
29 C.F.R. § 1918.94

Ventilation and atmospheric conditions (See also § 1918.2, definitions of Hazardous cargo, materials, substance or atmosphere and Ro-Ro operations).

(a) *Ventilation with respect to carbon monoxide.* (1) When internal combustion engines exhaust into a hold, intermediate deck, or any other compartment, the employer shall ensure that the atmosphere is tested as frequently as needed to prevent carbon monoxide (CO) concentrations from exceeding allowable limits. Such tests shall be made in the area in which employees are working by persons competent in the use of the test equipment and procedures. If operations are in a deep tank or refrigerated compartment, the first test shall be made within one half hour of the time the engine starts. To decide the need for further testing, the initial test in all other cargo handling areas shall be taken no later than one hour after the time the engine starts.

(i) The CO content of the atmosphere in a compartment, hold, or any enclosed space shall be maintained at not more than 50 parts per million (ppm) (0.005%) as an eight hour average area level and employees shall be removed from the enclosed space if the CO concentration exceeds a ceiling of 100 ppm (0.01%). Exception: The ceiling shall be 200 ppm (0.02%) instead of 100 ppm (0.01%) for Ro-Ro operations. ^[1]

Note to paragraph (a)(1)(i):

The term eight hour average area level means that for any period in which the concentration exceeds 50 parts per million, the concentration shall be maintained for a corresponding period below 50 parts per million.

(ii) When both natural ventilation and the vessel's ventilation system are inadequate to keep the CO concentration within the allowable limits, the employer shall use supplementary means to bring such concentration within allowable limits, as determined by monitoring.

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