VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 74.10 - COMPONENTS AT CRUDE OIL AND NATURAL GAS PRODUCTION FACILITIES, PIPELINE TRANSFER STATIONS AND NATURAL GAS PRODUCTION, STORAGE AND PROCESSING FACILITIES

(Adopted 9/29/81, Revised 9/22/87, 5/28/91, 6/16/92, 03/10/98, Renamed and Revised XX/XX/XX)

A. Applicability

The following provisions shall apply to crude oil and natural gas production facilities, pipeline transfer stations, natural gas gathering and boosting stations and natural gas processing facilities. This rule does not apply to natural gas underground storage facilities or natural gas transmission compressor stations.

B. Identification Requirements

The operator shall identify all leaking components that cannot be immediately repaired. This identification shall consist of readily visible ~~labels,~~ tags~~,~~ or other such system approved by the ~~APCO~~ Air Pollution Control Officer, in writing, that enables the Ventura County Air Pollution Control District (District) and the operator to locate and identify each leaking component. Weatherproof identification tags ~~and labels~~ shall remain visible and legible for at least ~~one year~~four (4) consecutive calendar quarters from the date attached.

C. Operating Requirements

1. Hatches shall be closed at all times except during sampling, adding of process material through the hatch, or attended maintenance operations.

2. No person shall use a component that emits a major gas leak, major liquid leak or minor liquid leak and for which the applicable maximum component leak threshold ~~for that component category~~, as listed in Attachment 1, has been exceeded at the facility in any calendar quarter. The provisions of this subsection shall not apply to components that are tagged and repaired in accordance with Sections D and F of this Rule.

3. An open-ended line or a valve located at the end of the line shall be sealed as soon as practical but no later than one day after detection with a blind flange, plug, cap, or a second valve that is closed at all times, except during attended operations requiring process fluid flow through the open-ended lines.

D. Operator Inspection Requirements

1. Inspection Requirements - Natural Gas Gathering and Boosting Stations and Natural Gas Processing ~~Plants~~Facilities: Operators shall inspect ~~with or without instrumentation~~ all accessible operating pump seals, compressor seals, and pressure relief valves in service for leaks or indications of leaks once during every operating shift or every eight-hour period, whichever is greater.

2. Inspection Requirements - Crude Oil and Natural Gas Production Facilities and Pipeline Transfer Stations: Operators shall inspect ~~with or without instrumentation~~ all operating pump seals, compressor seals, pressure relief valves~~ in service,~~, pressure-vacuum relief valves, hatches and polished rod stuffing boxes for leaks or indications of leaks as follows:

   a. Inspection frequency at manned facilities shall be at least once per day except when operators do not report to work at a facility at any time during that day.

   b. Inspection frequency at unmanned facilities shall be at least once per week.

3. Any gaseous leaks or indications of gaseous leaks discovered by inspection without EPA Method 21 instrumentation, that cannot be immediately repaired or replaced, shall be measured using EPA Method 21~~.~~, Determination of Volatile Organic Compound Leaks. The operator shall perform this leak measurement utilizing EPA Method 21 instrumentation as follows:

   a. For leaks detected during normal business hours, the leak measurement shall be performed as soon as feasible but no later than 24 hours after detection. If this 24-hour deadline occurs on a weekend or holiday, then the deadline is shifted to the end of the next normal business day.

   b. For leaks detected during holidays, weekends or after business hours, the leak measurement shall be performed as soon as feasible but no later than the end of the next normal business day.

4. ~~Immediately after being placed into service,~~ An operator shall re-inspect all new, replaced or repaired ~~fittings, including flanges and threaded connections,~~components for leaks as soon as practical using EPA Method 21, Determination of Volatile Organic Compound Leaks, but no later than the date on which the component is returned to service after repair.

5. Operators shall inspect all components, except for the following, at least every calendar quarter for gaseous leaks using EPA Method 21, Determination of Volatile Organic Compound Leaks.

   a. Inaccessible components shall be inspected for leaks annually by the operator using EPA Method 21, Determination of Volatile Organic Compound Leaks.

   b. ~~or unsafe~~ Unsafe-to-monitor components shall be inspected for leaks by the operator annually or at ~~least annually~~the next critical process unit shut-down, whichever occurs first, using EPA Method 21, Determination of Volatile Organic Compound Leaks.

b. Threaded connections and flanges shall be inspected for leaks by the operator using EPA Method 21 annually, unless the operator has designated them in the Operator Management Plan as exempt from all inspection requirements and subject to a zero leak threshold.

6. A pressure relief valve shall be inspected using EPA Method 21 instrument within 3 calendar days24-hours after every known pressure release.

7. Upon detection, operators shall affix a visible, weatherproof tag to all leaking components awaiting repair. The tag shall remain affixed until the component is repaired free of leaks as shown by re-inspection Weatherproof identification tags shall remain visible and legible for at least four (4) consecutive calendar quarters from the date attached.

a. If the leak is gaseous, the operator shall include the following on the tag: date and time of leak detection, date and time of leak measurement; and the concentration (ppmv) measured using EPA Method 21EPA Method 21 instrument reading (ppmv). The leak shall be repaired within the repair periods set forth in Table 1.

b. If the leak is liquid, the operator shall include the following on the tag: date and time of leak detection; and whether leak is minor or major. The leak shall be repaired within the repair periods set forth in Table 1.

c. A tag may also be some other system approved in writing by the APCOAir Pollution Control Officer that demonstrates to District personnel that the operator has detected a component leak awaiting repair and contains all of the information required to be on tags by this Subsection.

8. Notwithstanding the requirements of Subsection D.5, operators may inspect components annually instead of quarterly at a facility by satisfying all the following provisions, except that compressor seals, pressure relief valves, polished rod stuffing boxes, and pump seals shall not be eligible for this reduction in inspection frequency:

a. During 4 consecutive calendar quarters, successfully operate and maintain all components at the facility so that no more than 0.5 percent of the total components inspected, excluding polished rod stuffing boxes, have liquid leaks or major gas leaks that have not been immediately repaired.

b. A Notice of Violation from the District for a violation of Subsection C.2 was not received by the operator for the facility during the previous twelve months.

c. Submit a written request to the District for a reduction in inspection frequency. This request shall contain backup documentation including inspection reports that demonstrates that the above performance level in Subsection D.8.a has been achieved. Requests for a reduction in

~~inspection frequency are not effective until written approval by the APCO is received by the operator.~~

~~9. An annual inspection frequency approved in Subsection D.8 shall revert to the inspection frequency specified in Subsection D.5 should the sum of liquid leaks and major gas leaks, not including leaks from polished rod stuffing boxes, exceed 0.5 percent of the total components inspected per inspection period or should the operator receive a Notice of Violation from the District for violation of Subsection C.2 for that facility.~~

8. The District inspection shall not fulfill any of the mandatory inspection requirements that are placed upon operators and cannot be used or counted as an inspection required of an operator. Any attempt by an operator to count such District inspections as part of the mandatory operator inspection is considered a violation of this rule.

9. Except for annual operator inspection described in Subsection D.11, any operator inspection that demonstrates a leak rate in excess of those allowed in Section C or Attachment #1 exists at the facility shall not constitute a violation of this rule if the leaking components are repaired, replaced or removed from service as soon as practicable but no later than the time frame specified in this rule. Such components shall not be counted towards determination of compliance with the provisions of Section C or Attachment #1.

10. Leaking components detected during operator inspection pursuant to Subsection D.9 that are not repaired, replaced or removed from service as soon as practicable but no later than the timeframe specified in this rule shall be counted toward determination of compliance with provisions of Section C and Attachment #1.

11. Any operator inspection conducted annually for a component type (including operator annual inspections pursuant to Subsection D.5) that demonstrates a leak rate in excess of those allowed in Section C or Attachment #1 exists at the facility shall constitute a violation of this rule regardless of whether or not the leaking components are repaired, replaced, or removed from service within the allowable repair time frame specified in this rule.

E. Operator Management Plan Requirements

1. Each operator shall submit an Operator Management Plan (Plan) to the ~~APCO~~Air Pollution Control Officer for approval. If the ~~APCO~~Air Pollution Control Officer fails to respond to the Plan in writing within ~~90~~ one hundred and twenty (120) days after it has been received, then it shall be deemed approved. No provision in the Plan, approved or not, shall conflict with or take precedence over any provision of this rule~~.~~ or any other applicable regulation. The Plan shall identify ~~any component~~ all components to be monitored and their location. The Plan shall identify the components subject to this rule, and any components exempt from this rule or part of this rule~~,~~ and describe the procedures which the operator intends to use to comply with the requirements of this rule. The Plan shall include:

a. Establishment of a ~~data base~~database of every ~~leaking~~ component ~~that cannot~~to be ~~immediately repaired~~monitored and its location . The following parameters shall be included:

1) ~~1)~~ Sitemap of facility.

2) Component identification number, name or code.

~~2~~3) Component type, process unit and location.

~~3~~4) Dates found leaking and repair description for each leak found. This identification provision is for inspection, repair, replacement and recordkeeping purposes.

b. Identification and justification of critical process units.

c. Identification of components for which exemption from this rule is being claimed under ~~Section G.1 of this Rule. Gaseous streams and liquid streams, exempted by Subsections G.1.a, G.1.b, G.1.c, or G.1.e shall be verified by analysis of the ROC concentrations, and the results of such analyses shall be included.~~Subsection G.1 of this Rule.

d. Identification of liquid streams or components for which exemption is being claimed from the operator inspection requirements under Subsection G.~~3~~1.h. The results of any testing used to qualify a stream for exemption shall be included.

e. Identification and justification of unsafe-to-monitor components.

~~e. Whether flanges or threaded fittings are exempt from all inspection requirements and subject to a zero leak threshold or whether flanges or threaded fittings are subject to annual inspection requirements and a one percent leak threshold as specified in Attachment 1.~~

f. Identification and justification of inaccessible components.

~~g~~. The inspection schedule to be followed.

~~g~~h. Identification and description of any known hazard which may affect the safety of ~~APCD~~ District personnel.

~~h~~i. Identification of unmanned production facilities, if applicable.

2. The operator shall be required, upon written request by the ~~APCO~~Air Pollution Control Officer, to re-qualify, by analysis, the exemption(s) from the rule or part of the rule (Subsections G.1~~ and G.3~~) if the exemption(s) may no longer be valid based on the changed composition of the process stream. The results of that analysis and any modification to the Plan shall be submitted to the District within ninety (90) calendar days after receipt of the District request.

3. If the exempt status of a component is affected by a revision to this rule, then the Plan shall be modified accordingly by ~~June 10, 1998~~December 31, 2024.

4. Existing ~~operator management~~ Plans shall be updated no later than ~~September 10, 1998~~December 31, 2024, to include any provision that is needed to show compliance with this rule.

5. ~~Beginning September 10, 1998~~Effective January 1, 2024, each operator shall submit to the ~~APCO~~Air Pollution Control Officer, for approval in writing, an annual report to update the ~~Operator Management~~ Plan ~~by~~ no later than ~~January 30~~December 31st of ~~each~~the following calendar year. The update of the Plan may be submitted in conjunction with the annual compliance inspection conducted by the District or on a different schedule approved by the Air Pollution Control Officer, but no less frequently than annually. This report shall include any changes to exemptions, inspection schedule, or any other changes to the inspection and maintenance program. If no changes to the Plan have occurred over the past twelve (12) months, then the operator shall indicate this in the annual report.

   If the ~~APCO~~Air Pollution Control Officer fails to respond to the Plan update in writing within ~~90~~ one hundred and twenty (120) days after it has been received, then it shall be deemed approved. No provision in the Plan, approved or not, shall conflict with or take precedence over any provision of this rule.

F. Operator Repair Requirements

1. The operator shall minimize all component leaks, including critical component leaks, immediately if feasible but no later than one (1) hour following detection during normal business hours. Component leaks detected during holidays, weekends and after business hours shall be immediately minimized if feasible but not later than the next normal business day.

2. Any noncritical component found leaking shall be replaced or repaired to a leak free condition, within the time periods in Table 1. For gaseous leaks, the repair period shall start at the time of leak measurement. For liquid leaks, the repair period shall start at the time of leak detection. If the Table 1 deadline for repairing any major gas leak or any liquid leak falls on a Saturday, Sunday or holiday, then the deadline shall be shifted to the next normal business day.

Table 1. REPAIR PERIODS

~~Type of Leak~~	~~Time Period (days)[a]~~	
	~~Onshore~~	~~Offshore~~

~~a Day means a 24 hour period starting at time of leak detection for liquid leaks and starting at time of leak measurement for gas leaks. For 5 or 14 day deadlines only, the deadline shall be at midnight on the fifth or fourteenth day, respectively.~~

~~Minor Gas Leak (1,000 to 10,000 ppm)~~	~~14~~	~~14~~
~~Major Gas Leak (10,000 to 50,000 ppm)~~	~~5~~	~~5~~
~~Major Gas Leak (>50,000 ppm)~~	~~1 b,c,d~~	~~5 d~~
~~Major Liquid Leak~~	~~1 b,e~~	~~5~~
~~Minor Liquid Leak~~	~~2 b~~	~~5~~

Type of Leak	Time Period (days)[a]
Minor Gas Leak (≥500 to <10,000 ppmv)	7
Major Gas Leak (≥10,000 to <50,000 ppmv)	3
Major Gas Leak (≥50,000 ppmv)	1[b, c]
Minor or Major Liquid Leak	1[b, c]

3. The operator shall re-inspect repaired or replaced components for leaks as soon as practicable using EPA Method 21, Determination of Volatile Organic Compound Leaks, but not later than ~~one calendar month after~~ the date on which the component is ~~repaired~~returned to service after repair.

4. Any component leak identified by District personnel shall be repaired and inspected as required by Section F.

5. ~~Any~~An open-ended line ~~found to be leaking~~ or a valve located at the end of the line shall be sealed as soon as practical but no later than one day after detection with a blind flange, ~~cap,~~ plug, cap, or a second valve that is closed ~~valve~~ at all times, except during attended operations requiring process fluid flow through the open-ended ~~line or valve. If a second closed valve is used, the process side valve shall be closed first, after the completion of any operations requiring flow through the open-ended valve.~~lines.

6. For major gas leaks ~~(>50,000 ppm)~~ or major liquid leaks from any critical compressor seal, pump seal, pressure relief valve or valve that cannot be repaired within the repair periods set forth in Table 1, the operator shall replace or retrofit the leaking component with Best Available Control Technology (BACT) equipment, as approved by the ~~APCO~~Air Pollution Control Officer in writing, within one year from the date of leak detection, or during the next critical process unit shutdown, whichever occurs first.

~~b Unless prohibited by Cal OSHA standards or 29 CFR 1910.~~

~~c Components at oil and gas production facilities shall be repaired within two days of leak detection for liquid leaks and within two days of leak measurement for gaseous leaks.~~

~~d The repair period may be extended for noncritical components having major leaks (> 50,000 ppm) if the component is removed from service until repaired.~~

[a] Day means a 24-hour period starting at time of leak detection for liquid leaks and starting at time of leak measurement for gas leaks. For 3 or 7 day deadlines only, the deadline shall be at midnight on the third or seventh day, respectively.
[b] Unless prohibited by Cal OSHA standards or 29 CFR 1910.
[c] The repair period may be extended for noncritical components having major leaks (≥ 50,000 ppmv) if the component is removed from service and isolated until repaired.

7. The operator shall notify the District in writing within 30 days after detecting a major gas leak or major liquid leak from a critical compressor seal, pump seal, pressure relief valve, or valve if such leak cannot be repaired within the repair periods set forth in Table 1.

8. For minor gas leaks ~~less than or equal to 50,000 ppm or~~ or minor liquid leaks from ~~critical components~~any critical compressor seal, pump seal, pressure relief valve or valve, or for any leaks from critical components other than compressor seals, pump seals, pressure relief valves or valves, the owner or operator shall successfully repair or replace all leaking components within one year from leak detection or during the next critical process unit shutdown, whichever occurs first.

~~The operator shall notify the District in writing within 3 months after detecting a major gas leak (> 50,000 ppm)~~ 9~~or major liquid leak from a critical compressor seal, pump seal, pressure relief valve, or valve if such leak cannot be repaired within the repair periods set forth in Table 1.~~

~~7~~. For a compressor seal, pump seal, pressure relief valve or valve that emits a combined total of five (5) major gas or liquid leaks within a continuous twelve (12) month period, the operator shall replace or retrofit the leaking component with BACT equipment, as approved by the ~~APCO~~Air Pollution Control Officer in writing, within one year from date of the fifth leak detection. The operator shall notify the District in writing within ~~3 months~~ fourteen (14) days after a compressor seal, pump seal, pressure relief valve, or valve has had five (5) major leaks in the previous twelve (12) months.

G. Exemptions

1. The requirements of this rule shall not apply to the following components that are verified in the Operator Management Plan:

a. Components that are buried below ground. The portion of the well casing that is above ground is not considered a buried component.

b. ~~a. Components, not at natural gas processing plants, with gaseous streams with ROC concentrations of 10 percent, by weight or less.~~

~~b.~~ Components ~~at natural gas processing plants with gaseous streams with ROC concentrations of one percent, by weight or less.~~

~~c. Components, not at natural gas processing plants,~~operating in ~~liquid~~vacuum service~~, with ROC concentrations of 10 percent, by weight or less~~.

c.

~~d. Underground components.~~

~~Components used to supply compressed air.~~

d. Pneumatic controllers or pumps that use compressed air or electricity to operate.

e. Components ~~exclusively~~ at crude oil production facilities handling ~~fluids if the fluid weight evaporated is 10 percent~~commercial quality natural gas and are not owned or operated by the oil production facility.

f. Components at crude oil or ~~less at 150 degrees Celsius~~natural gas production facilities that are not owned or operated by the production facility.

g. Components handling produced water downstream of a produced water tank, wash tank or other oil and water separating device compliant with Rule 71.1 and/or Rule 71.2, or steam injection well, or waterflood well.

h. Components found on tanks, separators, wells, and pressure vessels – used exclusively for crude oil with an API Gravity less than 20 averaged on an annual basis. The average annual API Gravity shall be determined using certified reports submitted to California Geologic Energy Management Division (CalGEM). This includes components used for crude oil and the associated produced water components.

2. The operator inspection requirements of Section D shall not apply to the following components. All other requirements of this rule shall still apply.

a. Pump seals, compressor seals, and pressure relief valves that are equipped with a closed-vent system to a vapor recovery system. The vapor disposal portion of the vapor recovery system shall consist of one of the following:

1) A system which directs all vapors to a fuel gas system, a sales gas system, or a flare that combusts ROC.

2) Any other system that processes all vapors and has a ROC vapor destruction or removal efficiency of at least ~~90~~ 95 percent, by weight.

~~b. One-half inch and smaller stainless steel tube fittings that have been determined to be leak-free.~~

~~c. Components in vacuum service.~~

~~d. Flanges or threaded connections that are designated in the Operator Management Plan as subject to the zero leak threshold specified in Attachment 1.~~

3. The ~~operator inspection~~ requirements of ~~Subsections D.1, D.2, D.4 and D.5~~ this rule shall not apply to the following components:

a. Components on equipment or wells that are ~~inspected with~~actively undergoing drilling, completion, plugging and abandonment or ~~without instrumentation on a quarterly basis and are at oil and gas production facilities or pipeline transfer stations that handle liquids with the following properties and specified vapor recovery systems:~~maintenance activities. If an inspection of these components pursuant to Subsection 74.10.D.5 was missed as a result of this exemption, the components shall be inspected before the end of the calendar quarter in which the drilling, completion, plugging and abandonment or maintenance activities are completed.

~~a) Liquid having an API gravity of 20 degrees or less after the point of primary separation;~~

~~b) Liquid having an API gravity between 20 and 30 degrees which are located either:~~

~~1) Downstream of a wellhead equipped with a casing vapor recovery system, provided that the vapor recovery system is operated at a pressure of~~. Temporary components used for general maintenance and used less than ~~10 psig; or~~

~~2) After the point of primary separation of oil and gas, provided the separation vessel is equipped with a vapor recovery system and is operated at a pressure of less than 25 psig.~~

~~4. An~~ 300 hours per calendar year if the owner or operator ~~may petition the APCO for exemption from the replacement or retrofit requirements in Subsections F.6 and F.7 by submitting a cost evaluation for retrofitting or replacing a compressor, pump, pressure relief valve, or valve. Each petition shall include:~~

~~a. A cost-effectiveness evaluation conducted in accordance with "BACT Cost-Effectiveness Procedures and Screening Levels for Costs," adopted by the~~ maintains and can make available at the request of the Air Pollution Control ~~Board on December 20, 1988. The cost analysis shall be based on the retrofit cost of the component if a retrofit is feasible. If the component cannot be retrofitted, then the following control option with the lower cost shall be used in the cost analysis:~~Officer, a record of the date when the components were installed.

~~1) Component replacement with the lowest feasible cost BACT option.~~

~~2) Enclosing the component seal and venting to a vapor recovery system.~~

~~b. Evidence of costs with written bids from vendors, published price lists, or other verifiable cost information. The potential emission reduction from the component retrofit/replacement shall be based on the ROC emissions~~

~~over the previous 12 months. ROC emissions from a critical process unit shutdown shall be included if those emissions are associated with a critical leaking component. APCO-approved emission factors or source tests shall be used to quantify emissions.~~

4. Inspection requirements in Subsection D.2 do not apply to portable tanks if they meet the following requirements:

a. The tank is not used to increase the storage capacity of an existing tank battery.

b. The tank is not located within 150 feet of a tank battery.

c. The tank is being used during maintenance activity at a tank battery or well and has not held or stored crude oil for more than 60 days.

H. Recordkeeping Requirements

1. Any person subject to this Rule shall maintain an inspection log~~.~~ of all inspections required in Section D. The inspection log shall contain, at ~~least~~a minimum, the following:

a. ~~a.~~ Location, type, description, and name or code of each leaking component inspected ~~that cannot be immediately repaired, ~~, and name of associated operating unit.

b. Total number of components inspected, and total number and percentage of leaking components found by leak concentration.

c. For liquid leaks ~~that cannot be immediately repaired~~: Date and time of leak detection and whether leak is major or minor.

d.

~~c.~~ For gaseous leaks ~~that cannot be immediately repaired~~: Date and time of leak detection~~,~~. If the gaseous leak cannot be immediately repaired, the date and time of leak measurement, ~~analyzer~~the EPA Method 21 instrument reading (ppmv) of the leak, and whether the leak is major or minor shall be recorded.

e.

~~d.~~ Date that leak referenced in Subsections H.1.~~b~~c, or H.1.~~e~~d is repaired to a leak-free condition~~,~~ including description of repair action, ~~and~~ date and ~~emission level of re-check~~EPA Method 21 instrument reading (ppmv) of the reinspected component.

~~e~~f. Identification of leak as critical if the component is critical.

~~f~~ g. Identification of unsafe-to-monitor and/or inaccessible components inspected.

h. Maintenance and calibration records of ~~appropriate analyzer~~EPA Method 21 instrument used in the EPA Method 21 measurements.

i. Date of the inspection, including beginning and end time of the inspection.

j. Name of the inspector, facility operator, and the leak detection and repair contractor performing the inspection if the inspection was not performed by the facility operator.

k. Manufacturer, model and serial number of EPA Method 21 instrument used.

2. ~~Where a functional~~After every known pressure release from a pressure relief ~~has been detected~~valve, the operator shall record:

a. Location, operating unit identification, and date of detection.

b. Date of inspection of the pressure relief device after ~~it~~the pressure release was detected, and ~~analyzer reading from~~ EPA Method 21~~.~~ instrument reading (ppmv).

3. ~~The inspection log~~All records required by this rule shall be retained by the operator for a minimum of ~~2~~ five (5) years after the date of ~~an entry~~ recording and ~~.~~

~~4. The inspection log shall~~ be made available to the District upon request~~.~~

~~4. to District personnel.~~

Effective January 1, 2024, any person subject to the provisions of Rule 74.10 shall submit to the District all records generated pursuant to the applicable provisions of Rule 74.10. Records for each calendar year must be submitted by December 31st of the following calendar year. All records may be submitted in conjunction with the annual compliance inspection conducted by the District or on a different schedule approved by the Air Pollution Control Officer but no less frequently than annually.

I. Test Methods

1. Gaseous leaks from components shall be inspected or determined by EPA Method 21, Determination of Volatile Organic Compound Leaks by using an ~~appropriate analyzer~~EPA Method 21 instrument calibrated with methane. The calibration, maintenance, and operation of the ~~appropriate analyzer~~EPA Method 21 instrument shall follow the manufacturer's recommendations.

~~2. The ROC concentration, by weight, of process streams shall be measured by ASTM E168-88 (General Techniques of Infrared Qualitative Analysis), ASTM E169-87 (General Techniques of Ultraviolet Quantitative Analysis), or ASTM E260-85 (Gas Chromatography), or updated versions of these methods approved by EPA and published in the 40 CFR Part 60.~~

~~3. Weight percentage of evaporated compounds of liquids shall be determined using ASTM Method D 86-82.~~

~~4.~~ 2. The API gravity of crude oil shall be determined using ASTM Method D287-22, Determination of API Gravity of Petroleum Products.

J. Violations

The failure of a ~~person~~ facility to meet any requirements of this rule shall constitute a violation of this rule. Each leak exceeding the applicable maximum component leak threshold in Attachment 1 discovered by District personnel will be considered to be ~~a~~in violation of this rule.

K. Definitions

1. "Background": A reading expressed as methane on a portable 1. "Attended Operation": Attended operations include draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and ROC emissions to the atmosphere.

2. "Background": A reading expressed as methane on a EPA Method 21 instrument that is taken at least three meters upwind from any components to be inspected and that is not influenced by any specific emission point.

2. "3. "Closed-vent system": Any system that is not open to the atmosphere and is composed of piping, connections, and, if necessary, flow-inducing devices that transport gases or vapors from a piece or pieces of equipment to a vapor recovery or disposal system.

3. "

4. "Component": Including, but not limited to, any valve, polished rod stuffing box, dump lever arm, open ended line, fitting, threaded connection, flange, manway, pump seal, compressor seal, pressure relief valve, pressure-vacuum relief valve, diaphragm, hatch, sight glass, pipe, pipeline, or meter.

For the purpose of complying and includes components associated with the Operating Requirements in Subsection C.2, any fugitive emissions leak originating at a tank seam, broken pipewellheads or any other nondesigned opening in a process unit shall be considered an "other component" leak for the purpose of Attachment 1. idle wells.

5. "

4. "Compressor Seal": A compressor is a device used to compress gases and/or vapors. The compressor seal is the sealing mechanism that prevents leakage from around the rotating shaft.

5. "6. "Critical Component": Critical component is any component which would require the shutdown of a critical process unit if these components were shutdown. These components must be identified by the source in their Operator Management Plan, which must be approved by the APCOAir Pollution Control Officer.

6. "7. "Critical Process Unit": Any process unit, except for an onshorea polished rod stuffing box, that has no standby equipment available, that cannot be bypassed, and that would be technically infeasible to repair leaks from that process unit without shutting it down and opening the process unit to atmosphere.

7. "8. "Critical Process Unit Shutdown": A work practice or operational procedure that stops production from a critical process unit or part of a critical process unit.

~~8.~~ "9. "Crude oil": A mixture of hydrocarbons that exists in liquid or semi-solid phase in natural underground reservoirs and remains liquid or semisolid at atmospheric pressure after passing through surface separating facilities.

10. "Crude Oil and Natural Gas Production Facility~~": An onshore or offshore~~": A facility at which crude petroleum and natural gas production and handling are conducted, as defined in the SIC Code as Industry No. 1311, Crude Petroleum and Natural Gas.

~~9.~~ "11. "EPA Method 21 Instrument/Instrumentation": An instrument that meets the specifications and performance criteria contained in Section 6.0 of EPA Method 21, Determination of Volatile Organic Compound Leaks and measures total hydrocarbons in units of parts per million by volume (ppmv) calibrated as methane in accordance with EPA Method 21, Determination of Volatile Organic Compound Leaks. Photo Ionization Detector (PID) instruments are not included in this definition.

12. "Facility~~":~~": A facility is any ~~"~~"stationary source~~"~~" as defined in Rule 2 of these rules.

~~10.~~ "13. "Fitting~~":~~": A component used to attach or connect pipes or piping details, including but not limited to flanges and threaded connections.

~~11.~~ "14. "Hatch~~":~~": Any covered opening system that provides access to a tank or container. For the purposes of this rule, a bolted~~, rectangular like~~ access panel/doorway on a tank or container shall not be considered to be a hatch~~, but rather an "other" component~~.

~~12.~~ "15. "Holiday~~":~~": Any company-designated holiday that has been stated in an official company policy document.

~~13.~~ "16. "Idle Well": Any well that for a period of twenty-four (24) consecutive months has not either produced oil or natural gas, produced water to be used in production stimulation, or been used for enhanced oil recovery, reservoir pressure management, or injection.

17. "Inaccessible Component~~":~~": Any component located over fifteen feet above ground when access is required from the ground; or any component located over six feet away from a platform when access is required from the platform.

~~14.~~ "18. "Leak~~":~~": Any major gas leak, minor gas leak, major liquid leak or minor liquid leak. ~~A leak is not a gaseous emission from a pneumatic control valve if it occurs when the valve is in the act of opening or closing.~~

~~15.~~ "19. "Leak Minimization~~":~~": Reducing a leak to the lowest achievable level using best modern and safe practices including but not limited to tightening,

adjusting, or adding sealing material without shutting down the process which the component serves.

~~16.~~ ~~"~~20. "Leak Repair~~":~~": Any corrective action taken for the purposes of reducing a component leak to the lowest achievable level or at least below ~~1,000~~ 500 ppmv for gas leaks and three drops per minute for liquid leaks using the best modern practices.

~~17.~~ ~~"~~21. "Major Gas Leak~~":~~": The detection of total gaseous hydrocarbons ~~in excess~~equal to or greater than 10,000 ppmv as methane above background measured using EPA Method 21, Determination of ~~10,000 ppm as methane above background measured using EPA Method 21~~Volatile Organic Compound Leaks.

A major gas leak from a pressure relief valve means the detection of a continuous reading of total gaseous organic compounds ~~in excess of~~ equal to or greater than 10,000 ppmv, as methane above background measured using EPA Method 21, Determination of Volatile Organic Compound Leaks, unless the process pressure exceeds the limit setting specified for the device. If the process pressure exceeds the limit setting of the pressure relief valve, then this emission to the atmosphere is considered to be a ~~"~~"pressure release~~."~~."

~~18.~~ ~~"~~22. "Major Liquid Leak~~":~~": A visible mist or a continuous flow of liquid that is not seal oil or other similar lubricant. Sampling of process fluids into containers shall not be considered a leak.

~~19.~~ ~~"~~23. "Manway": A bolted access panel/doorway on a tank or container used to allow access for inspection or maintenance.

24. "Minor Gas Leak~~":~~": The detection of total gaseous hydrocarbons ~~in excess of 1~~equal to or greater than 500 ppmv but less than 10,000 ~~ppm~~ppmv as methane above background measured using EPA Method 21, Determination of Volatile Organic Compound Leaks.

~~20.~~ ~~"~~25. "Minor Liquid Leak~~":~~": Any liquid leak, except seal oil or other similar lubricant, that is not a major leak and drips liquid at a rate of more than three drops per minute. Sampling of process fluids into containers shall not be considered a leak.

~~21.~~ ~~"~~26. "Natural gas": A naturally occurring mixture or process derivative of hydrocarbon and non-hydrocarbon gases. Its constituents include the greenhouse gases methane and carbon dioxide, as well as heavier hydrocarbons. Natural gas may be field quality (which varies widely) or pipeline quality.

27. "Natural Gas Gathering and Boosting Station": Equipment and components located within a facility fence line associated with collecting natural gas from multiple wells and moving it toward a natural gas processing plant, transmission pipeline, or distribution pipeline.

28. "Natural Gas Processing Facility~~":~~": A facility engaged in the separation of natural gas liquids from field gas and/or fractionation of the liquids into natural gas products, such as ethane, propane, butane, and natural gasoline. Excluded from the definition are compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquefied natural gas units~~, and field gas gathering systems~~ unless these facilities are located at a natural gas processing plant.

~~22.~~ " 29. "Natural Gas Transmission Compressor Station": Equipment and components located within a facility associated with moving natural gas from production fields or natural gas processing plants through natural gas transmission pipelines, or within natural gas underground storage fields.

30. "Natural Gas Underground Storage Facility": Equipment and components associated with the temporary subsurface storage of natural gas in depleted crude oil or natural gas reservoirs or salt dome caverns. Natural gas storage does not include gas disposal wells.

31. "Normal Business Hours/Day~~":~~": Any time from 7 a.m. to 4 p.m. from Monday through Friday, excluding holidays.

~~23.~~ "32. "Notice of Violation~~":~~": An official notice to an operator for violating a requirement of this rule which may result in District enforcement action.

~~24.~~ "33. "Open ended line~~":~~": Any line, opening or valve, except safety relief valves, having one side of the valve seat in contact with the process fluid and one side open to the atmosphere~~.~~, either directly or through an open piping. An open ended line does not include associated attended operations including draining or degassing operations, connection of temporary process equipment, sampling of process streams, emergency venting, and other normal operational needs, provided such operations are done as expeditiously as possible and with minimal spillage of material and ROC emissions to the atmosphere.

~~25.~~ " 34. "Optical Gas Imaging (OGI)": An instrument that makes emissions visible that may otherwise be invisible to the naked eye.

35. "Pipeline Transfer Station~~":~~": A facility that handles the transfer or storage of crude oil in pipelines.

~~26.~~ "36. "Platform~~":~~": Any raised, permanent, horizontal surface that provides access to components.

~~27.~~ "37. "Polished Rod Stuffing Box~~":~~": A packing device used on oil and gas production well heads compressed around a reciprocating rod. This device may be used for the dual purpose of lubricating the polished rod and preventing fluid leaks.

~~28.~~ "38. "Pressure Relief Valve~~": A valve~~ (PRV)": An automatic pressure relieving device associated with a process vessel or piping system that is

~~automatically actuated~~activated by pressure upstream ~~static pressure,~~of the device and ~~used for~~vents to the atmosphere.

39. "Pressure-Vacuum Relief Valve (PVRV)": A dual-valve safety ~~or emergency purposes~~device designed to protect storage tanks against excessive pressure or vacuum generated in the tank or vessel.

~~29.~~ "40. "Pump Seal~~": A device used to transport fluids.~~": The pump seal is the sealing mechanism used to prevent leaks from around the ~~rotating~~ shaft of the pump.

~~30.~~ "41. "Reactive Organic Compound (ROC)~~":)~~": Any reactive organic compound as defined in Rule 2 of these rules.

~~31. "Rupture Disc": A diaphragm held between flanges for the purpose of isolating a reactive organic compound from the atmosphere or from a downstream pressure relief valve.~~

~~32.~~ " 42. "Steam Injection Well": A well used to inject steam into the reservoir formation to displace residual oil for the purpose of enhanced oil recovery.

43. "Tag~~":~~": A weatherproof and legible piece of paper, metal or plastic that is attached to ~~something for identification or other information.~~a component to identify a leak as required by this rule. A tag may also be some other system approved in writing by the ~~APCO~~Air Pollution Control Officer that demonstrates to District personnel that the operator has detected a component leak awaiting repair and contains all of the information required to be on tags by this rule.

~~33.~~ "44. "Unmanned Facility~~":~~": A remote facility or worksite that has no permanent sited personnel and is greater than five miles from the closest manned facility, owned or operated by the same business. Permanently-sited personnel are person(s) that regularly report to work at that location.

~~34.~~ "45. "Unsafe-to-Monitor Components~~":~~": Components installed at locations that would prevent the safe inspection or repair of components as defined by OSHA standards or in provisions for worker safety found in 29 CFR 1910.

~~35.~~ "46. "Vacuum service~~":~~": Equipment operating at an internal pressure that is at least 0.73 in. of Hg below ambient pressure.

~~36.~~ "47. "Valve~~":~~": Any device that regulates the flow of fluid in a piping system by means of an external actuator acting to permit or block passage of fluid excluding the attached flange and the flange seal.

~~37.~~ 48. "Vapor Control System~~":~~": Any system that is not open to the atmosphere and is composed of piping, connections and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a vapor recovery or disposal system.

49. "Waterflood Well": A well used to inject water into the reservoir formation to displace residual oil for the purpose of secondary oil recovery.

50. "Wellhead": Any piping, casing, tubing and connected valves protruding above the earth's surface for an oil or natural gas well.

ATTACHMENT 1

COMPONENT LEAK THRESHOLDS

This Attachment defines the leak thresholds for the operating requirements in Subsection C.2.

~~NO. OF COMPONENT~~	~~COMPONENTS INSPECTED~~	~~MAXIMUM NUMBER OF MAJOR GAS LEAKS OR LIQUID LEAKS~~	~~Effective Date~~
~~Hatches~~		~~0~~	~~9/22/87~~
~~Open Ended Lines~~		~~0~~	~~9/22/87~~
~~Flanges or Threaded Connections (If designated in the Operator Management Plan as exempt from inspection requirements)~~		~~0~~	~~9/22/87~~
~~Valves (not open ended)~~	~~250 or less~~ ~~More than 250~~	~~5~~ ~~2% of number of components inspected~~	~~9/22/87~~ ~~9/22/87~~
~~Other Components[+]~~	~~200 or less~~ ~~More than 200~~	~~2~~ ~~1% of number of components inspected~~	~~9/22/87~~ ~~9/22/87~~

Leak Rate	Leak Threshold - ≤200 Comp Insp	>200 Comp Insp
Minor Gas Leak – ≥500 to <10,000 ppmv	5	2% of total inspected
Major Gas Leak – ≥10,000 to <50,000 ppmv or Minor Liquid Leak	2	1% of total inspected
Major Gas Leak – ≥50,000 ppmv or Major Liquid Leak	0	0
Major Gas Leak – ≥10,000 ppmv or Any Liquid Leak from a Hatch or Open-ended Line	0	0

~~[+] Other components in Attachment 1 are all components (including flanges and threaded connections not exempt from operator inspection requirements) except polished rod stuffing boxes, dump lever arms, hatches, valves, and open ended lines.~~