

## What is Grade-D Air Quality?

Breathing air quality standards have been developed by ANSI/Compressed Gas Association (CGA) G-7.1 - 1989, and adopted by OSHA under their respiratory standard 29 CFR, 1910.134 (i) (1) (ii).

### Air Quality Must Meet the Following Requirements:

- Oxygen: 19.5%-23.5% (20%-22% Canada)
- Hydrocarbon (condensed oil): 5 mg/m<sup>3</sup> maximum (<1 mg/m<sup>3</sup> in Canada)
- Carbon Monoxide (CO): 10 ppm maximum (5 ppm in Canada)
- Carbon Dioxide (CO<sub>2</sub>): 1000 ppm maximum (500 ppm in Canada)
- Odor: No noticeable odors, tastes, or smells
- Water Content:
  - High pressure cylinder air** must have a dew point of at least -50°F (-45.6°C) at 1 atmosphere (14.7 psi).
  - Low pressure breathing air** must have a dew point of at least 10°F (5.6°C) below the ambient temperature at 1 atmosphere (14.7 psi)
  - Canada:** 5°C below lowest temperature, 27 ppm maximum water vapor
- Total Volatile Hydrocarbons (Canada): 5 ppm maximum



## Elements of a Type-C/CE Supplied Air System

*All airline respirators are Type-C or Type-CE.*

CE designates an airline respirator approved for abrasive blasting.

**Note:** Type-C/CE is a NIOSH designation for an air supplied breathing air respirator system.



### A Type-C/CE system consists of the following components:

