A MINI TRAINING SESSION FOR INJURY PREVENTION

Quick Take on Safety

Carbon Monoxide

TRAINING OVERVIEW AND OBJECTIVES

Overview: This training discusses the hazards of carbon monoxide and methods to control the risk.

Purpose: This talk is designed to refresh employees about the dangers of carbon monoxide and methods to address dangers with the goal of preventing injuries.

Preparation:
- Read and become familiar with this quick take. *Change as needed to reflect procedures and personnel in your department.*
- Review the emergency action plans for your organization; identify evacuation meeting points and methods to account for all employees.
- Identify ventilation intakes both inside and outside.

Handouts: Quick Review of Safety—Carbon Monoxide

Notes: Minnesota OSHA does not recommend the use of residential carbon monoxide detectors as these detectors may alarm at different points and therefore expose employees to levels above MN OSHA limits without activating. As a result, CO detectors need not be placed close to the ground.

Carbon Monoxide and Hazards

Carbon monoxide is a colorless, tasteless and odorless gas. It is also known as CO. Exposure to carbon monoxide can cause health problems:

- From relatively mild flu-like symptoms of headache, dizziness, weakness, upset stomach, vomiting, chest pain and confusion;
- To serious tissue or brain damage, or death from high levels or prolonged exposure.

Risk of carbon monoxide exposure increases in winter because buildings are sealed against the cold, so carbon monoxide cannot escape through open windows and doors. Garages with idling or operating vehicles and fuel-burning furnaces or equipment offer the greatest risks of concentrated CO levels. Even burning propane releases carbon monoxide.

Carbon monoxide is slightly lighter than air and spreads normally throughout a room, so moving to a higher elevation does not reduce exposure.

Carbon monoxide exposure can be serious, but with proper preparation and controls, it can be minimized. Your health and safety is important to us, we don't want you to get hurt.

Prevention

To keep us safe, we need to learn the symptoms of carbon monoxide poisoning and the emergency procedures to follow when an alarm sounds. I'll go through best practices to help ensure that our systems are operating as they should and that we know how to react if carbon monoxide builds to hazardous levels. We should

- Maintain clearance around ventilation intakes. Items positioned close to intakes can affect air flow. If CO alarms activate, evacuate immediately and inform supervisors or management of the problem. [*Instructor Prompt:* allow participants to hear a CO alarm to become familiar with the sound.]
  - Prevent others from entering the affected area.
  - If we have to evacuate the facility, the meeting point is_____. [*Instructor Prompt:* have participants answer where the meeting point is.]
- Opening windows or doors will not reduce carbon monoxide to safe levels immediately. If an alarm goes off, evacuate the building and wait until you are given approval to reenter.
- Any vehicle or piece of equipment that produces CO should be operated outdoors or with proper ventilation.
- When servicing running vehicles, discharge exhaust outside using a duct or flexible hose connected to a mechanical exhaust system. [*Instructor Prompt:* Have participants explain where these items are or explain their locations yourself.]
- Maintain all vehicles and equipment regularly. Poorly maintained or damaged equipment may create more carbon monoxide.
- If the ventilation equipment stops working, report the situation to your supervisor or management. Stop operating fuel-burning equipment until the area is well-ventilated.
- Do not operate carbon monoxide-generating vehicles or equipment by a facility's fresh air intake vents.

If Exposed

If you or your co-workers are exposed to elevated levels of carbon monoxide:

- Exit the area and seek immediate medical attention if you suspect you may have CO poisoning.
- Alert a supervisor.
- Warn others to avoid entering the affected area.

DISCUSSION QUESTIONS

- What are the signs and symptoms of carbon monoxide poisoning?
- How should we react if we suspect high CO levels in a work space?
- How can we maintain adequate ventilation around air vents?

ADDITIONAL ACTIVITIES

- Identify air intake vents both inside and out and check for clearance.

Carbon Monoxide Session Planning and Review

Trainer	Training Date
Department(s)	

TRAINING GOALS

- Employees understand the hazards associated with carbon monoxide.
- Employees know the basic symptoms of carbon monoxide exposure.
- Employees understand how to prevent the accumulation of hazardous levels of carbon monoxide.

RESOURCES

- Minnesota Administrative Rules 5205.0116 Carbon Monoxide Monitoring, and 5205.0200 Garage Ventilation, *Revisor.mn.gov*
- Minnesota Department of Labor and Industry Occupational Safety and Health, Minnesota OSHA Compliance, "Carbon Monoxide Monitoring," *DLI.mn.gov*
- Centers for Disease Control and Prevention, "Carbon Monoxide Poisoning," *CDC.gov*

REVIEW

Did the training meet the stated goals?

How can the training be improved?

TRAINER COMMENTS

Attendance Record

Training Session Carbon Monoxide

Trainer Training Date

Participant Name (printed)	Participant Signature