



The Training Brief

Quick Reference mini-training Topics Diesel Exhaust

The purpose of this training topic is to show the dangers of diesel exhaust and steps you can take to reduce your exposures.

Discussion

What is your Departments policy on the use of exhaust extraction system?

Fact: The exhaust from diesel engines is made up of 2 main parts: gases and soot. Each of these, in turn, is made up of many different substances.

Diesel exhaust, found in every fire station in America, is produced when an engine burns diesel fuel. It is a complex mixture of thousands of gases and fine particles (commonly known as soot) that contain more than forty toxic air contaminants. These include many known or suspected cancer-causing substances, such as benzene, arsenic and formaldehyde. It also contains other harmful pollutants, including nitrogen oxides.

The US Environmental Protection Agency (EPA) concluded in a report made public on Sept. 3, 2002 that long-term exposure to diesel engine exhaust (DE) in the air is linked to lung cancer.

In 2012 the International Agency for Research on Cancer (IARC), which is part of the World Health Organization (WHO), classified diesel engine exhaust as carcinogenic to humans (Group 1), based on sufficient evidence that exposure is associated with an increased risk for lung cancer.

The international Agency for Research on Cancer (IARC) is part of the World Health Organization (WHO). The major goal is to identify causes of cancer. IARC classifies diesel exhaust as "Carcinogenic to humans", based on sufficient evidence that is linked to an increased risk of lung cancer, as well as limited evidence linking it to an increased risk of bladder cancer. Diesel exhaust is believed to play a role in other health problems, such as eye irritations, headache, asthma, and other lung diseases, heart diseases, and possibly immune system problems.

Source: American Cancer Society

- Consideration should be taken in station design to separate Living and Office areas from apparatus bays. Ventilation systems should be used to eliminate contaminated air to these areas.
- Doors and windows should be kept closed between apparatus bays and living quarters and office areas.
- Consideration must also be taken when designing apparatus to minimize and or eliminate unnecessary exposure to apparatus left running at incident scenes and training grounds.
- Consideration should be taken when on emergency response to limit diesel exposure to crews whenever possible.



Make the Necessary Changes