# To *Ventilate* or not to *Ventilate*?

Exposure to noxious emissions generated in enclosed workspaces can be a serious health hazard. Inhaling small doses of a toxic substance over a long period of time can result in a chemical being ingested faster than the body can eliminate it. Serious cases of such exposure can be lethal or cause long term health issues, so it is important to understand what exposure levels are safe when dealing with noxious fumes and gasses. General and localized ventilation are frequently applied to help reduce the risks of harmful exposure.

General ventilation is the process of diluting noxious fumes with large amounts of clean air in order to reduce the overall fume concentration to safe levels. This method typically uses a large roof or wall mounted blower that induces mixing air into and out of the workspace. General ventilation is not always effective in removing all of the noxious fumes or gasses and requires more make-up air units to constantly heat or cool the induced air.

Local ventilation is the method of capturing and removing the noxious emissions at the point of generation. Local ventilation systems are more effective than general ventilation systems because they are designed to capture and remove emissions prior to their escape into the workplace environment. Typically, an exhaust fan connected to one end of the ductwork draws the emissions and transports them away from the workspace. This method is more economical because it requires far less air mixing than general ventilation, and is safer because the emissions are extracted before the possibility of exposure.

Noxious fume and gas extraction is important to the safety of workers in many industries. Applications that deal with automotive exhaust and welding fumes are prime examples of when it is appropriate to ventilate. Other applications include: Metal Fabrication (dust and oil mist), Dust Collection (saw dust), Electronics Manufacturing (soldering fumes), Laboratories (chemical production and handling), Pharmaceuticals, and Food Processing. Visit **www.ventaire.com** for more information on noxious emission ventilation systems for all of your workspace needs.

For more information on health and safety standards:

**Occupational Safety and Health Administration:** http://www.osha.gov
**Building Officials Code Administrators International:** http://www.iccsafe.org