

Operating Guideline # 308

Exhaust Fumes

September 30, 2019



**PURPOSE:**

The purpose of this Operating Guideline (OG) is to establish guidelines to ensure that personnel are not subjected to unnecessary exhaust fumes from vehicles/equipment in the stations.

**ISSUE/RATIONALE:**

Incomplete combustion of fuel fumes as produced by gasoline and diesel powered engines produce gases which may cause irritations to the nose, throat and eyes at low concentrations and may cause serious injury or death at high concentrations. Diesel exhaust is a known carcinogen.

Exhaust produced by diesel engines is made up of two main components: gases and soot. The gas portion of diesel exhaust is mostly carbon dioxide, carbon monoxide, nitric oxide, nitrogen dioxide, sulfur oxides, and hydrocarbons including Polycyclic Aromatic Hydrocarbons (PAHs). The soot (particulate) portion of diesel exhaust is made up of particulates such as carbon, organic materials (including PAHs), and traces of metallic compounds.

Limiting and reducing this exposure is very important in terms of preventing illness and injuries.

**GUIDELINE:**

**General**

1. Fire apparatus or small engines shall not be permitted to run/operate inside the apparatus bays of fire stations for any longer than is necessary. When being started for operational responses, vehicle checks or training, apparatus shall be moved out of the station as soon as possible and shall be positioned far enough from the bay doors to prevent exhaust fumes from entering the station.
2. The bay doors shall be left open long enough so as to vent the apparatus bays of exhaust fumes once apparatus are moved out (or upon their return to the station).
3. Small engines and equipment which must be run for training or maintenance purposes shall be operated outside the station only and away from building openings such as doors and windows. Perform all related tasks in a manner to minimize the exposure to exhaust gases.

**RESPONSIBILITY:**

It is the responsibility of all Emergency Operations Division staff to comply with the provisions of this Operating Guideline.

**REFERENCES:**

- GN #3-01 Reducing Exposure to Diesel Exhaust