

Danger to Firefighters Starts in the Station

For 20 years world health organizations have researched the health effect of vehicle exhaust emissions. The overwhelming conclusion is that even short term exposure to diesel exhaust causes cancer in humans. Research lists up to **40 individual components** found in diesel exhaust as carcinogenic/possibly carcinogenic to humans.

What is diesel exhaust: Diesel exhaust is composed of very small carbon particles or “soot” along with the non-visible components, such as carbon monoxide. Soot is not only a respiratory danger, but can also be absorbed by the skin. The black coating on walls, ceilings, turn out gear etc., may be **more of a danger to firefighters than the fires.**

Hazards: A study by the University of Cincinnati, (<http://healthnews.uc.edu/news/?/3750?>) showed that firefighters have a 100% higher risk of developing cancer than the general population. Firefighters have a 100% higher risk of **developing testicular cancer**, a 50% higher risk for **multiple myeloma and non-Hodgkin’s lymphoma** and a 28% higher risk of developing **prostate cancer** when compared to non-firefighters.

Solution: Several types of systems and products exist to address this issue, such as positive pressure systems, on board filters, overhead air cleaners and exhaust fans. However, they all have shortcomings and will not eliminate the fumes and soot from passing through the firefighters **breathing zone** or prevent buildup on bays and equipment.

Only a source capture system where a hose is attached directly to the vehicles tailpipe and all exhaust fumes and soot are captured **eliminates virtually 100% of the danger in the station to our firefighters.** Capturing pollutants at the source is specified by all codes and regulations and only a hose based system will meet these codes.

If **YOU** can reduce the *increased risk for firefighter cancer*, isn’t it worth the investment in a system what will allow you to do that?

Research: To assist you with that I have listed the applicable codes and guidelines below. Or you can **contact Nederman at 1-800-533-5286** and we will be happy to work with you in your efforts to eliminate deadly diesel exhaust from your facility.

SUMMARY OF CODES RELATING TO DIESEL EXHAUST

- NIOSH: “Diesel Exhaust Occupational Carcinogen – NIOSH recommends that occupational exposures to carcinogens be limited to the lowest feasible concentration.” www.cdc/niosh
- OSHA: “Local exhaust ventilation that removes harmful fumes at their source, such as a hose to tailpipe or stack exhaust.” www.osha.gov/SLTC/dieselexhaust
- IMC: [“Motor vehicles that are operated shall be provided with a source capture system connected directly to motor vehicles exhaust system. In addition, recirculation of air is prohibited.”](#)
- NPFA-1500 “The fire department shall prevent exposure to fire fighters and contamination of living and sleeping areas to exhaust emissions.” www.nfpa.org