



Energy Efficiency and Air Quality Terms

- *Antimicrobial*—inherent property that rapidly kills a wide range of harmful microbes on contact.
- *Aspergillus niger*—a fungal pathogen that causes the black mold disease on certain fruits and vegetables and is a common contaminant of food. It is ubiquitous in soil.
- *Aspergillus flavus*—a fungal pathogen that causes post-harvest disease in cereal grains and legumes.
- *Aspergillus fumigatus*—a fungal pathogen typically found in decaying organic matter such as compost heaps. It is the most frequent cause of invasive fungal infection in immunosuppressed individuals, most often in the lungs.
- *Assay*—examination and determination as to characteristics.
- *Bacteria*—constitute a large domain of microorganisms, some being pathogenic, that do not possess a cell structure with a nucleus containing their DNA but all their components (proteins, DNA) are located together enclosed by a cell membrane rather than separated into cellular compartments. They have a vital role in recycling nutrients in the ecosystem. Antibiotic resistant strains of *Staphylococcus aureus* and *Enterococcus faecalis*, among others, are responsible for hospital-acquired infections.
- *Biofilm*—an aggregate of microorganisms such as bacteria and fungi in which cells adhere to each other and colonize on a surface. The biofilm grows through combination of cell division and recruitment.
- *Coupons*—small strips of either copper or aluminum attached onto a heat exchanger and pulled out later for lab testing for either bacteria or fungus growth.
- *Escherichia coli (E. coli)*—a rod-shaped bacterium commonly found in the lower intestine of warm blooded organism. Most *E. coli* strains are harmless but some like O157:H7 can cause serious food poisoning in humans.
- *Fungus, fungi*—member of a large group of organisms that includes yeasts, molds and mushrooms. They are classified as a kingdom separate from plants, animals and bacteria. The *Aspergillus* species are included in this group.
- *HVAC system*—heating, ventilating and air conditioning system for conditioning air by temperature and humidity.
- *Heat exchanger*—internal component of an air conditioner for transferring heat from one medium to another, from air-handling coils to refrigerant or from refrigerant to air-handling coils.
- *Heat flow rate*—quantity of heat being transferred over time measured in Joules per second or Watts.
- *In situ*—in the natural or original position or place.

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- *In situ viability assay*—microbiological analytical method of growing cultures or using special microscopy to determine whether microorganisms like bacteria or fungi survive in certain environments and are able to germinate or multiply or not.
- *Pathogen*—a microorganism that is an infectious agent such as a virus, bacterium or fungus.
- *Spores*—a reproductive seed emitted from a microorganism.
- *Ultraviolet germicidal irradiation (UVGI)*—disinfection method that uses ultraviolet light at sufficiently short wavelengths to kill microorganisms and is used in food, air and water purification.