



800 SW Jackson Street, Ste. 812
Topeka, KS 66612

Safety Bulletin: March 2017

Let's Talk About Safety

Date _____

Location _____

Discussion Leader _____

Agenda: Effective Respiratory Protection



The human body cannot store the oxygen it needs to support life; therefore, our lungs must constantly work to oxygenate our blood to support our organs, muscles, and tissues. Together, the lungs, diaphragm, and airways make up our respiratory system, and it something that we must always strive to protect. Choking on objects or drowning are concerns for every person throughout their lives, but the workplace can provide additional hazards.

Depending on your specific workplace, there can be many types of respiratory hazards that can cause immediate effects, long-term effects, or both. Examples could include:

- Harmful dusts (lead, silica, heavy metals)
- Fumes and smokes (welding or smelting fumes)
- Gasses and vapors (chemical exposures)
- Oxygen deficiency (oxidation, displacement, or consumption)
- Biological hazards (airborne bacteria or viruses)

To protect ourselves, we use special devices referred to as respiratory protective equipment, commonly called respirators or masks. Not all respirators are the same; the right respirator must be worn, and worn properly, to address the specific hazards of the area.

Surgical masks are used to limit bacteria-laden liquid droplets and aerosols from passing into the air from the wearer's mouth and nose. These paper masks are not respirators, and have no certification from the National Institute for Occupational Safety and Health (NIOSH).

The most basic of NIOSH certified masks are loose-fitting respirators, commonly called dust masks. Along with tight-fitting respirators, commonly in half-face and full-face models, these make up a class of respiratory protection known as Air-Purifying Respirators (APR). These respirators are used when the air around you would be healthy to breathe if a contaminant of some sort were to be removed. By use of specialized filters, cartridges, and canisters, these respirators can remove harmful particles, fibers, fumes, and certain vapors.

When an atmosphere has low concentrations of oxygen, or contaminants which would be immediately dangerous to life and health (IDLH), the use of atmosphere-supplying respirators (ASR) is needed. An ASR is usually found as a Self-Contained Breathing Apparatus (SCBA) involving a tank carried on the back connected to a facepiece.

The type and specifics of the respirator needed for your workplace area is determined by a hazard assessment. If it has been determined that respiratory protection of any kind is necessary for your work, you must take some steps to ensure that the respirator offers effective protection.

- Before using a respirator, complete necessary medical screening and fit testing to ensure the respirator will not create an additional hazard and will effectively seal. Fit testing must be completed annually.
- Inspect your respirator prior to each use for damage or contamination.
- Ensure APRs have the appropriate cartridge or filter for the hazard.
- Perform a user seal check after donning a respirator facepiece.
- Clean and properly store respirators after each use.
- Replace any parts, cartridges, filters, or units that are damaged or become saturated with contaminant.
- Maintain a good shave so that no hair impinges upon any area of the respirator seal.

1. What safety problems have you observed on our jobs?

2. What job related injuries have we had since our last meeting?

3. Today's Topic:
