

§ 56.4604

(b) The torch and hoses are left unattended; or

(c) The task or series of tasks is completed.

§ 56.4604 Preparation of pipelines or containers.

Before welding, cutting, or applying heat with an open flame to pipelines or containers that have contained flammable or combustible liquids, flammable gases, or explosive solids, the pipelines or containers shall be—

(a) Drained, ventilated, and thoroughly cleaned of any residue;

(b) Vented to prevent pressure build-up during the application of heat; and

(c)(1) Filled with an inert gas or water, where compatible; or

(2) Determined to be free of flammable gases by a flammable gas detection device prior to and at frequent intervals during the application of heat.

**APPENDIX I TO SUBPART C OF PART 56—
NATIONAL CONSENSUS STANDARDS**

Mine operators seeking further information in the area of fire prevention and control may consult the following national consensus standards.

MSHA standard	National consensus standard
§§ 56.4200, 56.4201.	NFPA No. 10—Portable Fire Extinguisher.
	NFPA No. 11—Low Expansion Foam and Combined Agent Systems.
	NFPA No. 11A—High Expansion Foam Systems.
	NFPA No. 12—Carbon Dioxide Extinguishing Systems.
	NFPA No. 12A—Halon 1301 Extinguishing Systems.
	NFPA No. 13—Water Sprinkler Systems.
	NFPA No. 14—Standpipe and Hose Systems.
	NFPA No. 15—Water Spray Fixed Systems.
	NFPA No. 16—Foam Water Spray Systems.
	NFPA No. 17—Dry-Chemical Extinguishing Systems.
	NFPA No. 121—Mobile Surface Mining Equipment.
	NFPA No. 291—Testing and Marketing Hydrants.
	NFPA No. 1962—Care, Use, and Maintenance of Fire Hose, Connections, and Nozzles.
§ 56.4202 ..	NFPA No. 14—Standpipe and Hose Systems.
	NFPA No. 291—Testing and Marketing Hydrants.
§ 56.4203 ..	NFPA No. 10—Portable Fire Extinguishers.
§ 56.4230 ..	NFPA No. 10—Portable Fire Extinguishers.
	NFPA No. 121—Mobile Surface Mining Equipment.

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Subpart D—Air Quality and Physical Agents

AIR QUALITY

§ 56.5001 Exposure limits for airborne contaminants.

Except as permitted by § 56.5005—

(a) Except as provided in paragraph (b) of this section, the exposure to airborne contaminants shall not exceed, on the basis of a time weighted average, the threshold limit values adopted by the American Conference of Governmental Industrial Hygienists, as set forth and explained in the 1973 edition of the Conference’s publication, entitled “TLV’s Threshold Limit Values for Chemical Substances in Workroom Air Adopted by ACGIH for 1973,” pages 1 through 54, which are hereby incorporated by reference and made a part hereof. This publication may be obtained from the American Conference of Governmental industrial Hygienists by writing to 1330 Kemper Meadow Drive, Attn: Customer Service, Cincinnati, OH 45240; <http://www.acgih.org>”, or may be examined in any Metal and Nonmetal Mine Safety and Health District Office of the Mine Safety and Health Administration. Excursions above the listed thresholds shall not be of a greater magnitude than is characterized as permissible by the Conference.

(b) The 8-hour time weighted average airborne concentration of asbestos dust to which employees are exposed shall not exceed 2 fibers per milliliter greater than 5 microns in length, as determined by the membrane filter method at 400–450 magnification (4 millimeter objective) phase contrast illumination. No employees shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers longer than 5 micrometers, per milliliter of air, as determined by the membrane filter method over a minimum sampling time of 15 minutes. “Asbestos” is a generic term for a number of hydrated silicates that, when crushed or processed, separate into flexible fibers made up of fibrils. Although there are many asbestos minerals, the term “asbestos” as used herein is limited to the following minerals: chrysotile,