Occupational Safety and Health Administration Permissible Exposure Limits (OSHA PELs)

What are they?

PELs are regulatory limits on the amount or concentration of a substance in the air in a workplace. There are also some PELs for skin exposure to workplace contaminants. Most PELs apply to industry in general, though some are specific to shipyard employment and the construction industry.

How are they used?

Most OSHA PELs apply to the average level of air contamination over an 8-hour period in a workplace. This is called an “8-hour time weighted average (TWA).” There are also short-term exposure limits based on 15-minute periods, and ceiling limits that should never be exceeded. If a business exceeds a PEL, they can be fined. If they exceed PELs regularly, they can be shut down.

How were they determined?

The American Conference of Governmental Industrial Hygienists (ACGIH) regularly publishes a set of guidelines called Threshold Limit Values (TLVs*). In 1972, OSHA adopted the TLVs as official PELs. Even though the TLVs have continued to be updated since then, only a few PELs have been changed in that time. Most PELs have not. Changes have been proposed in the past, but have been blocked in the regulatory process.

How are they related to human health?

The TLV guidelines were theoretically related to human health, but were not originally intended to be hard limits determining safety. PELs are widely criticized by environmental scientists and regulators for being based on outdated science. Many PELs would fail a modern EPA risk assessment. PELs should not be considered protective of human health.

For more

osha.gov/law-regs.html
or check your state's labor law enforcement agency website.