

(Adopted December 1, 2017)

PROPOSED AMENDED RULE 1180. FENCELINE AND COMMUNITY AIR MONITORING FOR ~~REFINERY~~ PETROLEUM REFINERIES AND RELATED OPERATIONS ~~FENCELINE AND COMMUNITY AIR MONITORING~~

(a) Purpose

The purpose of this rule is to require ~~R~~real-time ~~f~~Fenceline ~~a~~Air ~~m~~Monitoring ~~s~~Systems and to establish a fee schedule to fund refinery-related community air monitoring systems that provide air quality information to the public about levels of various criteria air pollutants, volatile organic compounds, metals, and other ~~compounds~~ air pollutants, at or near the property boundaries of petroleum refineries and in nearby communities.

(b) Applicability

This rule applies to ~~p~~Petroleum ~~r~~Refineries and Facilities with Operations Related to Petroleum Refineries located on contiguous properties, including, but not limited to, Terminals and Sulfur Recovery Plants. Petroleum Refineries that were subject to Rule 1180 on [Date of Rule Adoption], as indicated by inclusion in Table 2 – Refinery-Related Community Air Monitoring System Fees, will remain subject to Rule 1180, even if they transition some or all of their operations to refining alternative feedstocks, which include: organic material that is not derived from crude oil product, coal, natural gas, or any other fossil-fuel based organic material. This rule does not apply to facilities subject to Rule 1180.1 – Other Refinery Fenceline and Community Air Monitoring.

(c) Definitions

For the purposes of this rule, the following definitions shall apply:

(1) ASPHALT PLANT is a facility permitted to process petroleum, that primarily produces asphaltic materials, as defined in the Standard Industrial Classification Manual as Industry No. 2911.

~~(2)~~ COMMUNITY AIR MONITORING SYSTEM is a combination of equipment that measures and records air pollutant concentrations in communities near a ~~petroleum refinery~~ Facility.

(3) CORRECTIVE ACTION PLAN means a compliance plan that details the corrective actions a Facility will make to correct any deficiencies or recommendations in an Independent Audit report.

- (4) DATA QUALITY FLAGS are indicators used to assess the status, quality, or reliability of the data measured by the Fenceline Air Monitoring System.
- (5) FACILITIES WITH OPERATIONS RELATED TO PETROLEUM REFINERIES include Facilities with the Same Ownership that have operations related to the refinery processes located on contiguous properties, including Terminals and Sulfur Recovery Plants.
- (6) FACILITIES WITH THE SAME OWNERSHIP means Facilities and their subsidiaries, Facilities that share the same board of directors, or Facilities that share the same parent corporation.
- (7) FACILITY means any Petroleum Refinery or Facility with Operations Related to Petroleum Refineries.
- (8) FENCELINE AIR MONITORING PLAN (FAMP) is a compliance plan that provides detailed information about air monitoring instrumentation, maintenance and quality control procedures, backup systems, auditing, and data reporting methods. The Fenceline Air Monitoring Plan includes the Facility's Quality Assurance Project Plan (QAPP) that details the project objectives, procedures, and tasks performed to ensure the Fenceline Air Monitoring System is producing reliable data.
- (~~29~~) FENCELINE AIR MONITORING SYSTEM is a combination of equipment that measures and records air pollutant concentrations at or near the property boundary of a ~~petroleum refinery~~ Facility.
- (10) INDEPENDENT AUDIT means an assessment conducted by a qualified independent party, i.e., a party unrelated to implementation of Rule 1180 fenceline air monitoring by either the Facility or the South Coast AQMD, regarding the Facility's Fenceline Air Monitoring System and quality assurance procedures.
- (11) NOTIFICATION THRESHOLD is a health standard-based level, or a level developed by the Executive Officer through a statistical analysis of past fenceline monitoring data that initiates a notification requirement for air pollutant(s) listed in Table 1 – Air Pollutants and Notification Thresholds to be Addressed by FAMPs (Table 1).
- (~~312~~) PETROLEUM REFINERY is a facility that is permitted to process petroleum, as defined in the Standard Industrial Classification Manual as Industry No. 2911.
- (~~413~~) REAL-TIME is the actual or near actual time during which pollutant levels occur at or near the property boundary of a petroleum refinery or in a nearby community.

- (~~5~~14) ~~RULE 1180~~ REFINERY FENCELINE AIR MONITORING PLAN GUIDELINES are a written framework to be used by the Executive Officer to evaluate a refinery ~~fenceline air monitoring plan~~ FAMP.
- (15) ROOT CAUSE ANALYSIS is an analysis conducted by a Facility to determine the cause of an air pollutant being measured above an applicable Notification Threshold.
- (16) SULFUR RECOVERY PLANT means units within a Petroleum Refinery, or a separate Facility, that recovers elemental sulfur or sulfur compounds from sour or acid gases and/or sour water generated by Petroleum Refineries.
- (17) TERMINAL is an industrial facility used to store and/or transfer crude oil, petroleum products, and/or petrochemical products.
- (d) Plan Requirements
- (1) No later than August 1, 2018, or at least one year prior to commencing operations at a new Petroleum Refinery, the owner or operator of a Facility shall submit to the Executive Officer a written ~~fenceline air monitoring plan~~ FAMP for establishing and operating a ~~Real-Time Fenceline Air Monitoring~~ sSystem.
- (2) No later than six months after [Date of Rule Adoption], the owner or operator of a Facility with an existing Fenceline Air Monitoring Plan (FAMP) shall submit a revised FAMP to include:
- (A) Any Facilities with Operations Related to Petroleum Refineries;
- (B) Any air pollutant in Table 1 that was not addressed in the Facility's previous FAMP; or
- (C) Any air pollutant in Table 1 that the Executive Officer provides determined the Real-Time monitoring of an air pollutant is feasible.
- (~~2~~3) The ~~fenceline air monitoring plan~~ FAMP shall provide the following detailed information:
- (A) Equipment to be used to continuously monitor, record, and report air pollutant levels for the air pollutants specified in Table 1, in ~~Real-Time~~, at or near the property boundary of the ~~petroleum refinery~~ Facility;
- (B) Equipment to be used to continuously monitor, record, and report wind speed and wind direction, installed in at least one location per Petroleum Refinery;
- ~~(B) Siting and equipment specifications;~~
- (C) Equipment Specifications and facility maps with locations of monitoring equipment;

- (D) Procedures for air monitoring equipment maintenance and failures. The procedures for equipment maintenance and failures shall include a plan that describes the maintenance activities necessary to maintain proper performance of the fenceline air monitoring equipment and a plan that ~~deals with~~ addresses equipment failures. At a minimum, the maintenance and failure plan shall describe the following:
- (i) Routine maintenance requirements for equipment;
 - (ii) A planned schedule for routine maintenance performed on equipment;
 - (iii) Estimated ~~L~~ length of time that equipment will not be operating during routine maintenance activities; and
 - (iv) Temporary air monitoring measures that will be implemented in the event of an equipment failure or during routine maintenance activities and used until the ~~f~~Fenceline ~~a~~Air ~~m~~Monitoring ~~s~~System is restored to normal operating conditions.
- ~~(E) Procedures for implementing quality assurance by a qualified independent party, including quality control and audits of the fenceline air monitoring systems;~~
- ~~(FE)~~ Procedures for implementing the ~~fenceline air monitoring plan~~ FAMP, including, information pertaining to the installation, operation, maintenance, and quality assurance and quality control, for the ~~f~~Fenceline ~~a~~Air ~~m~~Monitoring ~~s~~System;
- ~~(GF)~~ Methods for dissemination of data collected by the equipment specified in subparagraphs (d)(~~23~~)(A) and (d)(~~23~~)(~~C~~B) to the public, local response agencies, and South Coast AQMD as expeditiously as possible; ~~and~~
- (G) Notification Thresholds for each air pollutant listed in Table 1, unless the air pollutant was excluded in the approved or partially approved FAMP. Notification Thresholds shall be based on one of the following, whichever is lower:
- (i) Office of Environmental Health Hazard Assessment (OEHHA) Acute Reference Exposure Level (REL);
 - (ii) The one-hour National Ambient Air Quality Standard (NAAQS);
 - (iii) The one-hour California Ambient Air Quality Standard (CAAQS);
or
 - (iv) Statistical-based Notification Threshold listed in Table 1; and

(H) Any other information specified in the Refinery Fenceline Air Monitoring Guidelines for the FAMP.

- ~~(34)~~ The ~~fenceline air monitoring plan~~ FAMP required by paragraph (d)(1) or (d)(2) shall address Rreal-Time air monitoring for the air pollutants specified in Table 1 on a continuous basis. The Fenceline Air Monitoring System required by subdivision (e) shall monitor for all air pollutants identified in Table 1, unless the air pollutant was excluded in the approved or partially approved FAMP. The owner or operator of a ~~p~~Petroleum ~~r~~Refinery must provide an ~~explanation~~ technical justification for not including Rreal-Time air monitoring for any of the air pollutants specified in Table 1 in the ~~fenceline air monitoring plan~~ FAMP. Explanations for not including Rreal-Time air monitoring for any of the pollutants specified in Table 1 must be consistent with the criteria in the ~~Rule 1180~~ Refinery Fenceline Air Monitoring Guidelines.
- ~~(4) The review and approval of the fenceline air monitoring plan shall be subject to plan fees as specified in Rule 306 Plan Fees.~~
- (5) The owner or operator of a ~~petroleum refinery~~ Facility shall submit an updated ~~fenceline air monitoring plan~~ FAMP to the Executive Officer as follows:
- (A) Ten (10) days after the date of any unplanned facility, equipment, process, or administrative modification that ~~could result in changes to an approved fenceline air monitoring plan~~ FAMP does not adequately address;
- (B) Forty-five (45) days before the date of implementation of any planned facility, equipment, process or administrative modification that ~~could result in changes to an approved fenceline air monitoring plan~~ FAMP does not adequately address;
- (C) Sixty (60) days after the date of receiving information that an approved ~~fenceline air monitoring plan~~ FAMP does not adequately measure any pollutant(s) identified in Table 1 that are emitted from the ~~petroleum refinery~~ Facility; or
- ~~(D) Failure to comply with the requirements of subparagraphs (d)(5)(A) through (d)(5)(C) shall result in revocation of an approved fenceline air monitoring plan. Thirty (30) days after revocation of an approved fenceline air monitoring plan the owner or operator of a petroleum refinery shall submit a new fenceline air monitoring plan to the Executive Officer pursuant to paragraphs (d)(1) through (d)(4) and (d)(6) through (d)(7). The updated fenceline air monitoring plan shall not be subject to the implementation~~

~~schedule in subdivision (e). An updated implementation schedule subject to approval by the Executive Officer shall be included in the new fence-line air monitoring plan but in no case shall be longer than 180 days.~~

(D) Thirty (30) days after any health standard used as the Notification Threshold has been revised or developed for an air pollutant included in a FAMP.

(6) The owner or operator of a ~~petroleum refinery~~ Facility may include the use of emerging technologies in a ~~fence-line air monitoring plan~~ FAMP that is compliant with the requirements of this rule.

(47) The review and approval of the FAMP shall be subject to plan fees as specified in Rule 306 – Plan Fees.

(78) All fence-line air monitoring plans FAMPs shall be consistent with the ~~Rule 1180~~ Refinery Fence-line Air Monitoring Plan Guidelines.

(e) Fence-line Air Monitoring ~~System Requirements~~ Compliance Schedule

(1) The owner or operator of a petroleum refinery Facility shall complete installation and begin operation of a Real-time Fence-line Air Monitoring System or modify the operation of the Fence-line Air Monitoring System in accordance with the approved, or partially approved, fence-line air monitoring plan FAMP:

(A) Beginning no later than one year after a fence-line air monitoring plan FAMP submitted pursuant to paragraph (d)(1) or (d)(2) is approved, or partially approved, by the Executive Officer;

(B) No later than six months after the Executive Officer approves, or partially approves, an updated FAMP required pursuant to paragraph (d)(5); and

(C) Prior to commencing operations at a new Petroleum Refinery.

(f) Plan Review Process

(1) The Executive Officer shall notify the owner or operator of a Facility in writing whether the ~~fence-line air monitoring plan~~ FAMP submitted pursuant to paragraphs (d)(1), or the revised FAMP submitted pursuant to paragraphs (d)(2), (d)(5), or (h)(3), is approved, partially approved, or disapproved. Determination of approval status for the fence-line air monitoring plan FAMP shall be based on, at a minimum, submittal of information that satisfies the criteria in paragraphs (d)(3), (d)(4), and the Rule 1180-Refinery Fence-line Air Monitoring Plan Guidelines.

(A2) If the FAMP or revised FAMP submitted pursuant to paragraph (f)(1) is disapproved, the owner or operator of a Facility shall resubmit the an updated fence-line and air monitoring plan FAMP, subject to plan fees specified in Rule 306, within 30 calendar days after notification of disapproval of the plan. The

~~resubmitted~~-updated plan shall include any information necessary to address deficiencies identified in the disapproval letter.

- (~~B3~~) The Executive Officer will either approve the revised ~~and resubmitted fenceline air monitoring plan~~-FAMP submitted pursuant to (f)(2) or modify the plan and approve it as modified. If the facility does not submit the revised FAMP within 30 calendar days after notification of disapproval of the plan as required in paragraph (f)(2), the Executive Officer will modify the plan and approve it as modified. The owner or operator of a Facility may appeal the ~~fenceline air monitoring plan~~-FAMP modified by the Executive Officer to the Hearing Board pursuant to Rule 216 – Appeals and Rule 221 – Plans.
- (~~24~~) A ~~fenceline air monitoring plan~~-FAMP that is submitted pursuant to subdivision (d) shall be made available, by the Executive Officer, for public review no less than fourteen (14) days prior to approval.
- (5) Review, approval, and modifications of FAMPs and updated FAMPs shall be subject to plan fees as specified in Rule 306 – Plan Fees.

(g) Web-based Fenceline Data Display and Notification Program

- (1) The owner or operator of a Facility shall maintain a web-based fenceline data display and notification program according to the Refinery Fenceline Air Monitoring Plan Guidelines to display, store, and make, at a minimum, the following information publicly available:
- (A) Description of all pollutants measured and measurement techniques;
 - (B) Real-Time and historic concentrations, which includes at least five years of data as required pursuant to paragraph (j)(1), of all air pollutants measured on the Fenceline Air Monitoring System including Data Quality Flags;
 - (C) Real-Time and historic wind speed and wind direction data;
 - (D) Definition of Data Quality Flags;
 - (E) The most recently approved, or partially approved, FAMP and QAPP;
 - (F) Report(s) generated from Independent Audit conducted pursuant to subdivision (i);
 - (G) Root Cause Analysis as required pursuant to paragraph (j)(2);
 - (H) Quarterly report as required pursuant to paragraph (j)(3);
 - (I) Corrective Action Plans or revised Corrective Action Plans, if applicable, as required pursuant to [TBD – Rule or Guidelines]; and
 - (J) A mechanism for the public to provide comments and feedback and procedures to respond.

- (2) The web-based fenceline notification system operated by the owner or operator of a Facility shall, at a minimum:
- (A) Integrate all the data collected by the Fenceline Air Monitoring System pursuant to the requirements in the Refinery Fenceline Air Monitoring Plan Guidelines;
- (B) Automatically generate and issue a notification as soon as technologically feasible, but no longer than 15 minutes after any air pollutant listed in Table 1 is detected at a level that exceeds the applicable Notification Thresholds in the approved, or partially, approved FAMP;
- (C) Include a mechanism for public to opt-in to receive fenceline notifications; and
- (D) Send the fenceline notifications, by email and/or text message, to members of the public who opted-in to receive notifications.

(gh) Notifications for Equipment Failure

- (1) Upon installation and operation of a ~~f~~Fenceline ~~a~~Air ~~m~~Monitoring ~~s~~System as required by paragraph (d)(5) or subdivision (e), the owner or operator of a ~~petroleum-refinery~~ Facility shall comply with the following notification requirements by:
- (A) Calling 1-800-CUT-SMOG[®] to notify the Executive Officer at least 48 hours prior to the planned maintenance activity subject to subparagraph (d)(~~32~~)(D) and (d)(5)(B) by providing the name of the ~~petroleum-refinery~~ Facility, the name of the monitor, and the planned date(s) of the occurrence(s); and.
- (B) Calling 1-800-CUT-SMOG[®] to notify the Executive Officer within two hours of discovering that equipment described in the ~~fenceline-air-monitoring-plan~~FAMP subject to subdivision (d) failed to accurately provide Rreal-Time air monitoring information. The owner or operator shall also provide the name of the ~~petroleum-refinery~~Facility; the name of the air monitor, the air pollutant(s) it measures; the date and time of the occurrence; and the reason for the lapse in collecting and/or reporting the Rreal-Time air monitoring information.
- (2) The owner or operator of the ~~petroleum-refinery~~Facility shall submit a written notification to the Executive Officer of any equipment failure that also results in a failure to accurately provide continuous, Rreal-Time air monitoring information as required by the approved ~~fenceline-air-monitoring-plan~~ FAMP subject to

subdivision (d) for 24-hours or longer. The written notification shall be submitted to the Executive Officer within 24 hours of discovering the equipment failure and shall include the following:

- (A) An explanation of ~~activities~~actions currently being taken to remedy the equipment failure;
 - (B) Estimated time needed to restore the fenceline air monitoring equipment to normal operating conditions that comply with the approved fenceline and community air monitoring plan; and
 - (C) Temporary air monitoring measures subject to subparagraph (d)~~(23)~~(D) from the approved ~~fenceline air monitoring plan~~FAMP to be implemented until the ~~f~~Fenceline ~~a~~Air ~~m~~Monitoring ~~s~~System is restored to normal operating conditions.
- (3) The owner or operator of a ~~petroleum refinery~~Facility shall submit an ~~updated~~revised ~~fenceline air monitoring plan~~FAMP to the Executive Officer if an equipment failure results in a failure to accurately provide continuous, ~~r~~Real-~~t~~Time air monitoring information for more than 30 days. The updated FAMP shall be submitted no later than 60 days from the initial equipment failure.

(i) Independent Audits

PLACEHOLDER FOR POTENTIAL FUTURE LANGUAGE

May include audit requirements in rule or have it in the guidance document

(ij) Recordkeeping and Reporting

(1) The owner or operator of a ~~petroleum refinery~~Facility shall maintain records of all information required under this rule for at least five years from the commencement of fenceline air monitoring, and shall make the information available to South Coast AQMD personnel upon request. Records for at least the two most recent years shall be kept onsite.

(2) Root Cause Analysis

When an air pollutant listed in Table 1 is measured above the Notification Threshold on a Facility Fenceline Air Monitoring System, any Facility that relies on the Fenceline Air Monitoring System that measured the air pollutant shall:

- (A) Initiate a Root Cause Analysis within 24 hours;
- (B) Submit a Root Cause Analysis report to the South Coast AQMD and make it available on the web-based program within 14 days;
- (C) Include, at a minimum, the following in the Root Cause Analysis:
 - (i) Cause and duration of the air pollutant emissions;

- (2) No later than July 1, 2018, the owner or operator of a ~~petroleum refinery~~ Facility shall make an initial minimum payment to the South Coast AQMD as specified in Table 2 for phase one implementation.
- (3) No later than January 30, 2019, the owner or operator of a ~~petroleum refinery~~ Facility shall make a final payment to the South Coast AQMD for the remaining balance of the installation fee as specified in Table 2 for phase two implementation. The remaining balance shall be equal to the installation fee minus the initial minimum payment required by paragraph (k~~j~~)(2).
- (4) No later than July 1, 2024, the owner or operator of a Facility shall make the payment to the South Coast AQMD as specified in Table 2 for phase three implementation.
- (4~~5~~) Annual operating and maintenance fees for the community air monitoring system shall be paid pursuant to Rule 301–Permitting and Associated Fees, when applicable.
- (5~~6~~) The ~~refinery related~~ community air monitoring fees required by paragraph (k~~j~~)(1) are in addition to permit and other fees otherwise authorized to be collected from such facilities.

~~(6~~7~~) No later than January 1, 2025, and every five years thereafter, the Executive Officer shall conduct a refinery related community air monitoring study to determine if adequate coverage and/or need for equipment.~~

This will be included in the resolution and not the rule language.

(k~~l~~) Exemptions

An owner or operator of a ~~p~~Petroleum ~~r~~Refinery ~~that has a maximum capacity to process less than 40,000 barrels per day of crude oil~~ subject to Rule 1180.1 is exempt from the requirements of this rule.

**Table 1– Air Pollutants and Notification Thresholds to be Addressed by
Fenceline Air Monitoring Plans FAMPs**

Air Pollutants	<u>Health Standard-Based Notification Threshold (ppb)⁺⁺</u>	<u>Statistical-Based Notification Threshold (ppb)[*]</u>
Criteria Air Pollutants		
Sulfur Dioxide	<u>75</u>	<u>N/A</u>
Nitrogen Oxides	<u>100</u>	<u>N/A</u>
<u>Particulate Matter</u>	<u>N/A</u>	<u>TBD</u>
Volatile Organic Compounds		
Total VOCs (Non-Methane Hydrocarbons)	<u>N/A</u>	<u>TBD</u>
Formaldehyde	<u>44</u>	<u>N/A</u>
Acetaldehyde	<u>260</u>	<u>N/A</u>
Acrolein	<u>1.1</u>	<u>N/A</u>
1,3 Butadiene	<u>297</u>	
<u>Naphthalene</u>	<u>N/A</u>	<u>N/A</u>
<u>Diethanolamine**</u>	<u>N/A</u>	<u>N/A</u>
<u>Polycyclic aromatic hydrocarbons (PAHs)</u>	<u>N/A</u>	<u>N/A</u>
Styrene	<u>5000</u>	<u>N/A</u>
Benzene	<u>8</u>	<u>N/A</u>
<u>Toluene</u>	<u>1300</u>	<u>N/A</u>
<u>Ethylbenzene</u>	<u>N/A</u>	<u>TBD</u>
<u>Xylenes</u>	<u>5000</u>	<u>N/A</u>
Metals		
<u>Cadmium</u>	<u>N/A</u>	<u>N/A</u>
<u>Manganese</u>	<u>N/A</u>	<u>N/A</u>
<u>Nickel</u>	<u>0.2 µg/m³</u>	<u>N/A</u>
Other Compounds		
Hydrogen Sulfide	<u>30</u>	<u>N/A</u>
Carbonyl Sulfide	<u>270</u>	<u>N/A</u>
Ammonia	<u>4507</u>	<u>N/A</u>
Black Carbon	<u>N/A</u>	<u>TBD</u>
Hydrogen Cyanide	<u>309</u>	<u>N/A</u>
Hydrogen Fluoride ⁺	<u>289</u>	<u>N/A</u>
<u>Sulfuric Acid**</u>	<u>29</u>	<u>N/A</u>

+ If the facility uses hydrogen fluoride.

++ Based on acute Reference Exposure Levels (RELs) assessed by California Office of Environmental Hazard Assessment (OEHHA), one-hour National Ambient Air Quality Standards (NAAQS), or one-hour California Ambient Air Quality Standards (CAAQS).

* Staff intends to develop threshold based on historical/statistical data.

** Compounds have short lifetimes in gas phase, therefore, will not remain airborne long enough to reach fenceline. Staff proposing to delete these compounds.

Table 2 – Refinery-Related Community Air Monitoring System Fees

Effective Dates and Fee Requirements				
<u>Facility ID</u>	Facility Name* and Location	No later than July 1, 2018, petroleum refineries shall make the following initial minimum payment required by paragraph (j)(2) – Phase One Implementation	No later than January 30, 2019, petroleum refineries shall make the following final payment required by paragraph (j)(3) – Phase Two Implementation	<u>Phase Three Implementation</u>
174655	Andeavor Corporation (Carson)	\$429,078	\$1,001,181	TBD
800436	Andeavor Corporation (Wilmington)	\$214,539	\$500,591	TBD
8000030	Chevron U.S.A., Inc. (El Segundo)	\$429,078	\$1,001,181	TBD
	Delek U.S. Holdings, Inc. (Paramount)**	\$107,269	\$250,295	TBD
171109	Phillips 66 Company (Carson)	\$214,539	\$500,591	TBD
171107	Phillips 66 Company (Wilmington)	\$214,539	\$500,591	TBD
181667	PBF Energy, Torrance Refining Company (Torrance)	\$429,078	\$1,001,181	TBD
** AltAir transitioned to alternative feedstock so is not applicable to Rule 1180				

* Based on the current facility names. Any subsequent owner(s) or operator(s) of the above listed facilities shall be subject to this rule unless exempted pursuant to its terms.