Job site:	Date:	
Foreman:	G.C	

SMOHIT Safety SenseToolbox Talks for the Sheet Metal Industry

Air-Monitoring Systems

- One deadly danger on the job site can be hazardous gases. Because gases can rarely been seen and sometimes not even smelled, an airmonitoring system is critical for detection.
- There are two types of air-monitoring systems used for gas detection—fixed systems and portable systems. Choosing the right system for the job is important.
- The type of hazard greatly influences the type of warning system. The importance to warn against rapidly acting hazards like oxygen deficiency is much greater than that needed for slower acting agents, like carbon monoxide.
- It is important to know whether the hazard is associated with the work being performed or whether chemicals used in or near the area contribute to an air hazard. It is also important to know whether the sources of contaminants that are remote from the area would be a risk under emergency circumstances.
- Air hazards present in areas where workers routinely enter without special precautions must be monitored on a continuous basis. In this case, you would choose to use a permanent or fixed gas detection system.
- The physical nature of the area affected helps to determine the airmonitoring system used. For instance, is the entire facility affected or only a small part of the general facility? Is the affected area located inside or outside? Does it have good ventilation, or is it located in a confined area that prevents rapid dispersal of contaminants? Fixed systems are ideal for continuous monitoring.
- One major advantage of a fixed detection system is that workers entering the monitored area are usually not involved in the day-to-day operation of the system, so a fixed system combined with permanently installed ventilation may turn a hazardous area into a nonhazardous area.

Instructor Tips

- Ask workers if they have ever had to work in a hazardous atmosphere area.
- Explain the differences between a fixed and portable detection system.

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Reference: National Center for Energy Management and Building Technology