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REGULATION 12
MISCELLANEOUS STANDARDS OF PERFORMANCE
RULE 15
PETROLEUM REFINING EMISSIONS TRACKING

(Adopted [DATE])

12-15-100 GENERAL

12-15-101 Description: The purpose of this rule is to track air emissions and crude oil composition characteristics from petroleum refineries over time, to complete health risk assessments for petroleum refineries, and to establish monitoring systems to provide detailed air quality data along refinery boundaries and in nearby communities.

12-15-200 DEFINITIONS

12-15-201 Accidental Air Release: An unanticipated emission of a criteria pollutant, toxic air contaminant, and/or greenhouse gas into the atmosphere required to be reported in a Risk Management Plan (RMP) under 40 CFR §68.168.

12-15-202 Ambient Air: The portion of the atmosphere external to buildings to which the general public has access.

12-15-203 Community Air Monitoring System: Equipment that measures and records air pollutant concentrations in the ambient air at or near sensitive receptor locations near a facility, and which may be useful for estimating associated pollutant exposures and health risks, and in determining trends in air pollutant levels over time.

12-15-204 Criteria Pollutant: An air pollutant for which an ambient air quality standard has been established, or that is an atmospheric precursor to such an air pollutant. For the purposes of this rule, criteria pollutants are carbon monoxide (CO), oxides of nitrogen (NO_x), particulate matter with an aerodynamic diameter of 10 micrometers or less (PM₁₀), particulate matter with an aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), precursor organic compounds (POC), and sulfur dioxide (SO₂).

12-15-205 Crude Oil: Petroleum, as it occurs after being extracted from geologic formations by an oil well, and after extraneous substances may have been removed, and which may be subsequently processed at a petroleum refinery.

12-15-206 Crude Slate: A record of the characteristics and quantities of crude oil and/or crude oil blends to be processed by a crude distillation unit at a petroleum refinery.

12-15-207 Emissions Inventory: A comprehensive accounting of the types and quantities of criteria pollutants, toxic air contaminants, and greenhouse gases that are released into the atmosphere based on state-of-the-art measurement technologies and estimation methodologies. For the purposes of this rule, emissions inventory data shall be collected or calculated for: (1) all continuous, intermittent, predictable, and accidental air releases resulting from petroleum refinery processes at stationary sources at a petroleum refinery, and (2) all air releases from cargo carriers (e.g., ships and trains), excluding motor vehicles, that load or unload materials at a petroleum refinery including emissions from such carriers while operating within the District or within California Coastal Waters as specified in Regulation 2-2-610 (adopted Dec. 19, 2012).

12-15-208 Fence-line Monitoring System: Equipment that measures and records air pollutant concentrations at or near the property boundary of a facility, and which may be useful for detecting and/or estimating the quantity of fugitive emissions, gas leaks, and other air emissions from the facility.

12-15-209 Greenhouse Gases (GHGs): The air pollutant that is defined in 40 CFR § 86.1818-12(a), which is a single air pollutant made up of a combination of the following six constituents: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For the purposes of this rule, GHG emissions should be calculated in manner consistent with California Air Resources Board requirements as contained in §95113 of the

Mandatory Greenhouse Gas Emissions Reporting Rule. .

- 12-15-210 Health Risk Assessment (HRA):** A detailed and comprehensive analysis to evaluate and predict the dispersion of hazardous substances in the environment and the likelihood of risk for exposure of the human population and to assess and quantify both the individual and populationwide health risks associated with those levels of exposure. HRAs required by this rule shall be prepared in accordance with Section 12-15-602.
- 12-15-211 Health Risk Assessment Modeling Protocol:** A detailed plan identifying the steps that will be taken during the air dispersion modeling and health risk assessment process. This plan shall be prepared in accordance with the most recent guidelines adopted by the Office of Environmental Health Hazard Assessment (OEHHA) under Health and Safety Code Section 44360(b)(2) for use in the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Health and Safety Code Section 44300 et seq.) and shall identify the specific basis or references for all input data (such as emissions data, stack parameters, building dimensions, terrain data, meteorological data, health effects values, etc.) and the proposed models, methods, procedures, and assumptions that will be used for each step of the HRA process.
- 12-15-212 Monthly Crude Slate Report:** A summary of crude and other pre-processed feedstock volumes and properties processed by refinery crude unit(s) or other process unit(s) each calendar month, reported annually for the calendar year.
- 12-15-213 On-going Annual Petroleum Refinery Emissions Inventory:** An emissions inventory at a petroleum refinery covering a calendar year period. For the purposes of this rule, on-going annual emissions inventories are required to be compiled for the calendar year 2015, and for each subsequent calendar year.
- 12-15-214 Petroleum Refinery:** An establishment that is located on one or more contiguous or adjacent properties that processes crude oil to produce more usable products such as gasoline, diesel fuel, aviation fuel, lubricating oils, asphalt or petrochemical feedstocks. Petroleum refinery processes include separation processes (e.g., atmospheric or vacuum distillation, and light ends recovery), petroleum conversion processes (e.g., cracking, reforming, alkylation, polymerization, isomerization, coking, and visbreaking) petroleum treating processes (e.g., hydrodesulfurization, hydrotreating, chemical sweetening, acid gas removal, and deasphalting), feedstock and product handling (e.g., storage, blending, loading, and unloading), auxiliary facilities (e.g., boilers, waste water treatment, hydrogen production, sulfur recovery plant, cooling towers, blowdown systems, compressor engines, and power plants), and support facilities (e.g., hydrogen plants, sulfuric acid plants, and electrical generation).
- 12-15-215 Petroleum Refinery Emissions Profile (PREP):** An emissions inventory for the Petroleum Refinery Emissions Profile (PREP) period that is used as a reference with which to compare emissions inventories for later periods of time (on-going annual emissions inventories) in order to determine changes in emissions that have occurred from a petroleum refinery. A PREP shall be the average emission rate, expressed in units of tons or pounds per year, based on actual emissions that occurred during the PREP period, except that a PREP shall not include emissions that exceeded regulatory or permitted limits in place at the time the emissions occurred, or emissions from accidental air releases. The PREP shall not include emissions eliminated before 12/31/2015 by a permanent change such as emissions controls or closure.
- 12-15-216 Petroleum Refinery Emissions Profile Period:** A period of 12 consecutive months, from January 2010 through December 2015, which is selected by a refinery owner/operator for establishing a PREP for a particular criteria pollutant, toxic air contaminant, or greenhouse gas. A different consecutive 12-month period may be used for each criteria pollutant, toxic air contaminant, or greenhouse gas.
- 12-15-217 Petroleum Refinery Owner/Operator:** Any person who owns, operates, or exercises operational control over the majority of operations at a petroleum refinery. The refinery owner/operator is responsible for compliance with this rule for the entirety of the petroleum refinery, including any refinery processes, auxiliary facilities or support facilities that may be separately owned or operated. Any person who owns, operates, or exercises operational control over a support facility must provide the Owner/Operator with information sufficient to allow the owner/operator to comply with this rule, and must make that information available to

the APCO upon request.

- 12-15-218 Receptor Location:** A location outside the property boundary or control of the facility being evaluated where a member of the public may reasonably be expected to be exposed to air pollutants for the particular acute or chronic health risks being evaluated.
- 12-15-219 Sensitive Receptor:** A receptor location where an individual that may have increased vulnerability to exposure to air pollutants may be present. For the purposes of this rule, sensitive receptors are residences (where an individual may live for 6 months or more out of a year), schools (including colleges and universities), daycares, hospitals, and senior-care facilities.
- 12-15-220 Source:** As defined in BAAQMD Regulation 2, Rule 1, Section 221.
- 12-15-221 Toxic Air Contaminant (TAC):** An air pollutant that may cause or contribute to an increase in mortality or in serious illness or that may pose a present or potential hazard to human health. For the purposes of this rule, TACs consist of the substances listed in the most recent health risk assessment guidelines adopted by OEHHA.

12-15-400 ADMINISTRATIVE REQUIREMENTS

- 12-15-401 On-going Annual Petroleum Refinery Emissions Inventory and Monthly Crude Slate Reports:** A refinery owner/operator shall obtain and maintain APCO approval of an On-going Annual Petroleum Refinery Emissions Inventory and Monthly Crude Slate Report. Timely submittal as described in the next sentence shall constitute compliance with this requirement unless and until there is a determination of disapproval by the APCO pursuant to Section 12-15-404. On or before September 1, 2016, and every subsequent September 1, a refinery owner/operator shall submit to the APCO an On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report covering the previous calendar year period in an APCO-approved format. This report shall include, at a minimum, the following:
- 401.1** Identification of the calendar year that the On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report covers.
 - 401.2** A summary of the total quantity of each criteria pollutant, TAC, and GHG that was emitted from the petroleum refinery during the on-going annual petroleum refinery emissions inventory period, including a table for each source and each pollutant listing whether the pollutant was (a) continuously monitored, (b) monitored by direct measurement, (c) not monitored and estimated by some other method, or (d) not monitored and estimated to be zero.
 - 401.3** A detailed listing of the annual emissions of each criteria pollutant, TAC, and GHG emitted from each source at the petroleum refinery, and a complete description of the methodology used for monitoring and determining these emissions, any changes made, and including documentation of the basis for any assumptions used. Any methodologies that are unchanged from a previously submitted On-going Annual Petroleum Refinery Emissions Inventory and Monthly Crude Slate Report under this section may instead be noted as such. Emissions resulting from accidental releases and flaring events addressed in Regulation 12, Rules 11 and 12 shall be identified, included and quantified as such, along with the date(s) and time(s) that the release occurred.
 - 401.4** As an alternative to 401.3 for GHG, annual emissions for GHG may be reported based on the most recent California Air Resources Board (CARB) Regulation for the Mandatory Reporting of Greenhouse Gas Emissions methodology, this report to the APCO must provide emissions information for each GHG source at the refinery. If emissions increase by more the 5 percent from the PREP, the owner/operator must submit with that year's Emissions Inventory and Monthly Crude Slate Report an analysis of the cause of the GHG emissions increase, including the individual sources involved, and the actions taken to meet the emissions reductions requirements of the CARB regulation. The analysis shall also include documentation for any assumptions used.
 - 401.5** Beginning with the On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report for the calendar year 2016 (due on or before September

1, 2017), and for every subsequent calendar year On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report, a table that shows, on a refinery-wide basis for each applicable air pollutant, the change in emissions that occurred between the PREP established under Sections 12-15-402 or 403 and the calendar year period for which the On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report was prepared under this section. Emission changes do not need to be shown for any newly listed TACs that have been included in an On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report but that have not been included in a PREP due to insufficient information.

401.6 The Monthly Crude Slate Report shall include summaries of the petroleum refinery's crude and other pre-processed feedstock inputs for each calendar month, reported for the calendar year period covered by the On-going Annual Petroleum Refinery Emission Inventory, and include the following:

- 6.1 Total volume (million barrels) processed by crude unit(s) and other pre-processed feedstocks that are processed at other process unit(s), and
- 6.2 Averaged API gravity (degrees), and
- 6.3 Averaged sulfur content (percentage by weight), and
- 6.4 Averaged nitrogen content (parts per million by weight), and
- 6.5 Averaged vapor pressure, (psi), and
- 6.6 Averaged Total Reduced Sulfur (H₂S and mercaptan content, parts per million by weight), and
- 6.7 Averaged BTEX (benzene, toluene, ethylbenzene, and xylene) contents (percentage by volume) to the extent such information is available, and
- 6.8 Averaged total acid number (milligrams of potassium hydroxide per gram), and
- 6.9 Averaged metals content for nickel and vanadium (parts per million by weight).

12-15-402 Petroleum Refinery Emissions Profile Report: A refinery owner/operator shall obtain and maintain APCO approval of a PREP report. Timely submittal as described in the next sentence shall constitute compliance with this requirement unless and until there is a determination of disapproval by the APCO pursuant to Section 12-15-404. On or before September 1, 2016, a refinery owner/operator shall submit to the APCO a PREP report in an APCO-approved format. This report shall include, at a minimum, the following:

402.1 Identification of the PREP period for each air pollutant included in the PREP.

402.2 A summary of the emission rate of each criteria pollutant, TAC, and GHG that was emitted from the petroleum refinery during the PREP period, expressed in units of tons or pounds per year, excluding any emissions that do not meet the definition of PREP in Section 12-15-215.

402.3 A detailed listing of the emission rate of each criteria pollutant, TAC, and GHG that was emitted from each source at the petroleum refinery during the PREP period, expressed in units of tons or pounds per year for criteria pollutant and TAC emissions and in units of metric tons per year for GHG emissions, and a complete description of the methodology used for monitoring and determining these emissions, any changes made, and including documentation of the basis for any assumptions used and the exclusion of any emissions that do not meet the definition of PREP in Section 12-15-215.

12-15-403 Revision of Petroleum Refinery Emissions Profile Report: Any improvements in emissions inventory methodologies that are used to expand or refine On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Reports submitted under Section 12-15-401 shall also be used to expand or refine future submissions of the PREP as provided below, to the extent that such improved methodologies are also applicable to the sources included in the PREP. In such instances, a revised PREP report shall be submitted to the APCO no later than by the date the applicable On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report is due. The revised PREP report shall, at a minimum, identify the date of the revision, contain the information described in Sections 12-15-402.1 to 402.4, and clearly identify, describe, and justify the changes in the PREP that have been made. Revised PREP reports should be expanded to include emissions of newly

listed TACs that have been included in an On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report required by Reg. 12-15-401.5, unless insufficient information exists to make such revisions. Changes in emissions related to the addition or removal of a source or to a change to permitted source emissions, as documented in a District Permit to Operate, shall be reflected in a revised PREP report by the next practical date that the On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report is due.

12-15-404 Review and Approval of On-going Annual Petroleum Refinery Emissions Inventory and Monthly Crude Slate Reports and Petroleum Refinery Emissions Profile Reports: The procedure for determining whether an On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report submitted under Section 12-15-401, or a PREP report submitted under Section 12-15-402 or 403, meet the applicable requirements of this rule is as follows:

404.1 Preliminary Review: Within 45 days of receipt of the report, the APCO will complete a preliminary review of the report to identify any deficiencies that need to be corrected. If the APCO determines that the submitted report is deficient, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination and the required corrective action.

404.2 Corrective Action: Upon receipt of such notification, the refinery owner/operator shall correct the identified deficiencies and resubmit the report within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will disapprove the report, or the APCO may make the necessary corrections to the emissions inventory report with a designation that the report includes Air District revisions.

404.3 Public Comment: The Annual Petroleum Refinery Emissions Inventory Report and Petroleum Refinery Emissions Profile Reports, including any revisions made to correct deficiencies will be made available for public review for 45 days (with the exception of information designated confidential). The APCO will consider any written comments received during this period prior to approving or disapproving the final reports. The public versions of these reports will not include detailed calculation methodologies for individual sources, but a short methodological description will be provided. In addition, the public versions of these reports will provide aggregated, rather than source-specific emissions information for GHG.

404.4 Final Action: Within 45 days of the close of the public comment period under Section 12-15-404.3 (if applicable), the APCO will approve the report if the APCO determines that the report meets the requirements of Sections 12-15-401, 402, or 403, and Section 12-15-601, and shall provide written notification to the refinery owner/operator. This period may be extended if necessary as determined by the APCO. If the APCO determines that the report does not meet the requirements of Sections 12-15-401, 402, 403, and Section 12-15-601, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination. Upon receipt of such notification, the refinery owner/operator shall correct the identified deficiencies and resubmit the report within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will determine that the refinery owner/operator has failed to meet the requirements of Sections 12-15-401, 402, or 403, and Section 12-15-601, and will disapprove the report, or the APCO may make the necessary corrections and approve the report with a designation that the report was approved with Air District revisions.

404.5 Public Inspection: Within 15 days of the approval or disapproval of a report under Section 12-15-404.4, the APCO shall post the approved or disapproved report on the District's website, and shall notify any member of the public who submitted comments under Section 12-15-404.3, or who otherwise requested such notification of this action in writing. In making information available for public inspection, the confidentiality of trade secrets, as designated by the refinery owner/operator, shall be handled in accordance with Section 6254.7 of the Government Code.

12-15-405 Submittal of Health Risk Assessment Modeling Protocol and Health Risk Assessment: A refinery owner/operator shall obtain and maintain APCO approval of a HRA Modeling Protocol and HRA and, if required pursuant to 12-16-401, an Updated HRA Modeling Protocol and HRA. Timely submittal of a protocol and assessment as described in this section shall constitute compliance with this requirement unless and until the APCO makes a disapproval determination pursuant to Section 12-15-406.4 or 406.8.

405.1 Timely Submittal of HRA Modeling Protocol: Timely submittal of an HRA Modeling Protocol means that the refinery owner/operator shall submit to the APCO an HRA Modeling Protocol for the petroleum refinery no later than March 1, 2017. This protocol shall be based on emissions inventory data collected for the 2015 calendar year. The 2015 calendar year inventory may incorporate improved emission estimation calculations. It may also be modified to reflect emission reductions that have been achieved prior to the submittal of the HRA.

405.2 Timely Submittal of HRA: Timely submittal of an HRA means that the refinery owner/operator shall submit to the APCO an HRA that is completed in accordance with the final APCO-approved HRA Modeling Protocol by no later than 90 days after receipt of APCO approval of the HRA Modeling Protocol.

405.3 Timely Submittal of Modeling Protocol for Updated HRA: Timely submittal of an Modeling Protocol for an Updated HRA required pursuant to 12-16-401 means that the refinery owner/operator shall submit to the APCO an HRA Modeling Protocol for the petroleum refinery no later than 60 days after APCO approval of an On-Going Annual Emissions Inventory Report that, pursuant to 12-16-401, triggers the requirement to obtain and maintain approval of an Updated HRA.

405.4 Timely Submittal of an Updated HRA: Timely submittal of an Updated HRA required pursuant to 12-16-401 means that the refinery owner/operator shall submit to the APCO an HRA that is completed in accordance with the final APCO-approved HRA Modeling Protocol by no later than 90 days after receiving notification from the APCO that an Updated HRA is required pursuant to Regulation 12-16-401.

12-15-406 Review and Approval of Health Risk Assessment Modeling Protocols and Health Risk Assessments: The procedure for determining whether a Health Risk Assessment (HRA) Modeling Protocol and Health Risk Assessment submitted under Section 12-15-405 meet the applicable requirements of this rule is as follows:

406.1 Preliminary Protocol Review: Within 90 days of receipt of an HRA Modeling Protocol, the APCO will complete a preliminary review of the protocol to identify any deficiencies that need to be corrected. If the APCO determines that the submitted protocol is deficient, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination and the required corrective action.

406.2 Protocol Corrective Action: Upon receipt of such notification, the refinery owner/operator shall correct the identified deficiencies and resubmit the HRA Modeling Protocol within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will disapprove the HRA Modeling Protocol.

406.3 Public Comment on HRA Modeling Protocol: The HRA Modeling Protocol, including any revisions made to correct deficiencies, will be made available for public review for 45 days (with the exception of information designated confidential). The APCO will consider any written comments received during this period prior to approving or disapproving the final HRA Modeling Protocol.

406.4 Final Action on Modeling Protocol: Within 45 days of the close of the public comment period under Section 12-15-406.3, the APCO will approve the HRA Modeling Protocol if the APCO determines that the HRA Modeling Protocol meets the requirements of Section 12-15-405, and shall provide written notification to the refinery owner/operator. This period may be extended if necessary as determined by the APCO. If the APCO determines that the HRA does not meet the requirement of Sections 12-15-405, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination. Upon receipt of such

notification, the refinery owner/operator shall correct the identified deficiencies and resubmit the HRA Modeling Protocol within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will determine that the refinery owner/operator has failed to meet the requirement of Sections 12-15-405, and will disapprove the HRA Modeling Protocol.

406.5 Preliminary HRA Review: The APCO will complete a preliminary review of the HRA to verify that it was conducted in accordance with the APCO-approved Modeling Program and to identify any deficiencies that need to be corrected. If the APCO determines that the submitted HRA is deficient, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination and the required corrective action.

406.6 HRA Corrective Action: Upon receipt of such notification, the refinery owner/operator shall correct the identified deficiencies and resubmit the HRA within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will disapprove the HRA.

406.7 Public Comment on HRA: The HRA, including any revisions made to correct deficiencies, will be made available for public review for 45 days (with the exception of information designated confidential). The APCO will consider any written comments received during this period prior to approving or disapproving the final HRA.

406.8 Final Action: Within 45 days of the close of the public comment period under Section 12-15-406.7 the APCO will approve the HRA if the APCO determines that the HRA meets the requirements of Section 12-15-405, and shall provide written notification to the refinery owner/operator. This period may be extended if necessary as determined by the APCO. If the APCO determines that the HRA does not meet the requirement of Sections 12-15-405, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination. Upon receipt of such notification, the refinery owner/operator shall correct the identified deficiencies and resubmit the HRA within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will determine that the refinery owner/operator has failed to meet the requirement of Sections 12-15-405, and will disapprove the HRA.

406.9 Public Inspection: Within 15 days of the approval of an HRA under Section 12-15-406.8, the APCO shall post the approved HRA on the District's website, and shall notify any member of the public who submitted comments under Section 12-15-406.3, or who otherwise requested such notification of this action in writing. In making information available for public inspection, the confidentiality of trade secrets, as designated by the refinery owner/operator, shall be handled in accordance with Section 6254.7 of the Government Code.

12-15-407 Air Monitoring Plans: A refinery owner/operator shall obtain and maintain APCO approval of a plan for establishing and operating a fence-line monitoring system and community air monitoring system. Timely submittal as described in the next sentence shall constitute compliance with this requirement unless and until there is a determination of disapproval by the APCO pursuant to Section 408. On or before December 31, 2016, the refinery owner/operator shall submit to the APCO a plan for establishing and operating a fence-line monitoring system to aid in determining specified pollutants that cross the refinery fence-line(s) in real-time and a community air monitoring system to aid in assessing air quality impacts in communities near refineries. The plan shall include detailed information describing the equipment to be used to monitor, record, and report air pollutant levels, the siting, operation, and maintenance of this equipment, and procedures for implementing data quality assurance and quality control. Within one year of approval by the District Board of Directors of updated air monitoring guidelines published by the APCO under Section 12-15-410, the refinery/operator shall submit to the APCO an updated air monitoring plan. The siting of community air monitors shall be addressed in an Air Monitoring Plan Siting Addendum that may be submitted subsequent to the required time for submittal of the Air Monitoring Plan, provided the community air monitoring system is installed and operated in a timely manner as

provided in 12-15-501.

12-15-408 Review and Approval of Air Monitoring Plans: The procedure for determining whether an air monitoring plan submitted under Section 12-15-407 meets the applicable requirements of this rule is as follows:

408.1 Preliminary Review: Within 45 days of receipt of the air monitoring plan, the APCO will complete a preliminary review of the plan to identify any deficiencies that need to be corrected. If the APCO determines that the submitted plan is deficient, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination and the required corrective action.

408.2 Corrective Action: Upon receipt of such notification, the refinery owner/operator shall correct the plan and resubmit the proposed plan within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will disapprove the plan.

408.3 Public Comment: The plan, including any revisions made to correct deficiencies, will be made available for public review within 45 days (with the exception of information designated confidential). The APCO will consider any written comments received during this period prior to approving or disapproving the final plan.

408.4 Final Action: Within 45 days of the close of the public comment period under Section 12-15-408.3, the APCO will approve the air monitoring plan if the APCO determines that the plan meets the requirements of Section 12-15-407 and Section 12-15-603, and shall provide written notification to the refinery owner/operator. This period may be extended if necessary as determined by the APCO. If the APCO determines that the plan does not meet the requirements of Section 12-15-407 and Section 12-15-603, the APCO will notify the refinery owner/operator in writing. The notification will specify the basis for this determination. Upon receipt of such notification, the refinery owner/operator shall correct the identified deficiencies and resubmit the air monitoring plan within 45 days. If the APCO determines that the refinery owner/operator failed to correct any deficiency identified in the notification, the APCO will determine that the refinery owner/operator has failed to meet the requirements of Sections 12-15-407 and Section 12-15-603 and will disapprove the plan.

408.5 Public Inspection: Within 15 days of the approval or disapproval of an air monitoring plan under Section 12-15-408.4, the APCO shall post the plan on the District's website, and shall notify any member of the public who submitted comments under Section 12-15-408.3, or who otherwise has requested such notification of this action in writing. In making information available for public inspection, the confidentiality of trade secrets, as designated by the refinery owner/operator, shall be handled in accordance with Section 6254.7 of the Government Code.

408.6 Siting of Community Monitors: If the APCO determines that sites proposed for community monitors in the Air Monitoring Plan Siting Addendum are inappropriate, the APCO shall notify the refinery owner/operator of any deficiencies. Within 30 days of receiving this notice, the refinery owner/operator shall correct siting deficiencies and resubmit the Siting Addendum. If the proposed sites continue to be inappropriate, the APCO shall disapprove the Air Monitoring Plan.

408.7 Separate Approvals for Fence-Line and Community Monitoring Possible: The APCO may approve both the fence-line monitoring and community air monitoring system elements of the Air Monitoring Plan, or may approve only the element that is determined to be adequate while disapproving the remainder. A refinery owner/operator shall implement the approved elements of an Air Monitoring Plan.

12-15-409 Emissions Inventory Guidelines: The APCO shall publish, and periodically update, emissions inventory guidelines for petroleum refineries that describe the emission factors/estimation methodologies that refinery owner/operators apply for each source category when producing emissions inventories required under this rule. Methods included in these guidelines may include, but are not limited to, continuous monitoring to measure emissions, applying the results of emissions source tests to known activity levels, combining published emission factors with known activity levels, material balances, or empirical

formulae. The District will use these guidelines as criteria for review of refinery emissions inventory submittals.

12-15-410 Air Monitoring Guidelines: The APCO shall publish air monitoring guidelines for petroleum refineries that describe the factors that the District will apply in reviewing community air monitoring systems and fence-line monitoring systems required under this rule. These guidelines may include, but are not limited to, specifications for pollutant coverage, siting, instrumentation, operation, maintenance, quality assurance, quality control, and data reporting. The guidelines shall be reviewed by the APCO within five years of initial issuance in consideration of advances in air monitoring technology, updated information regarding the health effects of air pollutants, and review of data collected by existing fence-line and community air monitoring systems established under this rule.

12-15-411 Designation of Confidential Information: When submitting an On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report, PREP report, air monitoring plan, or other documents or records required by this rule, the refinery owner/operator shall designate as confidential any information claimed to be exempt from public disclosure under the California Public Records Act, Government Code Section 6250 et seq. If a document is submitted that contains information designated confidential in accordance with this section, the owner/operator shall provide a justification for this designation and shall submit a separate copy of the document with the information designated confidential redacted.

12-15-412 Energy Utilization Analyses:

412.1 The owner/operator of a refinery that participated in the HSB Solomon Associates LLC "Worldwide Fuels Refinery Performance Analysis" (aka "Fuels Study") for operating year 2012 shall provide to the APCO no later than [90 days after adoption] the energy assessment portion of the resulting refinery-specific study report, including all energy gap analyses for the refinery.

412.2 The owner/operator of a refinery that participates in the HSB Solomon Associates LLC "Worldwide Fuels Refinery Performance Analysis" (aka "Fuels Study") for operating year 2014 shall provide to the APCO the energy assessment portion of the resulting refinery-specific study report, including all energy gap analyses for the refinery no later than 90 days after the refinery's receipt of the report.

12-15-413 Monthly Crude Slate Reports for Calendar Years 2012, 2013, and 2014: A refinery owner/operator shall obtain APCO approval of historical documentation of Monthly Crude Slate Reports covering the calendar years 2012, 2013, and 2014 in an APCO-approved format on or before September 1, 2016. These reports shall include the following:

413.1 Identification of the calendar year that the Monthly Crude Slate Report covers.

413.2 Summaries of the petroleum refinery's crude and other pre-processed feedstock inputs for each calendar month, including:

2.1 Total volume (million barrels) processed by crude unit(s) and other pre-processed feedstocks that are processed at other process unit(s), and

2.2 Averaged API gravity (degrees), and

2.3 Averaged sulfur content (percentage by weight), and

2.4 Averaged nitrogen content (parts per million by weight), and

2.5 Averaged vapor pressure to the extent such information is available, (psi), and

2.6 Averaged Total Reduced Sulfur to the extent such information is available, [H₂S + mercaptan content (parts per million by weight)], and

2.7 Averaged BTEX if such information is available, (benzene, toluene, ethylbenzene, and xylene) content (percentage by volume), and

2.8 Averaged total acid number to the extent such information is available, (milligrams of potassium hydroxide per gram), and

2.9 Averaged metals content for nickel and vanadium to the extent such information is available, (parts per million by weight).

12-15-500 MONITORING AND RECORDS

12-15-501 Community Air Monitoring System: Within two years of the approval of an air monitoring plan under Section 12-15-408.4, the refinery owner/operator will ensure that a community air

monitoring system is installed, and is operated and maintained in accordance with the approved air monitoring plan. Community air monitoring system data shall also be reported as specified in the approved plan.

12-15-502 Fence-line Monitoring System: Within one year of the approval of an air monitoring plan under Section 12-15-408.4, the refinery owner/operator will ensure that a fence-line monitoring system is installed, and is operated in accordance with the approved air monitoring plan. Fence-line monitoring system data shall also be reported as specified in the approved plan.

12-15-503 Recordkeeping: The refinery owner/operator shall maintain records of all monitoring information, source test results, material and fuel throughputs, and other information used to establish emissions inventories required under this rule. The refinery owner/operator shall also maintain records of the quantity and characteristics of crude oil that is processed through the crude unit(s), and other pre-processed feedstocks that are processed at other process unit(s). Characteristics for crude oil and other pre-processed feedstocks shall include the properties listed in Section 12-15-401.7. Such records shall be maintained for a period of five years after the submittal of a required On-going Annual Petroleum Refinery Emission Inventory and Monthly Crude Slate Report or PREP report, and shall be made available to the APCO upon request.

12-15-600 MANUAL OF PROCEDURES

12-15-601 Emissions Inventory Procedures: Each emissions inventory required under this rule shall be prepared following the District's Emission Inventory Guidelines for Petroleum Refineries established under Section 12-15-409.

12-15-602 Health Risk Assessment Procedures: Each health risk assessment and protocol required under this rule shall be prepared following the Office of Environmental Health Hazard Assessment (OEHHA)'s February 2015 "Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments" prepared in accordance with Health and Safety Code Section 44360(b)(2) for use in the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Health and Safety Code Section 44300 et seq.), and Air Resources Board and California Air Pollution Control Officers Association "Risk Management Guidance for Stationary Sources of Air Toxics" dated July 23, 2015.

12-15-603 Air Monitoring Procedures: Each air monitoring plan required under this rule shall be prepared following the District's Air Monitoring Guidelines for Petroleum Refineries established under Section 12-15-410.