

## § 180.203 Definitions.

As used in this section, the word "cylinder" includes UN pressure receptacles. In addition to the definitions contained in §171.8 of this subchapter, the following definitions apply to this subpart:

*Commercially free of corrosive components* means a hazardous material having a dew point at or below minus 46.7 °C (minus 52 °F) at 101kPa (1 atmosphere) and free of components that will adversely react with the cylinder (e.g. chemical stress corrosion).

*Condemn* means a determination that a cylinder is unserviceable for the continued transportation of hazardous materials in commerce and that the cylinder may not be restored by repair, rebuilding, requalification, or any other procedure.

*Defect* means an imperfection requiring removal of a cylinder from service.

*Elastic expansion* means a temporary increase in a cylinder's volume, due to application of pressure, that is lost when pressure is released (elastic expansion = total expansion minus permanent expansion).

*Filled or charged* means an introduction or presence of a hazardous material in a cylinder.

*Non-corrosive service* means a hazardous material that, in the presence of moisture, is not corrosive to the materials of construction of a cylinder (including valve, pressure relief device, etc.).

*Over-heated* means a condition in which the temperature of any portion of an aluminum cylinder has reached 176 °C (350 °F) or higher, or in which the temperature of any portion of a steel or nickel cylinder has reached 343 °C (650 °F) or higher.

*Permanent expansion* means a permanent increase in a cylinder's volume after the test pressure is released.

*Proof pressure test* means a pressure test by interior pressurization without the determination of a cylinder's expansion.

*Rebuild* means the replacement of a pressure part (e.g. a wall, head, or pressure fitting) by welding.

*Rejected cylinder* means a cylinder that cannot be used for the transportation of a hazardous material in commerce without repair, rebuilding, and requalification.

*Repair* means a procedure for correction of a rejected cylinder that may involve welding.

*Requalification* means the completion of a visual inspection and/or the test(s) required to be performed on a cylinder to determine its suitability for continued service.

*Requalification identification number or RIN* means a code assigned by DOT to uniquely identify a cylinder requalification, repair, or rebuilding facility.

*Test pressure* means the pressure used for the requalification of a cylinder.

*Total expansion* means the total increase in a cylinder's volume due to application of the test pressure.

*Visual inspection* means an internal or external visual examination, or both, performed as part of the cylinder requalification process.

*Volumetric expansion test* means a pressure test to determine the total and permanent expansion of a cylinder at a given pressure. The *volumetric expansion test* is conducted using the water jacket or direct expansion methods:

(1) *Water jacket method* means a volumetric expansion test to determine a cylinder's total and permanent expansion by measuring the difference between the volume of water the cylinder externally displaces at test pressure and the volume of water the cylinder

externally displaces at ambient pressure.

(2) *Direct expansion method* means a volumetric expansion test to calculate a cylinder's total and permanent expansion by measuring the amount of water forced into a cylinder at test pressure, adjusted for the compressibility of water, as a means of determining the expansion.

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