Radiation Division/OGC  
 ARG: American Resources Group  
 ARIP: Accidental Release Information Program  
 ARL: Air Resources Laboratory  
 ARM: Air Resources Management  
 ARO: Alternate Regulatory Option  
 ARRP: Acid Rain Research Program  
 ARSPA: Air Resources Regional Pollution Assessment Model  
 ARS: Agricultural Research Service  
 ARZ: Auto Restricted Zone  
 AS: Area Source  
 ASC: Area Source Category  
 ASCII: American Standard Code for Information Interchange  
 ASCP: American Society of Consulting Planners  
 ASDWA: Association of State Drinking Water Administrators  
 ASHAA: Asbestos in Schools Hazard Abatement Act  
 ASIWCPA: Association of State and Interstate Water Pollution Control Administrators  
 ASMDHS: Airshed Model Data Handling System  
 ASPA: American Society of Public Administration  
 ASRL: Atmospheric Sciences Research Laboratory  
 AST: Advanced Secondary (Wastewater) Treatment  
 ASTHO: Association of State and Territorial Health Officers  
 ASTM: American Society for Testing and Materials  
 ASTSWMO: Association of State and Territorial Solid Waste Management Officials  
 AT: Advanced Treatment  
 AT: Alpha Track Detection

ATA: American Trucking Association  
 ATERIS: Air Toxics Exposure and Risk Information System  
 ATMI: American Textile Manufacturing Institute  
 ATS: Action Tracking System  
 ATS: Administrator's Tracking System  
 ATSDR: Agency for Toxic Substances and Disease Registry  
 ATTF: Air Toxics Task Force  
 AUSA: Assistant United States Attorney  
 AUSM: Advanced Utility Simulation Model  
 AWPI: American Wood Preservers' Institute  
 A/WPR: Air/Water Pollution Report  
 AWRA: American Water Resources Association  
 AWT: Advanced Wastewater Treatment  
 AWWA: American Water Works Association  
 AWWARF: American Water Works Association Research Foundation  
 AX: Administrator's Executive Office  
 AX: Administrator's Office

## B

BAA: Board of Assistance Appeals  
 BAC: Biotechnology Advisory Committee  
 BACM: Best Available Control Measures  
 BACT: Best Available Control Technology  
 BADT: Best Available Demonstrated Technology  
 BaP: Benzo(a)Pyrene  
 BAP: Benefits Analysis Program  
 BART: Best Available Retrofit Technology  
 BASIS: Battelle's Automated Search Information System  
 BAT: Best Available Technology  
 BATEA: Best Available Treatment Economically Achievable  
 BBS: Bulletin Board System  
 BCC: Blind Carbon Copy  
 BCCM: Board for Certified Consulting Meteorologists  
 BCT: Best Control Technology  
 BCPCT: Best Conventional Pollutant Control Technology  
 BDAT: Best Demonstrated Achievable Technology  
 BDCT: Best Demonstrated Control Technology  
 BDT: Best Demonstrated Technology  
 BEJ: Best Engineering Judgement  
 BEJ: Best Expert Judgment  
 BEP: Black Employment Program  
 BF: Bonifide Notice of Intent to Manufacture or Import (IMD/OTS)  
 BG: Billion Gallons  
 BI: Background Information (FMSD)  
 BI: Brookings Institution  
 BIA: Bureau of Indian Affairs  
 BID: Background Information Document  
 BID: Buoyancy Induced Dispersion  
 BIOPLUME: Model to Predict the Maximum Extent of Existing Plumes  
 BLM: Bureau of Land Management  
 BLOB: Biologically Liberated Organo-Beasties  
 BLS: Bureau of Labor Statistics  
 BMP: Best Management Practice(s)  
 BMR: Baseline Monitoring Report  
 BO: Budget Obligations  
 BOA: Basic Ordering Agreement (Contracts)  
 BOD: Biochemical Oxygen Demand  
 BOD: Biological Oxygen Demand  
 BOF: Basic Oxygen Furnace  
 BOM: Bureau of Mines  
 BOP: Basic Oxygen Process  
 BOPF: Basic Oxygen Process Furnace  
 BOYSNC: Beginning of Year Significant Non-Compliers  
 BP: Boiling Point  
 BPA: Blanket Purchase Agreement  
 BPJ: Best Professional Judgment  
 BPT: Best Practicable Technology  
 BPT: Best Practicable Control Technology  
 BPT: Best Practicable Treatment  
 BPWTT: Best Practical Wastewater Treatment Technology  
 BRS: Bibliographic Retrieval Service  
 BSI: British Standards Institute  
 BSO: Benzene Soluble Organics  
 BTU: British Thermal Unit  
 BTZ: Below the Treatment Zone  
 BU: Bargaining Unit  
 BUN: Blood Urea Nitrogen  
 BY: Budget Year

## C

C: Celsius

CA: Citizen Act  
 CA: Competition Advocate  
 CA: Cooperative Agreements  
 CA: Corrective Action  
 CAA: Clean Air Act  
 CAA: Compliance Assurance Agreement  
 CAAA: Clean Air Act Amendments  
 CAB: Civil Aeronautics Board  
 CAD: Computer Assisted Design  
 CAER: Community Awareness and Emergency Response  
 CAFE: Corporate Average Fuel Economy  
 CAFO: Consent Agreement/Final Order  
 CAG: Carcinogenic Assessment Group  
 CAIR: Comprehensive Assessment of Information Rule  
 CALINE: California Line Source Model  
 CAMP: Continuous Air Monitoring Program  
 CAN: Common Account Number  
 CAO: Corrective Action Order  
 CAP: Corrective Action Plan  
 CAP: Cost Allocation Procedure  
 CAP: Criteria Air Pollutant  
 CAR: Corrective Action Report  
 CAS: Center for Automotive Safety  
 CAS: Chemical Abstract Service  
 CASAC: Clean Air Scientific Advisory Committee  
 CASLP: Conference on Alternative State and Local Practices  
 CATS: Corrective Action Tracking System  
 CAU: Carbon Adsorption Unit  
 CAU: Command Arithmetic Unit  
 CB: Continuous Bubbler  
 CBA: Chesapeake Bay Agreement  
 CBA: Cost Benefit Analysis  
 CBD: Central Business District  
 CBD: Commerce Business Daily  
 CBI: Compliance Biomonitoring Inspection  
 CBI: Confidential Business Information  
 CBO: Congressional Budget Office  
 CBOD: Carbonaceous Biochemical Oxygen Demand  
 CBP: Chesapeake Bay Program  
 CBP: County Business Patterns  
 CC: Activated Charcoal Adsorption  
 CC: Carbon Copy  
 CCA: Competition in Contracting Act

CCAA: Canadian Clean Air Act	Education	Improvement	CSPA: Council of State Planning Agencies
CCAP: Center for Clean Air Policy	CEEM: Center for Energy and Environmental Management	CIS: Chemical Information System	CSPI: Center for Science in the Public Interest
CCEA: Conventional Combustion Environmental Assessment	CEI: Compliance Evaluation Inspection	CIS: Contracts Information System	CSRL: Center for the Study of Responsive Law
CCHW: Citizens Clearinghouse for Hazardous Wastes	CELR: Canadian Environmental Law Research Foundation	CJE: Critical Job Element	CTARC: Chemical Testing and Assessment Research Commission
CCID: Confidential Chemicals Identification System	CEM: Continuous Emission Monitoring	CJO: Chief Judicial Officer	CTB: Certification and Training Branch/FOD
CCMS/NATO: Committee on Challenges of a Modern Society/North Atlantic Treaty Organization	CEMS: Continuous Emission Monitoring System	CLC: Capacity Limiting Constituents	CTG: Control Techniques Guidelines
CCP: Composite Correction Plan	CEO: Chief Executive Officer	CLEANS: Clinical Laboratory for Evaluation and Assessment of Toxic Substances	CV: Chemical Vocabulary
CC/RTS: Chemical Collection/Request Tracking System	CEPP: Chemical Emergency Preparedness Plan	CLEVER: Clinical Laboratory for Evaluation and Validation of Epidemiologic Research	CW: Congress Watch
CCTP: Clean Coal Technology Program	CEQ: Council on Environmental Quality	CLF: Conservation Law Foundation	CW: Continuous working-level monitoring
CD: Climatological Data	CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980	CLIPS: Chemical List Index and Processing System	CWA: Clean Water Act (aka FWPCA)
CDB: Consolidated Data Base	CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System	CLP: Contract Laboratory Program	CWAP: Clean Water Action Project
CDBA: Central Data Base Administrator	CERI: Center for Environmental Research Information	CM: Corrective Measure	CWTC: Chemical Waste Transportation Council
CDBG: Community Development Block Grant	CERT: Certificate of Eligibility	CMA: Chemical Manufacturers Association	CZMA: Coastal Zone Management Act
CDC: Centers for Disease Control	CEU: Continuing Education Units	CMB: Chemical Mass Balance	<b>D</b>
CDD: Chlorinated dibenzo-p-dioxin	CF: Conservation Foundation	CME: Comprehensive Monitoring Evaluation	DA: Deputy Administrator
CDF: Chlorinated dibenzofuran	CFA: Consumer Federation of America	CMEL: Comprehensive Monitoring Evaluation Log	DAA: Deputy Assistant Administrator
CDHS: Comprehensive Data Handling System	CFC: Chlorofluorocarbons	CMEP: Critical Mass Energy Project	DAPSS: Document and Personnel Security System (IMD)
CDI: Case Development Inspection	CFM: Chlorofluoromethanes	COCO: Contractor-Owned/Contractor-Operated	DAR: Defense Acquisition Regulations
CDM: Climatological Dispersion Model	CFM: Cubic Feet Per Minute (also ft. <sup>3</sup> /min.)	COD: Chemical Oxygen Demand	dB: Decibel
CDM: Comprehensive Data Management	CFR: Code of Federal Regulations	COE: U.S. Army Corps Of Engineers	DBA: Doing Business As
CDMQC: Climatological Dispersion Model with Calibration and Source Contribution	CFS: Cubic feet per second.	COH: Coefficient Of Haze	DCA: Document Control Assistant
CDNS: Climatological Data National Summary	CHABA: Committee on Hearing and Bio-Acoustics	CPF: Carcinogenic Potency Factor	DCI: Data Call-In
CDP: Census Designated Places	CHAMP: Community Health Air Monitoring Program	CPI: Consumer Price Index	DCN: Document Control Number
CDS: Compliance Data System	CHEMNET: Chemical Industry Emergency Mutual Aid Network	CPO: Certified Project Officer	DCO: Delayed Compliance Order
CE: Categorical Exclusion	CHESS: Community Health and Environmental Surveillance System	CPR: Center for Public Resources	DCO: Document Control Officer
CE: Conditionally Exempt Generator	CHIP: Chemical Hazard Information Profiles (OPTS)	CPSC: Consumer Product Safety Commission	DD: Deputy Director
CE: Cost Effectiveness	CI: Compression Ignition	CQA: Construction Quality Assurance	DD: Division Director
CEA: Cooperative Enforcement Agreement	CI: Confidence Interval	CR: Community Relations	DDD: Deputy Division Director
CEA: Cost and Economic Assessment	CIAQ: Council on Indoor Air Quality	CR: Continuous Radon Monitoring	DDT: DichloroDiphenylTrichloroethane
CEA: Council of Economic Advisors	CIBL: Convective Internal Boundary Layer	CROP: Consolidated Rules of Practice	DERs: Data Evaluation Records
CEAT: Contractor Evidence Audit Team	CICA: Competition in Contracting Act	CRR: Center for Renewable Resources	DES: Diethylstilbestrol
CEARC: Canadian Environmental Assessment Research Council	CICIS: Chemicals in Commerce Information System	CRS: Congressional Research Service	DI: Diagnostic Inspection
CEB: Chemical Element Balance	CIDRS: Cascade Impactor Data Reduction System	CRSTER: Single Source Dispersion Model	DMR: Discharge Monitoring Report
CEC: Commission of European Communities	CIIT: Chemical Industry Institute of Toxicology	CSI: Clean Sites, Inc.	DNA: Deoxyribonucleic acid
CECATS: CSB Existing Chemicals Assessment Tracking System	CIMI: Committee on Integrity and Management	CSI: Compliance Sampling Inspection	DO: Dissolved Oxygen
CEE: Center for Environmental		CSIN: Chemical Substances Information Network	DOC: Department Of Commerce
		CSMA: Chemical Specialties Manufacturers Association	DOD: Deputy Office Director
		CSO: Combined Sewer Overflow	DOD: Department Of Defense
			DOE: Department Of Energy
			DOI: Department Of Interior
			DOJ: Department Of Justice
			DOL: Department Of Labor
			DOS: Department Of State
			DOT: Department Of Transportation



DOW: Defenders Of Wildlife  
 DPA: Deepwater Ports Act  
 DQO: Data Quality Objective  
 DRA: Deputy Regional Administrator  
 DRC: Deputy Regional Counsel  
 DRE: Destruction and Removal Efficiency  
 DRES: Dietary Risk Evaluation System  
 DRMS: Defense Reutilization and Marketing Service  
 DRR: Data Review Record  
 DS: Dichotomous Sampler  
 DSAP: Data Self Auditing Program  
 DSCF: Dry Standard Cubic Feet  
 DSCM: Dry Standard Cubic Meter  
 DSS: Decision Support System  
 DSS: Domestic Sewage Study  
 DT: Declaration of Taking (FMSD)  
 DT: Detention Time  
 DT: Detectors (radon) damaged or lost  
 DU: Decision Unit  
 DU: Ducks Unlimited  
 DUC: Decision Unit Coordinator  
 DWS: Drinking Water Standard

## E

EA: Endangerment Assessment  
 EA: Enforcement Agreement  
 EA: Environmental Action  
 EA: Environmental Assessment  
 EA: Environmental Audit  
 EAF: Electric Arc Furnaces  
 EAG: Exposure Assessment Group  
 EAP: Environmental Action Plan  
 EAR: Environmental Auditing Roundtable  
 EB: Emissions Balancing  
 EBCDIC: Extended Binary Coded Decimal Interchange Code  
 EC: European Community  
 EC: Emulsifiable Concentrate  
 EC: Environment Canada  
 EC: Effective Concentration  
 ECA: Economic Community for Africa  
 ECAP: Employee Counselling and Assistance Program  
 ECD: Electron Capture Detector  
 ECE: Economic Commission for Europe  
 ECHH: Electro-Catalytic Hyper-Heaters  
 ECL: Environmental Chemical Laboratory  
 ECL: Executive Control Language  
 ECLA: Economic Commission for Latin America

ECR: Enforcement Case Review  
 ECRA: Economic Cleanup Responsibility Act  
 ED: Department of Education  
 ED: Effective Dose  
 EDA: Economic Development Administration  
 EDA: Emergency Declaration Area  
 EDB: Ethylene Dibromide  
 EDC: Ethylene Dichloride  
 EDD: Enforcement Decision Document  
 EDF: Environmental Defense Fund  
 EDP: Electronic Data Processing  
 EDRS: Enforcement Document Retrieval System  
 EDS: Electronic Data System  
 EDS: Energy Data System  
 EDT: Edit Data Transmission  
 EDTA: Ethylene Diamine Triacetic Acid  
 EDX: Electronic Data Exchange  
 EDZ: Emission Density Zoning  
 EEA: Energy and Environmental Analysis  
 EECs: Estimated Environmental Concentrations  
 EEC: European Economic Commission  
 EEF: Environmental Effects Branch/HERD  
 EEG: Electroencephalogram  
 EEI: Edison Electric Institute  
 EEOC: Equal Employment Opportunity Commission  
 EER: Excess Emission Report  
 EERL: Eastern Environmental Radiation Laboratory  
 EERU: Environmental Emergency Response Unit  
 EESI: Environment and Energy Study Institute  
 EESL: Environmental Ecological and Support Laboratory  
 EETFC: Environmental Effects, Transport and Fate Committee  
 EF: Emission Factor  
 EFO: Equivalent Field Office  
 EFTC: European Fluorocarbon Technical Committee  
 EGR: Exhaust Gas Recirculation  
 EH: Redox Potential  
 EHC: Environmental Health Committee  
 EHS: Extremely Hazardous Substance  
 EI: Emissions Inventory  
 EIA: Economic Impact Assessment  
 EIA: Environmental Impact Assessment  
 EIL: Environmental Impairment Liability  
 EIR: Endangerment Information Report  
 EIR: Environmental Impact

## Report

EIS: Environmental Impact Statement  
 EIS: Environmental Inventory System  
 EIS/AS: Emissions Inventory System/Area Source  
 EIS/PS: Emissions Inventory System/Point Source  
 EKMA: Empirical Kinetic Modeling Approach  
 EL: Exposure Level  
 ELI: Environmental Law Institute  
 ELR: Environmental Law Reporter  
 EM: Electromagnetic Conductivity  
 EM: Electron Microscope  
 E-MAIL: Electronic Mail  
 EMAS: Enforcement Management and Accountability System  
 EMR: Environmental Management Report  
 EMS: Enforcement Management System  
 EMSL: Environmental Monitoring Support Laboratory  
 EMSL: Environmental Monitoring Systems Laboratory  
 EMTS: Environmental Monitoring Testing Site  
 EMTS: Exposure Monitoring Test Site  
 EO: Ethylene Oxide  
 EO: Executive Officer  
 EO: Executive Order  
 EOB: Executive Office Building  
 EOC: Emergency Operating Center  
 EOD: Entrance on Duty  
 EOE: Equal Opportunity Employer  
 EOF: Emergency Operations Facility (RTP)  
 EOJ: End Of Job  
 EOT: Emergency Operations Team  
 EOY: End Of Year  
 EP: Earth Protectors  
 EP: Environmental Profile  
 EP: Emergency Preparedness/FMSD  
 EP: End-use Product  
 EP: Experimental Product  
 EP: Extraction Procedure  
 EPAA: Environmental Programs Assistance Act  
 EPAAR: EPA Acquisition Regulations  
 EPCRA: Emergency Preparedness and Community Right to Know Act  
 EPACASR: EPA Chemical Activities Status Report  
 EPAYS: EPA Payroll System

EPCA: Energy Policy and Conservation Act  
 EPD: Emergency Planning District  
 EPI: Environmental Policy Institute  
 EPIC: Environmental Photographic Interpretation Center  
 EPNL: Effective Perceived Noise Level  
 EPO: Estuarine Programs Office (NOAA)  
 EPRI: Electric Power Research Institute  
 EPTC: Extraction Procedure Toxicity Characteristic  
 ER: Electrical Resistivity  
 ERA: Economic Regulatory Agency  
 ERAMS: Environmental Radiation Ambient Monitoring System  
 ERC: Emergency Response Commission  
 ERC: Emissions Reduction Credit  
 ERC: Environmental Research Center  
 ERCS: Emergency Response Cleanup Services  
 ERDA: Energy Research and Development Administration  
 ERD&DAA: Environmental Research, Development and Demonstration Authorization Act  
 ERL: Environmental Research Laboratory  
 ERNS: Emergency Response Notification System  
 ERP: Enforcement Response Policy  
 ERT: Emergency Response Team  
 ERTAQ: ERT Air Quality Model  
 ES: Enforcement Strategy  
 ESA: Endangered Species Act  
 ESA: Environmentally Sensitive Area  
 ESC: Endangered Species Committee  
 ESCA: Electron Spectroscopy for Chemical Analysis  
 ESCAP: Economic and Social Commission for Asia and the Pacific  
 ESECA: Energy Supply and Environmental Coordination Act  
 ESH: Environmental Safety and Health  
 ESP: Electrostatic Precipitators  
 ET: Emissions Trading  
 ETP: Emissions Trading Policy  
 ETS: Environmental Tobacco Smoke  
 EUP: End-Use Product  
 EUP: Experimental Use Permit

EWCC: Environmental Workforce Coordinating Committee  
 EX: Executive Level Appointment  
 EXAMS: EXposure Analysis Modeling System  
 ExEx: Expected Exceedance

## F

F: Fahrenheit (Degrees)  
 FAA: Federal Aviation Administration  
 FAC: Facility Advisory Committee  
 FACA: Federal Advisory Committee Act  
 FAME: Framework for Achieving Managerial Excellence  
 FAN: Fixed Account Number  
 FAO: Food and Agriculture Organization  
 FAR: Federal Acquisition Regulations  
 FASB: Financial Accounting Standards Board  
 FATES: FIFRA and TSCA Enforcement System  
 FBC: Fluidized bed combustion  
 FBI: Federal Bureau of Investigation  
 FCC: Federal Communications Commission  
 FCC: Fluid Catalytic Converter  
 FCCU: Fluid Catalytic Cracking Unit  
 FCO: Federal Coordinating Officer (in disaster areas)  
 FCO: Forms Control Officer  
 FDA: Food and Drug Administration  
 FDF: Fundamentally Different Factors  
 FDIC: Federal Deposit Insurance Corporation  
 FDL: Final Determination Letter  
 FDO: Fee Determination Official  
 FE: Fugitive Emissions  
 FEA: Federal Energy Administration  
 FEC: Federal Executive Council  
 FEDS: Federal Energy Data System  
 FEFx: Forced Expiratory Flow  
 FEHB: Federal Employees Health Benefits  
 FEI: Federal Executive Institute  
 FEIS: Fugitive Emissions Information System  
 FEL: Frank Effect Level  
 FEMA: Federal Emergency Management Agency  
 FEPCA: Federal Environmental Pesticide Control Act; enacted as amendments to FIFRA.  
 FERC: Federal Energy Regulatory Commission  
 FERS: Federal Employee Retirement System  
 FERSA: Federal Employee Retirement System Act  
 FES: Factor Evaluation System  
 FEV: Forced Expiratory Volume  
 FEV1: Forced Expiratory Volume--one second  
 FEVI: Front End Volatility Index  
 FEW: Federally Employed Women  
 FF: Federal Facilities  
 FFAR: Fuel and Fuel Additive Registration  
 FFDCA: Federal Food, Drug, and Cosmetic Act  
 FFF: Firm Financial Facility  
 FFFSG: Fossil-Fuel-Fired Steam Generator  
 FFI: Full Field Investigation (FMSD)  
 FFIS: Federal Facilities Information System  
 FFP: Firm Fixed Price  
 FGD: Flue-Gas Desulfurization  
 FHA: Farmers Home Administration  
 FHA: Federal Housing Administration  
 FHLBB: Federal Home Loan Bank Board  
 FHWA: Federal Highway Administration  
 FIA: Federal Insurance Administration  
 FIC: Federal Information Center  
 FICA: Federal Insurance Contributions Act  
 FID: Flame Ionization Detector  
 FIFO: First In/First Out  
 FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act  
 FIM: Friable Insulation Material  
 FINDS: Facility Index System  
 FIP: Federal Implementation Plan  
 FIP: Federal Information Plan  
 FIP: Final Implementation Plan  
 FIPS: Federal Information Procedures System  
 FIT: Field Investigation Team  
 FLETC: Federal Law Enforcement Training Center  
 FLM: Federal Land Manager  
 FLP: Flash Point  
 FLPMA: Federal Land Policy and Management Act  
 FMAP: Financial Management Assistance Project  
 FMC: Federal Maritime Commission  
 FLSA: Fair Labor Standards Act  
 F/M: Food to Microorganism Ratio  
 FMC: Federal Maritime Commission  
 FMFIA: Federal Managers

Financial Integrity Act  
 FML: Flexible Membrane Liner  
 FMO: Financial Management Officer  
 FMP: Facility Management Plan  
 FMP: Financial Management Plan  
 FMS: Financial Management System  
 FMVCP: Federal Motor Vehicle Control Program  
 FOE: Friends Of the Earth  
 FOIA: Freedom Of Information Act  
 FOISD: Fiber Optic Isolated Spherical Dipol Antenna  
 FONSI: Finding Of No Significant Impact  
 FORAST: Forest Response to Anthropogenic Stress  
 FORTRAN: Formula Translation  
 FP: Fine Particulate  
 FPA: Federal Pesticide Act  
 FPAS: Foreign Purchase Acknowledgement Statements  
 FPC: Federal Power Commission  
 FPD: Flame Photometric Detector  
 FPEIS: Fine Particulate Emissions Information System  
 FPM: Federal Personnel Manual  
 FPPA: Federal Pollution Prevention Act  
 FPR: Federal Procurement Regulation  
 FPRS: Federal Program Resources Statement  
 FPRS: Formal Planning and Supporting System  
 FR: Federal Register  
 FR: Final Rulemaking  
 FRA: Federal Register Act  
 FRB: Federal Reserve Board  
 FRC: Federal Records Center  
 FRDS: Federal Reporting Data System  
 FREDs: Flexible Regional Emissions Data System  
 FRES: Forest Range Environmental Study  
 FRM: Federal Reference Methods  
 FRN: Federal Register Notice  
 FRN: Final Rulemaking Notice  
 FRS: Formal Reporting System  
 FRTIB: Federal Retirement Thrift Investment Board  
 FS: Feasibility Study  
 FS: Forest Service  
 FSA: Food Security Act  
 FSC: Facilities Service Center (FMSD)  
 FSS: Facility Status Sheet  
 FSS: Federal Supply Schedule  
 FT: Full Time

FTC: Federal Trade Commission  
 FTE: Full Time Equivalent  
 FTP: Federal Test Procedure (for motor vehicles)  
 FTS: Federal Telecommunications System  
 FTS: File Transfer Service  
 FTT: Full Time Temporary  
 FTTS: FIFRA/TSCA Tracking System  
 FUA: Fuel Use Act  
 FURS: Federal Underground Injection Control Reporting System  
 FVMP: Federal Visibility Monitoring Program  
 FWCA: Fish and Wildlife Coordination Act  
 FWP: Federal Women's Program  
 FWPCA: Federal Water Pollution and Control Act (aka CWA)  
 FWPCA: Federal Water Pollution and Control Administration  
 FWS: Fish and Wildlife Service  
 FY: Fiscal Year  
 FYI: For Your Information

## G

GAAP: Generally Accepted Accounting Principles  
 GAC: Groundwater Activated Carbon  
 GACT: Granular Activated Carbon Treatment  
 GAO: General Accounting Office  
 GBL: Government Bill of Lading  
 GC: Gas Chromatograph  
 GC: General Counsel  
 GC/MS: Gas Chromatograph/Mass Spectrophotograph  
 GCWR: Gross Combination Weight Rating  
 GDE: Generic Data Exemption  
 GEI: Geographic Enforcement Initiative  
 GEMS: Global Environmental Monitoring System  
 GEMS: Graphical Exposure Modeling System  
 GEP: Good Engineering Practice  
 GF: General Files  
 GFF: Glass Fiber Filter  
 GFO: Grant Funding Order  
 GFP: Government-Furnished Property  
 GI: Gastrointestinal  
 GICS: Grant Information and Control System  
 GIFAP: International Group of National Associations of Manufacturers of Agrochemical Products

GIS: Geographic Information Systems  
 GIS: Global Indexing System  
 GLC: Gas Liquid Chromatography  
 GLERL: Great Lakes Environmental Research Laboratory  
 GLNPO: Great Lakes National Program Office  
 GLO: Greater Leadership Opportunity program  
 GLP: Good Laboratory Practices  
 GLWQA: Great Lakes Water Quality Agreement  
 GMCC: Global Monitoring for Climatic Change  
 g/mi: Grams per mile  
 GMT: Greenwich Mean Time  
 GNP: Gross National Product  
 GOCM: Goals, Objectives, Commitments, and Measures  
 GOCO: Government-Owned/Contractor-Operated  
 GOGO: Government-Owned/Government-Operated  
 GOP: General Operating Procedures  
 GOPO: Government-Owned/Private-Operated  
 GPAD: Gallons-per-acre per-day  
 GPG: Grams-per-Gallon  
 GPO: Government Printing Office  
 GPR: Ground-Penetrating Radar  
 GPS: Groundwater Protection Strategy  
 GR: Grab Radon Sampling  
 GRCDA: Government Refuse Collection and Disposal Association  
 GRGL: Groundwater Residue Guidance Level  
 GS: General Schedule  
 GSA: General Services Administration  
 GTN: Global Trend Network  
 GTR: Government Transportation Request  
 GVP: Gasoline Vapor Pressure  
 GVW: Gross Vehicle Weight  
 GVWR: Gross Vehicle Weight Rating  
 GW: Grab Working-Level Sampling  
 GW: Groundwater  
 GWM: Groundwater Monitoring  
 GWPS: Groundwater Protection Standard  
 GWPS: Groundwater Protection Strategy

## H

HA: Health Advisory/ODW

HAAB: Hazard Abatement and Assistance Branch/OTS  
 HAD: Health Assessment Document  
 HAP: Hazardous Air Pollutant  
 HAPEMS: Hazardous Air Pollutant Enforcement Management System  
 HAPPS: Hazardous Air Pollutant Prioritization System  
 HATREMS: Hazardous and Trace Emissions System  
 HAZMAT: Hazardous Materials  
 HAZOP: Hazard and Operability Study  
 HB: Health Benefits  
 HBEP: Hispanic and Black Employment Programs  
 HC: Hazardous Constituents  
 HC: Hydrocarbon  
 HCCPD: Hexachlorocyclopentadiene  
 HCP: Hypothermal Coal Process  
 HDD: Heavy-Duty Diesel  
 HDE: Heavy-Duty Engine  
 HDG: Heavy-Duty Gasoline-Powered Vehicle  
 HDPE: High Density Polyethylene  
 HDT: Highest Dose Tested in a study  
 HDT: Heavy-Duty Truck  
 HDV: Heavy-Duty Vehicle  
 HEAL: Human Exposure Assessment Location  
 HECC: House Energy and Commerce Committee  
 HEI: Health Effects Institute  
 HEM: Human Exposure Modeling  
 HEP: Hispanic Employment Program  
 HEPA: High-Efficiency Particulate Air  
 HERL: Health Effects Research Laboratory  
 HERS: Hyperion Energy Recovery System  
 HHE: Human Health and the Environment  
 HHS: Department of Health and Human Services  
 HHV: Higher Heating Value  
 HI: Hazard Index  
 HI-VOL: High-Volume Sampler  
 HIWAY: A Line Source Model for Gaseous Pollutants  
 HLRW: High Level Radioactive Waste  
 HMIS: Hazardous Materials Information System  
 HMS: Highway Mobile Source  
 HMTA: Hazardous Materials Transportation Act  
 HMTR: Hazardous Materials Transportation Regulations  
 HO: Headquarters Offices

HOC: Halogenated Organic Carbons  
 HON: Hazardous Organic NESHAP  
 HOV: High-Occupancy Vehicle  
 HP: Horse Power  
 HPLC: High-Performance Liquid Chromatography  
 HPV: High Priority Violator  
 HQ: Headquarters  
 HQCDO: Headquarters Case Development Officer  
 HRC: Human Resources Council  
 HRO: Human Resources Officer  
 HRS: Hazardous Ranking System  
 HRUP: High-Risk Urban Problem  
 HSDB: Hazardous Substance Data Base  
 HSL: Hazardous Substance List  
 HSWA: Hazardous and Solid Waste Amendments  
 HT: Hypothermally Treated  
 HTP: High Temperature and Pressure  
 HUD: Department of Housing and Urban Development  
 HVIO: High Volume Industrial Organics  
 HW: Hazardous Waste  
 HWDMS: Hazardous Waste Data Management System  
 HWERL: Hazardous Waste Engineering Research Laboratory  
 HWGTF: Hazardous Waste Groundwater Task Force  
 HWGTF: Hazardous Waste Groundwater Test Facility  
 HWLT: Hazardous Waste Land Treatment  
 HWM: Hazardous Waste Management  
 HWRTF: Hazardous Waste Restrictions Task Force  
 HWTC: Hazardous Waste Treatment Council

## I

I/A: Innovative/Alternative (Construction Grants)  
 IA: Interagency Agreement  
 IAAC: Interagency Assessment Advisory Committee  
 IAEA: International Atomic Energy Agency  
 IAG: Interagency Group (FMSD)  
 IAG: Interagency Agreement  
 IAP: Incentive Awards Program  
 IAP: Indoor Air Pollution  
 IARC: International Agency for Research on Cancer  
 IATDB: Interim Air Toxics Data Base  
 IBA: Industrial Biotechnology Association

IBRD: International Bank for Reconstruction and Development  
 IBT: Industrial Biotech Laboratory  
 ICAIR: Interdisciplinary Planning and Information Research  
 ICAP: Inductively Coupled Argon Plasma  
 ICB: Information Collection Budget  
 ICBN: International Commission on the Biological Effects of Noise  
 ICC: Interstate Commerce Commission  
 ICE: Industrial Combustion Emissions Model  
 ICE: Internal Combustion Engine  
 ICP: Inductively Coupled Plasma  
 ICR: Information Collection Request  
 ICRE: Ignitability, Corrosivity, Reactivity, Extraction  
 ICRP: International Commission on Radiological Protection  
 ICS: Incident Command System  
 ICS: Institute for Chemical Studies  
 ICS: Intermittent Control Strategies  
 ICS: Intermittent Control System  
 ICWM: Institute for Chemical Waste Management  
 ID: Inside Diameter  
 IDLH: Immediately Dangerous to Life and Health  
 IEB: International Environment Bureau  
 IEMP: Integrated Environmental Management Project  
 IERL: Industrial Environmental Research Laboratory (ORD)  
 IES: Institute for Environmental Studies  
 IFB: Invitation for Bid  
 IFCAM: Industrial Fuel Choice Analysis Model  
 IFIS: Industry File Information System  
 IFPP: Industrial Fugitive Process Particulate  
 IFMS: Integrated Financial Management System  
 IG: Inspector General  
 IGA: Interagency Grant (Also called IAG)  
 IGCI: Industrial Gas Cleaning Institute  
 IRLG: Interagency Regulatory Liaison Group (Composed of EPA, CPSC, FDA, and OSHA)  
 Indian Health Service

IIS: Inflationary Impact Statement  
 IJC: International Joint Commission (on Great Lakes)  
 I/M: Inspection/Maintenance  
 IMM: Intersection Midblock Model  
 IMPACT: Integrated Model of Plumes and Atmosphere in Complex Terrain  
 IMPROVE: Interagency Monitoring of Protected Visual Environment  
 INPUFF: Gaussian Puff Dispersion Model  
 INT: Intermittent  
 IO: Immediate Office  
 IOAA: Immediate Office of the Assistant Administrator  
 IOAU: Input/Output Arithmetic Unit  
 IOB: Iron Ore Beneficiation  
 IOU: Input/Output Unit  
 IP: Inhalable Particles  
 IPA: Intergovernmental Personnel Act  
 IPA: Intergovernmental Personnel Agreement  
 IPM: Inhalable Particulate Matter  
 IPM: Integrated Pest Management  
 IPP: Implementation Planning Program  
 IPP: Integrated Plotting Package  
 IPP: Intermedia Priority Pollutant (document)  
 IPCS: International Program on Chemical Safety  
 IPP: Independent Power Producer  
 IR: Infrared  
 IRG: Interagency Review Group  
 IRIS: Instructional Resources Information System  
 IRIS: Integrated Risk Information System  
 IRM: Intermediate Remedial Measures  
 IRMC: Inter-Regulatory Risk Management Council  
 IRP: Installation Restoration Program  
 IRPTC: International Register of Potentially Toxic Chemicals  
 IRR: Institute of Resource Recovery  
 IRS: Internal Revenue Service  
 IRS: International Referral Systems  
 IS: Interim Status  
 ISAM: Indexed Sequential File Access Method  
 ISC: Industrial Source Complex  
 ISCL: Interim Status Compliance Letter  
 ISCLT: Industrial Source

Complex Long Term Model  
 ISCST: Industrial Source Complex Short Term Model  
 ISD: Interim Status Document  
 ISE: Ion-specific electrode  
 ISMAP: Indirect Source Model for Air Pollution  
 ISPF: (IBM) Interactive System Productivity Facility  
 ISS: Interim Status Standards  
 ITC: Interagency Testing Committee  
 ITC: International Trade Commission  
 ITDP: Individual Training and Development Plan  
 ITP: Individual Training Plan  
 IUR: Inventory Update Rule (IMD)  
 IWC: In-Stream Waste Concentration  
 IWS: Ionizing Wet Scrubber

## J

JAPCA: Journal of Air Pollution Control Association  
 JCL: Job Control Language  
 JEC: Joint Economic Committee  
 JECFA: Joint Expert Committee of Food Additives  
 JLC: Justification for Limited Competition  
 JMPR: Joint Meeting on Pesticide Residues  
 JNCP: Justification for Non-Competitive Procurement  
 JOFOC: Justification for Other Than Full and Open Competition  
 JPA: Joint Permitting Agreement  
 JSD: Jackson Structured Design  
 JSP: Jackson Structured Programming  
 JTU: Jackson Turbidity Unit

## K

KW: Kilowatt  
 KWH: Kilowatt Hour

## L

LAA: Lead Agency Attorney  
 LADD: Lowest Acceptable Daily Dose  
 LAER: Lowest Achievable Emission Rate  
 LAI: Laboratory Audit Inspection  
 LAMP: Lake Acidification Mitigation Project  
 LAN: Local Area Network  
 LC: Lethal Concentration  
 LC: Liquid Chromatography  
 LCD: Local Climatological Data  
 LCL: Lower Control Limit  
 LCM: Life Cycle Management

LCRS: Leachate Collection and Removal System  
 LD: Land Disposal  
 LD: Light Duty  
 LD L0: The lowest dosage of a toxic substance that kills test organisms.  
 LDC: London Dumping Convention  
 LDCRS: Leachate Detection, Collection, and Removal System  
 LDD: Light-Duty Diesel  
 LDIP: Laboratory Data Integrity Program  
 LDR: Land Disposal Restrictions  
 LDRTF: Land Disposal Restrictions Task Force  
 LDS: Leak Detection System  
 LDT: Lowest Dose Tested  
 LDT: Light-Duty Truck  
 LDV: Light-Duty Vehicle  
 LEA: Local Education Agency  
 LEL: Lowest Effect Level  
 LEL: Lower Explosive Limit  
 LEP: Laboratory Evaluation Program  
 LEPC: Local Emergency Planning Committee  
 LERC: Local Emergency Response Committee  
 LFL: Lower Flammability Limit  
 LGR: Local Governments Reimbursement Program  
 LIDAR: Light Detection and Ranging  
 LIFO: Last In/First Out  
 LIMB: Limestone-Injection Multi-Stage Burner  
 LLRW: Low Level Radioactive Waste  
 LMFBR: Liquid Metal Fast Breeder Reactor  
 LMR: Labor Management Relations  
 LUIS: Label Use Information System

## M

MAPSIM: Mesoscale Air Pollution Simulation Model  
 MEP: Multiple Extraction Procedure  
 MIC: Master Item Code (FMSD)  
 MOE: Margin Of Exposure (PAD)  
 MP: Manufacturing-use Product  
 MP: Melting Point  
 MRF: Materials Recovery Facility  
 MRID: Master Record Identification number  
 MRL: Maximum-Residue Limit (Pesticide Tolerance)  
 MSW: Municipal Solid Waste  
 MUP: Manufacturing-Use

Product  
 MUTA: Mutagenicity

## N

NAC: National Agency Check (FMSD)  
 NACI: National Agency Check and Inquiry (FMSD)  
 NFFE: National Federation of Federal Employees  
 NFRAP: No Further Remedial Action Planned  
 NICT: National Incident Coordination Team (FMSD)  
 NISAC: National Industrial Security Advisory Committee  
 NIST: National Institute of Standards and Technology  
 NOA: Notice of Arrival  
 NOAC: Nature of Action Code  
 NPHAP: National Pesticide Hazard Assessment Program  
 NSA: National Security Agency  
 NSC: National Security Council  
 NSDWR: National Secondary Drinking Water Regulations  
 NSEC: National System for Emergency Coordination  
 NSEP: National System for Emergency Preparedness  
 NUL: National Urban League

## O

OA: Office of Administration/OARM  
 OASI: Old Age and Survivor Insurance  
 OCD: Offshore and Coastal Dispersion  
 OECD: Organization for Economic Cooperation and Development of the United Nations/AA  
 OF: Optional Form  
 OLTS: On Line Tracking System/RD  
 O&M: Operations and Maintenance  
 OPFTE: Other than Permanent Full-Time Employee  
 ORM: Other Regulated Material  
 ORP: Oxidation-Reduction Potential  
 OTPFTE: Other Than Permanent Full Time Employee  
 OOU: Official Use Only

## P

PAI: Performance Audit Inspection (CWA)  
 PAI: Pure Active Ingredient

compound  
 PAM: Pesticide Analytical Manual  
 PAT: Permit Assistance Team (RCRA)  
 PATS: Pesticide Action Tracking System  
 PATS: Pesticides Analytical Transport Solution  
 PBA: Preliminary Benefit Analysis (BEAD)  
 PCA: Principle Component Analysis  
 PCM: Phase Contrast Microscopy  
 PCN: Policy Criteria Notice  
 PCO: Pest Control Operator  
 PDCI: Product Data Call-In  
 PFCRA: Program Fraud Civil Remedies Act  
 PFTE: Permanent Full Time Equivalent  
 PGD: Policy and Grants Division/OCM  
 PH: A measure of the acidity or alkalinity of a liquid or solid material.  
 PHC: Principal Hazardous Constituent  
 PHS: Public Health Service  
 PHSA: Public Health Service Act  
 PI: Preliminary Injunction  
 PI: Program Information  
 PIC: Products of Incomplete Combustion  
 PIC: Public Information Center  
 PIGS: Pesticides in Groundwater Strategy  
 PIMS: Pesticide Incident Monitoring System  
 PIN: Pesticide Information Network  
 PIN: Procurement Information Notice  
 PIP: Public Involvement Program  
 PIPQUIC Program Integration/Project Queries Used in Interactive Command  
 PIRG: Public Interest Research Group  
 PIRT: Pretreatment Implementation Review Task Force  
 PITS: Project Information Tracking System  
 PLIRRA: Pollution Liability Insurance and Risk Retention Act  
 PLM: Polarized Light Microscopy  
 PLUVUE: Plume Visibility Model  
 PM: Particulate Matter  
 PM: Program Manager  
 PM10: Particulate Matter (nominally 10m and less)  
 PM15: Particulate Matter

(nominally 15m and less)  
 PMEL: Pacific Marine Environmental Laboratory  
 PMIP: Presidential Management Intern Program  
 PMIS: Personnel Management Information System  
 PMN: Premanufacture Notification  
 PMNF: Premanufacture Notification Form  
 PMR: Pollutant Mass Rate  
 PMRS: Performance Management and Recognition System  
 PMS: Program Management System  
 PMS: Personnel Management Specialist  
 PNA: Polynuclear Aromatic Hydrocarbons  
 PO: Project Officer  
 PO: Purchase Order  
 POC: Point Of Compliance  
 POC: Program Office Contacts  
 POE: Point Of Exposure  
 POGO: Privately-Owned/Government-Operated  
 POHC: Principal Organic Hazardous Constituent  
 POI: Point Of Interception  
 POLREP: Pollution Report  
 POM: Particulate Organic Matter  
 POM: Polycyclic Organic Matter  
 POR: Program of Requirements  
 POTW: Publicly Owned Treatment Works  
 POV: Privately Owned Vehicle  
 PP: Pay Period  
 PP: Program Planning  
 PPA: Pesticide Producers Association  
 PPA: Planned Program Accomplishment  
 ppb: Parts Per Billion  
 PPIC: Pesticide Programs Information Center  
 PPIS: Pesticide Product Information System  
 PPM/ PPB: Parts per million/parts per billion  
 PPMAP: Power Planning Modeling Application Procedure  
 PPSP: Power Plant Siting Program  
 PPT: Permanent Part Time  
 ppt: Parts Per Trillion  
 ppth: Parts Per Thousand  
 PQUA: Preliminary Quantitative Usage Analysis  
 PR: Preliminary Review  
 PR: Procurement Request  
 PRA: Paperwork Reduction Act  
 PRA: Planned Regulatory Action

PRATS: Pesticides Regulatory Action Tracking System  
 PRC: Planning Research Corporation  
 PRI: Periodic Reinvestigation  
 PRM: Prevention Reference Manuals  
 PRN: Pesticide Registration Notice  
 PRP: Potentially Responsible Party  
 PRZM: Pesticide Root Zone Model  
 PS: Point Source  
 PSAM: Point Source Ambient Monitoring  
 PSC: Program Site Coordinator  
 PSD: Prevention of Significant Deterioration  
 PSE: Program Subelement  
 PSES: Pretreatment Standards for Existing Sources  
 PSI: Pollutant Standards Index  
 PSI: Pounds Per Square Inch  
 PSI: Pressure Per Square Inch  
 PSIG: Pressure Per Square Inch Gauge  
 PSM: Point Source Monitoring  
 PSNS: Pretreatment Standards for New Sources  
 PSP: Payroll Savings Plan  
 PSU: Primary Sampling Unit  
 PT: Part Time  
 PTDIS: Single Stack Meteorological Model in EPA UNAMAP Series  
 PTE: Potential to Emit  
 PTFE: Polytetrafluoroethylene (Teflon)  
 PTMAX: Single Stack Meteorological Model in EPA UNAMAP series  
 PTPLU: Point Source Gaussian Diffusion Model  
 PUC: Public Utility Commission  
 PV: Project Verification  
 PVC: Polyvinyl Chloride  
 PWS: Public Water Supply  
 PWS: Public Water System  
 PWSS: Public Water Supply System  
 PY: Prior Year

## Q

QA: Quality Assurance  
 QAC: Quality Assurance Coordinator  
 QA/QC: Quality Assistance/Quality Control  
 QAMIS: Quality Assurance Management and Information System  
 QAO: Quality Assurance Officer  
 QAPP: Quality Assurance Program (or Project) Plan  
 QAT: Quality Action Team

QBTU: Quadrillion British Thermal Units  
 QC: Quality Control  
 QCA: Quiet Communities Act  
 QCI: Quality Control Index  
 QCP: Quiet Community Program  
 QNCR: Quarterly Noncompliance Report  
 QSI: Quality Step Increase  
 QUA: Qualitative Use Assessment  
 QUIPE: Quarterly Update for Inspector in Pesticide Enforcement

## R

RA: Reasonable Alternative  
 RA: Regional Administrator  
 RA: Regulatory Alternatives  
 RA: Regulatory Analysis  
 RA: Remedial Action  
 RA: Resource Allocation  
 RA: Risk Analysis  
 RA: Risk Assessment  
 RAATS: RCRA Administrative Action Tracking System  
 RAC: Radiation Advisory Committee  
 RAC: Regional Asbestos Coordinator  
 RAC: Response Action Coordinator  
 RACM: Reasonably Available Control Measures  
 RACT: Reasonably Available Control Technology  
 RAD: Radiation Adsorbed Dose (unit of measurement of radiation absorbed by humans)  
 RADM: Random Walk Advection and Dispersion Model  
 RADM: Regional Acid Deposition Model  
 RAM: Urban Air Quality Model for Point and Area Source in EPA UNAMAP Series  
 RAMP: Rural Abandoned Mine Program  
 RAMS: Regional Air Monitoring System  
 RAP: Radon Action Program  
 RAP: Reregistration Assessment Panel  
 RAP: Remedial Accomplishment Plan  
 RAP: Response Action Plan  
 RAPS: Regional Air Pollution Study  
 RARG: Regulatory Analysis Review Group  
 RAS: Routine Analytical Service  
 RAT: Relative Accuracy Test  
 RB: Request for Bid  
 RB: Red Border  
 RBC: Red Blood Cells  
 RC: Regional Counsel

RC: Responsibility Center	RI/FS: Remedial Information/Feasibility Study	RSE: Removal Site Evaluation	SC: Steering Committee
RCC: Radiation Coordinating Council	RIM: Regulatory Interpretation Memorandum	RSKRL: Robert S. Kerr Environmental Research Laboratory	SCAC: Support Careers Advisory Committee
RCDO: Regional Case Development Officer	RIN: Regulatory Identifier Number	RT: Regional Total	SCAP: Superfund Consolidated Accomplishments Plan
RCP: Research Centers Program	RIP: RCRA Implementation Plan	RTCM: Reasonable Transportation Control Measure	SCBA: Self-Contained Breathing Apparatus
RCRA: Resource Conservation and Recovery Act	RISC: Regulatory Information Service Center (OMB)	RTD: Return to Duty	SCC: Source Classification Code
RCRIS: Resource Conservation and Recovery Information System	RJE: Remote Job Entry	RTDM: Rough Terrain Diffusion Model	SCFM: Standard Cubic Feet Per Minute
RD/RA: Remedial Design/Remedial Action (Superfund)	RL: Rapid and Large Leakage (Rate)	RTECS: Registry of Toxic Effects of Chemical Substances	SCLDF: Sierra Club Legal Defense Fund
R&D: Research and Development	RMCL: Recommended Maximum Contaminant Level (this phrase being discontinued in favor of MCLG)	RTM: Regional Transport Model	SCORPIO: Subject Content-Oriented Retriever for Processing Information On-Line
RD&D: Research, Development and Demonstration	RMDHS: Regional Model Data Handling System	RTP: Research Triangle Park	SCR: Selective Catalytic Reduction
RDF: Refuse-Derived Fuel	RMIS: Resources Management Information System	RUP: Restricted Use Pesticide	SCRAM: State Consolidated RCRA Authorization Manual
rDNA: Recombinant DNA	RMO: Records Management Officer	RVP: Reid Vapor Pressure	SCRC: Superfund Community Relations Coordinator
RDU: Regional Decision Units	RMP: Revolutions Per Minute	RWC: Residential Wood Combustion	SCS: Soil Conservation Service
RDV: Reference Dose Values	RNA: Ribonucleic Acid		SCS: Supplementary Control Strategy
RE: Reasonable Efforts	RO: Regional Office		SCS: Supplementary Control System
RE: Reportable Event	ROADCHEM: Roadway Version that Includes Chemical Reactions of BI, NO <sub>2</sub> , and O <sub>3</sub>		SCSA: Soil Conservation Society of America
REAP: Regional Enforcement Activities Plan	ROADWAY: A Model to Predict Pollutant Concentrations Near a Roadway		SCSP: Storm and Combined Sewer Program
REE: Rare Earth Elements	ROC: Record Of Communication		SCW: Supercritical Water Oxidation
REEP: Review of Environmental Effects of Pollutants	RODS: Records Of Decision System		SD: Standard Deviation
REF: Reference	ROG: Reactive Organic Gases		S&D: Suspension and Debarment
REM (Roentgen Equivalent Man)	ROLLBACK: A Proportional Reduction Model		SDBE: Small Disadvantaged Business Enterprise
REM/FIT: Remedial/Field Investigation Team	ROM: Regional Oxidant Model		SDC: Systems Decision Plan
REMS: RCRA Enforcement Management System	ROMCOE: Rocky Mountain Center on Environment		SDWA: Safe Drinking Water Act
REP: Reasonable Efforts Program	ROP: Regional Oversight Policy		S&E: Salaries and Expenses
REPS: Regional Emissions Projection System	ROPA: Record Of Procurement Action		SEA: State Enforcement Agreement
RESOLVE: Center for Environmental Conflict Resolution	RP: Radon Progeny Integrated Sampling		SEA: State/EPA Agreement
RF: Radio Frequency	RP: Respirable Particulates		SEAM: Surface, Environment, and Mining
RF: Response Factor	RP: Responsible Party		SEAS: Strategic Environmental Assessment System
RFA: Regulatory Flexibility Act	RPAR: Rebuttable Presumption Against Registration		SEE: Senior Environmental Employee
RFB: Request for Bid	RPM: Reactive Plume Model		SEIA: Socioeconomic Impact Analysis
RFD: Reference Dose Values	RPM: Remedial Project Manager		SEM: Scanning Electronic Microscope
RFI: Remedial Field Investigation	RPM: Revolutions Per Minute		SEM: Standard Error of the Means
RFP: Reasonable Further Programs	RPO: Regional Planning Officer		SEP: Standard Evaluation Procedures
RFP: Request for Proposal (Contracts)	RPO: Regional Program Officer		SEPWC: Senate Environment and Public Works Committee
RHRS: Revised Hazard Ranking System	RQ: Reportable Quantities		SERC: State Emergency Planning Commission
RI: Reconnaissance Inspection	RRC: Regional Response Center		SES: Secondary Emissions Standard
RI: Remedial Investigation	RRT: Regional Response Team		SES: Senior Executive Service
RIA: Regulatory Impact Analysis	RRT: Requisite Remedial Technology		SES: Socioeconomic Status
RIA: Regulatory Impact Assessment	RS: Registration Standard		SETS: Site Enforcement Tracking System
RIC: Radon Information Center	RSCC: Regional Sample Control Center		
RIC: RTP Information Center	RSD: Risk-Specific Dose		
RICC: Retirement Information and Counseling Center			
RICO: Racketeer Influenced and Corrupt Organizations Act			

## S

SA: Special Assistant	SA: Sunshine Act	S&A: Sampling and Analysis	S&A: Surveillance and Analysis	SAB: Science Advisory Board	SAC: Secretarial Advisory Board	SAC: Suspended and Cancelled Pesticides	SADAA: Science Assistant to the Deputy Administrator	SAEWG: Standing Air Emissions Work Group	SAIC: Special-Agents-In-Charge	SAIP: Systems Acquisition and Implementation Program	SAMWG: Standing Air Monitoring Work Group	SANE: Sulfur and Nitrogen Emissions	SANSS: Structure and Nomenclature Search System	SAP: Scientific Advisory Panel	SAR: Start Action Request	SAR: Structural Activity Relationship (of a qualitative assessment)	SARA: Superfund Amendments and Reauthorization Act of 1986	SAROAD: Storage and Retrieval Of Aerometric Data	SAS: Special Analytical Service	SAS: Statistical Analysis System	SASS: Source Assessment Sampling System	SBA: Small Business Act	SBA: Small Business Administration	SBI: Special Background Investigation (FMSD)	SBO: Small Business Ombudsman	SC: Sierra Club
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SF: Standard Form	SPAR: Status of Permit Application Report	S/TCAC: Scientific/Technical Careers Advisory Committee	TCM: Transportation Control Measure
SF: Superfund	SPCC: Spill Prevention, Containment, and Countermeasure	STEL: Short Term Exposure Limit	TCP: Transportation Control Plan
SFA: Spectral Flame Analyzers	SPE: Secondary Particulate Emissions	STEM: Scanning Transmission-Electron Microscope	TCP: Trichloroethylene
SFDS: Sanitary Facility Data System	SPECS: Specifications	STN: Scientific and Technical Information Network	TCP: Trichloropropane
SFFAS: Superfund Financial Assessment System	SPF: Structured Programming Facility	STNET: Storage and Retrieval of Water-Related Data	TCRI: Toxic Chemical Release Inventory
SFIREG: State FIFRA Issues Research and Evaluation Group	SPI: Strategic Planning Initiative	STP: Sewage Treatment Plant	TD: Toxic Dose
SFS: State Funding Study	SPLMD: Soil-pore Liquid Monitoring Device	STP: Standard Temperature and Pressure	TDS: Total Dissolved Solids
SHORTZ: Short Term Terrain Model	SPMS: Special Purpose Monitoring Stations	SUP: Standard Unit of Processing	TDY: Temporary Duty
SHWL: Seasonal High Water Level	SPMS: Strategic Planning and Management System	SURE: Sulfate Regional Experiment Program	TEAM: Total Exposure Assessment Model
SI: International System of Units	SPOC: Single Point Of Contact	SV: Sampling Visit	TEC: Technical Evaluation Committee
SI: Site Inspection	SPS: State Permit System	SW: Slow Wave	TEG: Tetraethylene Glycol
SI: Surveillance Index	SPSS: Statistical Package for the Social Sciences	SWC: Settlement With Conditions	TEGD: Technical Enforcement Guidance Document
SI: Spark Ignition	SPUR: Software Package for Unique Reports	SWDA: Solid Waste Disposal Act	TEM: Texas Episodic Model
SIC: Standard Industrial Classification	SQBE: Small Quantity Burner Exemption	SWIE: Southern Waste Information Exchange	TEP: Typical End-use Product
SICEA: Steel Industry Compliance Extension Act	SQG: Small Quantity Generator	SWMU: Solid Waste Management Unit	TEP: Technical Evaluation Panel
SIMS: Secondary Ion-Mass Spectrometry	SRAP: Superfund Remedial Accomplishment Plan	SWTR: Surface Water Treatment Rule	TERA: TSCA Environmental Release Application
SIP: State Implementation Plan	SRC: Solvent-Refined Coal Method	SYSOP: Systems Operator	TES: Technical Enforcement Support
SIS: Stay In School	SRP: Special Review Procedure		TEXIN: Texas Intersection Air Quality Model
SITE: Superfund Innovative Technology Evaluation	SRR: Second Round Review		TFT: Temporary Full Time
SL: Sick Leave	SRR: Submission Review Record		TFTE: Temporary Full Time Equivalent
SLAMS: State/Local Air Monitoring Station	SRTS: Service Request Tracking System		TGO: Total Gross Output
SLSM: Simple Line Source Model	SS: Settleable Solids		TGAI: Technical Grade of the Active Ingredient
SMART: Simple Maintenance of ARTS	SS: Superfund Surcharge		TGP: Technical Grade Product
SMCRA: Surface Mining Control and Reclamation Act	SS: Suspended Solids		THC: Total Hydrocarbons
SME: Subject Matter Expert	SSA: Sole Source Aquifer		THM: Trihalomethane
SMO: Sample Management Office	SSAC: Soil Site Assimilated Capacity		TI: Temporary Intermittent
SMOA: Superfund Memorandum of Agreement	SSC: State Superfund Contracts		TI: Therapeutic Index
SMSA: Standard Metropolitan Statistical Area	SSD: Standards Support Document		TIBL: Thermal Internal Boundary Layer
SNA: System Network Architecture	SSEIS: Standard Support and Environmental Impact Statement		TIC: Technical Information Coordinator
SNAQAQS: Secondary National Ambient Air Quality Standards	SSEIS: Stationary Source Emissions and Inventory System		TIC: Tenatively Identified Compounds
SNAP: Significant Noncompliance Action Program	SSI: Size Selective Inlet		TIM: Technical Information Manager
SNARL: Suggested No Adverse Response Level	SSMS: Spark Source Mass Spectrometry		TIP: Transportation Improvement Program
SNC: Significant Noncompliers	SSN: Social Security Number		TIS: Tolerance Index System
SNUR: Significant New Use Rule	SSO: Source Selection Official		TISE: Take It Somewhere Else
SOC: Synthetic Organic Chemicals	SST: Supersonic Transport		TITC: Toxic Substance Control Act Interagency Testing Committee
SOCMI: Synthetic Organic Chemicals Manufacturing Industry	SSTS: Section Seven Tracking System		TLV: Threshold Limit Value
SOP: Standard Operating Procedure	SSURO: Stop Sale, Use and Removal Order		TLV-C: TLV-Ceiling
SOTDAT: Source Test Data	STAPPA: State and Territorial Air Pollution		TLV-STEL: TLV-Short Term Exposure Limit
SOW: Scope Of Work	STALAPCO: State and Local Air Pollution Control Officials		TLV-TWA: TLV-Time Weighted Average
	STAR: Stability Wind Rose		TMI: Three Mile Island
	STAR: State Acid Rain Projects		TMRC: Theoretical Maximum Residue Contribution
			TNT: Trinitrotoluene
			TO: Task Order
			TO: Travel Order
			TOA: Trace Organic Analysis
			TOC: Total Organic Carbon



TOC: Total Organic Compound  
 TOT: Time-of-Travel  
 TOX: Tetradichloroxylene  
 TP: Technical Product  
 TPC: Testing Priorities Committee  
 TPI: Technical Proposal Instructions  
 TPQ: Threshold Planning Quantity  
 TPSIS: Transportation Planning Support Information System  
 TPTH: Triphenyltinhydroxide  
 TPY: Tons Per Year  
 TQM: Total Quality Management  
 T-R: Transformer-Rectifier  
 TRC: Technical Review Committee  
 TRD: Technical Review Document  
 TRI: Toxic Release Inventory  
 TRIP: Toxic Release Inventory Program  
 TRIS: Toxic Chemical Release Inventory System  
 TRLN: Triangle Research Library Network  
 TRO: Temporary Restraining Order  
 TSA: Technical Systems Audit  
 TSCA: Toxic Substances Control Act  
 TSCATS: TSCA Test Submissions Database  
 TSCC: Toxic Substances Coordinating Committee  
 TSD: Technical Support Document  
 TSDF: Treatment, Storage, and Disposal Facility  
 TSDG: Toxic Substances Dialogue Group  
 TSI: Thermal System Insulation  
 TSM: Transportation System Management  
 TSO: Time Sharing Option  
 TSP: Teleprocessing Services Program  
 TSP: Thrift Savings Plan  
 TSP: Total Suspended Particulates  
 TSS: Terminal Security System  
 TSS: Total Suspended (non-filterable) Solids  
 TTFA: Target Transformation Factor Analysis  
 TTHM: Total Trihalomethane  
 TTO: Total Toxic Organics  
 TTY: Teletypewriter  
 TVA: Tennessee Valley Authority  
 TWA: Time Weighted Average  
 TZ: Treatment Zone

## U

UAC: User Advisory Committee

UAM: Urban Airshed Model  
 UAO: Unilateral Administrative Order  
 UAPSP: Utility Acid Precipitation Study Program  
 UAQI: Uniform Air Quality Index  
 UARG: Utility Air Regulatory Group  
 UCC: Ultra Clean Coal  
 UCL: Upper Control Limit  
 UDMH: Unsymmetrical Dimethyl Hydrazine  
 UEL: Upper Explosive Limit  
 UFL: Upper Flammability Limit  
 UIC: Underground Injection Control  
 ULP: Unfair Labor Practices  
 UMTA: Urban Mass Transportation Administration  
 UMTCA: Uranium Mill Tailings Radiation Control Act  
 UN: United Nations  
 UNAMAP: Users' Network for Applied Modeling of Air Pollution  
 UNEP: United Nations Environment Program  
 UNESCO: United Nations Educational, Scientific and Cultural Organization  
 UNIDO: United Nations Industrial Development Organization  
 USAO: United States Attorney's Office  
 USBM: United States Bureau of Mines  
 USC: Unified Soil Classification  
 USC: United States Code  
 USCA: United States Code Annotated  
 USDA: United States Department of Agriculture  
 USDOI: United States Department Of the Interior  
 USDW: Underground Sources of Drinking Water  
 USEPA: United States Environmental Protection Agency  
 USFS: United States Forest Service  
 USGS: United States Geological Survey  
 USIA: U.S. Information Agency  
 USP: U.S. Pharmacopoeia  
 USPHS: United States Public Health Service  
 USPS: United States Postal Service  
 UST: Underground Storage Tank  
 UTM: Universal Transverse Mercator  
 UTP: Urban Transportation Planning

UV: Ultraviolet  
 UZM: Unsaturated Zone Monitoring

## V

VA: Veterans Administration  
 VALLEY: Meteorological Model to Calculate Concentrations on Elevated Terrain  
 VCM: Vinyl Chloride Monomer  
 VE: Visual Emissions  
 VEO: Visible Emission Observation  
 VHS: Vertical and Horizontal Spread Model  
 VHT: Vehicle-Hours of Travel  
 VISTTA: Visibility Impairment from Sulfur Transformation and Transport in the Atmosphere  
 VKT: Vehicle Kilometers Traveled  
 VMT: Vehicle Miles Traveled  
 VOC: Volatile Organic Compounds  
 VOS: Vehicle Operating Survey  
 VOST: Volatile Organic Sampling Train  
 VP: Vapor Pressure  
 VSD: Virtually Safe Dose  
 VSI: Visual Site Inspection  
 VSS: Volatile Suspended Solids

## W

WA: Work Assignment  
 WADTF: Western Atmospheric Deposition Task Force  
 WAP: Waste Analysis Plan  
 WB: Wet Bulb  
 WB: World Bank  
 WBC: White Blood Cells  
 WBE: Womens Business Enterprise  
 WCED: World Commission on Environment and Development  
 WDROP: Distribution Register of Organic Pollutants in Water  
 WENDB: Water Enforcement National Data Base  
 WERL: Water Engineering Research Laboratory  
 WG: Wage Grade  
 WG: Work Group  
 WGI: Within Grade Increase  
 WHO: World Health Organization  
 WHWT: Water and Hazardous Waste Team  
 WIC: Washington Information Center  
 WICEM: World Industry Conference on Environmental Management  
 WISE: Women In Science and Engineering  
 WL: Warning Letter

WL: Working Level (radon measurement)  
 WLA/TMDL: Wasteload Allocation/Total Maximum Daily Load  
 WLM: Working Level Months  
 WMO: World Meteorological Organization  
 WPCF: Water Pollution Control Federation  
 WQS: Water Quality Standard  
 WRC: Water Resources Council  
 WRDA: Water Resources Development Act  
 WRI: World Resources Institute  
 WS: Work Status  
 WSF: Water Soluble Fraction  
 WSRA: Wild and Scenic Rivers Act  
 WSTB: Water Sciences and Technology Board  
 WSTP: Wastewater Sewage Treatment Plant  
 WWEMA: Waste and Wastewater Equipment Manufacturers Association  
 WWF: World Wildlife Fund  
 WWTP: Wastewater Treatment Plant  
 WWTU: Wastewater Treatment Unit

## Y

YTD: Year to Date

## Z

ZBB: Zero Base Budgeting  
 ZHE: Zero Headspace Extractor  
 ZOI: Zone Of Incorporation  
 ZRL: Zero Risk Level