

**§ 1910.125**

**29 CFR Ch. XVII (7–1–18 Edition)**

their exposed body parts, especially their nostrils.

(i) What must I do before an employee cleans a dip tank? Before permitting an employee to clean the interior of a dip tank, you must:

(1) Drain the contents of the tank and open the cleanout doors; and

(2) Ventilate and clear any pockets where hazardous vapors may have accumulated.

(j) What must I do to inspect and maintain my dipping or coating operation? You must:

(1) Inspect the hoods and ductwork of the ventilation system for corrosion or damage:

(i) At least quarterly during operation; and

(ii) Prior to operation after a prolonged shutdown.

(2) Ensure that the airflow is adequate:

(i) At least quarterly during operation; and

(ii) Prior to operation after a prolonged shutdown.

(3) Periodically inspect all dipping and coating equipment, including cov-

ers, drains, overflow piping, and electrical and fire-extinguishing systems, and promptly correct any deficiencies;

(4) Provide mechanical ventilation or respirators (selected and used as specified in §1910.134, OSHA's Respiratory Protection standard) to protect employees in the vapor area from exposure to toxic substances released during welding, burning, or open-flame work; and

(5) Have dip tanks thoroughly cleaned of solvents and vapors before permitting welding, burning, or open-flame work on them.

[64 FR 13909, Mar. 23, 1999, as amended at 77 FR 17777, Mar. 26, 2012]

**§ 1910.125 Additional requirements for dipping and coating operations that use flammable liquids or liquids with flashpoints greater than 199.4 °F (93 °C).**

If you use flammable liquids, you must comply with the requirements of this section as well as the requirements of §§1910.123, 1910.124, and 1910.126, as applicable.

You must also comply with this section if:	And:
<ul style="list-style-type: none"> <li>• The flashpoint of the liquid is 199.4 °F (93 °C) or above.</li> </ul>	<ul style="list-style-type: none"> <li>• The liquid is heated as part of the operation; or</li> <li>• A heated object is placed in the liquid.</li> </ul>

(a) What type of construction material must be used in making my dip tank? Your dip tank must be made of noncombustible material.

(b) When must I provide overflow piping? (1) You must provide properly trapped overflow piping that discharges to a safe location for any dip tank having:

(i) A capacity greater than 150 gallons (568 L); or

(ii) A liquid surface area greater than 10 feet<sup>2</sup> (0.95 m<sup>2</sup>).

(2) You must also ensure that:

(i) Any overflow piping is at least 3 inches (7.6 cm) in diameter and has sufficient capacity to prevent the dip tank from overflowing;

(ii) Piping connections on drains and overflow pipes allow ready access to the interior of the pipe for inspection and cleaning; and

(iii) The bottom of the overflow connection is at least 6 inches (15.2 cm) below the top of the dip tank.

(c) When must I provide a bottom drain? (1) You must provide a bottom drain for dip tanks that contain more than 500 gallons (1893 L) of liquid, unless:

(i) The dip tank is equipped with an automatic closing cover meeting the requirements of paragraph (f)(3) of this section; or

(ii) The viscosity of the liquid at normal atmospheric temperature does not allow the liquid to flow or be pumped easily.

(2) You must ensure that the bottom drain required by this section:

(i) Will empty the dip tank during a fire;

(ii) Is properly trapped;

(iii) Has pipes that permit the dip tank's contents to be removed within five minutes after a fire begins; and

- (iv) Discharges to a safe location.
- (3) Any bottom drain you provide must be capable of manual and automatic operation, and manual operation must be from a safe and accessible location.
- (4) You must ensure that automatic pumps are used when gravity flow from the bottom drain is impractical.
- (d) When must my conveyor system shut down automatically? If your conveyor system is used with a dip tank, the system must shut down automatically:
- (1) If there is a fire; or
  - (2) If the ventilation rate drops below what is required by paragraph (b) of § 1910.124.
- (e) What ignition and fuel sources must be controlled? (1) In each vapor area and any adjacent area, you must ensure that:
- (i) All electrical wiring and equipment conform to the applicable hazardous (classified)-area requirements of subpart S of this part (except as specifically permitted in paragraph (g) of § 1910.126); and
  - (ii) There are no flames, spark-producing devices, or other surfaces that are hot enough to ignite vapors.
- (2) You must ensure that any portable container used to add liquid to the tank is electrically bonded to the dip tank and positively grounded to prevent static electrical sparks or arcs.
- (3) You must ensure that a heating system that is used in a drying operation and could cause ignition:
- (i) Is installed in accordance with NFPA 86A-1969, Standard for Ovens and Furnaces (which is incorporated by reference in § 1910.6 of this part);
  - (ii) Has adequate mechanical ventilation that operates before and during the drying operation; and
  - (iii) Shuts down automatically if any ventilating fan fails to maintain adequate ventilation.
- (4) You also must ensure that:
- (i) All vapor areas are free of combustible debris and as free as practicable of combustible stock;
  - (ii) Rags and other material contaminated with liquids from dipping or coating operations are placed in approved waste cans immediately after use; and
  - (iii) Waste can contents are properly disposed of at the end of each shift.
- (5) You must prohibit smoking in a vapor area and must post a readily visible "No Smoking" sign near each dip tank.
- (f) What fire protection must I provide? (1) You must provide the fire protection required by this paragraph (f) for:
- (i) Any dip tank having a capacity of at least 150 gallons (568 L) or a liquid surface area of at least 4 feet<sup>2</sup> (0.38 m<sup>2</sup>); and
  - (ii) Any hardening or tempering tank having a capacity of at least 500 gallons (1893 L) or a liquid surface area of at least 25 feet<sup>2</sup> (2.37 m<sup>2</sup>).
- (2) For every vapor area, you must provide:
- (i) Manual fire extinguishers that are suitable for flammable and combustible liquid fires and that conform to the requirements of § 1910.157; and
  - (ii) An automatic fire-extinguishing system that conforms to the requirements of subpart L of this part.
- (3) You may substitute a cover that is closed by an approved automatic device for the automatic fire-extinguishing system if the cover:
- (i) Can also be activated manually;
  - (ii) Is noncombustible or tin-clad, with the enclosing metal applied with locked joints; and
  - (iii) Is kept closed when the dip tank is not in use.
- (g) To what temperature may I heat a liquid in a dip tank? You must maintain the temperature of the liquid in a dip tank:
- (1) Below the liquid's boiling point; and
  - (2) At least 100 °F (37.8 °C) below the liquid's autoignition temperature.

[64 FR 13909, Mar. 23, 1999, as amended at 77 FR 17777, Mar. 26, 2012]

**§ 1910.126 Additional requirements for special dipping and coating operations.**

In addition to the requirements in §§ 1910.123 through 1910.125, you must comply with any requirement in this section that applies to your operation.

- (a) What additional requirements apply to hardening or tempering tanks?