

safety matters

Construction

Toolbox Talks

From your safety partners at **Crendon Insurance Brokers Ltd**

Reduce the Risks of Diesel Exhaust Exposure

A variety of construction equipment relies on diesel fuel for power. Unfortunately, diesel emissions contain approximately 20 times more harmful particles than petrol. This means that there is an increased risk for adverse health effects while working around diesel-powered equipment at the job site. To stay safe during your daily operations, it is important to follow safe work practices that will reduce your exposure.

Health Effects of Exposure

In the long-term, occupational exposure to diesel exhaust increases the risk of lung cancer and other lung diseases by 40 per cent. In the short-term, exposure can cause:

- Fatigue
- Drowsiness

- Tightness in the chest
- Wheezing
- Altered sense of smell
- Irritation of the nose, eyes and throat
- Nausea
- Heartburn

If you begin to feel any of these symptoms while working in an area where a diesel engine is running, notify your supervisor and move to an area where you can get some fresh air.

Proper Ventilation is Important

Exposure increases exponentially when dealing with diesel exhaust in an enclosed area. To improve ventilation:

- Run engines indoors only when absolutely necessary.

Diesel emissions contain approximately 20 times more harmful particles than petrol. Be proactive in staying safe around fuel.



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- Attach exhaust extraction hoses to the exhaust pipes of idling vehicles or equipment to direct exhaust outside.
- Use mechanical ventilation systems to help move contaminated air out of the work area.
- Open as many doors and windows as possible to increase circulation.
- Do not run diesel engines near the fresh air intake of a building.
- Use emission control devices such as collectors, particle traps or air scrubbers. Replace any filters and clean such devices regularly.
- Check vehicles' operator compartments for any damage that may allow exhaust to seep in while in use. This could include cracks or holes in the cab's body or damage to weather stripping around doors and windows.

Proper Maintenance Helps

Preventative maintenance practices can reduce the amount of harmful exhaust diesel engines produce.

- Service engines regularly to ensure that they function properly and emit as little exhaust as possible.
- Check for leaks in the exhaust system.
- Never tamper with an engine to try and improve fuel economy. Adjustments may increase emissions.

Personal Protective Equipment (PPE)

If other control methods cannot reduce the amount of exhaust, use proper PPE.

- Only a full-face piece, positive pressure, supplied air respirator can provide adequate protection.
- Make sure that respirators are properly fitted, cleaned, stored and maintained.
- Always use PPE in addition to, and never as a substitution for, other control methods.

