



Tailgate Safety Talk

Information You Can Use to Prevent Accidents & Injuries

Sick Building Syndrome

During the winter heating season, there may be concerns about heating systems and indoor air quality. Anyone who breathes air inside a building is susceptible to Sick Building Syndrome (SBS). SBS is a building-related illness that can affect a person's respiratory tract. This recently recognized phenomenon may arise because of improperly designed or maintained heating, ventilating and air conditioning (HVAC) systems; office equipment, furniture and supplies; and building operations.

To save energy costs, new buildings are tightly sealed and modern ventilation systems recycle a large portion of inside air. Fresh air may not reach a worker, such as when flexible office partitions interfere with air flow. The problem is made worse by pollutants from furnishings, HVAC systems, modern office equipment, supplies and other sources.

Symptoms of SBS include a stuffy nose, sneezing, a dry cough, tightness of the chest, a sore throat, fatigue, a headache, nausea, skin irritation and burning, itching eyes. Because these symptoms may be a result of a variety of causes, it's hard to pinpoint that they may be the result of SBS. Finding causes of indoor air quality (IAQ) problems is half the battle.

"Indoor air quality problems are very common in the workplace," said Dr. Nachman Brautbar, clinical professor of medicine at the University of Southern California. "For an appropriate diagnosis of the problems associated with sick buildings, one must do an environmental analysis that should include a certified industrial hygienist and ventilation expert." The Penn Air Group, a national company that provides a range of services that includes balancing and testing indoor air, advocates a multi-disciplined approach to solving problems of building-related illnesses. Companies can take six steps to better indoor air quality:

- Consult with management on the nature of any current or past IAQ problems.
- Monitor levels of carbon dioxide, the temperature and relative humidity at three selected locations inside the building by using sensors and data loggers to take continuous readings over the course of a business day.
- Visually inspect major portions of air ducts by means such as fiber-optic technology.
- Physically inspect the air-handling unit to assess the cleanliness and condition of the unit, including the effectiveness of the filtration system.

Take a pressure profile of the air-handling unit to determine the efficiency and effectiveness of the system and inspect the building for possible sources of pollutants inside and outside using an extensive checklist of potential IAQ causes.

Users of this tailgate talk are advised to determine the suitability of the information as it applies to local situations and work practices and its conformance with applicable laws and regulations.