

§ 197.505 Definitions.

As used in this subpart—

Action level means an airborne concentration of benzene of 0.5 parts of benzene per million parts of air calculated as an eight hour time-weighted average, generated from vessels regulated by this subpart.

Authorized person means a person specifically authorized by the person in charge of the vessel to enter a regulated area.

Benzene means liquefied or gaseous benzene (C₆ H₆; Chemical Abstracts Service Registry No. 71-43-2) and includes benzene contained in liquid mixtures and the benzene vapors released by these mixtures. The term does not include trace amounts of unreacted benzene contained in solid materials.

Breathing zone means the area within one foot of a person's mouth and nose.

Employee means an individual who is on board a vessel by reason of that individual's employment and who is employed directly by the owner, charterer, managing operator, or agent of that vessel.

Employer means the owner, charterer, managing operator, or agent of a vessel.

Emergency means an occurrence, such as an equipment failure, a container rupture, or a control equipment failure, which results or may result in an unexpected release of benzene.

Operations involving benzene means any operation that could subject a worker to benzene exposures above the PEL, including cargo transfer operations involving connecting or disconnecting liquid or vapor hoses; cargo tank gauging and sampling; and cargo tank gas freeing, venting, and cleaning.

Performance standard means the standard in § 197.520.

Person in charge means—

(1) For a self propelled vessel, the master or licensed operator of the vessel; and

(2) For an unmanned barge,

(i) The licensed operator of the vessel for barge tows;

(ii) Where there is no licensed operator, the tankerman who signs the declaration of inspection for a cargo transfer for an operation involving benzene; or

(iii) Where there is no licensed operator or tankerman, the individual in charge of the vessel when it is moored at a fleet, terminal, or other place.

Permissible exposure limits or *PELs* mean the exposure limits specified in § 197.515.

Personal exposure means the concentration of airborne benzene to which a person would be exposed if that person were not using a properly fitted respirator in compliance with § 197.550 and the personal protective clothing and equipment in compliance with § 197.555.

Regulated area means an area designated in compliance with § 197.535.

Short-term exposure limit or *STEL* means an airborne concentration of five parts of benzene per million parts of air (five ppm), as averaged over any 15 minute period.

Time-weighted average exposure limit or *TWA* means an airborne concentration of one part of benzene per million parts of air (one ppm), as averaged over an eight-hour period. This eight hour period covers the time, up to eight hours, that the employee works in any 24 hour period. If the exposure period is less than eight hours within the 24 hour period, the difference between eight hours and the time of exposure (that is, the unexposed time) is averaged into the TWA. If the exposure period exceeds eight hours in any 24 hour period, sum the products of each exposure level multiplied by the time at that exposure level. The TWA is the value of that sum divided by eight hours.

Vapor control or recovery system means a system of piping and equipment used to collect vapors by transporting the vapors from a tank being loaded to a tank being unloaded or by collecting the vapors and containing them, recovering them, dispersing them in a location remote from personnel, or destroying them.

§ 197.510 Incorporation by reference.

(a) Certain materials are incorporated by reference into this subpart with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 522(a) and 1 CFR part 51. To enforce any edition other than the one listed in paragraph (b) of this section, notice of the change must be published

in the FEDERAL REGISTER and the material made available to the public. All approved material is on file at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC and at U.S. Coast Guard, Office of Operating and Environmental Standards (G-MSO), 2100 Second Street, SW., Washington, DC 20593-0001 and is available from the sources indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this subpart and the sections affected are as follows:

American National Standards Institute (ANSI)

11 West 42nd Street, New York, NY 10036

ANSI Z 88.2—1980—Practices for Respiratory Protection§197.550

[CGD 88-040, 56 FR 52135, Oct. 17, 1991, as amended by CGD 95-072, 60 FR 50469, Sept. 29, 1995; CGD 96-041, 61 FR 50735, Sept. 27, 1996; 61 FR 52497, Oct. 7, 1996]

§197.515 Permissible exposure limits (PELs).

The permissible exposure limits (PELs) for personal exposure are as follows:

(a) The time-weighted average exposure limit (TWA).

(b) The short-term exposure limit (STEL). Exposures at the STEL must not be repeated more than four times a day. There must be at least 60 minutes between successive exposures at the STEL.

§197.520 Performance standard.

No person may be subjected to a personal exposure in excess of the permissible exposure limits unless respiratory protection is used.

§197.525 Responsibility of the person in charge.

Unless otherwise specified, the person in charge shall ensure that the performance standard and other requirements of this subpart are complied with on that person's vessel.

§197.530 Persons other than employees.

(a) Before a nonemployee (other than Federal, state, and local government personnel) engages in a benzene operation on a vessel in which the person is likely to be exposed to benzene in ex-

cess of the PELs, that person must certify that—

(1) That person has had, within the previous 12 months, at least one medical examination in compliance with §197.560 or 29 CFR 1910.1028;

(2) The physician who performed or who supervised the latest medical examination in compliance with paragraph (a)(1) of this section did not recommend that that person be excluded from areas where personal exposure may exceed the action level;

(3) All respirators and personal protective clothing and equipment that will be used by that person while on the vessel meet the requirements of §197.550(b) and §197.555(c) or of 29 CFR 1910.1028; and

(4) All respirators that will be used by that person while on the vessel have been fitted and fit tested in accordance with §197.550 (c) and (d) or with 29 CFR 1910.1028.

NOTE: The employer need not furnish the required respirators and personal protective clothing and equipment to nonemployees.

(b) The certification required by paragraph (a) of this section must be in writing, list the items in paragraphs (a)(1) through (a)(4) of this section, reference 46 CFR 197.530, state the date of the certification, and be signed by the person making the certification. A sample certification form is contained in appendix F of this subpart.

(c) Before the nonemployee making the certification engages in a benzene operation on a vessel, that person or a representative of the entity which employs that person must show a copy of the certification to the person in charge of the vessel and the person in charge must examine the certification to ensure compliance with the requirements of this section.

§197.535 Regulated areas.

(a) Based on the employer's evaluation of the environmental monitoring, whenever the airborne concentration of benzene within an area exceeds or reasonably can be expected to exceed the permissible exposure limits, the person in charge shall mark the area as a regulated area.