

US EPA ARCHIVE DOCUMENT

Appendix C

Glossary

Adsorbable Organic Halide (AOX): A measurement of the amount of chlorinated organic compounds in an effluent water sample.

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

Attainment Area: A designated geographic 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.

Baseline Standard: The measure by which future environmental performance can be compared.

Best Management Practices (BMPs): Methods that have been determined to be the most effective, practical means of preventing or reducing pollution from non-point sources.

Biological Oxygen Demand (BOD): The measurement in an effluent water sample of the oxygen consumed by biological processes breaking down organic matter.

Brownfield: Abandoned, idled, or under-used industrial and commercial facilities/sites where expansion or redevelopment is complicated by real or perceived environmental contamination. They can be in urban, suburban, or rural areas.

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

Chloroform: A colorless liquid with a sweet odor. It is used primarily in the production of chlorofluorocarbon and in the production of plastics. Its other uses are as an industrial solvent in the extraction and purification of some antibiotics, alkaloids, vitamins, and flavors; as a solvent for lacquers, floor polishes, resins, fats, adhesives, oils, and rubber; as an industrial solvent in photography and dry cleaning; and as an intermediate in the preparation of dyes and pesticides.

Clean Air Act (CAA): The Clean Air Act is the comprehensive Federal law that regulates air emissions from area, stationary, and mobile sources. This law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment.

Clean Water Act (CWA): The Clean Water Act sets the basic structure for regulating discharges of pollutants to waters of the United States. The law gives EPA the authority to set technology-based effluent standards on an industry basis and continues the requirements to set water quality standards for all contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained under the Act.

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

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): CERCLA is the legislative authority for the Superfund program funds and carries out EPA's solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List (NPL), investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions.

Comprehensive Operating Permit (COP): The goal of a COP is to replace existing permit systems with a single operating and regulatory permit for a facility that encompasses Federal, State and local permitting requirements.

Consumptive Water Use: Water removed from available supplies without return to a water resources system, e.g., water used in manufacturing, agriculture, and food preparation.

Continuous Emission Monitoring (CEM): Continuous measurement of pollutants emitted into the atmosphere in exhaust gases from combustion or industrial processes.

Criteria Air Pollutants: The CAA requires EPA to set National Ambient Air Quality Standards (NAAQS) for certain pollutants known to be hazardous to human health. EPA has identified and set standards to protect human health and welfare for six criteria air pollutants—ozone, carbon monoxide, total suspended particulates, sulfur dioxide, lead, and nitrogen oxide. EPA must describe the characteristics and potential health and welfare effects of these pollutants. It is on this basis that NAAQSs are set or revised.

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

Discharge Monitoring Reporting (DMR): Facilities that discharge wastewater directly from point sources to surface waters must submit DMRs under National Pollution Discharge Elimination System (NPDES) wastewater permitting.

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

Emergency Planning and Community Right to Know (EPCRA): Also known as Title III of SARA, EPCRA was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards.

Emissions Cap: A limit designed to prevent projected growth in emissions from both existing and future stationary sources from exceeding any mandated levels. Generally, such provisions require that any emission increase from equipment at a facility be offset by emission reductions from other equipment under the same cap.

End-of-Pipe Controls: Technologies, such as scrubbers on smokestacks and catalytic convertors on automobile tailpipes, that reduce the emission or discharge of pollutants to the environment after they have formed.

Electroplating operations: Involves plating various metals onto printed wiring boards and computer components that provide electronic interconnection.

Environmental Council of States (ECOS): The mission of ECOS is to improve the environment of the United States by providing for the exchange of ideas, views, and experiences among states and territories, fostering cooperation and coordination in environmental management, and articulating State positions on environmental issues.

F006 listing: A hazardous waste that is wastewater treatment sludge produced from nonspecific electroplating processes and operations.

Fenceline Standards: A baseline standard measured at the property line of a facility.

Final Project Agreement (FPA): The FPA outlines the details of the project and each party's commitments. The project's sponsors, EPA, State agencies, Tribal governments, other regulators, and direct participant stakeholders negotiate the FPA.

Greenfield: Areas that are generally parkland, previously undeveloped open space, and agricultural lands, located near the outskirts of towns, cities and larger metropolitan areas. (see: Brownfield)

Hazardous Air Pollutants (HAPs): Air pollutants that are not covered by the National Ambient Air Quality Standards but that may have an adverse effect on human health or the environment. Such pollutants include asbestos, beryllium, mercury, benzene, coke-oven emissions, radionuclides, and vinyl chloride.

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

Hydrogen Chloride: Hydrogen chloride is a non-combustible compound that is highly soluble in water. In aqueous solution, it forms hydrochloric acid. Hydrochloric acid is used to make and clean metals, to make chloride dioxide for the bleaching of pulp and other chemicals, to make phosphate fertilizers and hydrogen, for the neutralization of basic systems, in the treatment of oil and gas wells, in analytical chemistry, and in the removal of scale from boilers and heat-exchange equipment.

Hydrogen Flouride: Hydrogen fluoride, or hydrofluoric acid, is a colorless gas or fuming liquid. It is a chemical intermediary for fluorocarbons, alu-

minum fluoride, cryolite, uranium hexafluoride, and fluoride salts. It is used in fluorination processes, as a catalyst, and as a fluorinating agent in organic and inorganic reactions. It is used to clean cast iron, copper, and brass; remove efflorescence from brick and stone, or sand particles from metallic castings; etch glass and enamel; polish crystal glass; enamel and galvanize iron; and decompose cellulose.

International Organization for Standardization (ISO) 14000: ISO 14000 is primarily concerned with environmental management. The ISO 14000 series sets out the methods that can be implemented in an organization to minimize harmful effects on the environment caused by pollution or natural resource depletion.

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

Maximum Available Control Technology (MACT): The emission standard for air pollution sources requiring the maximum reduction of hazardous emissions, taking cost and feasibility into account. Under the CAA Amendments of 1990, the MACT must not be less than the average emission level achieved by controls on the best performing 12 percent of existing sources, by category, of industrial and utility sources.

Maximum Containment Level (MCL): The maximum permissible level of a contaminant in water delivered to any user of a public system. MCLs are enforceable standards.

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

Methanol: An alcohol that can be used as an alternative fuel or as a gasoline additive. Poisonous if ingested.

Methyl Chloride: A colorless flammable gas. Used in the production of chemicals, as a solvent and refrigerant, and as a food additive. Mildly toxic if inhaled.

Minimum Impact Manufacturing (MIM): Minimum Impact Manufacturing contains the el-

ements of a comprehensive pollution prevention program designed to obtain the greatest use of raw materials and to stop waste generation rather than rely on “end-of-pipe” remedies. MIM involves a holistic approach to pollution prevention, employing a systems engineering approach, waste reduction, and a commitment to continuous environmental improvement.

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

“The MON”: The National Emission Standard for Hazardous Air Pollutants (NESHAP) for the source category “Miscellaneous Organic Chemical Production and Processes.” Some examples of these processes are: explosives production; photographic chemicals production; polyester resins production; and the production of paints, coatings, and adhesives.

Multi-media: Several environmental media, such as air, water, and land.

National Ambient Air Quality Standards (NAAQS): Standards established by EPA under the Clean Air Act applicable to outdoor air throughout the country.

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

National Pollutant Discharge Elimination System (NPDES): A provision of the CWA that prohibits the discharge of pollutants into waters of the United States unless a special permit is issued by EPA, a State, or where delegated, by 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.

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.

New Source Review (NSR): The NSR provisions of the Clean Air Act strive to ensure that potential new sources of air pollution (new plants or facilities, or additions to existing ones) take proper steps to minimize pollution levels. The goals of the NSR program are: (1) to ensure that an increase in emissions due to a new source or modification to an existing source does not significantly deteriorate air quality; (2) to ensure that source emissions are consistent with applicable State attainment plans; (3) to ensure that air quality related values are not negatively impacted in areas that have greater pollution problems; and (4) to establish control technology requirements that maximize productive capacity while minimizing impacts on air quality.

Nitrous Oxides (NO_x): An air pollutant that is the result of photochemical reactions of nitric oxide in ambient air. Typically, it is a product of combustion from transportation and stationary sources. It is a major contributor to the formation of tropospheric ozone, photochemical smog, and acid deposition.

Non-Attainment Area: A designated geographic 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. (See: Attainment)

Organic Compounds: Naturally occurring (animal or plant-produced) or synthetic substances containing mainly carbon, hydrogen, nitrogen, and oxygen.

Particulate Matter: Fine liquid or solid particles, such as dust, smoke, mist, fumes, or smog, found in air or emissions.

Phosphine: Phosphine occurs as a colorless, flammable gas that is slightly soluble in water. It is used as an intermediate in the synthesis of flame retardants for cotton fabrics, as a doping agent for n-type semiconductors, a polymerization initiator, and a condensation catalyst.

Plant Site Emission Limits: Plant site emission limits are facility-based emission caps that allow production changes and facility expansion without recurring air quality permit reviews.

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.

Pollution Prevention: Identifying, altering, or eliminating areas, processes, and activities that create excessive waste products or pollutants. Such activities, consistent with the Pollution Prevention Act of 1990, are conducted across all EPA programs.

Potentially Responsible Party (PRP): A PRP is the owner or operator of a contaminated site, or the person or persons whose actions or negligence may have caused the release of pollutants and contaminants into the environment, requiring a remedial action response under CERCLA and SARA. The PRP is potentially liable for the cleanup costs in order to compensate the government for its remediation expenditures.

Prevention of Significant Deterioration (PSD): Standards aimed at keeping areas that are in compliance with National Ambient Air Quality Standards from backsliding.

Printed wiring boards (PWB): A device that provides electronic interconnections and a surface for mounting electronic components.

Production Unit Factor (PUF): A production-based performance measure.

Reclamation: In recycling, this is the restoration of materials found in a waste stream to a beneficial use which may be different than the original use.

Resource Conservation and Recovery Act (RCRA): Passed in 1976, RCRA gives EPA the authority to control hazardous waste from “cradle-to-grave.” This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of nonhazardous wastes. RCRA enables EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. RCRA focuses only on active and future facilities and does not address abandoned sites.

Safe Drinking Water Act (SDWA): SDWA was established to protect the quality of drinking water. This law focuses on all waters actually or potentially designated for drinking use, whether from above-ground or underground sources. The Act authorizes EPA to establish safe standards of purity and requires all

owners or operators of public water systems to comply with primary (health-related) standards. State governments, which assume this power from EPA, also encourage attainment of secondary standards (for example, water clarity).

Self-certification: The central concept of self-certification is that the regulated community should internally certify their compliance with requirements, subject to regulator verification, as a substitute for permit issuance and routine compliance reporting.

Sludge: A semi-solid residue from any of a number of air or water treatment processes; this can be a hazardous or non-hazardous waste.

Sludge Dryers: A piece of equipment that reduces the volume and weight of the semi-solid sludge wastes by drying and reducing the water content of the sludge.

Solid Waste: Nonliquid, nonsoluble 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.

State Implementation Plan (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. (See: Point Source.)

Sulfur Dioxide (SO₂): SO₂ gases are formed when fuel containing sulfur (mainly coal and oil) is burned and can be formed during metal smelting and other industrial processes. Sulfur dioxide is associated with acidification of lakes and streams, accelerated corrosion of buildings and monuments, reduced visibility, and such adverse health effects as inhibition of breathing, respiratory illness, and aggravation of existing cardiovascular disease.

Sulfuric Acid: Sulfuric acid is a clear, colorless, oily, and odorless liquid. It is also known as sulphine acid and hydrogen sulfate. More sulfuric acid is produced in the United States than any other chemical. Its main use is in phosphate fertilizer production. It is also used to manufacture other acids, explosives, dyestuffs, parchment paper, glue, wood preservatives, and lead-acid batteries in vehicles.

It is used in the purification of petroleum, the pickling of metal, electroplating baths, nonferrous metallurgy, production of rayon and film, and as a laboratory reagent.

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 cleanup and other remedial actions.

Surface Impoundment: Treatment, storage, or disposal of liquid hazardous wastes in ponds.

Title V of the Clean Air Act: Establishes a Federal operating permit program that applies to any major stationary facility or source of air pollution. The purpose of the operating permits program is to ensure compliance with all applicable requirements of the CAA. Under the program, permits are issued by States or, when a State fails to carry out the CAA satisfactorily, by EPA. The permit includes information on which pollutants are being released, how much may be released, and what kinds of steps the source's owner or operator is taking to reduce pollution, including plans to monitor the pollution.

Toxic Substances Control Act (TSCA): TSCA was enacted by Congress in 1976 to give EPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. EPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. EPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

Total Suspended Solids (TSS): The measurement of the amount of suspended solids in an effluent water sample.

Toxic Release Inventory (TRI): Database of toxic releases in the United States compiled from SARA Title III Section 313 reports.

Transportation Control Measure (TCM): The term "transportation control measure" (TCM) encompasses elements of both "transportation system management" (TSM) and "transportation demand management" (TDM). TSM generally refers to the use of low capital intensive transportation improvements to increase the efficiency of transportation facilities and services. These can include carpool

and vanpool programs, parking management, traffic flow improvements, high occupancy vehicle lanes, and park-and-ride lots. TDM generally refers to policies, programs, and actions that are directed towards decreasing the use of single occupant vehicles. TDM also can include activities to encourage shifting or spreading peak travel periods. In practice, there is considerable overlap among these concepts and TCM, TSM, and TDM are often used interchangeably.

Variance: Government permission for a delay or exception in the application of a given law, ordinance, or regulation.

Volatile Organic Compounds (VOCs): Any organic compound that easily evaporates and participates in atmospheric photochemical reactions, except those designated by EPA as having negligible photochemical reactivity.

Waste Stream: The total flow of solid waste from homes, businesses, institutions, and manufacturing plants that is recycled, burned, or disposed of in landfills, or segments thereof such as the “residential waste stream” or the “recyclable waste stream.”

Wastewater: Spent or used water from a home, community, farm, or industry that contains dissolved or suspended matter.

Wastewater Treatment Sludge: The sludge that is produced from the treatment and removal of pollutants of wastewater.