Term

Acid Aerosol

Definition: Acidic liquid or solid particles that are small enough to become airborne. High concentrations of acid aerosols can be irritating to the lungs and have been associated with some respiratory diseases, such as asthma (http://www.epa.gov/asthma/index.html).

**Action Level** 

Definition: A term used to identify the level of indoor radon (http://www.epa.gov/radon/index.html) at which remedial action is recommended. (EPA's current action level is 4 pCi/L in the air.)

**Action Packet** 

Definition: In reference to the IAQ Tools for Schools Action Kit (http://www.epa.gov/iaq/schools/actionkit.html) - contains numerous products to assist school personnel to implement an effective yet simple IAQ program in their school.

Air Changes per Hour

Definition: The amount of air in a building that leaks out or is removed by a fan and is replaced by outdoor air. Usually listed as a fraction of one air change per hour, such as .35 ACH.

Acronym: ACH

Air Cleaning

Definition: 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.

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Term

Air Exchange Rate

Definition: The rate at which outside air replaces indoor air in a space. Expressed in one of two ways: the number of changes of outside air per unit of time air changes per hour (ACH); or the rate at which a volume of outside air enters per unit of time - cubic feet per minute (cfm).

Air Handling Unit

Definition: 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 grilles, or boilers and chillers.

Acronym: AHU

Air Passages

Definition: Openings through or within walls, through floors and ceilings, and around chimney flues and plumbing chases, that permit air to move out of the conditioned spaces of the building.

Allergen

Definition: A substance capable of causing an allergic reaction because of an individual's sensitivity to that substance.

Allergic Rhinitis

Definition: Inflammation of the mucous membranes in the nose that is caused by an allergic reaction.

American Society for Testing and Materials

### Term

Definition: A consensus-based standard setting organization. See www.astm.org

Acronym: ASTM

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

Definition: An international group which is organized for the purpose of advancing the arts and sciences of heating, ventilation, air conditioning and refrigeration through research, standards writing, continuing education and publications. See www.ashrae.org

Acronym: ASHRAE

**Animal Dander** 

Definition: Tiny scales of animal skin.

**Antimicrobial** 

Definition: Agent that kills microbial growth. See "disinfectant," "sanitizer," and "sterilizer."

Arrestance

Definition: The ability of a filter to remove injected standard dust from the test air.

**Augmentation Parameters** 

Definition: Augmentation parameters are additional parameters that were measured at some of the buildings in the program.

Augmentation parameters for the BASE study included nicotine, air handling unit continuous air stream carbon dioxide, acetaldehyde,

### Term

biologicals in dust, air infiltration rate. Measurements of augmentation parameters were considered for inclusion at selected buildings based on considerations of the research objectives, historical data, integration potential of the measurement results with other studies, and other factors as deemed appropriate by the EPA Program Manager.

Backdrafting

Definition: A condition caused by negative pressure in the home in which the exhaust from combustion equipment such as hot water heaters, fireplaces, or furnaces, is sucked back down the flue and into the house.

**Biological Contaminants** 

Definition: 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." (See http://www.epa.gov/iaq/biologic.html)

**Breathing Zone** 

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

**Building Code** 

Definition: Criteria or requirements (i.e., minimum standards) set forth and enforced by a state or local agency for the protection of public health and safety. Is usually based on a model code (see below) and/or Model Standards published by acknowledged organizations or associations.

**Building Envelope** 

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### Term

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

**Building-Related Illness** 

Definition: 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). Also: A discrete, identifiable disease or illness that can be traced to a specific pollutant or source within a building. (Contrast with "Sick building syndrome").

Acronym: BRI

Carbon Dioxide

Definition: A colorless, odorless, and tasteless product of combustion. All combustion processes and human metabolic processes are sources of CO. Concentrations of CO from people are always present in all occupied buildings, and at concentrations normally found in buildings, CO is not a health hazard.

Acronym: CO

Carbon Monoxide

Definition: A colorless, odorless, and tasteless gas which results from combustion of fuels. It is often associated with combustion heating devices (e.g. boilers, furnaces) and auto, truck, or bus exhaust from attached garages, nearby roads, or parking areas. At moderate concentrations, angina, impaired vision, and reduced brain function may result. At higher concentrations, CO exposure can be fatal.(See http://www.epa.gov/iaq/co.html)

Acronym: CO

Ceiling Plenum

### Term

Definition: 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.

Centers for Disease Control and Prevention

Definition: An agency of the Department of Health and Human Services whose mission is to promote health and quality of life by preventing and controlling disease, injury, and disability. See www.cdc.gov

Acronym: CDC

Central Air Handling Unit

Definition: This is the same as an Air Handling Unit, but serves more than one area.

Acronym: Central AHU

**Chemical Sensitization** 

Definition: Evidence suggests that some people may develop health problems characterized by effects such as dizziness, eye and throat irritation, chest tightness, and nasal congestion that appear whenever they are exposed to certain chemicals. People may react to even trace amounts of chemicals to which they have become "sensitized."

**Combination Foundations** 

Definition: Buildings constructed with more than one foundation type; e.g., basement/crawlspace or basement/slab-on-grade.

Commissioning

Definition: Start-up of a building that includes testing and adjusting HVAC, electrical, plumbing, and other systems to assure proper

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#### Term

functioning and adherence to design criteria. Commissioning also includes the instruction of building representatives in the use of the building systems.

Condensation

Definition: The transformation of the water vapor content of the air into liquid water on cold surfaces. The beads or drops of water (or frost in extremely cold weather) that accumulate on the inside of the exterior covering of a building when warm, moisture-laden air from the interior reaches a point where the temperature no longer permits the air to sustain the moisture it holds.

Conditioned Air

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

**Conditioned Space** 

Definition: The part of the home that is meant to be heated and/or cooled. Typically includes the living area; may or may not include unfinished basements, crawlspaces, and attics.

Constant Air Volume Systems

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

Core Parameters

Definition: Core parameters are parameters for which measurements were required for all EPA-sponsored building studies and meet the following general criteria: Provide physical, comfort, or environmental information pertaining to the study areas considered

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### Term

necessary for characterizing the overall quality of the indoor environment.; Employ standard methods that provide measurement data with sufficient sensitivity, selectivity, precision, and accuracy to adequately characterize the indoor environment as it exists in a range of large buildings.; Employ measurement methods that are easy to implement in the field, create minimal burden on the building space and occupants during monitoring, and are relatively inexpensive to perform.

Cubic Feet per Minute

Definition: The amount of air, in cubic feet, that flows through a given space in one minute. 1 CFM equals approximately 2 liters per

second (l/s).

Acronym: CFM

Dampers

Definition: 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.

Dampproofing

Definition: Sealing the foundation walls to help prevent outside moisture from entering the basement.

**Detection Frequency** 

Definition: See Fixed site, Integrated measurement, Mobile site, and Real-time measurement.

**Diffusers And Grilles** 

Definition: Components of the ventilation system that distribute and return air to promote air circulation in the occupied space. As

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#### Term

used in this document, supply air enters a space through a diffuser or vent and return air leaves a space through a grille.

Disinfectants

Definition: 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.

Drain Tile Loop

Definition: A continuous length of drain tile or perforated pipe extending around all or part of the internal or external perimeter of a basement or crawlspace footing.

Drain Trap

Definition: A dip in the drain pipe of sinks, toilets, floor drains, etc., which is designed to stay filled with water, thereby preventing sewer gases from escaping into the room.

**Dust Spot Efficiency** 

Definition: A measure of the ability of a filter to remove atmospheric dust from air (expressed in percent).

**Environmental Agents** 

Definition: 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).

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#### Term

**Environmental Tobacco Smoke** 

Definition: Mixture of smoke from the burning end of a cigarette, pipe, or cigar and smoke exhaled by the smoker (also secondhand smoke (SHS) or passive smoking). (see http://www.epa.gov/smokefree/index.html)

Acronym: ETS

**EPA Map of Radon Zones** 

Definition: A U.S. EPA publication depicting areas of differing radon potential in both map form and in state specific booklets. (See http://www.epa.gov/radon/zonemap.html)

**Ergonomics** 

Definition: 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).

**Exhaust Ventilation** 

Definition: Mechanical removal of air from a portion of a building (e.g., piece of equipment, room, or general area).

Exposure

Definition: The initial contact of the body with a substance.

Fixed Site

#### Term

Definition: Four fixed, or stationary, indoor monitoring locations and a fixed outdoor monitoring location as close as possible to the fresh air intake of the primary air handling unit, or AHU, serving the study space were established in each building. For three of these fixed sites, integrated, continuous, and real-time monitoring was conducted. At the fourth fixed site, only continuous monitoring was conducted. Equivalent sample sets are collected at the three fixed indoor and fixed outdoor locations.

Flashing

Definition: Material for allowing proper drainage around the joints and angles of the roof and penetrations through the roof and walls.

Flow Hood

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

Footing

Definition: The supporting base for the foundation walls.

Formaldehyde

Definition: A colorless water-soluble gas. Due to its wide use, it is frequently considered separately from other VOCs. Materials containing formaldehyde include building materials, furnishing, and some consumer products. Formaldehyde has a pungent odor and is detected by many people at levels of about 100 parts per billion (ppb). Besides the annoyance, it also causes acute eye burning and irritates mucous membranes and the respiratory tract. EPA has determined formaldehyde to be a probable human carcinogen. See also www.epa.gov/iag/formaldehyde.html

Fungi

#### Term

Definition: Any of a group of parasitic lower plants that lack chlorophyll, including molds and mildews.

**Gas Sorption** 

Definition: 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.

Governmental

Definition: In the case of building codes, these are the State or local organizations/agencies responsible for building code enforcement.

Heating, Ventilation, and Air-Conditioning system

Acronym: HVAC

High Efficiency Particulate Arrestance (filters)

Acronym: HEPA

**Humidifier Fever** 

Definition: A respiratory illness caused by exposure to toxins from microorganisms found in wet or moist areas in humidifiers and air conditioners. Also called air conditioner or ventilation fever.

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### Term

Hypersensitivity Diseases

Definition: Diseases characterized by allergic responses to pollutants. 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.

Hypersensitivity Pneumonitis

Definition: A group of respiratory diseases that cause inflammation of the lung (specifically granulomatous cells). Most forms of hypersensitivity pneumonitis are caused by the inhalation of organic dusts, including molds.

IAQ Backgrounder

Definition: A component of the IAQ Tools for Schools Action Kit (http://www.epa.gov/iaq/schools/actionkit.html) that provides a general introduction to IAQ issues, as well as IAQ program implementation information.

IAQ Checklist

Definition: A component of the IAQ Tools for Schools Action Kit (http://www.epa.gov/iaq/schools/actionkit.html) 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. The Checklists are to be completed by the staff and returned to the IAQ Coordinator as a record of activities completed and assistance as requested.

**IAQ** Coordinator

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

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Term

IAQ Management Plan

Definition: A component of the IAQ Tools for Schools Kit, specifically, a set of flexible and specific steps for preventing and resolving IAQ problems.

IAQ Team

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

**Indicator Compounds** 

Definition: 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).

Indoor Air Pollutant

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

**Indoor Air Quality** 

Definition: A term referring to the air quality within and around buildings and structures, especially as it relates to the health and comfort of building occupants.

Acronym: IAQ

**Integrated Measurement** 

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### Term

Definition: Integrated measurement involves collection of samples over a selected, or integrated, time period in the field. The collected sample is then sent to a laboratory for analysis. In the BASE study these methods were generally used to collect samples at fixed sites during a nominal eight to nine-hour period equating to the normal occupant working hours. Integrated bioaerosol samples were also collected over an integrated period, but over a 2 or 5 minutes sampling time period.

**Integrated Pest Management** 

Definition: See also www.epa.gov/pesticides/food/ipm.htm

Acronym: IPM

Local Exhaust

Definition: Fans used to exhaust pollutants and moisture at or near their source. Bath fans, range hoods, and utility room fans are all examples of local exhaust.

Make-Up Air

Definition: See "Outdoor Air Supply."

Mechanically Ventilated Crawlspace System

Definition: A system designed to increase ventilation within a crawlspace, achieve higher air pressure in the crawlspace relative to air pressure in the soil beneath the crawlspace, or achieve lower air pressure in the crawlspace relative to air pressure in the living spaces, by use of a fan.

Microbials

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Term

Definition: See "Biological Contaminants".

Microbiologicals

Definition: See "Biological Contaminants."

Minimum Efficiency Reporting Value

Definition: Consumers can select a particle removal air filter by looking at its efficiency in removing airborne particles from the air stream that passes through it. This efficiency is measured by the minimum efficiency reporting value (MERV) for air filters installed in the ductwork of HVAC systems. The American Society of Heating, Refrigerating and Air-Conditioning Engineers, or ASHRAE developed this measurement method. MERV ratings (ranging from a low of 1 to a high of 20) also allow comparison of air filters made by different companies.

Acronym: MERV

Mobile Site

Definition: A mobile cart was used for making measurements at all of the indoor mobile locations. Typically there were five mobile sites, four of which were collocated with four fixed indoor sites. The mobile cart was configured with battery powered, real-time monitors for CO, temperature, and relative humidity. In addition, the mobile monitoring cart included an airflow capture hood that was used to record the supply air delivery from the air outlet diffusers closest to each mobile monitoring site. Qualitative information related to odors, cleanliness, and noise were collected at each mobile site using a standardized checklist.

Model Building Codes

Definition: The building codes published by the 4 Model Code Organizations and commonly adopted by state or other jurisdictions to

### Term

control local construction activity.

Model Code Organizations

Definition: Includes the following agencies and the model building codes they promulgate: Building Officials and Code Administrators International, Inc. (BOCA National Building Code/1993 and BOCA National Mechanical Code/1993); International Conference of Building Officials (Uniform Building Code/1991 and Uniform Mechanical Code/1991); Southern Building Code Congress, International, Inc. (Standard Building Code/1991 and Standard Mechanical Code/1991); and Council of American Building Officials (CABO One- and Two-Family Dwelling Code/1992 and CABO Model Energy Code/1993).

Multiple Chemical Sensitivity

Definition: A condition in which a person reports sensitivity or intolerance (as distinct from "allergic") to a number of chemicals and other irritants at very low concentrations. There are different views among medical professionals about the existence, causes, diagnosis, and treatment of this condition.

Acronym: MCS

National Institute for Occupational Safety and Health

Definition: A part of the Centers for Disease Control and Prevention (CDC) and is the only federal Institute responsible for conducting research and making recommendations for the prevention of work-related illnesses and injuries. See www.cdc.gov/niosh

Acronym: NIOSH

**Natural Ventilation** 

Definition: The movement of air into and out of a home through random holes and cracks, and open windows and doors. The air

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#### Term

movement is caused by wind and by temperature differences (which drives the stack effect).

**Negative Pressure** 

Definition: 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. Under this condition, if an opening exists, air will flow from surrounding areas into the negatively pressurized space.

Off-Gassing

Definition: The production of gases from the chemical deterioration of a substance over time, and the release of gases from materials into the air.

**Organic Compounds** 

Definition: Chemicals that contain carbon. Volatile organic compounds (see http://www.epa.gov/iaq/voc.html) vaporize at room temperature and pressure. They are found in many indoor sources, including many common household products and building materials.

**Outdoor Air Supply** 

Definition: Air brought into a building from the outdoors (often through the ventilation system) that has not been previously circulated through the system. Also known as "Make-Up Air."

Parts Per Billion

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Term

Acronym: PPB

Parts Per Million

Definition: 1 ppm = 10 or .0001%, and 1% = 10,000 ppm.

Acronym: PPM

Passive Radon-Reduction System

Definition: Short for "passive sub-slab depressurization system". Approach for reduction of radon levels which utilizes barriers to radon entry and stack effect reduction techniques to reduce the rate of radon entry, plus the installation of a PVC pipe running from beneath the slab to the roof to vent radon gas.

**Passive Smoking** 

Permissible Exposure Limits

Definition: Standards set by the Occupational, Safety and Health Administration - OSHA. See

http://www.osha.gov/SLTC/pel/index.html

Acronym: PELs

Picocurie

Definition: A unit for measuring radioactivity, often expressed as picocuries per liter (pCi/L) of air. "Pico (p)" is a metric prefix that means one one-millionth of one one-millionth. A picocurie is one one-millionth of one one-millionth of a Curie (Ci).

Acronym: pCi

### Term

Plenum

Definition: Air compartment connected to a duct or ducts. For example, a ceiling plenum is the space above the suspended ceiling and below the floor above that is used as part of the air distribution system.

**Pollutant Pathways** 

Definition: Avenues for distribution of pollutants in a building. HVAC systems are the primary pathways in most buildings; however all building components interact to affect how air movement distributes pollutants. Also - a term used in the IAQ Tools for Schools: IAQ Coordinator's Guide (http://www.epa.gov/iaq/schools/tfs/guidtoc.html).

Positive Pressure

Definition: 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. Under this condition, if an opening exists, air will flow from the positively pressurized space into surrounding areas.

**Pressed Wood Products** 

Definition: A group of materials used in building and furniture construction that are made from wood veneers, particles, or fibers bonded together with an adhesive under heat and pressure.

Pressure, Static

Definition: In flowing air, the total pressure minus velocity pressure. The portion of the pressure that pushes equally in all directions.

Pressure, Total

#### Term

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

Pressure, Velocity

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

Preventive Maintenance

Definition: 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.

Acronym: PM

Psychogenic Illness

Definition: This syndrome has been defined as a group of symptoms that develop in an individual (or a group of individuals in the same indoor environment) who are under some type of physical or emotional stress. This does not mean that individuals have a psychiatric disorder or that they are imagining symptoms.

**Psychosocial Factors** 

Definition: Psychological, organizational, and personal stressors that could produce symptoms similar to those caused by poor indoor air quality.

Radiant Heat Transfer

#### Term

Definition: 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

Definition: A radioactive gas formed in the decay of uranium. (See http://www.epa.gov/radon/index.html)

Acronym: Rn

Radon Daughters

Definition: See "Radon Decay Products".

Radon Decay Products

Definition: The radon decay products (also called radon daughters or progeny) can be breathed into the lung where they continue to release radiation as they further decay.

Radon Progeny

Definition: See "Radon Decay Products".

Re-Entrainment

Definition: 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-Entry

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### Term

Definition: 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.

Real-time Measurement

Definition: Methods that use real-time instruments are used to sample and measure the parameter continuously, such as sound level, luminance, carbon dioxide, etc. Instantaneous measurements may be recorded or they may be averaged over a designated time interval. When these monitors are portable, they can be moved throughout the study space to perform measurements at several locations.

Recommended Exposure Limits

Definition: Recommendations made by the National Institute for Occupational Safety and Health (NIOSH).

Acronym: RELs

Sanitizer

Definition: One of three groups of antimicrobials 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.

Secondhand Smoke

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Term

Acronym: SHS

**Short-Circuiting** 

Definition: Situation that occurs when the supply air flows to return or exhaust grilles before entering the breathing zone (area of a room where people are). 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

Definition: Term that refers to a set of symptoms that affect some number of building occupants during the time they spend in the building and diminish or go away during periods when they leave the building. Cannot be traced to specific pollutants or sources within the building. (Contrast with "Building related illness").

Acronym: SBS

Soil Gas

Definition: The gas present in soil which may contain radon.

Soil-Gas-Retarder

Definition: A continuous membrane or other comparable material used to retard the flow of soil gases into a building.

Sones

Definition: The sone is a linear unit (measure) of loudness which allows a simplified comparison of fan loudness. For example, a fan which is 3.0 sones is three times as loud as a fan at 1.0 sones.

### Term

Sources

Definition: Sources of indoor air pollutants. Indoor air pollutants can originate within the building or be drawn in from outdoors. Common sources include people, room furnishings such as carpeting, photocopiers, art supplies, etc.

Stack Effect

Definition: The overall upward movement of air inside a building that results from heated air rising and escaping through openings in the building super structure, thus causing an indoor pressure level lower than that in the soil gas beneath or surrounding the building foundation.

Static Pressure

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

Sterilizer

Definition: One of three groups of antimicrobials 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."

Sub-Membrane Depressurization System

Definition: A system designed to achieve lower sub-membrane air pressure relative to crawlspace air pressure by use of a fanpowered vent drawing air from under the soil-gas-retarder membrane.

### Term

Sub-Slab Depressurization System (Active)

Definition: A system designed to achieve lower sub-slab air pressure relative to indoor air pressure by use of a fan-powered vent drawing air from beneath the slab.

Sub-Slab Depressurization System (Passive)

Definition: A system designed to achieve lower sub-slab air pressure relative to indoor air pressure by use of a vent pipe routed through the conditioned space of a building and connecting the sub-slab area with outdoor air, thereby relying solely on the convective flow of air upward in the vent to draw air from beneath the slab.

Tempered Air

Definition: See "Conditioned Air".

Threshold Limit Values

Definition: Guidelines recommended by the American Conference of Governmental Industrial Hygienists.

Acronym: TLVs

**Total Volatile Organic Compounds** 

Definition: See "Volatile Organic Compounds (VOCs)"

Acronym: TVOCs

**Tracer Gases** 

#### Term

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

**Unit Ventilator** 

Definition: A fan-coil unit package device for applications in which the use of outdoor- and return-air mixing is intended to satisfy tempering requirements and ventilation needs.

United States Environmental Protection Agency

Acronym: EPA

Variable Air Volume System

Definition: Air handling system that conditions the air to constant temperature and varies the outside airflow to ensure thermal

comfort.

Acronym: VAV

Ventilation Air

Definition: Defined as the total air, which is a combination of the air brought inside from outdoors and the air that is being re-circulated within the building. Sometimes, however, used in reference only to the air brought into the system from the outdoors; this document defines this air as "outdoor air ventilation."

Ventilation Rate

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### Term

Definition: The rate at which outdoor air enters and leaves a building. Expressed in one of two ways: the number of changes of outdoor air per unit of time (air changes per hour, or "ach") or the rate at which a volume of outdoor air enters per unit of time (cubic feet per minute, or "cfm").

Volatile Organic Compounds

Definition: Compounds that vaporize (become a gas) at room temperature. Common sources which may emit VOCs into indoor air include housekeeping and maintenance products, and building and furnishing materials. 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.

Acronym: VOCs

Zone

Definition: The occupied space or group of spaces within a building which has its heating or cooling controlled by a single thermostat.

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