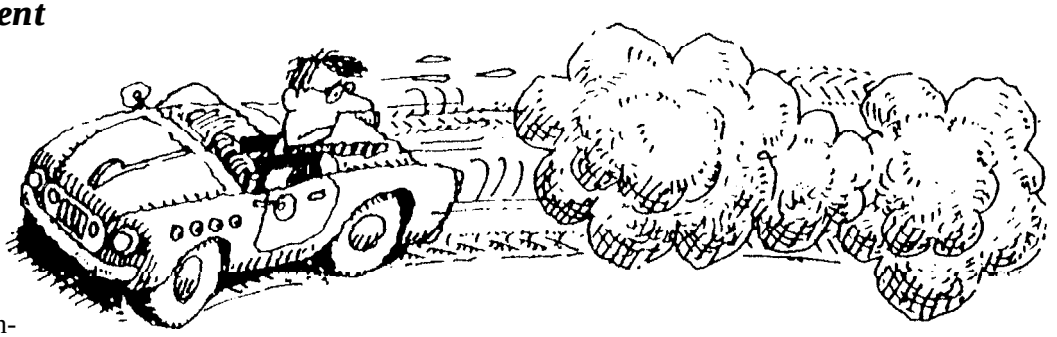
Cost Savings With A Carbon Monoxide Monitoring System

by Gary Oelze AC Equipment



In the last several years, SDG&E has been paying building owners to install energy saving systems. These incentives, lighting retrofits and variable frequency drive retrofits, create an attractive payback and indirectly endorse the savings being proposed. However, even better paybacks come from installing carbon monoxide control systems in parking garages.

Carbon monoxide kills more people each year in this country than any other gas; it is colorless, odorless and tasteless. Early symptoms of carbon monoxide exposure are fatigue, lack of mental clarity and headaches.

Most commercial parking garages contain exhaust fan systems designed to eliminate carbon monoxide. Unfortunately, the cost to operate these fans can be extremely high. For example, a 20 horsepower motor will cost approximately $70,000 to operate for 5 years!

A carbon monoxide control system normally cuts the fan operating costs by about 95 percent. By continuously monitoring the carbon monoxide levels in the garage, the fan is activated only when the level exceeds the 35ppm set point. The system automatically shuts off when the carbon monoxide level is back to a safe range.

A carbon monoxide control system represents significant savings. Building code requires that garages without automatic carbon monoxide sensing devices must continuously operate mechanical ventilation systems:

If a garage requires mechanical ventilation per Section 705 (b)2 and if the ventilation is not modulated by automatic carbon monoxide sensing devices, then the mechanical ventilation system must remain on continuously for the full 24 hours of each day.

Carbon monoxide control systems may be installed in new construction or existing garages for the same price. They include multiple carbon monoxide sensors that are distributed throughout the garage. These sensors are directly connected to fan starters. The best systems have lockable steel enclosures with indication lights and are "fail-safe."

Carbon monoxide systems comply with building codes and can pay for themselves within a year. In addition, they qualify for SDG&E incentives, reduce fan noise and lower owner manager liability.

AC Equipmen Comp[any has devoted itself to provide energy systems that enhance the environment and result in substantial financial return to building owners. They can be reached at 436-2116.