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MISCELLANEOUS STANDARDS OF PERFORMANCE
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PETROLEUM REFINING EMISSIONS TRACKING

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(Adopted [DATE])

12-15-100 GENERAL

12-15-101 Description: The purpose of this rule is to track air emissions from petroleum refineries over time, to identify the cause of, and mitigate, any significant emissions increases that are determined to occur, 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, or greenhouse gas into the atmosphere.

12-15-202 Acute Hazard Index: A measure of short-term non-cancer health risks, which is the sum of the individual acute hazard quotients for toxic air contaminants identified as affecting the same target organ or organ system.

12-15-203 Acute Hazard Quotient: The ratio of the estimated short-term average concentration of a toxic air contaminant at a particular receptor location to its acute reference exposure level (estimated for inhalation exposure).

12-15-204 Air Emission Reduction Measures: Equipment or techniques intended to reduce or eliminate air emissions from a source, and that may include equipment upgrades or modernization, improved emissions capture or control, process changes, operational changes, or feedstock modifications.

12-15-205 Ambient Air: The portion of the atmosphere external to buildings to which the general public has access.

12-15-206 Baseline Period: A period of~~ one calendar year~~24 consecutive months, from ~~the year~~ January 2004 through ~~the year~~ December 2013, that is selected by a refinery owner/operator for establishing a refinery baseline emissions inventory for a particular criteria pollutant, toxic air contaminant, or greenhouse gas. A different consecutive 24-month baseline period may be used for each regulated air pollutant.

12-15-207 Cancer Risk: An estimate of the probability that an individual will develop cancer as a result of lifetime exposure to emitted carcinogens at a given receptor location, and considering, where appropriate, age sensitivity factors to account for inherent increased susceptibility to carcinogens during infancy and childhood.

12-15-208 Chronic Hazard Index: A measure of long-term non-cancer health risks, which is the sum of the individual chronic hazard quotients for toxic air contaminants identified as affecting the same target organ or organ system.

12-15-209 Chronic Hazard Quotient: The ratio of the estimated long-term average concentration of a toxic air contaminant at a particular receptor location to its chronic reference exposure level (estimated for inhalation and non-inhalation exposures).

12-15-210 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 pollutant levels over time

12-15-211 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 (NOx), particulate matter with an aerodynamic diameter of 10 micrometers or less (PM_{10}), particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$), precursor organic compounds (POC), and sulfur dioxide (SO_2).

12-15-212 **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.

12-15-213 **Crude Slate:** A record of the types and quantities of crude oil processed by a particular petroleum refinery over a period of time.

12-15-214 **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 ~~from~~resulting from petroleum refinery processes at stationary sources at a petroleum refinery, and (2) all air releases from cargo carriers, excluding motor vehicles, (e.g., ships and trains) 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~~within the District~~.

12-15-215 **Feasible:** Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. A feasible air emission reduction measure shall be cost effective relative to other adopted regulatory control measures that apply to existing air emission sources in the Bay Area for the particular type of air pollutant being controlled.

12-15-216 **Fence-line Monitoring System:** Equipment that measures and records air pollutant concentrations along the property boundary of a facility, and which may be useful for detecting and estimating the quantity of fugitive emissions, gas leaks, and other air emissions from the facility.

12-15-217 **Greenhouse Gases (GHGs)**: The air pollutant that is defined in 40 C.F.R. Section 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. GHG emissions shall be expressed as CO_2 equivalent emissions (CO_2e) according to the methodology set forth in 40 C.F.R. Section 52.21(b)(49)(ii).

12-15-218 **Health Risk:** The potential for adverse human health effects resulting from exposure to emissions of air contaminants and ranging from relatively mild temporary conditions, such as eye or throat irritation, shortness of breath, or headaches, to permanent and serious conditions, such as birth defects, cancer or damage to lungs, nerves, liver, heart, or other organs. Measures of health risk from exposure to toxic air contaminants include cancer risk, chronic hazard index, and acute hazard index.

12-15-219 **Petroleum Refinery (Refinery):** An establishment that is located on one or more contiguous or adjacent properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, and under common operational control, and 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., hydrodesulurization, hydrotreating, chemical sweetening, acid gas removal, and deasphalting), feedstock and product handling (e.g., storage, blending, loading, and unloading), and auxiliary facilities (e.g., boilers, waste water treatment, hydrogen production, sulfur recovery plant, cooling towers, blowdown systems, compressor engines, and power plants).

12-15-220 **Receptor Location:** A location outside the property boundary 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.

12-15-221 **Refinery Baseline Emissions Inventory:** An emissions inventory for the baseline period that is used as a reference with which to compare emissions inventories for later periods of time (on-going emissions inventories) in order to determine changes in emissions that have occurred from a petroleum refinery. A refinery baseline emissions inventory shall be the average emission rate, expressed in units of tons or pounds per year, based on actual

emissions that occurred during the baseline period with the following adjustments:

221.1: A refinery baseline emissions inventory shall not include emissions that exceeded regulatory or permitted limits, or emissions resulting from accidents required to be reported in a Risk Management Plan (RMP) under 40 CFR 68.168.

221.2 ~~In addition, b~~Baseline emissions for each source shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the source must comply on or before July 1, 2014, had such source been required to comply with such limitation during the baseline period.

12-15-222 Refinery Emission Reduction Audit: An evaluation of the opportunities for implementing air emission reduction measures at sources of air pollution at a petroleum refinery, and the identification of all such feasible measures. A refinery emission reduction audit report shall identify all potential air emission reduction measures considered, and document the rationale for rejecting any measures that are identified as infeasible, including those that are rejected on the basis of being too costly.

12-15-223 Refinery On-going Emissions Inventory: An emissions inventory at a petroleum refinery covering a period of time occurring after the baseline period. For the purposes of this rule, on-going emissions inventories are required to be prepared for the calendar year 2014, and for each subsequent calendar year.

12-15-224 Refinery Owner/Operator: Any person who owns, operates, or controls a petroleum refinery and that possesses sufficient authority to take the actions required to comply with this rule. The refinery owner/operator is responsible for submittal of reports and plans required by this rule that cover the entire petroleum refinery, including any refinery processes or auxiliary facilities that may be separately owned or operated.

12-15-225 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.

12-15-226 Source: Any article, machine, equipment, operation, contrivance or related groupings of such which may produce and/or emit air pollutants.

12-15-227 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 Regulation 2, Rule 5, Table 2-5-1.

12-15-228 Trigger-Levels: An increase in air emissions from a petroleum refinery relative to the baseline period that, if exceeded, initiates requirements under this rule to prepare or update an emission reduction plan. For the purposes of this rule, trigger-levels are as follows:

228.1: Criteria pollutants: 10 tons per year of POC, NOx, or SO_2; 15 tons per year of PM_{10}; 10 tons per year of $PM_{2.5}$, or a lesser amount that would increase $PM_{2.5}$ air concentrations at a sensitive receptor by more than 0.3 micrograms per cubic meter (annual average) or that, when considered cumulatively with all sources of $PM_{2.5}$ at the refinery and all other sources located within 1000 feet of the refinery's property line, would result in $PM_{2.5}$ air concentrations at a sensitive receptor of more than 0.8 micrograms per cubic meter (annual average);100 tons per year of CO, or a greater amount if the local CO concentrations in the ambient air from the refinery and all other emission sources would not exceed 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average).

228.2: Toxic Air Contaminants: The quantity of TAC emissions that would:

2.1 Increase the refinery-wide total weighted carcinogenic emission rate, or the total weighted noncarcinogenic emission rate, using the calculation procedures specified in Regulation 2-5-604, and

2.2 ~~i~~Increase cancer risk at a sensitive receptor by more than 10 in a million, or non-cancer risk (chronic and acute) at a sensitive receptor by more than a Hazard Index of 1.0, or a lesser amount that, when considered cumulatively with all sources of TACs at the refinery and all other sources located within 1000 feet of

the refinery's property line, would result in in a cancer risk at a sensitive receptor that exceeds 100 in a million or a non-cancer risk (chronic) at a sensitive receptor that exceeds a Hazard Index of 10.0.

228.3: Greenhouse Gases: 10,000 metric tons per year of GHGs.

12-15-300 STANDARDS

12-15-301 Emission Reduction Plan Implementation: A refinery owner/operator shall implement any air emission reduction measures identified in an approved emission reduction plan prepared under Sections 12-15-405.2, 405.3, or 405.4 in accordance with the schedule provided in that plan.

12-15-400 ADMINISTRATIVE REQUIREMENTS

12-15-401 Refinery Baseline Emissions Inventory Report: On or before December 31, 2014, a refinery owner/operator shall submit to the APCO a refinery baseline emissions inventory report in an APCO-approved format. This report shall include, at a minimum, the following:

401.1 Identification of the baseline period for each air pollutant included in the refinery baseline emissions inventory.

401.2 A summary of the average emission rate ~~total quantity~~ of each criteria pollutant, TAC, and GHG that was emitted from the petroleum refinery during the baseline period, expressed in units of tons or pounds per year, excluding any emissions that do not meet the definition of Refinery Baseline Emissions Inventory in Section 12-15-221.

401.3 A detailed listing of the ~~annual emissions~~ average emission rate of each criteria pollutant, TAC, and GHG that was emitted from each source at the petroleum refinery during the baseline period, expressed in units of tons or pounds per year, and a complete description of the methodology used for determining these emissions including documentation of the basis for any assumptions used and the exclusion of any emissions that do not meet the definition of Refinery Baseline Emissions Inventory in Section 12-15-221. Emissions resulting from accidental releases shall be identified as such, along with the date(s) that the release occurred.

401.4 A plot plan that clearly identifies the location of each source identified in Section 12-15-401.3 within the petroleum refinery.

12-15-402 Refinery On-going Emissions Inventory Reports: On or before July 1, 2015, and every subsequent July 1, a refinery owner/operator shall submit to the APCO an on-going emissions inventory report covering the previous calendar year period in an APCO-approved format. This report shall include, at a minimum, the following:

402.1 Identification of the calendar year that the refinery on-going emissions inventory report covers.

402.2 A summary of the total quantity of each criteria pollutant, TAC, and GHG that was emitted from the petroleum refinery during the on-going emissions inventory period.

402.3 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 determining these emissions including documentation of the basis for any assumptions used, except that methodologies that are unchanged from what is described in the baseline emissions inventory report may instead be noted as such. Emissions resulting from accidental releases shall be identified as such, along with the date(s) that the release occurred.

402.4 A plot plan that clearly identifies the location of each source identified in Section 12-15-402.3 within the petroleum refinery.

402.5 A table that shows, on a refinery-wide basis for each applicable air pollutant, the change in emissions that occurred between the baseline period and the period for which the on-going emissions inventory 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 emissions inventory report but that have not been

included in a revised baseline emissions inventory due to inadequate information.

402.6 For each air pollutant for which an increase in emissions has been identified under Section 12-15-402.5, identification of whether the increase exceeds applicable trigger-levels. Emission increases of $PM_{2.5}$, TACs, and CO (greater than 100 tons per year) shall be identified as exceeding trigger-levels unless the refinery owner/operator includes in the report a modeling demonstration completed in accordance with Section 12-15-407.

12-15-403 Revision of Baseline Emissions Inventory: Any improvements in emissions inventory methodologies that are used to expand or refine refinery on-going emissions inventory reports submitted under Section 12-15-402 shall also be used to expand or refine the refinery baseline emissions inventory, to the extent that such improved methodologies are also applicable to the sources included in the baseline emissions inventory. In such instances, a revised refinery baseline emissions inventory report shall be submitted to the APCO no later than by the date the applicable on-going emissions inventory report is due. The revised refinery emissions inventory report shall, at a minimum, identify the date of the revision, contain the information described in Sections 12-15-401.1 to 401.4, and clearly identify, describe, and justify the changes in the refinery baseline emissions inventory report that have been made. Baseline emissions inventories should be expanded to include emissions of newly listed TACs that have been included in an on-going emissions inventory report, unless inadequate information exists to make such revisions.

12-15-404 Review and Approval of Refinery Emissions Inventory Reports: The procedure for determining whether a refinery baseline emissions inventory report submitted under Section 12-15-401 or 403, and a refinery on-going emissions inventory report submitted under Section 12-15-402, meet the applicable requirements of this rule is as follows:

404.1 Preliminary Review: Within 45 days of receipt of the emissions inventory 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 emissions inventory 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 emissions inventory 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 emissions inventory report, or the APCO may make the necessary corrections to the emissions inventory report with a designation that the inventory report includes Air District revisions.

404.3 Public Comment: The emissions inventory report, including any revisions made to correct deficiencies will be made available for public review for at least 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 emissions inventory report.

404.4 Final Action: Within 45 days of the close of the public comment period under Section 12-15-404.3, the APCO will approve the emissions inventory report if the APCO determines that the emissions inventory 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 emissions inventory 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 emissions inventory 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 an emissions inventory report under Section 12-15-404.4, the APCO shall post the approved or disapproved emissions inventory 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 Emission Reduction Plans: A refinery owner/operator shall submit to the APCO an emission reduction plan, or an update to an emission reduction plan that has been previously approved and that is not fully implemented, within 120 days of the APCO's approval of a refinery on-going emissions inventory report if that report identifies that emissions of criteria pollutants, TACs, or GHGs from the refinery have increased relative to the baseline period in excess of trigger-levels, unless the report indicates that the net emissions change after offsets provided under Section 12-15-408 is not in excess of trigger-levels. The emission reduction plan shall include, at a minimum, the following:

405.1 Causal Analysis: For any pollutant for which trigger levels are identified as being exceeded under Section 12-15-402.6, an explanation of the cause of the increase in emissions shall be provided. The causal analysis shall include:

1.1 Identification of the source(s) of emissions that contributed most significantly to the refinery-wide emissions increase

1.2 Identification of the factor, or factors, that resulted in the emissions increase, and a description of the analysis that led to these findings. This section shall address, in addition to other potential factors involved, the degree to which changes in crude slate at the petroleum refinery may have caused or contributed to the emissions increase. Records of the quantity and composition of crude oil, and any other pre-processed feedstocks refined at the facility, shall be included to support these findings.

1.3 For instances in which accidental air releases are identified in Section 12-15-405.1.2 as causing or contributing to an emissions increase that exceed trigger-levels at the refinery, identification of the accident's initiating event and any contributing factors, and a description of the investigation that led to these findings**.**

405.2 Planned Emission Reductions: Identification and description of any air emission reduction measures that the refinery owner/operator has planned and is committed to implement. The description provided shall identify the specific source(s) involved, the estimated emission reductions, and a schedule for the permitting and implementation of the measures identified.

405.3 All Feasible Measures: If the planned emission reductions identified under Section 12-15-405.2 are insufficient to reduce the on-going refinery-wide emissions increase to less than trigger-levels within a period of two years, a refinery emission reduction audit shall be completed for each pollutant that exceeds trigger-levels, and the audit report provided as an element of the emission reduction plan. The emission reduction plan shall identify the specific source(s) for which the audit determines that air emission reduction measures are determined to be feasible, estimate the emission reductions that will result from their implementation, and provide a schedule for the expeditious permitting and implementation of all feasible measures.

405.4 Updated Emission Reduction Plans: Updates to existing emission reduction plans shall address the status of air emission reduction measures included in the existing plan. If the existing plan failed to reduce emission increases to less than trigger-levels within two years as the plan specified under Section 12-15-405.2, the updated emission reduction plan shall include a refinery emission reduction audit and all

feasible measures as specified under Section 12-15-405.3. If the existing emission reduction plan included a refinery emission reduction audit and all feasible measures under Section 12-15-405.3, the updated emission reduction plan shall include an updated refinery emission reduction audit that addresses the feasibility of potential air emission reduction measures based on any changes that may have occurred in economic, environmental, legal, social and technological factors. The updated emission reduction plan shall identify the specific source(s) for which the updated audit determines that air emission reduction measures are determined to be feasible, estimate the emission reductions that will result from their implementation, and provide a schedule for the expeditious permitting and implementation of all feasible measures.

12-15-406 Review and Approval of Emission Reduction Plans: The procedure for determining whether an emission reduction plan, or an update to an emission reduction plan, submitted under Section 12-15-405 meets the applicable requirements of this rule is as follows:

406.1 Preliminary Review: Within 45 days of receipt of the emission reduction 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.

406.2 Corrective Action: Upon receipt of such notification, the refinery owner/ operator shall correct the identified deficiencies and resubmit the proposed emission reduction 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.

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

406.4 Final Action: Within 45 days of the close of the public comment period under Section 12-15-406.3, the APCO will approve the emission reduction plan if the APCO determines that the plan meets the requirements of Section 12-15-405, and will 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 12-15-405, 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 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 Section 12-15-405 and will disapprove the plan.

406.5 Public Inspection: Within 15 days of the approval or disapproval of an emission reduction plan under Section 12-15-406.4, the APCO shall post the plan on the District's website, and shall notify any member of the public, who submitted comments under Section 12-15-406.3, 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 Modeling Demonstration for Emission Increases of $PM_{2.5}$, TACs, and CO: The refinery owner/operator may elect to demonstrate by modeling that an emission increase of $PM_{2.5}$, TACs, or CO (greater than 100 tons per year) from the refinery relative to the baseline period does not exceed the air concentration-based, or health risk-based, trigger-levels specified in Section 12-15-228.1 or 228.2, or Section 12-15-408.4. Such a demonstration shall be submitted to the APCO as an element of an on-going emissions inventory report, and shall be conducted in accordance with the following:

407.1 Air Concentrations of $PM_{2.5}$ and CO: Air concentrations of $PM_{2.5}$ and CO shall be

based on an air dispersion modeling analysis performed to the satisfaction of the APCO, and which includes meteorological and topographic data necessary to estimate such concentrations. Evaluation of CO concentrations in the ambient air shall include appropriate background concentrations established based on ambient air quality monitoring data and/or modeling of local CO sources.

407.2 **Health Risks from TAC Emissions**: Health risks from TAC emissions shall be based on an air dispersion modeling analysis performed to the satisfaction of the APCO, and which includes meteorological and topographic data necessary to estimate such concentrations. Cancer risk and non-cancer Hazard Index shall be calculated from the modeling results using current guideline methods adopted by Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA) for use in the Air Toxics Hot Spots Program.

12-15-408 **Use of Emission Reduction Credits (ERCs):** If an Emission Reduction Plan that includes all feasible measures to reduce emissions of POC. NOx. SO_2, $PM_{2.5}$, PM_{10}, or GHG from a refinery has been completed, than Emission Reduction Credits (ERCs), as defined in Regulation 2-2, may be provided in sufficient quantities to offset emission increases identified in subsequent on-going emissions inventory reports as exceeding trigger-levels (for the pollutant(s) for which all feasible measures have been evaluated) as follows:

408.1 POC: 10 tons per year trigger-level.

408.2 NOx: 10 ton per year trigger-level, provided that an NAAQS protection analysis is completed in accordance with Section 12-15-409 for NO_2 if refinery-wide NOx emissions increase by more than 40 tons per year (prior to the use of ERCs).

408.3 SO_2: 10 ton per year trigger-level, provided that an NAAQS protection analysis is completed in accordance with Section 12-15-409 for SO_2 if refinery-wide SO_2 emissions increase by more than 40 tons per year (prior to the use of ERCs).

408.4 $PM_{2.5}$: 10 TPY trigger-level, provided the refinery-wide $PM_{2.5}$ emissions increase would not increase $PM_{2.5}$ air concentrations at a sensitive receptor by more than 0.3 micrograms per cubic meter (annual average) and would not, when considered cumulatively with all sources of $PM_{2.5}$ at the refinery and all other sources located within 1000 feet of the refinery's property line, result in $PM_{2.5}$ air concentrations at a sensitive receptor of more than 0.8 micrograms per cubic meter (annual average).

408.5 PM_{10}: 15 tons per year trigger-level, provided that an NAAQS protection analysis is completed in accordance with Section 12-15-409 if refinery-wide PM_{10} emissions increase by more than 15 tons per year (prior to the use of ERCs).

408.6 GHGs: 10,000 metric tons per year trigger-level.

ERCs used under this section may be provided in sufficient quantities to yield a "net emissions change after offsets provided" that does not exceed one or more of the trigger-levels listed in this section. The specific ERCs provided for this purpose shall be clearly identified in the on-going emissions inventory report in which the ERCs are used. The ERCs must be withdrawn from the Emission Reduction Bank, or otherwise surrendered to the APCO prior to District approval of the on-going emissions inventory report in which the ERCs are initially used. These ERCs may then also be identified and used in subsequent on-going emission inventory reports. ERCs for GHGs may be used only to the extent that the ERCs are determined by the APCO to be real, additional, quantifiable, permanent, verifiable, and enforceable, and have reduced emissions within the State of California.

12-15-409 **NAAQS Protection Analysis:** The refinery owner/operator may elect to demonstrate by modeling that an emission increase of NOx, SO_2, or PM_{10} from the refinery relative to the baseline period will not cause or contribute to an exceedance of any National Ambient Air Quality Standard for that pollutant. Such a demonstration shall be submitted to the APCO as an element of an-ongoing emissions inventory report, and shall be conducted in accordance with the following:

409.1 **Pollutant Air Concentrations:** Air concentrations of NO_2, SO_2, and PM_{10} shall be based on an air dispersion modeling analysis performed to the satisfaction of the APCO, and which includes meteorological and topographic data necessary to

estimate such concentrations. Evaluation of pollutant concentrations in the ambient air shall include appropriate background concentrations established based on ambient air quality monitoring data and/or modeling of local emission sources.

12-15-40~~8~~10 Air Monitoring Plans: On or before December 31, 2014, the refinery owner/operator shall submit to the APCO a plan for establishing and operating a fence-line monitoring system and a community air monitoring system. The plan shall include detailed information describing the equipment to be used to monitor and record pollutant levels, the siting, operation, and maintenance of this equipment, and procedures for implementing data quality assurance and quality control. Within one year of the issuance of any updated air monitoring guidelines published by the APCO under Section 12-15-413~~1~~, the refinery/operator shall submit to the APCO an updated air monitoring plan.

12-15-4~~09~~11 Review and Approval of Air Monitoring Plans: The procedure for determining whether an air monitoring plan submitted under Section 12-15-40~~8~~10 meets the applicable requirements of this rule is as follows:

~~40~~911.1 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.

~~40~~911.2 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.

~~40~~911.3 Public Comment: The plan, including any revisions made to correct deficiencies, will be made available for public review for at least 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.

~~40~~911.4 Final Action: Within 45 days of the close of the public comment period under Section 12-15-4~~09~~11.3, the APCO will approve the air monitoring plan if the APCO determines that the plan meets the requirements of Section 12-15-40~~8~~10 and Section 12-15-602, 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 12-15-40~~8~~10 and Section 12-15-602, 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 12-15-40~~8~~10 and Section 12-15- 602 and will disapprove the plan.

~~40~~911.5 Public Inspection: Within 15 days of the approval or disapproval of an air monitoring plan under Section 12-15-4~~09~~11.4, the APCO shall post the plan on the District's website, and shall notify any member of the public who submitted comments under Section 12-15-4~~09~~11.3, 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.

12-15-41~~0~~2 Emissions Inventory Guidelines: The APCO shall publish, and periodically update, emissions inventory guidelines for petroleum refineries that ~~specify the methodology to be used for establishing~~ describe the factors that the District will apply in reviewing 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.

12-15-4113 Air Monitoring Guidelines: The APCO shall publish air monitoring guidelines for petroleum refineries that ~~contain specifications for~~ 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 updated 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.

12-15-4124 Designation of Confidential Information: When submitting an emissions inventory report, emission reduction plan, 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.

12-15-500 MONITORING AND RECORDS

12-15-501 Community Air Monitoring System: Within one year of the approval of an air monitoring plan under Section 12-15-4~~09~~11.4, 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 12-15-4~~09~~11.4, 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. Such records shall be maintained for a period of five years after the submittal of a required emissions inventory report, and shall be made available to the APCO upon request. The refinery owner/operator shall also maintain records of the quantity and composition of crude oil, and other pre-processed feedstocks, that are refined. Composition data shall include, at a minimum, API gravity and sulfur content.

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 12-15-41~~0~~2.

12-15-602 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 12-15-41~~1~~3.