

**REGULATION 8
ORGANIC COMPOUNDS
RULE 22
VALVES AND FLANGES AT CHEMICAL PLANTS**

INDEX

8-22-100 GENERAL

- 8-22-101 Description
- 8-22-110 Deleted September 6, 1989
- 8-22-111 Deleted September 6, 1989
- 8-22-112 Exemption, Low Vapor Pressure
- 8-22-113 Exemption Natural Gas
- 8-22-114 Exemption, Research and Development Facilities
- 8-22-115 Exemption, Chemical Plants With 100 or More Valves

8-22-200 DEFINITIONS

- 8-22-201 Background
- 8-22-202 Essential Valve or Flange
- 8-22-203 Flange
- 8-22-204 Flange Leak Minimization
- 8-22-205 Flange Leak Repair
- 8-22-206 Process Unit
- 8-22-207 Chemical Plants
- 8-22-208 Valve
- 8-22-209 Valve Leak Minimization
- 8-22-210 Valve Leak Repair
- 8-22-211 Inaccessible Valve and Flange
- 8-22-212 Small Chemical Plant

8-22-300 STANDARDS

- 8-22-301 Valves and Flanges

8-22-400 ADMINISTRATIVE REQUIREMENTS

- 8-22-401 Identification
- 8-22-402 Inspection Plan
- 8-22-403 Deleted June 1, 1994

8-22-500 MONITORING AND RECORDS

- 8-22-501 Portable Hydrocarbon Detector
- 8-22-502 Records

8-22-600 MANUAL OF PROCEDURES

- 8-22-601 Analysis of Samples
- 8-22-602 Inspection Procedure

REGULATION 8
ORGANIC COMPOUNDS
RULE 22
VALVES AND FLANGES AT CHEMICAL PLANTS

(Adopted March 5, 1980)

8-22-100 GENERAL

8-22-101 Description: The purpose of this Rule is to limit emissions of precursor organic compounds from valves and flanges at chemical plants.

(Amended March 17, 1982; July 20, 1983)

8-22-110 Deleted September 6, 1989

8-22-111 Deleted September 6, 1989

8-22-112 Exemption, Low Vapor Pressure: The provisions of this Rule shall not apply to valves or flanges which handle only organic liquids with a vapor pressure less than 2.6 mmHg (0.05 psia) at 20°C (68°F) or exhibit a 10 percent evaporation point greater than 150°C (302°F) when using ASTM D-86.

(Amended September 6, 1989)

8-22-113 Exemption, Natural Gas: The provisions of this Rule shall not apply to valves or flanges which handle only commercial natural gas. (Amended September 6, 1989)

8-22-114 Exemption, Research and Development Facilities: The provisions of this Rule shall not apply to research or development facilities which produce only non-commercial products for research and development purposes.

(Amended June 1, 1994)

8-22-115 Exemption, Chemical Plants With 100 or More Valves: Effective January 1, 1993, the provisions of this Rule shall not apply to valves or flanges in chemical plants having 100 or more valves, which are subject to the provisions of Regulation 8, Rule 18: Valves and Connectors at Petroleum Refineries, Chemical Plants, Bulk Plants and Bulk Terminals. (Adopted March 4, 1992)

8-22-200 DEFINITIONS

8-22-201 Background: The ambient concentration of organic compounds determined at least 3 meters (10 feet) upwind from the valve or flange to be inspected and not influenced by any specific emission point.

(Amended March 17, 1982; September 6, 1989)

8-22-202 Essential Valve or Flange: A valve or flange which cannot be taken out of service without shutting down the process unit which it serves.

8-22-203 Flange: A projecting rim on a pipe or piping component used to attach it to another piping detail.

8-22-204 Flange Leak Minimization: Tightening, adjusting or addition of gasket material to a flange, using best modern practices, for the purpose of stopping or reducing leakage to the atmosphere.

8-22-205 Flange Leak Repair: Tightening, adjusting or replacing, adding gasket material to a flange which reduces leakage to the atmosphere below the limit of Section 8-22-301.

8-22-206 Process Unit: A manufacturing process which is independent of other processes and is continuous when supplied with a constant feed of raw materials and sufficient storage facilities for the final project. (Renumbered March 17, 1982)

8-22-207 Chemical Plants: Any facility engaged in producing organic or inorganic and/or manufacturing products by chemical processes. Any facility or operation that has 28 as the first two digits in their Standard Industrial Classification Code as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget. Chemical plants may include, but are not limited to the manufacture of: industrial inorganic and organic chemicals; plastic and synthetic resins, synthetic rubber, synthetic and other

man made fibers; drugs; soap, detergents and cleaning preparations, perfumes, cosmetics and other toilet preparations; paints, varnishes, lacquers, enamels and allied products; agricultural chemicals; safflower and sunflower oil extracts; re-refining.

(Renumbered March 17, 1982; Amended July 20, 1983; March 4, 1992)

8-22-208 Valve: Any device that regulates the flow of fluids in a piping system by means of an external actuator acting to permit or block passage of liquids or gases.

(Renumbered March 17, 1982)

8-22-209 Valve Leak Minimization: The tightening, adjustment, or addition of packing material which surrounds the valve stem, or the replacement of the valve for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices.

(Renumbered March 17, 1982)

8-22-210 Valve Leak Repair: The tightening, adjustment, or addition of packing material which surrounds the valve stem, or the replacement of the valve, which reduces the leakage to the atmosphere below the limit of Section 8-22-301.

(Renumbered March 17, 1982)

8-22-211 Inaccessible Valves and Flanges: Valves or flanges that are not in an accessible location as defined by Title 8, Section 3207, General Industrial Safety Orders of CAL OSHA 1986.

(Adopted September 6, 1989)

8-22-212 Small Chemical Plant: Effective January 1, 1993, any chemical plant that has 100 or less valves.

(Adopted March 4, 1992)

8-22-300 STANDARDS

8-22-301 Valves and Flanges: A person shall not use any valve or flange handling precursor organic compounds in a chemical plant if the concentration of organic compounds, measured 1 cm or less from any leak in such valve or flange, exceed 10,000 ppm (expressed as methane) above background, unless the following requirements are satisfied:

301.1 If the valve or flange is not essential, the leak shall be repaired within 15 days.

301.2 If the valve or flange is essential, the leak shall be minimized within 15 days.

301.3 If a valve or flange leak which has been minimized as required by subsection 301.2 still exceeds the limitations of Section 8-22-301, that valve or flange shall be repaired at the next scheduled turnaround of the process unit. Effective July 1, 1980 any such valve or flange shall not be operated longer than six months before repairs are conducted.

301.4 Any valve or flange subject to Section 8-22-301, where the organic compound concentration exceeds 75,000 ppm (expressed as methane) above background, measured 1 cm or less from a leak in any such valve or flange, shall be repaired within 15 days.

(Amended March 17, 1982; July 20, 1983; September 6, 1989)

8-22-400 ADMINISTRATIVE REQUIREMENTS

8-22-401 Identification: Any valve or flange with a leak in excess of the limitations of Section 8-22-301, which has been detected by the operator and is awaiting repair shall be identified in a manner which is readily observable by a District inspector.

(Amended September 6, 1989)

8-22-402 Inspection Plan: Any person subject to this Rule shall comply with the following inspection requirements:

402.1 All annually inspected valves shall be inspected at least once prior to January 1, 1991. All quarterly inspected valves shall be inspected at least once prior to April 1, 1990.

402.2 Any valve which exceeds the limitations of Section 8-22-301 shall be marked with a tag and shall be reinspected within 3 months after being repaired.

402.3 Any inaccessible valve subject to this Rule shall be inspected at least once a year by the person subject to this Rule.

402.4 Any accessible valve subject to this Rule shall be inspected at least quarterly by the person subject to this Rule.

402.5 Any valve subject to this Rule may be inspected at any time by the APCO.
(Amended March 17, 1982; July 20, 1983; September 6, 1989)

8-22-403 Deleted June 1, 1994

8-22-500 MONITORING AND RECORDS

8-22-501 Portable Hydrocarbon Detector: Any instrument used for the measurement of precursor organic compounds shall be a combustible gas indicator approved by the APCO or other type of instrument approved by the APCO in accordance with EPA Reference Method 21. (Amended March 17, 1982; September 6, 1989)

8-22-502 Records: Any person subject to the requirements of this Rule shall maintain records that provide the following information:

502.1 The valve identification code, valve type and the location of the valve.

502.2 The date of all inspection and reinspection and the corresponding leak concentration measured as specified by Section 8-22-401.

502.3 Records shall be maintained for at least 5 years and shall be made available to the APCO for inspection at any time.

502.4 Monthly records of all non-repairable valves subject to the provisions of Section 8-22-301.3 shall be maintained and contain the valve identification code, valve type, valve location, leak concentration monthly measurement and date, last unit turnaround date, and total number of non-repairable valves awaiting repair. (Adopted June 1, 1994)

8-22-600 MANUAL OF PROCEDURES

8-22-601 Analysis of Samples: Samples of organic compounds as defined in this Rule shall be analyzed for Reid vapor pressure as prescribed in the Manual of Procedures, Volume 111, Method 13. (Adopted March 17, 1982)

8-22-602 Inspection Procedure: Inspection of valves and flanges shall be conducted as prescribed by EPA Reference Method 21. (Adopted September 6, 1989)