



Construction Risk Advisor

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Protecting Construction Workers From Carbon Monoxide Poisoning

Carbon monoxide (CO) is a poisonous gas that lacks a detectable color, taste or odor. Breathing in this invisible gas can displace the oxygen in a person's blood, as well as deprive their vital organs of oxygen. In large amounts, CO can affect an exposed individual within minutes, ultimately causing them to lose consciousness and suffocate. Employees across industries are at risk of CO poisoning on the job, including construction workers. After all, OSHA considers such poisoning a "common industrial hazard" that stems from the incomplete burning of materials containing carbon (e.g., gasoline, propane, kerosene, coal or wood). This means that using fuel-powered equipment in enclosed spaces can pose significant CO risks. As winter weather arrives and many construction operations are moved to indoor or otherwise confined job sites, it's crucial for employers to take steps to help safeguard their workers from CO poisoning. Here are some measures to consider:

- **Follow OSHA standards.** OSHA's permissible exposure limit (PEL) for CO is 50 parts per million (ppm). Specifically, workers cannot be exposed to an average of more than 50 ppm of CO during an eight-hour time period. As such, all employers should set up all construction tasks and operations in a way that maintains compliance with OSHA's PEL.
- **Ensure adequate ventilation.** A quality ventilation system is critical for removing CO from work areas, especially enclosed spaces. Employers should assess these systems regularly to ensure effectiveness and conduct routine tests of the air within areas where CO could be present.
- **Prioritize equipment safety.** Because fuel-powered equipment can produce CO, it's important for employers to promote the safe operation of this equipment and keep it in good condition with regular maintenance. In addition, the use of such equipment should never be permitted in poorly ventilated spaces. Further, employers should consider swapping fuel-powered equipment with battery-, electricity- or compressed air-powered alternatives to eliminate potential CO risks.
- **Provide employees with ample protection.** Depending on the nature of workers' tasks and related CO exposure levels, employers may need to provide them with certain types of personal protective equipment (PPE), such as breathing apparatuses or respirators. Apart from supplying PPE, it could be valuable to give employees personal monitors with audible alarms that identify when possible CO hazards are present.
- **Offer training.** To make sure workers are aware of CO risks on the job and how to mitigate them, it's best for employers to offer routine training. Potential training topics may include common sources of CO exposure, tips for safely operating fuel-powered equipment and using required PPE, signs of CO poisoning to watch for (e.g., headache, fatigue, dizziness and nausea), and ways to report CO hazards or related incidents.

For further OSHA resources on CO poisoning, [click here](#). Contact us today at 212-390-8772 / info@toughcomp.com.