REGULATION 8 ORGANIC COMPOUNDS RULE 37 NATURAL GAS AND CRUDE OIL PRODUCTION FACILITIES

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REGULATION 8 ORGANIC COMPOUNDS RULE 37 NATURAL GAS AND CRUDE OIL PRODUCTION FACILITIES

(Adopted March 20, 1985)

8-37-100 GENERAL

8-37-101 Description: The purpose of this Rule is to limit the emissions of organic compounds from natural gas and crude oil production facilities.

(Amended October 17, 1990)

8-37-110 Deleted October 17, 1990

- **8-37-111 Exemption, Distribution, Storage and Transportation Facilities:** The provisions of this Rule shall not apply to natural gas distribution, transportation and storage facilities, including underground storage and associated processing facilities, provided the provisions of Section 8-37-403 are met. (Amended October 17, 1990)
- **8-37-112 Exemption, Methane:** The provisions of this Rule shall not apply to natural gas streams which contain more than or equal to 90 percent methane by volume, provided the provisions of Section 8-37-404 are met. (Amended October 17, 1990)
- **8-37-113 Exemption, Water Streams:** The provisions of this Rule shall not apply to liquid streams with a water content in excess of 90 percent by volume, provided the provisions of Section 8-37-405 are met. (Amended October 17, 1990)

8-37-200 DEFINITIONS

8-37-201 Background: The ambient concentration of organic compounds determined at least 3 meters (10 feet) upwind from the valve, flange, pump, compressor or component to be inspected and not influenced by any specific emission point.

(Amended October 17, 1990)

- 8-37-202 Essential Valve or Flange: A valve or flange which cannot be taken out of service without shutting down the process unit which it serves.
- **8-37-203** Flange: A projecting rim on a pipe or piping component used to attach it to another segment.
- 8-37-204 Deleted October 17, 1990
- 8-37-205 Deleted October 17, 1990
- **8-37-206** 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.
- 8-37-207 Leak Minimization: The tightening, adjustment, or addition of packing or gasket material or the replacement of the valve, flange, pump, compressor or other component for the purpose of stopping or reducing leakage to the atmosphere, using best modern practices. (Amended October 17, 1990)
- **8-37-208** Leak Repair: The tightening, adjustment, or addition of packing or gasket material to a valve, flange, pump, compressor or other component or the replacement of the valve, flange, pump, compressor or other component, which reduces the leakage to the atmosphere below the limit of Section 8-37-301. (Amended October 17, 1990)
- 8-37-209 Choke: The regulating valve that controls the production rate of oil or gas.
- **8-37-210** Stuffing Box: The area or packing gland through which the pump polish rod passes and which is surrounded with packing material or "stuffing," to prevent leaks.
- 8-37-211 Essential Pump or Compressor: A pump or compressor which cannot be taken out of service without stopping production of production well.
- 8-37-212 Lease Area: The area where the well and associated production equipment is located.
- **8-37-213** Natural Gas Production Facility: Any facility engaged in the production of natural gas. For the purpose of this Rule, this includes all valves, flanges, chokes, pumps, compressors and other components, from the well head to the storage tank, including the oil and gas separator. Transport loading arms are included.

(Amended October 17, 1990)

- 8-37-214 Crude Oil Production Facility: Any facility engaged in the production of crude oil. For the purpose of this Rule, this includes all valves, flanges, chokes, stuffing boxes, pumps and other components from the well head to the storage tank, including the oil and gas separator. Transport loading arms are included where used for custody transfer. (Amended October 17, 1990)
- **8-37-215** Liquid Pool: Any organic liquid that results in a pool of crude oil or condensate on the ground with a volume of at least 250 ml or covering an area of three inches in diameter and over one inch deep. (Amended October 17, 1990)
- **8-37-216 Custody Transfer:** The transfer of produced petroleum and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.
- 8-37-217 Relief Valve: A valve set to open when a predesignated pressure is reached.
- **8-37-218 Component:** Pressure relief valves, threaded connections, hatches, sight glasses and fittings.
- 8-37-219 Organic Compound: Any compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. (Amended October 17, 1990)

8-37-300 STANDARDS

- 8-37-301 Valves, Flanges, Chokes and Components: A person shall not use any valve, flange, choke or component handling organic compounds in a natural gas or crude oil production facility if the concentration of organic compounds, measured 1 cm from any leak in such equipment exceeds 10,000 ppm (expressed as methane) above background, unless the following requirements are satisfied:
 - 301.1 If the equipment is not essential, the leak shall be repaired within 24 hours.
 - 301.2 If the equipment is essential, the leak shall be minimized within 24 hours.
 - 301.3 If the equipment leak which has been minimized as required by subsection 301.2 still exceeds the limitations of Section 8-37-301, that equipment shall be repaired at the next scheduled maintenance of the well head. Any such equipment shall not be operated longer than three months before repairs are conducted. (Amended October 17, 1990)
 - 301.4 Deleted October 17, 1990
- 8-37-302 Liquid Pools: There shall be no open liquid pools of crude oil or condensate in the lease area. (Amended October 17, 1990)
- **8-37-303 Open Vessels:** No open or uncovered vessels of crude material larger than 250 ml shall be kept in the lease area. The well cellar shall be kept covered.

(Amended October 17, 1990)

- **8-37-304 Spills:** All spills of crude oil and condensate which causes a liquid pool shall be cleaned up by removal of the liquid within 24 hours of the spill detection.
- **8-37-305 Pumps and Compressors:** A person shall not use any pump or compressor handling organic compounds in natural gas or crude oil production operation if the concentration of organic compounds exceeds 10,000 ppm (as methane), measured at a distance of 1 cm from the detected source, unless the following requirements are satisfied:
 - 305.1 If the pump or compressor is not essential, that pump or compressor shall be removed from service for leak repairs within 24 hours of the discovery of the leak.
 - 305.2 If the spare for the pump or compressor also exceeds the limitation of this section, leak repairs to either pump or compressor shall be completed within 30 days of discovery of its leak and the other pump or compressor may be operated until repairs are completed.
 - 305.3 Deleted October 17, 1990
 - 305.4 Deleted October 17, 1990
 - 305.5 If the pump or compressor has a packed seal and is essential, the leak shall be minimized within 24 hours of its discovery.

305.6 If the pump or compressor is essential, and has been leak minimized as required by subsection 8-37-305.5 and still exceeds the limitation of this section, that pump or compressor shall be repaired at the next scheduled maintenance of the well head or within three months.

(Amended October 17, 1990)

- 305.7 All pumps and compressors shall be visually inspected at least weekly. (Adopted October 17, 1990)
- **8-37-306** Liquid Leaks: No person shall use any valve, flange, pump, compressor, liquid line or component that has a liquid leak of more than three drops per minute. Such a leak shall be repaired within 24 hours of detection. If repair is not successful, the leaking component shall be replaced within 15 days. (Amended October 17, 1990)
- **8-37-307** Stuffing Box Leaks: A person shall not use any stuffing box where the concentration of organic compounds exceeds 10,000 ppm (as methane) above background, measured 1 cm from the polish rod box interface or where there is a liquid leak exceeding three drops per minute. (Amended October 17, 1990)
- 8-37-308 Closed Hatches: All access hatches shall remain closed except during active maintenance or repairs. (Adopted October 17, 1990)
- **8-37-309** Reinspection of Repaired Components: All components subject to Section 8-37-301, 305, 306, and 307 shall be reinspected within one week of repairs.

(Adopted October 17, 1990)

8-37-400 ADMINISTRATIVE REQUIREMENTS

8-37-401 Identification: Any valve, flange, choke, stuffing box, pump or compressor with a leak in excess of the limitations of Sections 8-37-301, 305 or 306 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. Any leak in such equipment exceeding the limitations of Section 8-37-301, 305 or 306 which is detected by the APCO and which has not been so identified by the operator shall constitute a violation of this Section.

(Amended October 17, 1990)

8-37-402 Deleted October 17, 1990

- 8-37-403 Natural Gas Distribution, Storage and Transportation Facilities Petition: Any person seeking to satisfy the conditions of Section 8-37-111 shall submit a written petition for exemption to the APCO. This petition shall include complete information on any associated processing facilities. (Adopted October 17, 1990)
- **8-37-404** Methane Petition: Any person seeking to satisfy the conditions of Section 8-37-112 shall comply with the following requirements:
 - 404.1 A written petition for exemption shall be submitted to the APCO showing the percentage of methane in the natural gas stream is more than or equal to 90% by volume.
 - 404.2 If the APCO grants written approval, such petition will be repeated on an annual basis and accompanied by a current gas stream analysis.

(Adopted October 17, 1990)

- **8-37-405** Water Streams Petition: Any person seeking to satisfy the conditions of Section 8-37-113 shall comply with the following requirements:
 - 405.1 A written petition for exemption shall be submitted to the APCO showing the percentage of water in the liquid stream is greater than or equal to 90% by volume.
 - 405.2 If the APCO grants written approval, such petition will be repeated on an annual basis and accompanied by a current liquid stream analysis.

(Adopted October 17, 1990)

8-37-500 MONITORING AND RECORDS

8-37-501 Portable Hydrocarbon Detector: Any instrument used for the measurement of organic compounds shall be a combustible gas detector or any other type of

instrument approved by the APCO that meets the specifications and performance criteria of, and is calibrated in accordance with, EPA Reference Method 21.

(Amended October 17, 1990)

- 8-37-502 **Records:** Any person subject to this Rule shall comply with the following recordkeeping requirements:
 - 502.1 Records of equipment repairs as required by Sections 8-27-301, 305 or 306 shall be maintained. These records shall include the dates on which the leaking equipment was discovered, minimized and/or repaired.
 - 502.2 Inspection records shall be maintained for at least two years and shall be made available to the APCO upon request. (Adopted October 17, 1990)

8-37-600 MANUAL OF PROCEDURES

- **8-37-601 Inspection Procedure:** Inspection of valves, pumps, flanges, compressors and components shall be conducted as prescribed by EPA Reference Method 21.
- 8-37-602 Methane and Water Analysis: Analyses for the purpose of meeting the exemption requirements of Sections 8-37-112 and 8-37-113 shall be done according to the general guidelines of ASTM Methods E-168, E-169 and E-260, or other methods approved by the APCO. (Adopted October 17, 1990)