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(Amended November 1, 2024)

RULE 1173 CONTROL OF VOLATILE ORGANIC COMPOUND LEAKS AND RELEASES FROM COMPONENTS AT PETROLEUM FACILITIES AND CHEMICAL PLANTS

(a) Purpose

This rule is intended to control Volatile Organic Compound (VOC) Leaks from Components, Releases from Atmospheric Process Pressure Relief Devices (PRDs), and establish Contingency Measures for applicable ozone standards for the reduction of VOC.

(b) Applicability

(1) This rule applies to Refineries, Chemical Plants, Lubricating Oil and Grease Re-refiners, Marine Terminals, Oil and Gas Production Fields, Natural Gas Processing Plants, and Pipeline Transfer Stations.

(2) Subdivision (k) shall not become applicable until the effective date of final and full approval by the United States Environmental Protection Agency (U.S. EPA) of the California State Implementation Plan (SIP) as meeting the Contingency Measure requirements of the Clean Air Act Sections 172(c)(9) and 182(c)(9) for the South Coast Air Basin regarding the 2008 and 2015 ozone National Ambient Air Quality Standards (NAAQS).

(c) Definitions

For the purpose of this rule the following definitions shall apply:

(1) ATMOSPHERIC PROCESS PRD is a PRD located on process equipment other than storage tanks or pipelines used to transport material and that vents to atmosphere.

(2) BACKGROUND is the ambient concentration of total organic compounds (TOC) in the air at least one (1) meter upwind of the Component to be inspected, determined according to the test method in paragraph (j)(1).

(3) CHEMICAL PLANT is a facility, as defined in Rule 1302, engaged in producing chemicals and manufacturing products by chemical processes, as described by North American Industry Classification System (NAICS) subsector 3252 – Resin, Synthetic Rubber, and Artificial and Synthetic Fibers and Filaments Manufacturing or similar.

(4) COMMERCIAL NATURAL GAS is a mixture of hydrocarbons, with at least 80 percent methane by volume and less than ten (10) percent by weight VOC, determined according to test methods specified in paragraph (j)(2).

(c) (5) COMPONENT is a Valve, Fitting, Pump, Compressor, PRD, Fin Fan, or other device (diaphragm, Hatch, sight-glass, meter) in VOC service. Components are further classified as:

(A) MAJOR COMPONENT is a 4-inch or larger Valve, a 5-hp or larger Pump, a Compressor, a 4-inch or larger PRD, or a Fin Fan.

(B) MINOR COMPONENT is a Component which is not a Major Component.

(6) COMPRESSOR is a device used to compress gas/vapor by the addition of energy, and includes all associated Connectors, Flanges, and Compressor Seals.

(7) COMPRESSOR SEAL is associated with a Compressor and is used to prevent escape of gas/vapor and introduction of atmosphere.

(8) CONNECTOR is a nonwelded connection to, from, or between pipes or piping details without flanged ends, typically threaded and screwed together.

(9) CONTINGENCY MEASURE (CM) is a control strategy to further reduce VOC emissions if the South Coast Air Basin fails to comply with the requirements specified in Clean Air Act, Sections 172(c)(9) and 182(c)(9) regarding the 2008 and 2015 ozone NAAQS. These requirements are making reasonable further progress (RFP), attaining the applicable ozone NAAQS by a specified attainment date, and meeting any applicable milestones.

(10) ESSENTIAL COMPONENT is a Component that cannot be isolated from the fluid stream and can only be taken out of service by shutdown of the Process Unit that it serves.

(11) FIN FAN is a device used to reduce temperature of process fluid by use of heat exchange with air, and includes all associated Fin Fan Plugs, Connectors, and Flanges.

(12) FIN FAN PLUG is a threaded plug located opposite a cooling tube on plug-type header boxes to provide access for inspection and cleaning of individual cooling tubes.

(13) FITTING is a device used to terminate, attach, or connect pipes or piping details. Fittings include piping couplings (Flange or Connector), blind Flanges, plugs, and caps.

(14) FLANGE is a nonwelded connection between pipes or piping details with flanged ends, joined by bolting and equipped with a gasket, seal, or other means that provides a barrier to potential leakage.

(15) HATCH is a covered opening system that provides access to a tank, container, or vessel.

(c) (16) HEAVY LIQUID is a liquid with ten (10) percent or less VOC by volume evaporated at 150°C (302°F), determined according to test methods specified in paragraph (j)(2).

(17) INACCESSIBLE COMPONENT is a Component located over five (5) meters above ground when access is required from the ground; or a Component located over two (2) meters away from a platform when access is required from the platform; or a Component which would require the elevation of a monitoring personnel higher than two (2) meters above permanent support surfaces.

(18) INSPECTION is a survey of Components and is further classified as:

(A) AUDIO-VISUAL-OLFACTORY (AVO) INSPECTION is a survey of Components by the owner or operator, or their contractor, by hearing, by sight, and by smell.

(B) OPTICAL GAS IMAGING (OGI) INSPECTION is a survey of multiple Components using an OGI Device, viewable from a Platform, ground level, or vantage point, by the owner or operator, or their contractor.

(C) ANALYZER INSPECTION is a survey of individual Component potential sources of Leaks using an appropriate analyzer in accordance with the test method in paragraph (j)(1) by the owner or operator, or their contractor.

(D) SOUTH COAST AQMD INSPECTION is a survey of Components using an appropriate analyzer, OGI Device, or other means by South Coast AQMD personnel, or their authorized representatives.

(19) LEAK is the emission and detection of a concentration of TOC above Background, determined according to the test method in paragraph (j)(1).

(20) LIGHT LIQUID is a liquid with more than ten (10) percent VOC by volume evaporated at 150ºC (302ºF), determined according to the test method specified in paragraph (j)(2).

(21) LUBRICATING OIL AND GREASE RE-REFINER is a facility, as defined in Rule 1302, engaged in the blending, compounding, and re-refining of lubricating oils and greases from mineral, animal, and vegetable materials, as described by NAICS code 324191 – Petroleum Lubricating Oil and Grease Manufacturing or similar.

(22) MARINE TERMINAL is a facility, as defined in Rule 1302, engaged in the loading or unloading of organic liquid into or out of marine tank vessels, as described by NAICS code 424710 – Petroleum Bulk Stations and Terminals, NAICS code 488320 – Marine Cargo Handling, or similar.

(c) (23) NATURAL GAS PROCESSING PLANT is a facility, as defined in Rule 1302, engaged in the separation of natural gas liquids from feed stock gas or fractionation of the liquids into natural gas products, such as ethane, propane, butane, and natural gasoline, as described by NAICS code 211130 – Natural Gas Extraction or similar. Excluded from the definition are compressor stations, dehydration units, sweetening units, field treatment, underground storage facilities, liquefied natural gas units, and feed stock gas gathering systems unless these entities are located at a Natural Gas Processing Plant.

(24) OIL AND GAS PRODUCTION FIELD is a facility, as defined in Rule 1302, engaged in crude petroleum and natural gas production and handling, as described by NAICS subsector 211 – Oil and Gas Extraction or similar.

(25) OPTICAL GAS IMAGING (OGI) DEVICE is an infrared camera with a detector capable of visualizing gases in the 3.2-3.4 micrometer waveband.

(26) OUTAGE is an unscheduled shutdown of a Process Unit for more than 24 hours for maintenance and Repair work or other reasons.

(27) PIPELINE TRANSFER STATION is a facility, as defined in Rule 1302, which handles the transfer and storage of petroleum products or crude petroleum in pipelines as described by NAICS code 486110 – Pipeline Transportation of Crude Oil, NAICS code 486910 – Pipeline Transportation of Refined Petroleum Products, or similar.

(28) PLATFORM is a raised, permanent, horizontal surface for the purpose of gaining access to Components.

(29) PRESSURE RELIEF DEVICE (PRD) is a pressure relief valve (PRV) or a Rupture Disc, and includes all associated Connectors and Flanges.

(30) PRESSURE RELIEF VALVE (PRV) is associated with a PRD and is automatically actuated by upstream static pressure to the atmosphere (atmospheric PRV) or to a control device, and used for safety or emergency purposes.

(31) PROCESS UNIT is an assembly of Components and other devices connected by pipes to process feed or raw materials and to produce intermediate or final products. Process Units can operate independently if supplied with sufficient materials and sufficient storage for products.

(32) PUMP is a device used to transport Light Liquids or Heavy Liquids by the addition of energy, and includes all associated Connectors, Flanges, and Pump Seals.

(33) PUMP SEAL is associated with a Pump and is used to prevent escape of Light Liquids or Heavy Liquids and to prevent introduction of atmosphere.

(c) (34) REFINERY is a facility, as defined in Rule 1302, engaged in producing gasoline, aviation gasoline, kerosene, distillate fuel oils, residual fuel oils, biofuels, asphalt, and lubricants and also producing aliphatic and aromatic chemicals as by-products, through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes, as described by NAICS code 324110 – Petroleum Refineries, NAICS code 324199 – All Other Petroleum and Coal Products Manufacturing, or NAICS code 325199 – All Other Basic Organic Chemical Manufacturing, or similar.

(35) RELEASE is a VOC emission to the atmosphere from a PRD caused by an increase in upstream pressure. A Leak caused by improper reseating of a PRV is not a Release.

(36) REPAIR is corrective action for the purpose of eliminating or reducing Leaks, Visible Leaks, or Visible Vapors and includes washing, tightening, repacking, lubricating, resealing, or replacing Components, piping, or other devices. Repair may involve the temporary removal or taking out of service of a Component.

(37) RUPTURE DISC is associated with a PRD and is a diaphragm held between Flanges for the purpose of isolating VOC from the atmosphere or from a downstream PRV.

(38) SOUTH COAST AIR BASIN is the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County as defined in California Code of Regulations, Title 17, Section 60104.

(39) TAMPER-PROOF is all data collected is encrypted such that it cannot be modified.

(40) TELLTALE INDICATOR is a device installed in conjunction with a PRD, indicating whether a Release has occurred.

(41) TOTAL ORGANIC COMPOUNDS (TOC) is the concentration of gaseous organic compounds determined according to the test method in paragraph (j)(1).

(42) TURNAROUND is a scheduled shutdown of a Process Unit for maintenance and Repair work.

(43) VALVE is a device that regulates or isolates the fluid flow in a pipe, tube, or conduit by means of an external actuator, and includes all associated Connectors and Flanges.

(44) VISIBLE LEAK is the excessive dripping of process fluid from a Component in VOC service. A Visible Leak may be any one of the following:

(A) More than three (3) drops per minute from a Component in Light Liquid service.

(c) (44) (B) More than three (3) drops per minute from an Inaccessible Component in Heavy Liquid service.

(C) More than three (3) drops per minute and the emission of VOC greater than 100 ppm detected using an appropriate analyzer in accordance with the test method in paragraph (j)(1) from an accessible Component in Heavy Liquid service.

(45) VISIBLE VAPORS is TOC vapor leakage detected with an OGI Device, when operated and maintained in accordance with manufacturer training or certification, or equivalent California Air Resources Board (CARB) training, user manuals, specifications, and recommendations.

(46) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102.

(d) South Coast AQMD Inspection Procedures

(1) Effective January 1, 2026, the owner or operator of a facility shall be in violation of this rule if South Coast AQMD personnel detect using an appropriate analyzer in accordance with the test method in paragraph (j)(1) a Component exceeding the applicable standard listed in Table 1 – Violation Standards:

TABLE 1 – VIOLATION STANDARDS

Component Service	Violation Standard
Light Liquid or Gas/Vapor	10,000 ppm
Heavy Liquid	500 ppm

(2) The owner or operator of a facility shall be in violation of this rule if South Coast AQMD personnel detect a Component with a Visible Leak.

(3) Effective January 1, 2026, the owner or operator of a facility shall be in violation of this rule if South Coast AQMD personnel detect a Component with Visible Vapors, unless the owner or operator concurrently demonstrates, or no later than one (1) calendar day after detection for an Inaccessible Component, using an appropriate analyzer in accordance with the test method in paragraph (j)(1) or another method approved by the Executive Officer to the satisfaction of South Coast AQMD personnel that the Component is not exceeding the applicable standard listed in Table 1 – Violation Standards.

(4) The owner or operator of a facility shall be in violation of this rule if South Coast AQMD personnel observe open-ended lines and Valves located at the end of lines that are not sealed with a blind Flange, plug, cap, or a second closed Valve at all

times, except during operations requiring process fluid flow through the open-ended line.

(e) Identification Requirements

The owner or operator shall:

(1) Physically identify clearly and visibly all Major Components, except Fin Fans, in Light Liquid or gas/vapor service, all Pumps in Heavy Liquid service, and, effective January 1, 2026, all Fin Fans in VOC service, for Inspection, Repair, and recordkeeping purposes.

(2) Clearly identify all Major Components, except Fin Fans, in Heavy Liquid service other than Pumps subject to paragraph (e)(1), and Minor Components, in piping and instrumentation flow diagrams or group them together functionally for Inspection, Repair, and recordkeeping purposes.

(3) Submit the information required to identify Components in Heavy Liquid service, as required by paragraphs (e)(1) and (e)(2), for approval by the Executive Officer.

(4) Any changes in Major Component identification shall require prior written approval from the Executive Officer.

(5) Physically identify clearly and visibly each Component under Repair near the source of leakage with physical identification larger and of a different color than that used in accordance with paragraph (e)(1) and maintain such Components physically identified until Repair is complete.

(f) Self Inspection Requirements

(1) The owner or operator of a facility, except for unmanned Oil and Gas Production Fields and unmanned Pipeline Transfer Stations, shall conduct an AVO Inspection of all accessible Pumps, Compressors, and Atmospheric Process PRDs at least once per operating shift, and no more than 12 hours between AVO Inspections. The owner or operator of an unmanned Oil and Gas Production Field or an unmanned Pipeline Transfer Station shall conduct an AVO Inspection of all accessible Pumps, Compressors, and Atmospheric Process PRDs at least once per calendar week.

(2) Effective January 1, 2026, the owner or operator of a facility shall conduct an OGI Inspection of Components at least once per calendar month, unless a Component will be out of service for more than 14 calendar days of the calendar month due to Outage or Turnaround.

(f) (2) (A) The owner or operator conducting an OGI Inspection shall complete a manufacturer's certification or training program, or equivalent CARB training for the OGI Device used to conduct the Inspection.

(B) The owner or operator conducting an OGI Inspection shall operate and maintain the OGI Device in accordance with the manufacturer's specifications and recommendations.

(C) In lieu of an OGI Inspection, the owner or operator may elect to use an alternative Inspection method approved in writing by U.S. EPA that is equivalent or more stringent than an OGI Inspection. The owner or operator seeking to use an alternative Inspection method shall submit the written approval from U.S. EPA to the Executive Officer for their review and independent approval.

(3) The owner or operator of a facility shall conduct an Analyzer Inspection:

(A) Quarterly, of all accessible Components, except Fin Fans, in Light Liquid or gas/vapor service, and all Pumps in Heavy Liquid service.

(B) Annually, of all Inaccessible Components, except Fin Fans, in Light Liquid or gas/vapor service and, effective January 1, 2026, all Fin Fans in VOC service.

(C) After every Release from a PRD within one (1) calendar day and an additional Analyzer Inspection within 14 calendar days.

(D) After every Repair of a Component within 30 calendar days of Repair.

(E) Using an electronic recording instrument, operated and maintained according to manufacturer's specifications, to simultaneously record all readings in an electronic format, at a Refinery with more than 25,000 Components.

(4) The owner or operator may apply for written approval from the Executive Officer to change the Analyzer Inspection frequency for each type of accessible Component as required in subparagraph (f)(3)(A) from quarterly to annually provided that all accessible Components of that type at the facility have been successfully operated and maintained for five consecutive calendar quarters with no Visible Leaks, no Visible Vapors, and no Leaks exceeding the applicable standard listed in Table 1– Violation Standards.

(5) The owner or operator shall submit documentation prior to the change in Inspection frequency, as per paragraph (f)(4) for written approval from the Executive Officer.

(6) The owner or operator shall revert to a quarterly Analyzer Inspection frequency for a Component type should AVO Inspection, OGI Inspection, the annual Analyzer

Inspection, or South Coast AQMD Inspection detect any of the following, applicable to the Component type, listed below, either:

(f) (6) (A) A Visible Leak;

(B) Visible Vapors; or

(C) A Leak exceeding the applicable standard listed in Table 1 – Violation Standards.

(g) Leak Standards and Repair Requirements

Effective January 1, 2026:

(1) The owner or operator of a facility shall Repair all Components exceeding the applicable standard listed in Table 2 – Component Leak Standards:

TABLE 2 - COMPONENT LEAK STANDARDS

Component Type	Leak Standard
Compressor or Pump (Light Liquid)	400 ppm
Pressure Relief Device (PRD)	200 ppm
Pump (Heavy Liquid)	100 ppm
Valve, Fitting, or other device (diaphragm, Hatch, sight-glass, meter)	100 ppm
Fin Fan	100 ppm

(2) For a Component other than a Fin Fan exceeding the applicable standard listed in Table 2 – Component Leak Standards, the owner or operator shall:

(A) If the Component exceeds the applicable standard listed in Table 1 – Violation Standards, no later than one (1) calendar day after detection, either:

(i) Demonstrate the Component does not emit Visible Vapors using an OGI Device; or

(ii) Demonstrate the Component does not exceed the applicable standard listed in Table 1 – Violation Standards using an appropriate analyzer in accordance with the test method in paragraph (j)(1); and

(B) Within 14 calendar days of detection, complete Repair of the Component below the applicable standard listed in Table 2 – Component Leak Standards, except for a limited number of Essential Components, rounded up to the next whole number of Essential Components listed in Table 3 – Limited Delay of Repair and as determined on the last calendar day of each calendar quarter, provided each such Essential Component does not exceed

the applicable standard listed in Table 3 – Limited Delay of Repair and Repair is completed no later than the end of the next Outage or Turnaround, whichever comes first, for the Process Unit that includes each such Essential Component:

TABLE 3 – LIMITED DELAY OF REPAIR

Essential Component Type	Delay Leak Standard	Total Number Allowed
Valve or Fitting	500 ppm	0.05% of facility total number of Valves and Fittings
Compressor or Pump (Light Liquid)	500 ppm	0.05% of facility total number of Compressors and Pumps (Light Liquid)

(g) (3) For a Visible Leak from an accessible Component other than a Fin Fan, the owner or operator shall, no later than one (1) calendar day after detection, eliminate the Visible Leak.

(4) For a Visible Leak from an Inaccessible Component other than a Fin Fan, the owner or operator shall:

(A) Within 24 hours of detection, electronically notify the Executive Officer in an approved format, or in writing via Rule1173Reports@aqmd.gov if no format is approved; and

(B) Within 14 calendar days of detection, eliminate the Visible Leak.

(5) For Visible Vapors from an accessible Component other than a Fin Fan, the owner or operator shall, no later than one (1) calendar day after detection, either:

(A) Eliminate the Visible Vapors; or

(B) Demonstrate the Component does not exceed the applicable standard listed in Table 1 – Violation Standards using an appropriate analyzer in accordance with the test method in paragraph (j)(1) and, within 14 calendar days of detection, complete Repair of the Component below the applicable standard listed in Table 2 – Component Leak Standards.

(6) For Visible Vapors from an Inaccessible Component other than a Fin Fan, the owner or operator shall:

(A) Within 14 calendar days of detection, eliminate the Visible Vapors; and

(B) If Visible Vapors are not eliminated within seven (7) calendar days of detection, within eight (8) calendar days of detection electronically notify the Executive Officer in an approved format, or in writing via Rule1173Reports@aqmd.gov if no format is approved.

(g) (7) For either a Fin Fan exceeding the applicable standard listed in Table 2 – Component Leak Standards, a Visible Leak from a Fin Fan, or Visible Vapors from a Fin Fan, the owner or operator shall:

(A) No later than 14 calendar days after detection, either:

(i) Demonstrate the Fin Fan does not emit Visible Vapors using an OGI Device; or

(ii) Demonstrate the Fin Fan does not Leak at a rate exceeding 5,000 ppm using an appropriate analyzer in accordance with the test method in paragraph (j)(1); and

(B) No later than the end of the next Outage or Turnaround, whichever comes first, of the Process Unit that includes the Fin Fan, complete Repair of the Fin Fan below the applicable standard listed in Table 2 – Component Leak Standards.

(8) As determined on the last calendar day of each calendar quarter, the owner or operator of a facility with a Fin Fan shall not allow more than 1% of the facility total number of Fin Fan Plugs, rounded up to the next whole number, to leak at a rate exceeding the applicable standard listed in Table 2 – Component Leak Standards.

(h) Atmospheric Process PRD Requirements

(1) The owner or operator of a Refinery shall continuously monitor Atmospheric Process PRDs by installing Tamper-proof electronic monitoring devices capable of recording the duration of each Release and quantifying the amount of VOC released.

(A) The owner or operator of a Refinery may continue to use Tamper-proof electronic Valve monitoring devices in combination with continuous parameter monitoring or Tamper-proof electronic Valve monitoring devices and Telltale indicators for any Atmospheric Process PRD that in combination can record the duration of each Release and quantify the amount of the compounds released, provided that the owner or operator demonstrated on or before July 1, 2010 to the satisfaction of the Executive Officer that the combination of Tamper-proof electronic Valve monitoring devices, continuous parameter monitoring, or Telltale indicators represents the actual process conditions at the location of the Atmospheric Process PRD Release.

(h) (1) (B) This requirement does not apply to Atmospheric Process PRDs that will be connected in such a manner as to direct all gases and vapors that can be released by an Atmospheric Process PRD to a VOC vapor recovery or control system.

(C) This requirement does not apply to Atmospheric Process PRDs in Heavy Liquid service that Release to drains subject to Rule 1176, provided that the owner or operator demonstrates to the satisfaction of the Executive Officer that all Releases meets the definition of Heavy Liquid.

(2) The owner or operator of a Chemical Plant shall monitor Atmospheric Process PRDs by either of the following options:

(A) Install and maintain Tamper-proof electronic monitoring devices capable of recording the duration of each Release and quantifying the amount of VOC released on twenty percent of the Atmospheric Process PRD inventory; or

(B) Use of electronic process control instrumentation that allows for real time continuous parameter monitoring and Telltale Indicators for the Atmospheric Process PRDs where parameter monitoring is not feasible.

(3) The owner or operator of a Lubricating Oil and Grease Re-refiner or a Marine Terminal shall monitor Atmospheric Process PRDs by use of either electronic process control instrumentation that allows for real time continuous parameter monitoring or Telltale indicators for the Atmospheric Process PRDs where parameter monitoring is not feasible.

(4) The owner or operator shall submit to the Executive Officer a compliance plan or a revised compliance plan containing the inventory of Atmospheric Process PRDs by size, set pressure and location, and indicate the option chosen to comply with paragraph (h)(1), (h)(2), or (h)(3), as applicable. If applicable, the owner or operator shall indicate the process parameter selected for continuous monitoring and the justification for such selection.

(5) Following a Release from an Atmospheric Process PRD, the owner or operator shall conduct a failure analysis and implement corrective actions within 30 days to prevent the reoccurrence of similar Releases.

(6) At a Refinery with throughput greater than 20,000 barrels per day, the owner or operator shall, as soon as practicable but no later than the next Turnaround, connect all Atmospheric Process PRDs serving that equipment to a vapor recovery or control system following either:

(h) (6) (A) Two (2) Releases, each in excess of 500 pounds of VOC in a continuous 24-hour period, within any five (5) year period from any Atmospheric Process PRD serving the same piece or pieces of equipment; or

(B) Any Release in excess of 2,000 pounds of VOC in a continuous 24-hour period from any Atmospheric Process PRD serving the same piece or pieces of equipment.

(7) In lieu of complying with paragraph (h)(6), an owner or operator may elect to pay a mitigation fee of $625,000 to the Executive Officer for Releases described by subparagraphs (h)(6)(A) or (h)(6)(B) and any subsequent Release in excess of 500 pounds of VOC in a continuous 24-hour period within a five (5) year period. Effective July 1 of each calendar year after November 1, 2024, the mitigation fee shall be automatically adjusted by the change in the annual average California Consumer Price Index for All Urban Consumers against calendar year 2024, as defined in California Health and Safety Code §40500.1(a). Within 90 days of the release, the owner or operator shall notify the Executive Officer, in writing, of the election to pay the current mitigation fee and submit payment as requested by the Executive Officer.

(i) Recordkeeping and Reporting Requirements

(1) The owner or operator shall record all Leaks, Visible Leaks, Visible Vapors, Repairs, Components awaiting Repair, and Inspections in an electronic format approved by the Executive Officer and submit those records electronically to the Executive Officer in an approved format, or in writing via Rule1173Reports@aqmd.gov if no format is approved, as quarterly or annual Inspection reports to the Executive Officer no later than 30 days after the end of each calendar quarter or no later than 60 days after the end of the calendar year, respectively.

(2) The owner or operator shall include in all records of Inspection, at a minimum, the Component identification and type, Repair, location, Leak rate, and date and time of Inspection. The owner or operator shall maintain these records for a period of at least five (5) years and make them available to the Executive Officer, upon request.

(3) The owner or operator of a Refinery, Chemical Plant, Lubricating Oil and Grease Re-refiner, or Marine Terminal shall:

(A) Notify the Executive Officer, by telephone to 800-CUT-SMOG or another method approved by the Executive Officer, of any Atmospheric Process PRD Release in excess of 100 pounds of VOC within one (1) hour of such

occurrence or within one (1) hour of the time the owner or operator knew or reasonably should have known of its occurrence;

(i) (3) (B) Submit a written failure analysis report to the Executive Officer within 30 days following notification of an Atmospheric Process PRD Release, providing the following information:

(i) PRD type, size and location.

(ii) Date, time, and duration of the Release.

(iii) Types of VOC released and individual amounts, in pounds, including supporting calculations.

(iv) Cause of the Release.

(v) Corrective actions taken to prevent a subsequent Release.

(C) Submit quarterly reports electronically to the Executive Officer in an approved format, or in writing via Rule1173Reports@aqmd.gov if no format is approved, for all monitored Atmospheric Process PRDs to comply with paragraphs (h)(1), (h)(2), and (h)(3), if applicable, in an electronic format approved by the Executive Officer, indicating the parameters monitored as a function of time, no later than 30 days after the end of each calendar quarter.

(D) Maintain records of the process parameters monitored to comply with paragraphs (h)(1), (h)(2), and (h)(3), if applicable, for a period of at least five (5) years and make them available to the Executive Officer, upon request.

(4) The reporting provisions of Rule 430 shall not be applicable to Components being Repaired under the provisions of this rule, except Compressors.

(j) Test Methods

(1) Measurements of Leak concentrations shall be conducted according to the U.S. EPA Reference Method 21 using an appropriate analyzer calibrated with methane. The analyzer shall be calibrated before Analyzer Inspection each day.

(2) The VOC content shall be determined according to ASTM Methods D 1945, D 7833, or D 2163 for gases, South Coast AQMD Method 304-91 for liquids. The percent VOC of a liquid evaporated at 150°C (302°F) shall be determined according to ASTM Method D 86.

(3) The flash point of Heavy Liquids shall be determined according to ASTM Method D 93.

(j) (4) The owner or operator may use another method to determine compliance with this rule provided it is demonstrated to be equivalent and approved in writing by the Executive Officer, CARB, and U.S. EPA.

(k) Ozone Contingency Measures

(1) On and after 60 days following the effective date of a final rule by U.S. EPA that the conditions described in Clean Air Act Sections 172(c)(9) and 182(c)(9) have occurred in the South Coast Air Basin regarding the 2008 or 2015 ozone NAAQS, the applicable CM specified in paragraph (k)(2) shall be implemented.

(2) CMs shall be implemented sequentially after issuance of each final rule:

Stage 1 CM

(A) The owner or operator of a facility within the South Coast Air Basin shall Repair a Compressor or Pump (Light Liquid) detected above 300 ppm, instead of 400 ppm as listed in Table 2 – Component Leak Standards.

Stage 2 CM

(B) The owner or operator of a facility within the South Coast Air Basin shall conduct an OGI Inspection of Components at least once every two (2) calendar weeks, instead of at least once per calendar month as specified in paragraph (f)(2), unless a Component will be out of service for more than seven (7) calendar days of the two (2) calendar week period due to Outage or Turnaround.

Stage 3 CM

(C) The owner or operator of a facility within the South Coast Air Basin shall Repair a Valve, Fitting, or other device (diaphragm, Hatch, sight-glass, meter) detected above 50 ppm, instead of 100 ppm as listed in Table 2 – Component Leak Standards.

(l) Exemptions

(1) The requirements of this rule shall not apply to the following Components if the owner or operator supplies proof of the applicable criteria to the satisfaction, upon request, of the Executive Officer for the following cases:

(A) Components which present a safety hazard for Inspection or Repair, as documented and established in a safety manual or policy, previously, or with the prior written approval of the Executive Officer, except that the owner or operator shall inspect these Components for Leaks when it is safe to do so. The owner or operator shall Repair the Component in accordance

with subdivisions (g) or (m), as applicable, from the date Repair can be carried out safely.

(l) (1) (B) Components being Repaired during the specified time period as given in subdivisions (g) or (m), as applicable, provided such Components are physically identified in accordance with paragraph (e)(5).

(C) Components exclusively handling Commercial Natural Gas.

(D) Components exclusively handling fluids with a VOC content of ten (10) percent by weight or less, determined according to test methods specified in paragraph (j)(2).

(E) Components incorporated in lines, while operating under negative pressures.

(F) Components totally contained or enclosed such that there are no VOC emissions into the atmosphere.

(G) Components buried below ground.

(H) Pressure/vacuum vent Valves on storage tanks.

(I) Storage tank Hatches subject to Rule 1178.

(2) The requirements of subdivisions (h) and (i) shall not apply to PRDs installed for protection from overpressure due to variation in ambient temperature provided that they are vented to drains or back into the pipeline. The owner or operator seeking exemption shall supply proof of the applicable criteria to the satisfaction, upon request, of the Executive Officer.

(3) The provisions of Rules 466, 466.1, and 467 shall not apply to facilities subject to this rule.

(4) The provisions of paragraph (e)(1) and subdivision (f) shall not apply to components handling liquids with a flash point greater than 121°C (250°F), as determined according to the test method specified in paragraph (j)(3).

(5) The requirements of paragraphs (h)(6) and (h)(7) shall not apply to Releases from Refineries that resulted from natural disasters, acts of war or terrorism, or external power curtailment beyond the Refinery's control, excluding power curtailment due to an interruptible service agreement. The owner or operator of the Refinery seeking exemption shall supply proof of the applicable criteria to the satisfaction, upon request, of the Executive Officer.

(6) The requirements of paragraph (f)(2), clause (g)(2)(A)(i), and clause (g)(7)(A)(i) to conduct an OGI Inspection shall not apply on days the owner or operator determines that it is unsafe to conduct an OGI Inspection from a Platform or vantage point capable of inspecting Components, provided that the reasons and dates the OGI

Inspection was not conducted is documented. The owner or operator shall resume OGI Inspection on the first day determined to be safe. The owner or operator seeking exemption shall supply proof of the applicable criteria to the satisfaction, upon request, of the Executive Officer.

(m) Interim Procedures and Requirements

(1) Prior to January 1, 2026, the owner or operator of a facility shall be in violation of this rule if South Coast AQMD personnel detect using an appropriate analyzer in accordance with the test method in paragraph (j)(1) a Component exceeding the applicable standard listed in Table 4 – Interim Violation Standards:

TABLE 4 – INTERIM VIOLATION STANDARDS

Component Service	Interim Violation Standard
Light Liquid and Gas/Vapor	50,000 ppm
Heavy Liquid	500 ppm

(2) Prior to January 1, 2026, the owner or operator of a facility shall Repair all Components exceeding the applicable standard listed in Table 5 – Interim Leak Standards as soon as practicable but no later than the time period specified in Table 6 – Interim Repair Periods:

TABLE 5 - INTERIM LEAK STANDARDS

Component Type	Interim Leak Standard
Compressor or Pump (Light Liquid)	500 ppm
Pressure Relief Device (PRD)	200 ppm
Pump (Heavy Liquid)	100 ppm
Valve, Fitting, or other device (diaphragm, Hatch, sight-glass, meter)	500 ppm

TABLE 6 - INTERIM REPAIR PERIODS

Type of Leak or Visible Leak	Interim Repair Period
Leak greater than 25,000 ppm; Leak or Visible Leak (Heavy Liquid) greater than 500 ppm; or Visible Leak (Light Liquid)	1 calendar day
Leak greater than 10,000 ppm but no greater than 25,000 ppm; or Leak greater than 200 ppm but no greater than 25,000 ppm from component type PRD	5 calendar days
Visible Leak (Heavy Liquid) greater than 100 ppm but no greater than 500 ppm	7 calendar days
Leak (Light Liquid or gas/vapor) greater than 500 ppm but no greater than 10,000 ppm; or Leak (Heavy Liquid) greater than 100 ppm but no greater than 500 ppm	14 calendar days