



Green Glossary

For High Performance Healthy Buildings

A

ACGIH
American Conference of Governmental Industrial Hygienists

ACH
Air changes per hour

AEE
Association of Energy Engineers

AHU
Air handling unit; a component of an HVAC system that includes the fan(s), filters, and coils to condition the air.

AIA
American Institute of Architects

ALA
American Lung Association

ANSI
American National Standard Institute

ASHRAE
American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

ASTM
American Society for Testing and Materials.

ATSDR
Agency for Toxic Substances and Disease Registry

ABRASION
The wearing away of a solid surface by friction.

ABRASIVE CLEANERS
Products that clean through abrasive or scouring action.

ABSORPTION
The process of one substance entering into the inner structure of another.

AC/MIN
Air changes per minute.

ACCEPTABLE INDOOR AIR QUALITY
Air in which there are no known contaminants at harmful concentrations as determined by cognizant authorities and with which a substantial majority (80% or more) of the people exposed do not express dissatisfaction.

ACQUIRED IMMUNITY
Immunity gained during one lifetime, not inherited; can be either active, the result when an antibody is produced by the individual's immune system in response to a naturally acquired infection or vaccination, or passive, the result when an antibody is transferred to the individual from another, immune human or animal host.

ACTION PACKET
Contains four components - an introductory memo, IAQ Background, Activity Guide, and Activity Report - to assist school personnel to implement an effective yet simple IAQ program in their school.

ACTIVATED CHARCOAL
A highly absorbent form of carbon used to remove odors and toxic substances from liquids or gases.

ACTIVITY GUIDE
A component of the Action Packet containing information and suggested easy-to-do activities for school staff to improve or maintain good indoor air quality. Each Activity Guide focuses on topic areas and actions that are targeted to particular school staff (e.g., teachers, administrators, kitchen staff, maintenance staff, etc.) or specific building functions (e.g., HVAC system, roofing, renovation, etc.).

ACTIVITY REPORT
A component of the Action Packet that accompanies the Activity Guide and indicates whether assistance is needed for any particular activity. Activity Reports are completed by the staff person completing the Activity Guide and are returned to the IAQ Coordinator as a record of activities completed and assistance as requested.

ACUTE EXPOSURE
A single exposure to a toxic substance which results in biological harm or death; usually characterized as lasting no longer than a day.

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. Any severe poisonous effect resulting from a short-term exposure.

ADAPTATION
Changes in an organism's structure or behavior that help it adjust to its surroundings. An increase or decrease in sensitivity to a given stimulus that results from exposure to that stimulus.

ADHESION
Molecular attraction that holds the surfaces of two substances in contact.

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

ADSORPTION
The adhesion of a thin film of liquid or gases to the surface of a solid substance.

ADVERSE HEALTH EFFECT (OCCURRENCE)
Any abnormal, harmful, or undesirable effect (occurrence) on the physical, biochemical, biological, or behavioral well-being of a person that results from exposure to pollutants in the environment.

AEROBIC
Able to exist in the presence of oxygen or requiring oxygen for life.

AEROSOL
A suspended liquid or solid particle in a gaseous medium.

AFFIRMATIVE PROCUREMENT PROGRAM

RCRA Section 6002 requires each procuring agency to establish an affirmative procurement program for maximizing its purchases of EPA-designated items. The program should be developed in a manner that ensures that items composed of recovered materials are purchased to the maximum extent practicable consistent with Federal procurement law

AGRANULOCYTOSIS

Absence of granulocytes from the circulating blood, resulting in high fever, great weakness, and ulceration of the mucous membranes.

AIR

A mixture of gases constituting a compressed fluid tied to the planet by gravitational attraction. Air is 79.0% nitrogen, 20.9% oxygen, and less than 0.1% a mixture of carbon dioxide, argon, helium, and hundreds of other gases originating from natural and man-made sources.

AIR CHANGES PER HOUR (ACH)

Volume of air moved in one hour. One air change per hour in a room, home, or building means that all the air in that environment will be replaced in one hour.

AIR CLEANING

An IAQ control strategy to remove various airborne particulates and/or gases from the air. The three types of air cleaning most commonly used are particulate filtration, electrostatic precipitation, and gas sorption.

AIR CLEANING SYSTEM

A device or combination of devices applied to reduce the concentration of airborne contaminants, such as microorganisms, dusts, fumes, respirable particles, other particulate matter, gases, and/or vapors in air.

AIR CONDITIONING

The process of treating air to meet the requirements of a conditioned space by controlling its temperature, humidity, cleanliness, and distribution.

AIR EXCHANGE RATE

Used in two ways: 1) the number of times that the outdoor air replaces the volume of air in a building per unit time, typically expressed as air changes per hour; 2) the number of times that the ventilation system replaces the air within a room or area within the building.

AIR HANDLING UNIT

For purposes of this document refers to equipment that includes a blower or fan, heating and/or cooling coils, and related equipment such as controls, condensate drain pans, and air filters. Does not include ductwork, registers, or boilers and chillers.

AIR POLLUTANT

Any unwanted substance in air.

AIR POLLUTION

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

AIR TOXICS

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

AIRBORNE PARTICULATES

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

AIRWAY

Any segment of the respiratory tract through which air passes during breathing, such as the bronchial tubes.

ALCOHOL ETHOXYLATE

A type of nonionic surfactant in widespread use. Considered a good candidate for replacing alkylphenol ethoxylates (APEs) in many applications.

ALGAE

Simple rootless plants that grow in sunlit waters in proportion to how many nutrients are available.

ALKYLPHENOL ETHOXYLATES (APE)

A class of nonionic surfactants produced by reacting an alkylphenol with ethylene oxide. Examples include nonylphenol ethoxylates and octylphenol ethoxylates. APEs are widely used in industrial detergents, pesticide formulations and some consumer products.

ALLERGEN

A chemical or biological substance (e.g., pollen, animal dander, or house dust mite proteins) that induces an allergic state or reaction, characterized by hypersensitivity.

ALLERGEN CHALLENGE

Administration of an antigen to a previously sensitized individual to induce a dose-response for clinical or research evaluation.

ALVEOLAR

Pertaining to the air sacs (alveoli) of the lungs where gas is exchanged between the lungs and the bloodstream.

AMBIENT AIR

The air surrounding an object.

ANAEROBIC

Able to exist without oxygen.

Anionic

Forming negatively charged ions in solution. Anionic surfactants include alkylbenzene sulfonates and alcohol sulfates

ANSOMIA

Lack of sensitivity to odor stimuli.

ANTIBODY

A protein produced in the body in response to contact with an antigen. It has the capacity to create an immunity to the antigen.

ANTIGEN

A substance to which the body reacts by producing antibodies.

ANTIMICROBIAL

Agent that kills microbial growth.

ARTHRALGIA

The neuralgic pain in one or more joints.

ASBESTOS

A naturally occurring mineral fiber that can cause cancer.

ATMOSPHERE

A standard unit of pressure exerted by a 29.92-inch column of mercury at sea level and equal to 1000 grams per square centimeter.

B**BAQ**

Building Air Quality

BOCA

Building Officials and Code Administrators

BOMA

Building Owners Management Association

BPA

Bonneville Power Administration

BRI

See "Building-Related Illness."

BACTERIA

Microscopic living organism.

BAGHOUSE FILTER

Large fabric bag used to eliminate intermediate and large particles. It operates like a vacuum cleaner bag, allowing air and smaller particles to pass through it while entrapping larger particles.

BASELINE

A set of critical observations of data used for comparison or a control.

BENCHMARKING

A series of quantitative measurements of performance.

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.

BIOACCUMULATION

Sometimes defined as bioconcentration, but often refers more specifically to a buildup in body

contaminants as a result of intake of food or sediments. Bioaccumulation is responsible for the increasingly high body burdens of contaminants in animals as they approach the top of the food chain, such as birds and mammals.

BIOBASED PRODUCT

as "a commercial or industrial product (other than food or feed) that utilizes biological products or renewable, domestic agricultural (plant, animal, or marine) or forestry materials."

BIOCIDE

Any poison that kills a living organism.

BIOCONCENTRATION

The buildup of a chemical in the body of an organism (usually fish) to levels higher than in the medium in which that organism lives (usually water). Measured by the bioconcentration factor (BCF) which is the ratio of the concentration in the animal to that in the medium.

BIODEGRADABLE

Capable of being reduced to water and carbon dioxide by the action of microorganisms.

BIODEGRADABILITY INHERENT

The ability of a compound to be broken down by naturally occurring bacteria, but only after a period of acclimation, resulting in a delay in breakdown.

BIODEGRADABILITY READILY

the ability of a compound to be broken down immediately upon exposure to bacterial derived from the environment, as measured by a readily biodegradability test.

BIODEGRADATION

Biodegradation is the process whereby organic chemicals are broken down into progressively simpler molecules, largely by the action of various bacteria.

BIODEGRADATION, PRIMARY

The first step in the breakdown of a surfactant, wherein the compound loses its surfactant properties, but has not completely broken down into the simplest components.

BIODEGRADATION ULTIMATE

The complete breakdown of a substance into the simplest components, usually carbon dioxide, water, and minerals. Sometimes this is called mineralization.

BIOLOGICAL NUTRIENT

A biodegradable material posing no immediate or eventual hazard to living systems that can be used for human purposes and can safely return to the environment to feed environmental processes.

BIODEGRADABLE

Able to break down or decompose rapidly under natural conditions.

BIOLOGICAL CONTAMINANTS

Agents derived from or that are living organisms (e.g., viruses, bacteria, fungi, and mammal and bird antigens) that can be inhaled and can cause many types of health effects including allergic reactions, respiratory disorders, hypersensitivity diseases, and infectious

diseases. Also referred to as "microbiologicals" or "microbials."

BIOREMEDIATION

The management of microorganisms.

BREATHING ZONE

Area of a room in which occupants breathe as they stand, sit, or lie down.

BRONCHIAL

Pertaining to airways of the lungs below the larynx that lead to the alveolar region of the lungs. Bronchial airways provide a passageway for air.

BUFFER ACTION

A substance's resistance to a change in pH.

BUILDING ENVELOPE

Elements of the building, including all external building materials, windows, and walls, that enclose the internal space.

BUILDING-RELATED ILLNESS

Diagnosable illness whose symptoms can be identified and whose cause can be directly attributed to airborne building pollutants (e.g., Legionnaire's disease, hypersensitivity pneumonitis).

C

CAS – Chemical Abstract Service number assigned to specific chemicals, for example: 2-butoxyethanol {CAS 111-76-2}

CAV

See "constant air volume."

CDC

Centers for Disease Control and Prevention

CFM

Cubic feet per minute. The amount of air, in cubic feet, that flows through a given space in one minute.

CFU

Colony Forming Units per unit of measure; either volume or weight. A measure of biological contaminants in a given media or air volume. Most significant when speciated and typically used for mold counts.

CIAQ

Interagency Committee on Indoor Air Quality

CIRRPC

Committee for Interagency Radiation Research and Policy Coordination

CPSC

U.S. Consumer Product Safety Commission

CPG

Through the Comprehensive Procurement Guideline (CPG), EPA designates items that must contain recycled content when purchased by federal, state, and local agencies, or by government contractors using appropriated federal funds. Under E.O. 13101 EPA is required to update the CPG every 2 years

CARBON DIOXIDE (CO₂)

A colorless, odorless, nonpoisonous gas which results from fuel combustion and human activity indoors. Elevated levels of CO₂ indicate ineffective ventilation indoors. CARBON MONOXIDE (CO) A colorless, odorless, poisonous gas which results from incomplete combustion.

CARCINOGEN

A substance that can cause or contribute to cancer.

CAUSTIC

Able to burn, corrode, dissolve, or eat away other substances.

CAUSTIC SODA

Sodium hydroxide, a strong alkaline substance used as the cleaning agent in some detergents.

CEILING PLENUM

Space below the flooring and above the suspended ceiling that accommodates the mechanical and electrical equipment and that is used as part of the air distribution system. The space is kept under negative pressure.

CENTRAL NERVOUS SYSTEM

The system in the body that includes the brain, spinal cord and their connecting nerves.

CHEMICAL CLEANING

Cleaning by using a chemical instead of mechanical or abrasive cleaning.

CHEMICAL DISINFECTION

Disinfection by using chemicals instead of heat and other physical, electrical, or radioactive methods.

CHEMICAL MIXTURE

Any combination of two or more substances.

CHEMICAL OXYGEN DEMAND

A measure of the oxygen required to oxidize all compounds, both organic and inorganic, in water.

CHEMISORB

To take up and hold, usually irreversibly, by chemical forces.

CHLORINATED SOLVENTS

An organic solvent containing chlorine atoms. Examples include methylene chloride, perchloroethylene and 1,1,1 trichloroethylene used as cleaning agents.

CHLOROFLOUROCARBONS (CFCs)

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

CHRONIC EXPOSURE

Long-term exposure lasting several weeks to a lifetime.

CHRONIC TOXICITY

The ability of a substance to cause long-term poisonous human health effects.

CLEANING

Cleaning is the process of locating, identifying, containing, removing and properly disposing of unwanted substance from a surface or environment.

CLEANING PRODUCTS

Cleaning products as defined in this document refer to products that are used for the routine cleaning of the indoor built environment. They include but are not limited to: glass cleaners, general-purpose cleaners, floor cleaners, laundry detergents, dishwashing detergents, deodorizers, hand soaps, and wax strippers.

COAGULATION

A joining together of particles that settle out in waste water. Lime, alum, and iron salts induce the clumping of particles.

COAL FLY ASH

A by-product of coal burning at electricity plants. It is called "fly" ash because it is transported from the combustion chamber by exhaust gases.

COLIFORM ORGANISM

A microorganism found in the intestinal tract of humans and animals. Its presence in water indicates fecal pollution and potentially dangerous bacterial disease-causing organisms.

COMBUSTION

Burning or rapid oxidation accompanied by a release of energy.

COMMISSIONING

Start-up of a building that includes testing and adjusting HVAC, electrical, plumbing, and other systems to assure proper functioning and adherence to design criteria. Commissioning also includes the instruction of building representatives in the use of the building systems.

CONCENTRATION

The amount of a material per unit volume (i.e., milligrams per liter)

CONDITIONED AIR

Air that has been heated, cooled, humidified, or dehumidified to maintain an interior space within the "comfort zone." (Sometimes referred to as "tempered" air.)

CONSERVATION

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

CONSTANT AIR VOLUME SYSTEM

Air handling system that provides a constant air flow while varying the temperature to meet heating and cooling needs.

CONTAMINANT

Any physical, chemical, biological, or radioactive substance that can adversely affect air, water or soil.

CORROSION

Action or effect of eating away gradually. This can occur through oxidation, the action of strong acids, or caustic alkali.

CORROSIVE

"A liquid or solid that causes full thickness destruction of human skin at the site of contact within four hours, or a liquid that has a severe corrosion rate on steel or aluminum" (U.S. Department of Transportation, Performance Oriented Packaging Standard, HM-181)..

CRADLE-TO-CRADLE

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

CRADLE TO CRADLE DESIGN

A process encouraging and implementing improved environmental product design including use of technical nutrients and/or biological nutrients. Sustainable materials derived from cradle to cradle design are reused by industrial and natural systems and protect public health and environment and future generations. Cradle to Cradle design results in products whose materials are perpetually circulated in closed loops with few environmental and health burdens over all stages. Cradle to cradle design is defined in a book authored by William McDonough and Michael Braungart titled, Cradle to Cradle.

CRADLE-TO-GRAVE

A term used in life-cycle analysis to describe the entire life of a material or product up to the point of disposal. Also refers to a system that handles a product from creation through disposal.

CUBIC FEET PER MINUTE (CFM)

A measure of the volume of a substance flowing through air within a fixed period of time. Indoors, it is the amount of air measured in cubic feet that is delivered and exchanged in one minute.

D

DA

Distribution apportionment; the relationship between the proportion of the outside air (OA) quantity being delivered to portion a building and the proportion of the people in the building that are actually located in that portion of the building.

DDC

Direct digital control

DFOH

Division of Federal Occupational Health

DHHS

U.S. Department of Health and Human Services

DI

Distribution integrity; the relationship between the outside air (OA) quantity entering the HVAC equipment and the OA that actually gets delivered to the building occupants.

DAMPERS

Controls that vary airflow through an air outlet, inlet, or duct. A damper position may be immovable, manually adjustable, or part of an automated control system.

DECIBEL (DB)

A unit of sound measurement. Sound doubles in loudness for every 10 decibels.

DECOMPOSITION

The breakdown of matter by bacteria and fungi.

DEGREASER

A chemical such as soap, solvents, alkali, or detergent that dissolves and helps remove greases and oils.

DEPRESSURIZATION

A condition that occurs when air pressure inside a structure is lower than air pressure outside.

DERMAL TOXICITY

The ability of a chemical or biopollutant to poison people by contacting the skin.

DESICCANT

A chemical agent that absorbs moisture.

DESIGNATED PRODUCTS

Products that are or can be made from recovered materials that have been designated in the CPG through EPA's formal rulemaking process. Also referred to as "designated items."

DETERGENT

1. Synthetic washing agent that helps remove dirt and oil. Some contain compounds that kill bacteria or encourage algae growth. 2. A chemical composition that cleans.

DIFFUSERS AND GRILLES

Components of the ventilation system that distribute and diffuse air to promote air circulation in the occupied space. Diffusers supply air, and grilles return air.

DIGESTION

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

DILUTION

A concentration made less concentrated by adding gas or liquid.

DILUTION VENTILATION

Dilution of contaminated air with uncontaminated air in a general area, room, or building for the purpose of health hazard or nuisance control.

DISINFECTANTS

One of three groups of antimicrobials registered by EPA for public health uses. EPA considers an antimicrobial to be a disinfectant when it destroys or irreversibly inactivates infectious or other undesirable organisms, but not necessarily their spores. EPA registers three

types of disinfectant products based upon submitted efficacy data: limited, general or broad spectrum, and hospital disinfectant.

DISINFECTION

A chemical or physical process that kills pathogenic organisms.

DISPOSAL

Final placement or destruction of wastes.

DISSOLVED SOLIDS

Disintegrated organic or inorganic material contained in water.

DOSE

The amount of exposure undergone at one time.

DUST

An air suspension of particles (aerosol) of any solid material, usually with particle size less than 100 micrometers.

E

EE

Energy Efficiency Conservation and Renewable Energy

EEMI

Environmental Engineers and Managers Institute

EPA

U.S. Environmental Protection Agency

ER

Energy Research

ETS

Environmental tobacco smoke.

EVR (EFFECTIVE VENTILATION RATE)

The ventilation rate based on the actual quantity of outdoor air delivered to the occupied areas of a building or space.

ECO-EFFICIENCY

the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological impacts and resource intensity throughout the life cycle, to a level at least in line with the Earth's carrying capacity.

ECOLOGY

The relationship of living things to one another and their environment.

ECOSYSTEM

The interacting system of a biological community and its environmental surroundings.

ELECTROSTATIC PRECIPITATOR (ESP)

An air-pollution control device that removes particles from an air stream. The ESP imparts an electrical charge to particles causing them to adhere to metal plates inside the precipitator.

ELEMENTAL CHLORINE FREE.

Elemental (pure) chlorine is the most hazardous form of chlorine used in the process of making paper. Even if paper is elemental chlorine free, the manufacturer may still use chlorine compounds, such as chlorine dioxide, which are also very hazardous. Whenever possible, choose Processed Chlorine Free (PCF) paper that uses hydrogen peroxide for whitening instead of chlorine in any form.

EMISSION

Pollution discharge from a source.

EMULSION

Two or more liquids that do not dissolve in each other but are held in suspension, one in the other.

ENDOTOXIN

Heat-stable toxin present in the cell wall of bacteria (bacilli).

ENDOCRINE DISRUPTORS

These are synthetic chemicals that can create changes in the hormones in humans and animals. These "hormone disruptors" can cause cancer, birth defects, and immune problems. Even very small amounts can interfere with growth and normal development of children, reproduction and can cause permanent mental, learning, and behavioral disabilities.

ENERGY RECOVERY VENTILATION SYSTEM

A device or combination of devices applied to provide the outdoor air for ventilation in which energy is transferred between the intake and exhaust airstreams.

ENVIRONMENT

The sum of all external conditions affecting the life of an organism.

ENVIRONMENTAL FACTORS

Conditions other than indoor air contaminants that cause stress, comfort, and/or health problems (e.g., humidity extremes, drafts, lack of air circulation, noise, and over-crowding).

ENVIRONMENTAL FOOTPRINT

For an industrial setting, this is a company's environmental impact determined by the amount of depletable raw materials and nonrenewable resources it consumes to make its products, and the quantity of wastes and emissions that are generated in the process.

ENVIRONMENTAL IMPACT

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

ENVIRONMENTALLY PREFERABLE PRODUCT

A product that has a lesser or reduced effect on human health and the environment when compared with competing products that serve the same purpose. The product comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal.

ENVIRONMENTALLY PREFERABLE PURCHASING
A U.S. federal-wide program (Executive Order 13101) that encourages and assists executive agencies in the purchasing of environmentally preferable products and services.

ENZYMES

Complex proteins produced by living cells. They start up certain biochemical reactions such as the digestion of food.

EPIDEMIC

Widespread outbreak of a disease.

EPIDEMIOLOGY

A branch of medicine that investigates the causes and control of epidemics; all the elements contributing to the occurrence or nonoccurrence of diseases in a population; ecology of a disease.

ERESPONSE RELATIONSHIP

A relationship between the amount of harmful substance a human is exposed to and the extent of injury or reaction it produces.

ERGONOMICS

Applied science that investigates the impact of people's physical environment on their health and comfort (e.g., determining the proper chair height for computer operators).

ETIOLOGY

The science of causes or origins; the cause of a specific disease.

EXCRETION

Elimination or discharge of excess and waste chemicals from the body. Chemicals are excreted through feces, urine, exhaled breath, and perspiration.

EXECUTIVE ORDER 13101

Entitled Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition, Executive Order (E.O.) 13101 was signed on September 14, 1998. This Order replaces E.O. 12873 and reinforces the federal government's buy-recycled efforts. E.O. 13101 establishes a process for amending the CPG originally promulgated under E.O. 12873. E.O. 13101 requires EPA to amend the CPG every 2 years, or as appropriate. The Order also requires EPA to issue RMANS concurrent with the CPG amendments, and to update them periodically.

EXFILTRATION

Air leakage outward through cracks and interstices and through ceilings, floors, and walls of a space or building.

EXHAUST AIR

Air removed from a space and not used therein.

EXHAUST VENTILATION

Mechanical removal of air from a portion of a building.

EXPOSURE

is a measure of the contact between a toxicant and a living organism.

EXPOSURE ASSESSMENT

Measurement or estimation of the magnitude, frequency, duration, and route of exposure of humans, animals, materials, or ecological components to substances in the environment. The assessment also describes the size and nature of the exposed population.

F

FDA

Food and Drug Administration

FHA

Federal Housing Administration

FABRIC FILTER

A cloth that catches dust particles.

FECAL COLIFORM BACTERIA

Bacteria found in the intestinal tracts of mammals.

FLASH POINT

The lowest temperature at which a combustible liquid or gas gives off a flammable vapor that will burn when exposed to an open flame.

FLOC

A clump of solids formed in a liquid by biological or chemical action.

FLOCCULATION

The process by which clumps of solids in water are made to increase in size by biological or chemical action so that they can be separated from the water.

FLOW HOOD

Device that easily measures airflow quantity, typically up to 2,500 cfm.

FLUE GAS

The air coming out of a chimney after combustion in the burner it is venting.

FLY ASH

A fine, glass power recovered from the gases of burning coal during the production of electricity. Often used to replace a portion of the cement in concrete because it produces a smoother surface. Also used to fill old coal mines, build seaside docking areas and line hazardous waste dumps.

FOGGING

Applying a liquid chemical by rapidly heating it to form fine droplets that resemble smoke or fog.

FUMES

Airborne particles, usually less than 1 micrometer in size, formed by condensation of vapors, sublimation, distillation, calcination or chemical reaction.

FUMIGANT

A biocide that is vaporized to kill pests. Used indoors or outdoors.

FUNGI

A group of organisms that lack chlorophyll, including molds, mildews, yeasts, mushrooms. They receive their nutrition from decomposing organic matter. Some

cause disease in humans; others stabilize sewage and digest composted waster.

FUNGICIDE

Biocides used to control, prevent, or kill fungi.

G

GAS

A state of matter in which substances exist in the form of nonaggregated molecules, and which, within acceptable limits of accuracy, satisfies the ideal gas laws; usually a highly superheated vapor.

GAS SORPTION

Devices used to reduce levels of airborne gaseous compounds by passing the air through materials that extract the gases. The performance of solid sorbents is dependent on the airflow rate, concentration of the pollutants, presence of other gases or vapors, and other factors.

GREEN DESIGN

A design, usually architectural, conforming to environmentally sound principles of building, material, and energy use.

H

HDPE

High density polyethylene. A plastic resin used in products and packaging such as milk jugs, detergent bottles, margarine tubs, and garbage containers.

HEPA

High efficiency particulate arrestance (filters).

HRSA

Health Resources Services Administration

HSIA

Halogenated Solvents Industry Association

HUD

U.S. Department of Housing and Urban Development

HVAC

Heating, ventilation, and air conditioning system.

HABITAT

The place where a population lives, including its living and non living surroundings.

HARD WATER

Alkaline water containing dissolved salts that interfere with some industrial processes and prevent soap from lathering.

HAZARD

Risk, peril, jeopardy to which an individual is subjected.

HAZARDOUS WASTE

By-products of society that can pose a substantial or potential hazard to human health or the environment when improperly managed. They have at least one of four characteristics: they are ignitable, corrosive, reactive, or toxic.

HEAVY METALS

Metallic elements with high atomic weights such as mercury, chromium, cadmium, arsenic, and lead. They can damage living organisms at low concentrations.

HEDONIC TONE

The degree to which an odor is perceived as pleasant or unpleasant.

HUMIDITY

The measure of moisture in the atmosphere.

HYDROCARBONS (HC)

Chemical compounds made up entirely of carbon and hydrogen.

HYPERSENSITIVITY

The immune system's exaggerated response to an allergen.

HYPERSENSITIVITY DISEASES

Diseases characterized by allergic responses to animal antigens. The hypersensitivity diseases most clearly associated with indoor air quality are asthma, rhinitis, and hypersensitivity pneumonitis. Hypersensitivity pneumonitis is a rare but serious disease that involves progressive lung damage as long as there is exposure to the causative agent.

I

IAP

Indoor Air Pollution

IAQ (INDOOR AIR QUALITY)

ASHRAE defines acceptable indoor air quality as air in which there are no known contaminants at harmful concentrations as determined by cognizant authorities and with which 80% or more people exposed do not express dissatisfaction.

IAQ BACKGROUNDER

A component of the Action Packet that provides a general introduction to IAQ issues, as well as IAQ program implementation information.

IAQ COORDINATOR

An individual at the school and/or school district level who provides leadership and coordination of IAQ activities.

IAQ MANAGEMENT PLAN

A set of flexible and specific steps for preventing and resolving IAQ problems.

IAQ TEAM

People who have a direct impact on IAQ in the schools - including school staff, administrators, school board members, students and parents - and who implement the IAQ Action Packets.

IAQIV

Indoor Air Quality and Infiltration/Ventilation

IPM

Integrated pest management.

IRAA

Indoor Radon Abatement Act

IGNITABLE

Capable of burning or causing a fire.

IMMUNE SYSTEM

All internal structures and processes providing defense against disease-causing organisms such as viruses, bacteria, fungi, and parasites.

INDICATOR COMPOUNDS

Chemical compounds, such as carbon dioxide, whose presence at certain concentrations may be used to estimate certain building conditions (e.g., airflow, presence of sources).

INDIVIDUAL RISK

The increased risk for a person exposed to a specific concentration of a toxicant.

INDOOR AIR

The air that people breathe inside a built environment.

INDOOR AIR POLLUTANT

Particles and dust, fibers, mists, bioaerosols, and gases or vapors.

INDOOR CLIMATE

Temperature, humidity, noise, and lighting inside a structure.

INFILTRATION

Air leakage inward through cracks and interstices and through ceilings, floors, and walls of a space or building.

INFLAMMATION

A protective tissue response to injury that destroys, dilutes, or walls off both the injurious agent and the injured tissue.

INGREDIENT

Any component or additive of a product intentionally added or know to be a contaminant that comprises at least 0.01% by weight of the product.

INHALABLE

Particles small enough to be inhaled, but large enough so that they are not quickly exhaled.

INTEGRATED PEST MANAGEMENT (IPM):

IPM is a method of pest control that emphasizes correcting the root cause of pest problems and promotes the use of non-toxic methods to address existing pest problems. Some states have passed laws mandating IPM practices while others have purely voluntary programs.

INTEGRATED WASTE MANAGEMENT

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

ISO 14000:

The environmental management series of standards set by the International Organization for Standardization (ISO). The standards lay out the principles and procedures to be followed in the labeling of products and services for environmental attributes. ISO standards are intended to harmonize standard-setting activities and to avoid international disagreements

LEED™ RATING SYSTEM

LEED (Leadership in Energy & Environmental Design) is a self-assessing system designed for rating new and existing commercial, institutional, and high-rise residential buildings. It evaluates environmental performance from a "whole building" perspective over a building's life cycle, providing standards for what constitutes a green building.

LETHAL CONCENTRATION (LC50)

The concentration of a substance needed to kill half of a population at a specific time of observation.

LETHARGY

A condition of abnormal drowsiness or torpor; a great lack of energy; apathy.

LDPE

Low density polyethylene. A plastic resin used for both rigid containers and plastic film applications such as plastic bags and film wrap.

LLDPE

Linear low density polyethylene. A plastic that is used predominantly in film applications due to its toughness, flexibility, and relative transparency.

LIFE CYCLE

the stages of a product, process or activity, which encompass raw materials extraction and acquisition, processing, materials manufacture, product fabrication, packaging and distribution, product use/reuse, maintenance, recycling and final disposition.

LIFE-CYCLE ASSESSMENT (LCA)

Review of the full life of a product and its impact on the environment. A LCA review on cleaning products would include: mining the raw material; refining and creating a finished product; transporting the product from the manufacturing point through the distribution channel to the end use point; storage of the product; use of the product; resources used during its life; and its final disposal.

LIFE-CYCLE COST (LCC)

Review of the full life cycle and total cost of the product. A LCC review would include: the purchase price of the product; the cost of using the product; and the cost of disposing of it. LIFE CYCLE OF A PRODUCT

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

LIPID SOLUBILITY

The maximum concentration of a chemical that will dissolve in fatty substances. Lipid-soluble substances do not dissolve in water.

LIQUEFACTION

Changing a solid into a liquid.

M

MCLS

Maximum Contaminant Levels

MCS

See "Multiple Chemical Sensitivity."

MERV

Minimum Efficiency Reporting Value parameters for air filters as established by ASHRAE's standard 52.2 which focuses on minimizing health risks from particulate matter.

MG/M3

Milligrams per cubic meter

MOU

Memorandum of Understanding

MSDS

a written or printed material concerning a hazardous chemical that contains the information set forth in the OSHA Hazard Communication Standard.

MACROPHAGE

A specialized cell of the immune system capable of engulfing and digesting foreign particles.

MAKEUP AIR

Outdoor air supplied to replace exhaust air and exfiltration.

MALIGNANT

A condition in which a tumor has escaped normal growth regulation and shows that it can invade local or distant tissue.

MASKING

The phenomenon where a quality in a mixture obscures one or more other qualities in it.

MATCHING

The experimental process of equating or relating stimuli.

MATERIALS IN SOLID WASTE

Materials found in the various components of the solid waste stream. Generally, solid waste has several components, such as municipal solid waste (MSW), construction and demolition debris (C&D), and nonhazardous industrial waste. Under RCRA Section 6002, EPA considers materials recovered from any component of the solid waste stream when designating items containing recovered materials.

MATERIAL SAFETY DATA SHEETS (MSDS)

MSD sheets are information sheets that are available on cleaning products containing toxic chemicals made in the United States. It is a good source of information for chemicals' physical properties, toxicities, as well as treatments for poisoning.

METABOLISM

Biochemical reactions by which energy is made available for an organism to use. Includes all chemical transformations that occur in an organism from the time a nutrient substance enters until it has been used and the waste products eliminated.

METABOLITE

Any substance produced in or by biological processes.

METHANE

A colorless, flammable gas created by anaerobic decomposition of organic compounds.

MICROBES

Microscopic organisms such as algae, insects, viruses, bacteria, fungi, and protozoa, some of which cause diseases.

MICROBIAL GROWTH

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

MICROBIOLOGICAL ORGANISM

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

MICROBIOLOGICALS

See "Biological Contaminants."

MICROENVIRONMENT

A particular part of the large environment that is in some way whole by itself. Used to describe a subset of the global environment such as the indoor environment.

MICRON

A measure of length; one millionth of a meter.

MICROORGANISM

A microscopic organism, especially a bacterium, fungus, or protozoan.

MIST

Liquid particles measuring between 40 and 500 microns. By contrast, particles making up fog are less than 40 microns.

MITIGATION

Measures taken to reduce adverse effects on the environment.

MORBIDITY

The number of sick individuals or cases of disease in a population.

MORTALITY

The number of individual deaths in a population.

MULTIPLE CHEMICAL SENSITIVITY

A term used by some people to refer to a condition in which a person is considered to be sensitive to a number of chemicals at very low concentrations. There are a number of views about the existence, potential causes, and possible remedial actions regarding this phenomenon.

MUTAGEN

Any substance that can cause a change in genetic material.

MUTAGENIC

Able to cause a permanent change in the structure of DNA.

N

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

NCCDPHP

National Center for Chronic Disease Prevention and Health Promotion

NCEA

National Center for Environmental Assessment

NCEH

National Center for Environmental Health

NCHS

National Center for Health Statistics

NCR

National Capital Region

NERL

National Exposure Research Laboratory

NESHAP

National Emission Standards for Hazardous Air Pollutants

NHANES III

Third National Health and Nutrition Examination Survey

NHEERL

National Health and Environmental Effects Research Laboratory

NIAID

National Institute of Allergy and Infectious Diseases

NIEHS

National Institute of Environmental Health Sciences

NIH

National Institutes of Health

NIOSH

National Institute for Occupational Safety and Health

NIST

National Institute of Standards and Technology
(formerly the National Bureau of Standards)

NO2

Nitrogen Dioxide

NPTN

National Pesticide Telecommunications Network

NREL

National Renewable Energy Lab

NRMRL

National Risk Management Research Laboratory

NTIS

National Technical Information Service

NATURAL VENTILATION

The movement of outdoor air into a space through intentionally provided openings, such as windows and doors, or through nonpowered ventilators or by infiltration.

NECROSIS

Death of plant or animal cells.

NEGATIVE PRESSURE

Condition that exists when less air is supplied to a space than is exhausted from the space, so the air pressure within that space is less than that in surrounding areas.

NITRIC OXIDE (NO)

A gas formed by combustion under high temperature and high pressure in an internal combustion engine, and then converted by sunlight and photochemical processes in ambient air to nitrogen oxide. Nitric oxide is a precursor of ground-level ozone pollution.

NITROGEN OXIDE (NO_x)

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

NONIONIC DETERGENT

A detergent that produces electrically-neutral colloidal particles in solution.

NUTRIENT

Any substance taken in by living things that promotes growth.

OASI

Outdoor air supply index

Octylphenol – An important alkylphenol with eight carbon atoms attached to the phenol unit. A breakdown product of octylphenol ethoxylate surfactants that has been found to have estrogenic activity in fish, mammals and birds.

Octylphenol ethoxylate (OPE) – A type of nonionic surfactant of the alkylphenol ethoxylate type in which the alkyl unit has eight carbon atoms. Less widely used than nonylphenol ethoxylates but a more potent estrogen.

OSHA

Occupational Safety and Health Administration.

OCCUPIED ZONE

The region within an occupied space between planes 3 and 72 in. (75 and 1800 mm) above the floor and more than 2 ft (600mm) from the walls or fixed air conditioning equipment.

ODOR CHARACTER OR QUALITY

The property of the odor sensation that permits a person to distinguish odors of different substances based on prior exposure.

ODOR DESCRIPTOR

Adjective given to an odor such as "floral," "caramel," "putrid."

ODOR PERVASIVENESS

The rate of decrease of odor perception associated with the decrease in odorant concentration.

ODORANT

A substance that stimulates the olfactory receptors.

ODORIMETRY

Measurement of olfactory sensations.

OUTDOOR AIR (OA)

Air taken from the external atmosphere and, therefore, not previously circulated through the system.

OXIDATION

A reaction in which oxygen combines with another substance.

OZONE DEPLETION

Destruction of the stratospheric ozone layer, which shield the earth from UV 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 breakdown when they reach the stratosphere and then catalytically destroy ozone molecules.

OZONE-DEPLETING COMPOUNDS

An ozone-depleting compound is any compound with an ozone-depletion potential greater than 0.01 where CFC 11 equals 1.

P**PA**

Pascal; unit of pressure measurement.

PAHS

Polycyclic Aromatic Hydrocarbons

PBT

Persistent, bioaccumulative toxic pollutants (PBTs) are highly toxic, long-lasting substances which can build up in the food chain to levels that are harmful to human health and cause environmental harm. These contaminants can be transported long distances and move readily from land to air and water.

PCBS

Polychlorinated biphenyls

PCI/L

Picocuries per liter; a measure of radon concentration

PE

Polyethylene. A flexible plastic used in many household items including plastic wrap and food containers.

PELS

Permissible Exposure Limits (standards set by OSHA).

PET

Polyethylene Terephthalate. A thermoplastic material used to manufacture plastic soft drink containers and rigid containers

pH

A measure of acidity or alkalinity on a scale of 0 to 14 where 7 is neutral. A pH less than 7 is acid and a pH greater than 7 is alkaline or base.

PIC

Products of incomplete combustion. All particles and gases that are emitted from an object at the time it is burning.

PIU

Perimeter induction unit.

PM

Preventive Maintenance.

PP - POLYPROPYLENE.

A plastic polymer that has good resistance to heat and is used in flexible and rigid packaging, film, and textiles.

PPB

Parts per billion

PPM

Parts per million

PS

Polystyrene. A plastic polymer used to make a variety of products including plastic cutlery and food containers. It is often used in its foamed state.

PVC

Polyvinyl chloride (PVC) : PVC, commonly known as vinyl, is found in practically everything made of plastic, for example: water pipes, siding, telephone cords, credit cards, shower curtains, sandwich bags, etc. It poses environmental problems during manufacturing and disposal. Extremely dangerous chemicals, including chlorine compounds, are used in the production process. Disposal is also a problem because it does not readily biodegrade and it can create dioxins upon incineration.

PARTICULATE MATTER

A state of matter in which solid or liquid substances exist in the form of aggregated molecules or particles. Airborne particulate matter is typically in the size range of 0.01 to 100 micrometers.

PARTICULATE POLLUTION

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

PARTICULATES

Fine liquid or solid particles such as dust, smoke, mist, fumes, and fog found in air and emissions.

PATHOGENIC

Capable of causing disease.

PATHOGENS

Microorganisms (i.e., bacteria, viruses, or parasites) that can cause disease in other organisms, humans, animals, or plants.

PERSISTENCE

Length of time a compound remains in the environment once introduced.

PEST

Any form of animal, plant, or terrestrial life that is injurious to health or the environment.

PESTICIDE

Substance intended to control, prevent, or kill a pest.

PHOSPHATES

Alkaline builders used in detergents to soften water.

PHYTOTOXIC

Something that harms plants.

PLENUM

Air compartment connected to a duct or ducts.

PLUG FLOW

A flow regime where the flow is predominately in one direction and contaminants are swept along with the flow.

PLUME

A visible or measurable discharge of a contaminant body from a given point of origin. Can be a visible body of pollution such as smoke coming from a stack or a measured amount such as heat in water coming from a power plant boiler.

POLLUTANT PATHWAYS

Avenues for distribution of pollutants in a building. HVAC systems are the primary pathways in most building, however all building components interact to affect how air movement distributes pollutants.

POLLUTION

Unwanted by-product of human activity. the presence of matter or energy whose nature, location, or quantity produces undesired environmental effects.

POSITIVE PRESSURE

Condition that exists when more air is supplied to a space than is exhausted, so the air pressure within that space is greater than that in surrounding areas.

POSTCONSUMER MATERIALS

A material or finished product that has served its intended use and has been diverted or recovered from waste destined for disposal, having completed its life as a consumer item. Postconsumer materials are part of the broader category of recovered materials.

PRECONSUMER MATERIALS

Materials generated in manufacturing and converting processes, such as manufacturing scrap and trimmings/cuttings.

PRESSURE, TOTAL

In flowing air, the sum of the static pressure and the velocity pressure.

PRESSURE, VELOCITY

In flowing air, the pressure due to the velocity and density of the air.

PREVENTIVE MAINTENANCE

Regular and systematic inspection, cleaning, and replacement of worn parts, materials, and systems. Preventive maintenance helps to prevent parts, material, and systems failure by ensuring that parts, materials and systems are in good working order.

PRIMARY CONVERSION PROCESS

This is a process that refines or converts a raw fossil fuel or biomass into a material used by traditional manufacturing processes. This is sometimes referred to as an intermediate.

PRIMARY PACKAGING

The packaging that comes in direct contact with the product, not including the lid or cap of a container.

PRIMARY ROUTES OF ENTRY

Inhalation, Eye contact (ocular), Skin contact (dermal) and Ingestion

PROCESSED CHLORINE FREE (PCF)

Paper made without the use of additional chlorine, known as "Processed Chlorine Free" or "PCF." Most paper is bleached to make it perfectly white. The traditional bleaching process uses chlorine, which when it enters the environment can produce dioxins and furans, deadly chemicals known to cause cancer and developmental problems, and that persist in the environment. Furthermore, one of the major production methods of chlorine requires the use of mercury cells, which release this heavy metal and known neuro- and developmental toxin into the environment.

PROCURING AGENCY

Any Federal agency, or any state agency or agency of a political subdivision of a state, that is using appropriated Federal funds for procurement.

PRODUCTIVITY

The efficiency with which a person performing a specific function does a job, or the output of a worker under specific environments and conditions.

PROTEINS

Complex nitrogenous organic compounds of high molecular weight that contain amino acids as their basic unit. Essential for animal tissue to grow and heal.

PSYCHOSOCIAL FACTORS

Psychological, organizational, and personal stressors that could produce symptoms similar to poor indoor air quality.

QUARTERNARY AMMONIUM

Chemical commonly used to sanitize and disinfect. Kills by rupturing the cell walls of the microorganisms.

R

RCRA Section 6002

Section 6002 of the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, directs EPA to designate items that are or can be produced with recovered materials and to recommend practices for buying these items. Among other things, RCRA Section 6002 also provides criteria for EPA to consider when selecting items for designation, and requires procuring agencies to establish affirmative procurement programs for designated items.

RF

Radio frequency; portion of electromagnetic spectrum.

RH

Relative Humidity

RID

Regulatory Integration Division

RMAN

Recovered Materials Advisory Notices (RMANs) provide purchasing guidance and recommend recovered and postconsumer material content levels for designated items. RMAN recommendations are guidance and therefore are not codified in the Code of Federal Regulations.

RSP

Respirable suspended particles

RTU

Roof top unit; a packaged AHU unit on the roof.

RADIANT HEAT TRANSFER

Radiant heat transfer occurs when there is a large difference between the temperatures of two surfaces that are exposed to each other, but are not touching.

RADON

A colorless, odorless gas that occurs naturally in almost all soil and rock. Radon migrates through the soil and groundwater and can enter buildings through cracks or other openings in the foundation. Radon can also enter well water. Exposure to radon can cause lung cancer.

READY-TO-USE (RTU)

Packaging that requires no mixing or dilution.

RE-ENTRAINMENT

Situation that occurs when the air being exhausted from a building is immediately brought back into the system through the air intake and other openings in the building envelope.

RE-BLENDED

Commercial or Architectural Products (specifically Coatings in this report) that are made using post-consumer products.

RECOVERED MATERIALS

Waste materials and byproducts that have been recovered or diverted from solid waste, but does not include materials and byproducts generated from, and commonly reused within, an original manufacturing process \

RECYCLABLE PACKAGE

A package that can be diverted from the waste stream through available processes or programs, and can be collected, processed and returned to be used as a raw material or product.

RECYCLING

Recycling is a series of activities that includes collecting materials that would otherwise be considered waste, sorting and processing recyclables into raw materials such as fibers and manufacturing raw materials into new products.

RE-ENTRY

Situation that occurs when the air being exhausted from a building is immediately brought back into the system through the air intake and other openings in the building envelope.

RECIRCULATED AIR

Air removed from the conditioned space and used for ventilation, heating, cooling, humidification, or dehumidification.

RELATIVE HUMIDITY

an expression of the moisture content of a given volume of air as a percent of what the volume of air can hold at saturation

RESIDUAL

Amount of a pollutant remaining in the environment after a natural or technological process has taken place.

RESISTANCE

Ability of plants and animals to withstand disease, poor environmental conditions, or attacks by chemicals. It may be inborn or developed.

RESPIRABLE PARTICLES

Respirable particles are those that penetrate into and are deposited in the nonciliated portion of the lung. Particles greater than 10 micrometers aerodynamic diameter are not respirable.

RETURN AIR (RA)

Air removed from a space to be then recirculated or exhausted.

REUSE

Use a product more than once, either for the same purpose or for a different purpose. Reusing, when possible, is preferable to recycling because the item does not need to be reprocessed before it can be used again.

REUSABLE

Reusable means the potential of a product for reuse as defined above, and where facilities readily exist to make such reuse economically feasible.

RISK

The probability of injury, disease, or death under specific circumstances. In quantitative terms, risk is expressed in values ranging from zero, which represents the certainty that harm will not occur, to one, which represents the certainty that harm will occur.

RISK ASSESSMENT

The use of factual information to define the nature and impact of an adverse effect on individuals or populations who have been exposed to hazardous materials and situations. 2. A quantitative or qualitative evaluation to determine the probability of an adverse effect to human health or the environment by exposure to specific pollutants.

RISK COMMUNICATION

Exchange of information about health or environmental risks between risk assessors, risk managers, the general public, and other interest groups such as the news media.

RISK FACTOR

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

RISK MANAGEMENT

The process of evaluating alternative responses to risks and selecting among them. Includes consideration of technical, scientific, social, economic, and political information.

ROUTE OF EXPOSURE

The means by which toxic agents gain access to an organism such as ingestion, inhalation, dermal exposures; and intravenous, subcutaneous, or intermuscular administrations.

S**SARA**

Superfund Amendments and Reauthorization Act of 1986

SBS

See "Sick Building Syndrome."

SF6

Sulfur hexafluoride; a physiologically inert gas used as a tracer in building investigations.

SHEMD

Safety, Health, and Environmental Management Division

SVOC

Semivolatile Organic Chemicals

SANITATION

1. Control of physical factors in the human environment that could harm development, health, or survival. 2. Process of putting an environment into a state that will not harm human health.

SANITIZER

One of three groups of anti-microbials registered by EPA for public health uses. EPA considers an antimicrobial to be a sanitizer when it reduces but does not necessarily eliminate all the microorganisms on a treated surface. To be a registered sanitizer, the test results for a product must show a reduction of at least 99.9% in the number of each test microorganism over the parallel control.

SENSITIZATION

An allergic condition that usually affects the skin or lungs. Once exposure to a substance has caused a reaction, the individual may be sensitized to it, and further exposure may elicit an adverse reaction even at low levels.

SEWAGE

The waste and waste water produced by residential and commercial establishments and discharged into sewers.

SEWER

A channel or conduit that carries waste water and storm water runoff from the source to a treatment plant or receiving stream.

SHORT-CIRCUITING

Situation that occurs when the supply air flows to exhaust registers before entering the breathing zone. To avoid short-circuiting, the supply air must be delivered at a temperature and velocity that results in mixing throughout the space.

SICK BUILDING SYNDROME

Term sometimes used to describe situations in which building occupants experience acute health and/or comfort effects that appear to be linked to time spent in a particular building, but where no specific illness or cause can be identified. The complaints may be localized in a particular room or zone, or may be spread throughout the building.

SLUDGE

A solid residue from air or water treatment processes. Can be a hazardous waste.

SOIL GASES

Gases that enter a building from the surrounding ground (e.g., radon, volatile organics, pesticides).

SOLVENT

1. A substance capable of dissolving or dispersing one or more other substances. 2. The liquid component of a solution in which a substance is dissolved.

SOURCES

Sources of indoor air pollutants. Indoor air pollutants can originate within the building or be drawn in from outdoors. Common sources include people and room furnishings.

SPECIFIC HUMIDITY

the grains of water vapor per pound of air. There are 7000 grains per pound.

STACK EFFECT

Pressure-driven airflow produced by convection as heated air rises, creating a positive pressure area at the top of a building and a negative pressure area at the bottom of a building. The stack effect can overpower the mechanical system and disrupt ventilation and circulation in a building.

STANDARD

a degree or level of requirement, excellence or attainment.

STATIC PRESSURE

Condition that exists when an equal amount of air is supplied to and exhausted from a space. At static pressure, equilibrium has been reached.

STERILIZATION

The destruction of all living organisms in water or on the surface of various materials.

STERILIZER

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

SUPPLY AIR (SA)

That air delivered to the conditioned space and used for ventilation, heating, cooling, humidification, or dehumidification.

SURFACTANT

Chemical compound that have both oil and water-soluble structures and can bring both water soluble and insoluble components together in a single liquid phase. Surfactants function in cleaning products to dissolve and remove oils and greases and to make water penetrate more readily.

SUSTAINABLE CLEANING

Sustainable cleaning is an integrated system of cleaning that uses sustainable practices and products having site-specific applications that will, over the long term:

- Enhances environmental quality and the natural resource base upon which the cleaning economy depends
- Takes a holistic, life cycle and cradle to grave approach to cleaning activities and products
- Protects humans before, during and after cleaning
- Make protection of human and environmental health the primary focus of cleaning
- Makes efficient use of nonrenewable resources and local building resources and integrates, where appropriate, natural biological cycles and controls.
- Helps sustain the economic vitality of cleaning operations
- Enhances the quality of life for professional cleaners and the societal community as a whole
- Extracts and removes unwanted substances out of the building and dispose of them properly
- Reduces, diminishes or eliminates chemical, particle and moisture residues
- Protects humans from exposure to contaminants, hazardous cleaning chemicals and residues
- Encourages proper disposal of cleaning products and the soils removed by them.
- Reduces or eliminates cleaning products that contain hazardous ingredients
- Reduces and controls the number of cleaning products used for cleaning a building
- Encourages use of equipment and techniques that promote sustainability
- Promotes the use of sustainable environmentally preferable green cleaning products

SUSTAINABLE GREEN CLEANING PRODUCT

In order to be considered a sustainable product, a sustainable cleaning product must provide environmental, economic and social benefits while protecting and enhancing the needs of future generations, public health, welfare and environment over their full commercial cycle, from raw materials extraction to final disposition. A sustainable cleaning product must also provide the equivalent in performance and quality to other cleaning products. A sustainable cleaning product can be petrochemical-based or bio-based but must demonstrate throughout the supply chain, multiple attributes that protect public health and environment and foster healthy and prosperous conditions for human and ecological systems. Claims made on all sustainable attributes must be certified pursuant to this standard with public documentation that can be peer reviewed.

SUSTAINABILITY

Using resources in a way and at a rate that allows people to meet their needs and future generations to also meet theirs. It also means meeting environmental, economic and community needs.

SYNERGISM

Cooperative interaction of two or more chemicals or other phenomena producing a greater total effect than the sum of their individual effects.

T

TSP

Total suspended particulate concentration

TVOCS (TOTAL VOLATILE ORGANIC COMPOUNDS)

The total mass, typically in milligrams per cubic meter, of the organic compounds collected in air.

TERATOGEN

An agent that causes physical abnormalities in a developing embryo or fetus.

TERATOGENESIS

The nonhereditary birth defects in a developing fetus by exogenous factors such as physical or chemical agents acting in the womb to interfere with normal embryonic development.

THRESHOLD LIMIT VALUE (TLV)

Air concentration of chemical substances to which healthy workers can be exposed for 8-hour work days during a 40-hour work week without suffering an adverse effect.

TOTAL SUSPENDED PARTICULATE MATTER

The mass of particles suspended in a unit volume of air when collected by a high-volume air sampler.

TOTALLY CHLORINE FREE

This is the logo reserved by the Chlorine Free Products Association for paper made from virgin fiber papers that have been produced without the use of pulp bleached chlorine and chlorine compounds.

TOXIC

Capable of having an adverse effect on an organism; poisonous.

TOXICITY

The inherent ability of a chemical, biological, or physical agent to cause adverse effects in living organisms.

TOXICITY, ACUTE

The ability of a substance to cause adverse health effects (usually death) from a single exposure. The usual measure of acute toxicity is the amount of the substance required to kill half of the laboratory rats or mice exposed to it. (See Lethal Dose 50).

TOXICITY, CHRONIC

The ability of a substance to cause adverse health effects from non-lethal exposures over a period of time. One measure of chronic toxicity for aquatic organisms is the LC50 in water.

TRACER GASES

Compounds, such as sulfur hexafluoride, which are used to identify suspected pollutant pathways and to quantify ventilation rates. Tracer gases may be detected qualitatively by their odor or quantitatively by air monitoring equipment.

TRANSFER AIR

The movement of indoor air from one space to another.

TURBIDITY

Haziness in air caused by particles, or cloudy condition in water caused by suspended silt or organic matter.

U

UG/M3

Micrograms per cubic meter

UL

Underwriters' Laboratory

USGBC (U.S. GREEN BUILDING COUNCIL)

A coalition of leaders from across the building industry that works to promote buildings that are environmentally responsible, profitable, and healthy places to live and work.

ULOCCLADIUM

A rapidly growing, dark brown or black fungus that is a potential allergen. Its spores are unusually large (1015 um). It is typically found in soil and is frequently encountered at low levels indoors.

VAV

Variable air volume system.

VAPOR

A substance in gas form, particularly one near equilibrium with its condensed phase, which does not obey the ideal gas laws; in general, any gas below its critical temperature.

VARIABLE AIR VOLUME SYSTEM

Air handling system that conditions the air to a constant temperature and varies the outside airflow to ensure thermal comfort. Ventilation Air-Defined as the total air, which is a combination of the air brought into the system from the outdoors and the air that is being recirculated within the building. Sometimes, however, used in reference only to the air brought into the system from the outdoors.

VECTOR

An organism that carries disease such as an insect or rodent.

VENTILATION

The process of supplying and removing air by natural or mechanical means to and from any space. Such air may or may not be conditioned.

VISCOSITY

Friction or resistance to the flow of a liquid.

VOLATILE

Able to evaporate readily. 2. Able to go to gas phase from a liquid or solid phase.

VOLATILE ORGANIC COMPOUNDS (VOCS)

Compounds that evaporate from the many housekeeping, maintenance, and building products made with organic chemicals. These compounds are released from products that are being used and that are in storage. In sufficient quantities, VOCs can cause eye, nose, and throat irritations, headaches, dizziness, visual disorders, memory impairment. Some are known to cause cancer in animals; some are suspected of causing, or are known to cause, cancer in humans. At present, not much is known about what health effects occur at the levels of VOCs typically found in public and commercial buildings.

W

WEEL

Workplace environmental exposure limit

WHO

World Health Organization

WL

Working level; a unit of radon exposure

WASTE WATER

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

WATER POLLUTION

Presence in water of enough harmful or objectionable material to damage or compromise water quality.

WATER SOLUBLE

A substance that will dissolve in water.