

# **Ventilation for Safety**

## **WHAT'S AT STAKE**

Ventilation is one of the most important engineering controls available to help provide a safe working environment. Proper ventilation helps keep the air that you breathe free of contaminants. Poor ventilation can cause a variety of problems. They range from hot and stuffy work environments to workplaces that do not have proper control and removal of contaminants such as dusts, gases and particulates.

## **WHAT'S THE DANGER**

There are a number of health and safety hazards that can be caused by poor ventilation. In the simplest case, poor general air circulation can cause the work area to become uncomfortable. When this happens, workers begin to complain of headaches, odors, stinging eyes and tiredness. In some workplaces, lack of proper ventilation can also mean a lack of control of dusts, gases and particulates. A buildup of particulates or gases can result in a fire or explosion hazard. A buildup of contaminants may also result in a variety of illnesses in the workplace. For example, some materials may cause skin rashes and dermatitis. Some contaminants may also be hazardous when inhaled, leading to long-term injury and illness in employees, including lung and heart problems.

## **EXAMPLES**

In coating operations, local exhaust over the dipping tanks is necessary to make sure that the vapors from the solvents in the tank are removed from the work area so that employees are not exposed to them.

In laboratories, it is important for workers to perform their experiments with hazardous or volatile chemicals inside of the

fume hood. In addition, the sash must be kept at the proper height to assure that the airflow into the hood remains at design levels. In office areas, good ventilation helps keep work areas comfortable so that employees can work efficiently.

## **HOW TO PROTECT YOURSELF**

You can also help assure that you are protected by using local exhaust systems, such as fume hoods, when they are necessary. You must also be observant and notice if exhaust fans are turned off or if fume hoods or local exhaust ventilation is not working right. Make sure that your company has a routine maintenance policy and that ventilation equipment is serviced and checked regularly.

## **FINAL WORD**

Control of ventilation and the contaminants in the air is an important way to maintain a safe and healthy work environment. Use the engineering controls provided to help keep your workplace safe.