## **Diesel exhaust**

List diesel exhaust-producing equipment on the jobsite.

## **Explain dangers**

Burning diesel fuel creates diesel exhaust. This exhaust is made up of a number of substances, including:

- Carbon
- Carbon monoxide
- Carbon dioxide
- Nitrogen
- Nitrogen oxide
- Particulate matter

Exposure to diesel exhaust can result in negative health effects. Short-term exposure to diesel exhaust may cause you to experience symptoms such as:

- Coughing
- · Eye irritation
- Nose, throat irritation
- Headache
- Nausea
- Light-headedness
- An asthma attack

When you are exposed to diesel exhaust over a long time period (i.e., weeks, months, or years), more serious health effects can occur.

Diesel exhaust is considered a cancer-causing agent: it increases your risk of lung cancer. An association has also been observed between exposure to diesel exhaust and bladder cancer.

Some common ways a worker may be exposed to diesel exhaust are:

- Operating diesel-powered equipment such as:
  - motor vehicles
  - railway locomotives
  - trucks
  - construction vehicles (scissor lifts, boom lifts, telehandlers, etc.)
- Working at mechanic shops/service garages, where vehicles may be idling.
- Working beside diesel generators, power equipment, or trucks.

## **Identify controls**

- Where possible, opt to use battery-operated machinery or tools instead.
- Avoid standing next to operating vehicles, or standing within the loading area when trucks are running.
- Turn off vehicles when they are not needed.
- In indoor spaces, use additional hosing to vent diesel exhaust outdoors (e.g., local tailpipe exhaust ventilation).
- Promote natural ventilation of indoor work areas (by opening garage doors, bay doors, windows, etc.).
- Turn on exhaust fans wherever possible.
  Consider installing additional exhaust fans.
- Never turn on diesel exhaust-producing machines or equipment in an enclosed space unless controls are in place.
- Limit the number of diesel-powered vehicles that are running at any given time, if possible.
- For operators, keep cab door closed when diesel machinery is running.

## **Demonstrate**

With your crew, go over the tasks involving possible exposure to diesel exhaust—and discuss any controls that are in place.

