



Airborne Exposure Limits Protective of Pueblo Work Force

Air monitoring within the Chemical Limited Area is a vital part of safely storing chemical agent munitions. The safety of the work force, the community and the environment is always top priority. Mobile laboratories known as Real Time Analytical Platforms (RTAPs) monitor the interior atmosphere of the Pueblo Chemical Depot's 98 storage structures (igloos) on a weekly basis. These storage structures are also monitored for agent detection prior to entry for routine maintenance or inspections. The U.S. Army Chemical Materials Agency Monitoring Office, the Colorado Department of Public Health and Environment, the U.S. Department of Health and Human Services' Centers for Disease Control, and the National Academy of Science's National Research Council conduct oversight of the monitoring data to ensure worker and community protection.



MINICAMS®

The primary monitor used is a Miniature Continuous Air Monitoring System (MINICAMS®). These near real-time monitors sample the air every six to nine minutes and are capable of 24 hour operation when monitoring igloos. Near-real-time data collection is the ability to collect data automatically on demand and have the data delivered and analyzed quickly enough to affect monitoring and control decisions. MINICAMS® are very sensitive and can detect extremely low levels of chemical agent vapor by using a process called gas chromatography.



DAAMS

The Depot Area Air Monitoring System (DAAMS) continually samples the air for chemical agent vapor by drawing the air through glass tubes and trapping any chemical agent vapors in a special material. Sampling times vary from 30 minutes to 12 hours. These tubes are collected and analyzed within 72 hours.

IDLH
(Immediately dangerous to life or health)

- The level at which an unprotected worker could escape within 30 minutes without becoming impaired or experiencing irreversible health effects.

STEL
(Short-term exposure limit)

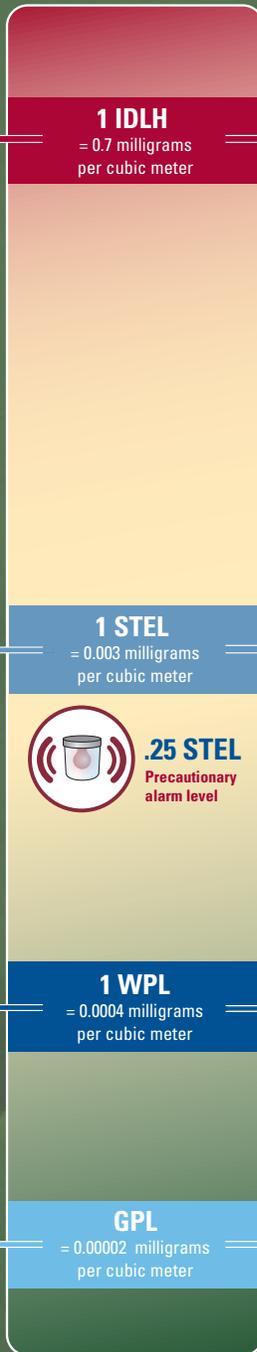
- The level at which an unprotected worker may operate safely for one or more 15-minute periods during an eight-hour workday. Workers take usual protective action when .25 STEL concentration level is reached.

WPL
(Worker population limit)

- The level at which an unprotected worker can operate safely eight hours a day, five days a week for a working lifetime without adverse health effects.

GPL
(General population limit)

- The level at which the unprotected general public can be exposed for 24 hours a day, seven days a week for a long period of time without experiencing any adverse health effects.



Putting it in Perspective

- 1 grain of salt in 51.42 lbs of potato chips
- 1 grain of salt in 6 tons (12,000 lbs) of chips
- 1 grain of salt in 45 tons (90,000 lbs) of potato chips [approximately one 50 ton freight car]
- 1 grain of salt in 900 tons (1,800,000 lbs) of potato chips [18 freight cars of 50 tons]

The AELs on this fact sheet are for Mustard.

