

Safety Bulletin



Generator Exhaust Fumes Recommendations and action points

Many companies are now using portable generators during faults or day to day works. The uses vary from, maintaining customers supply to lighting rigs or charging batteries.

Any combustion appliances including portable generators, that burn fossil fuels can emit harmful carbon monoxide gas.

Carbon monoxide (CO) is a colourless, odourless, tasteless, poisonous gas that can cause death or serious harm.

There have been several incidents, that have highlighted generators being positioned close to air brick/vents, windows and windows with open 'trickle vents'. The hazards associated with the use of a portable generators, specifically the potential for emitting carbon monoxide in many cases has not yet been identified on the risk assessments. Please consider this when using this type of equipment.

A warning label should be affixed to portable generators to remind users of the hazards from the exhaust.

- The safety of the operatives and members of the public should be considered before the installation of a generator. A site-specific risk assessment is always recommended.
- Generators must be positioned to keep exhaust fumes away from any possible entry point to buildings, such as windows (open or closed), doors, air vents, flues, inside vehicles, etc.
- Consider public access (slips, trips and falls) with respect to temporary cables.
- Ensure generators are positioned away from open water courses and drains where practicable, with a spill kit available if required. Think about the re fuelling point / ground conditions and never cover the appliance.

It is essential the location of the generator is assessed to ensure it does not introduce a hazard.

Only use generators that have been inspected and maintained properly.

Issue date	12th February 2019	Ref. No	UAG060
------------	--------------------	---------	--------

Safety Bulletin



What are the main health concerns for Generators?

Short term exposure to exhaust can cause coughing, and irritation of the eyes, nose, throat, and respiratory tract. Breathing in exhaust can cause lung irritation and/or an allergic reaction causing asthma (wheezing and difficult breathing) or making pre-existing asthma worse.

Very high levels can lead to asphyxiation from carbon monoxide poisoning.

What are the potential health effects of carbon Monoxide?

Main Routes of Exposure: Inhalation

Inhalation: Low concentrations are not harmful. Higher concentrations can affect respiratory function and cause asphyxiation, followed by depression of the central nervous system. A high concentration can displace oxygen in the air. If less oxygen is available to breathe, symptoms such as rapid breathing, rapid heart rate, clumsiness, emotional upsets and fatigue can result. As less oxygen becomes available, nausea and vomiting, collapse, convulsions, coma and death can occur. Symptoms occur more quickly with physical effort. Lack of oxygen can cause permanent damage to organs including the brain and heart.

What are first aid measures for Carbon Monoxide?

Inhalation: In case of oxygen deficiency: take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). If breathing is difficult, trained personnel should administer emergency oxygen. If the heart has stopped, trained personnel should start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). Immediately call emergency services. Treatment is urgently required. Transport to a hospital.

Issue date	12th February 2019	Ref. No	UAG060
------------	--------------------	---------	--------