(Adopted TBD)
Revision Date 10-04-21

[*RULE INDEX TO BE ADDED AFTER RULE ADOPTION*]

PROPOSED RULE 1109.1. EMISSIONS OF OXIDES OF NITROGEN FROM PETROLEUM REFINERIES AND RELATED OPERATIONS

(a) Purpose

The purpose of this rule is to reduce emissions of Oxides Of Nitrogen (NOx), while not increasing carbon monoxide (CO) emissions, from Units at Petroleum Refineries and Facilities With Related Operations To Petroleum Refineries.

(b) Applicability

The provisions of this rule shall apply to ~~an~~ owners or operators of Facilities with Units at Petroleum Refineries and Facilities With Related Operations To Petroleum Refineries.

(c) Definitions

(1) ALTERNATIVE BARCT NOx LIMIT means a Unit specific NOx ~~C~~concentration ~~L~~limit that is selected by an owner or operator of a Facility for a B-Plan or B-Cap for Phase I, Phase II, or if applicable, Phase III of an I-~~-~~Plan in Table 6 – I-Plan Percent Reduction Targets of Required Reductions and Schedule (Table 6). An Alternative BARCT NOx Limit is a Best Available Retrofit Control Technology (BARCT) concentration limit that meets BARCT requirements in the aggregate.

(2) ASPHALT PLANT means a Facility that processes crude oil into asphalt.

(3) BARCT B-CAP ANNUAL EMISSIONS means the ~~total~~ sum of the mass emissions from the Unit B-Cap Annual Emissions ~~Facility NOx mass emissions remaining in Phase I, Phase II, or if applicable, Phase III of an I-Plan in Table 6~~ for each phase of an I-Plan, that is based on the Alternative BARCT NOx Limits, decommissioned Units, and other emission reduction strategies to meet the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Targets in an I-Plan ~~and are~~ as calculated pursuant to Attachment B of this rule.

(4) BARCT EQUIVALENT COMPLIANCE PLAN (B-PLAN) means a compliance plan that allows an owner or operator of a Facility to select Alternative BARCT NOx ~~limits~~ Limits for all Units subject to the B-Plan

that will achieve emission reductions that are ~~equivalent, in the aggregate, to~~ greater in the aggregate than the mass emission reductions that would be achieved based on the ~~Table 1 or Table 2~~ NOx Concentration Limits in Table 1 – NOx and CO Concentration Limits (Table 1) or Table 2 – Conditional NOx and CO Concentration Limits (Table 2).

(5) BARCT EQUIVALENT MASS CAP PLAN (B-CAP) means a compliance plan that establishes a Facility mass emission cap for all units subject to the B-Cap that, in the aggregate, is less than the Final Phase Facility BARCT Emission Target.

(6) BARCT EQUIVALENT MASS EMISSIONS means the total Facility NOx mass emissions remaining in Phase I, Phase II, or if applicable, Phase III of an I-Plan option in Table 6 based on the Alternative BARCT NOx Limits, ~~in an approved B-Plan that are designed to meet the respective Facility BARCT Emission Targets in an I-Plan and are~~as calculated pursuant to Attachment B of this rule.

(7) BASELINE FACILITY EMISSIONS means the sum of all the Baseline Unit Emissions at a Facility, as calculated ~~according~~ pursuant to Attachment ~~-~~ B of this rule.

(8) BASELINE UNIT EMISSIONS means emissions from a Unit as reported in the 2017 NOx Annual Emissions Report, or another representative year, as approved by the Executive Officer.

(9) BIOFUEL PLANT means a Facility that produces fuel by processing feedstocks including vegetable oil, animal fats, and tallow.

(10) BOILER means any Unit that is fired with gaseous fuel and used to produce steam. For the purpose of this rule, boiler does not include CO Boilers.

(11) CO BOILER means a Unit that is fired with gaseous fuel with an integral waste heat recovery system used to oxidize CO-rich waste gases generated by the FCCU.

(12) CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) is as defined by Rule 218.2 – Continuous Emission Monitoring System: General Provisions.

(13) CORRESPONDING CO CONCENTRATION LIMIT(S) means the CO concentration limit, that corresponds to the referenced NOx concentration limit, at the applicable percent oxygen (O_2) correction and averaging period specified in ~~either~~ Table 1, Table 2, or Table 3 – Interim NOx and CO Concentration Limits (Table 3)~~, or Table 6~~.

(14) DUCT BURNER means a device in the heat recovery steam generator of a Gas Turbine that combusts fuel and adds heat energy to the Gas Turbine exhaust.

(15) FACILITIES WITH RELATED OPERATIONS TO PETROLEUM REFINERIES include~~s~~ Asphalt Plants, Biofuel Plants, Hydrogen Production Plants, Petroleum Coke Calcining Facilities, Sulfuric Acid Plants, and Sulfur Recovery Plants.

(16) 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.

(17) FACILITY means, for the purpose of this rule, any Unit or group of Units which are located on one or more contiguous properties, in actual physical contact or separated solely by a public roadway or other public right-of-way, and operate under one South Coast AQMD Facility ID or Facilities With The Same Ownership.

(18) FACILITY BARCT EMISSION TARGET means the total remaining ~~Facility~~ NOx mass emissions ~~that must be achieved in an approved B-Plan or an approved B-Cap~~ that are based on the ~~p~~Percent ~~r~~Reduction ~~t~~Targets in each phase~~Phase I, Phase II, or if applicable, Phase III~~ of a~~n~~ Table 6 I-Plan ~~in Table 7~~ that are applied to the overall NOx emission reductions for the Units included in an approved B-Plan or B-Cap, as calculated pursuant to Attachment B of this rule.

(19) FINAL DETERMINATION NOTIFICATION means the notification issued by the Executive Officer to a ~~RECLAIM~~ Facility participating in the NOx Regional Clean Air Incentives Market (RECLAIM) program, designating that the Facility is no longer in the NOx RECLAIM program.

(20) FINAL PHASE FACILITY BARCT EMISSION TARGET means the total remaining NOx mass emissions ~~remaining~~ that incorporates the NOx ~~C~~concentration ~~L~~limits in paragraph (h)(~~3~~4) for all Units included in an I-Plan, B-Plan or B-Cap, ~~per Facility calculated based on the applicable concentration limits in Table 1 or Table 2 and the Baseline Unit Emissions as~~ calculated pursuant to Attachment B of this rule. NOTE: CHANGES TO MAKE DEFINITION MORE ACCURATE AND SIMPLIFY.

(21) FLARE means, for the purpose of this rule, a combustion device that oxidizes combustible gases or vapors from tank farms or liquid unloading, where the combustible gases or vapors being destroyed are routed directly

into the burner without energy recovery, and that is not subject to Rule 1118 – Control of Emissions from Refinery Flares.

(22) FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) means a Unit in which petroleum intermediate feedstock is charged and fractured into smaller molecules in the presence of a catalyst; or reacts with a contact material to improve feedstock quality for additional processing; and the catalyst or contact material is regenerated by burning off coke and other deposits. The FCCU includes, but is not limited to, the riser, reactor, regenerator, air blowers, spent catalyst, and all equipment for controlling air pollutant emissions and recovering heat including a CO Boiler.

(23) FORMER RECLAIM FACILITY means a Facility, including its successors, that was in the NOx Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX, that has received a Final Determination Notification, and is no longer in the NOx RECLAIM program.

(24) FUNCTIONALLY SIMILAR means, for the purpose of this rule, a Unit that will perform the same function and purpose as a Unit that was decommissioned in an approved B-Cap, including when the Unit that is decommissioned may be a different equipment category than the New Unit. NOTE: MODIFIED TO INCLUDE UNITS THAT ARE SAME PURPOSE BUT DIFFERENT CATEGORIES

(25) GAS TURBINE means an internal-combustion engine in which the expanding combustion gases drive a turbine which then drives a generator to produce electricity. Gas Turbines can be equipped with a cogeneration Gas Turbine that recovers heat from the Gas Turbine exhaust and can include a Duct Burner.

(26) HEAT INPUT means the heat of combustion released by burning a fuel source, using the Higher Heating Value of the fuel. This does not include the enthalpy of incoming combustion air.

(27) HIGHER HEATING VALUE (HHV) means the total heat liberated per mass of fuel combusted expressed as British thermal units (Btu) per pound or cubic feet when fuel and dry air at Standard Conditions undergo complete combustion and all resulting products are brought to their standard states at Standard Conditions.

(28) HYDROGEN PRODUCTION PLANT means a Facility that produces hydrogen by steam hydrocarbon reforming, partial oxidation of

hydrocarbons, or other processes which primarily supplies hydrogen for Petroleum Refineries and Facilities With Related Operations To Petroleum Refineries.

(29) IMPLEMENTATION COMPLIANCE PLAN (I-PLAN) means an alternative implementation plan for an owner or operator of a Facility with six or more Units subject to this rule that includes an implementation schedule and emission reduction targets.

(30) I-PLAN PERCENT REDUCTION TARGET means the percent reduction target for each phase of an I-Plan, as specified in Table ~~7~~6.

(31) NATURAL GAS means a mixture of gaseous hydrocarbons, with at least 80 percent methane (by volume), and of pipeline quality, such as the gas sold or distributed by any utility company regulated by the California Public Utilities Commission.

(32) NEW UNIT means, for the purpose of this rule, any Unit that is subject to this rule that meets the applicability of subdivision (b) where the South Coast AQMD Permit to Construct (Permit to Construct) is issued on or after [*DATE OF ADOPTION*].

(33) NOx AND CORRESPONDING CO CONCENTRATION LIMITS means an emission limit that includes the NOx Concentration Limit and the Corresponding CO Concentration Limit. NOTE: ADDED TO ADDRESS COMMENT TO USE THIS WORDING THROUGHOUT RULE

(~~33~~34) NOx CONCENTRATION LIMIT(S) means the NOx concentration limit at the applicable percent O_2 correction and averaging period specified in ~~either~~ Table 1, Table 2, Table 3, or ~~or~~ Table 5~~6~~ – Maximum Alternative BARCT NOx Concentration Limits for a B-Cap (Table 5).

(35) OPTIONAL UNITS means any Boiler or Process Heater with a Rated Heat Input Capacity of less than 40 MMBtu/hour that will meet the NOx concentration limits pursuant to subparagraph (d)(2)(B) or (d)(2)(C).

(36) OXIDES OF NITROGEN (NOx) EMISSIONS means the sum of nitric oxide and nitrogen dioxide emitted in the flue gas, calculated, and expressed as nitrogen dioxide.

(37) PARTS PER MILLION BY VOLUME (ppmv) means, for the purpose of this rule, Parts Per Million By Volume of a pollutant corrected to a dry basis at Standard Conditions.

(38) PETROLEUM COKE CALCINER means a Unit used to drive off contaminants from green petroleum coke by bringing the coke into contact

with heated gas for the purpose of thermal processing. The Petroleum Coke Calciner includes, but is not limited to, a kiln, which is a refractory lined cylindrical device that rotates on its own axis, and a pyroscrubber, which combusts large carbon particles in a stream of waste gas.

(39) PETROLEUM COKE CALCINING FACILITY means a Unit within a Petroleum Refinery, or a separate Facility, that operates a Petroleum Coke Calciner.

(40) PETROLEUM REFINERY ~~means~~ is a Facility that processes petroleum, as defined in ~~identified by~~ the North American Industry Classification System Code as ~~–~~324110~~,~~ ~~– –~~Petroleum Refineries. NOTE: CHANGED MAKE CONSISTENT WITH DEFINITION IN RULE 1118.

(41) PROCESS HEATER means any Unit fired with gaseous and/or liquid fuels which transfers heat from combusted gases to water or process streams.

(42) RATED HEAT INPUT CAPACITY means the maximum Heat Input capacity, which is the total heat of combustion released by burning a fuel source, as specified by the South Coast AQMD permit.

(43) REPRESENTATIVE NOx CONCENTRATION means the most representative NOx emissions in the exhaust of a Unit as included in "Baseline NOx Emissions and Representative NOx Concentrations for Facilities Regulated Under Rule 1109.1 – Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations" pursuant to paragraph (h)(4)~~, expressed as ppmv based on the applicable oxygen correction in Table 1, as approved by the Executive Officer and measured by either a certified CEMS if the Unit operates with a certified CEMS or the most recent approved source test for Units not operating a certified CEMS. The Representative NOx Concentration for Units that do not have CEMS or source test emission data will be based on the South Coast AQMD Annual Emission Report default emission factor for those Units~~.

(44) STANDARD CONDITIONS for a Former RECLAIM Facility is as defined by Rule 102 – Definition of Terms.

(45) STEAM METHANE REFORMER (SMR) HEATER means any Unit that is fired with gaseous fuels and transfers heat from the combusted fuel to process tubes that contain catalyst, which converts light hydrocarbons combined with steam to hydrogen.

(~~44~~46) SULFURIC ACID FURNACE means a Unit fueled with gaseous fuels and/or hydrogen sulfide gas used to convert elemental sulfur and/or decompose spent sulfuric acid~~,~~ into sulfur dioxide (SO_2) gas.

(~~45~~47) SULFURIC ACID PLANT means ~~a~~ Units within a Petroleum Refinery, or a separate Facility, engaged in the production of commercial grades of sulfuric acid, or regeneration of spent sulfuric acid into commercial grades of sulfuric acid.

(~~46~~48) SULFUR RECOVERY PLANT means ~~a~~ 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.

(~~47~~49) SULFUR RECOVERY UNITS/TAIL GAS (SRU/TG) INCINERATORS means the thermal or catalytic oxidizer where the residual hydrogen sulfide in the gas exiting the Sulfur Recovery Plant (tail gas) is oxidized to SO_2 before being emitted to the atmosphere.

(~~48~~50) UNIT means, for the purpose of this rule, any Boilers, Flares, FCCUs, Gas Turbines, Petroleum Coke Calciners, Process Heaters, SMR Heaters, Sulfuric Acid Furnaces, SRU/TG Incinerators, or Vapor Incinerators that requires~~ing~~ a South Coast AQMD permit and is not required to comply with a NOx concentration limit in another South Coast AQMD Regulation XI rule.

(~~49~~51) UNIT BARCT B-CAP ANNUAL EMISSIONS means the remaining estimated annual NOx mass emissions for a Unit ~~to meet Phase I, Phase II, or if applicable, Phase III of an I-Plan in Table 6~~ that is determined based on the Alternative BARCT NOx Limits, decommissioned Units, and other emission reduction strategies, ~~to meet the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target in an I-Plan and are~~ as calculated pursuant to Attachment B of this rule.

(~~50~~52) UNIT REDUCTION means the potential NOx emission reduction for a Unit if the NOx emissions for that Unit were reduced from the Representative NOx Concentration to the applicable ~~Table 1~~ NOx Concentration Limit in Table 1 based on the Baseline Unit Emissions calculated pursuant to Attachment B of this rule.

(~~51~~53) UNITS WITH COMBINED STACKS means two or more Units where the flue gas from the Units are combined in one or more common stack(s).

(~~52~~54) VAPOR INCINERATOR means a thermal oxidizer, afterburner, or other device for burning and destroying air toxics, volatile organic compounds, or other combustible vapors in gas or aerosol form in gas streams and does not include flares.

(d) Concentration Limits

(1) An owner or operator of a Facility shall not operate a Unit that exceeds the applicable ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits ~~specified~~ in Table 1, pursuant to the compliance schedule in subdivision (f).

TABLE 1: NOx AND CO CONCENTRATION LIMITS

Unit	NOx (ppmv)	CO (ppmv)	O_2 Correction (%)	Rolling Averaging Time[1]
Boilers <40 MMBtu/hour	Pursuant to paragraph (d)(2)	400	3	24-hour
Boilers ≥40 MMBtu/hour	5	400	3	24-hour
FCCU	2	500	3	365-day
	5			7-day
Flares	20	400	3	2-hour
Gas Turbines fueled with Natural Gas	2	130	15	24-hour
Gas Turbines fueled with Gaseous Fuel other than Natural Gas	3	130	15	24-hour
Petroleum Coke Calciner	5	2,000	3	365-day
	10			7-day
Process Heaters <40 MMBtu/hour	Pursuant to paragraph (d)(2)	400	3	24-hour
Process Heaters ≥40 MMBtu/hour	5	400	3	24-hour
SMR Heaters	5	400	3	24-hour
SMR Heaters with Gas Turbine	5	130	15	24-hour
SRU/TG Incinerators	30	400	3	24-hour
Sulfuric Acid Furnaces	30	400	3	365-day
Vapor Incinerators	30	400	3	24-hour

[1] Averaging times apply to Units operating a certified CEMS and shall be calculated pursuant to Attachment A of this rule; ~~emissions~~ compliance for Units without a certified CEMS shall be demonstrated pursuant to paragraph (l)(1).

(2) Boilers and Process Heaters with Rated Heat Input Capacity Less Than 40 MMBtu/hour

An owner or operator of a Facility shall not operate a Boiler or Process Heater with a Rated Heat Input Capacity less than 40 MMBtu/hour that exceeds the NOx concentration limits or Corresponding CO Concentration Limits listed below, pursuant to the compliance schedule in Table 4:

(A) A NOx concentration limit of 40 ppmv and the Corresponding CO Concentration Limit in Table 1; ~~pursuant to the Table 5Compliance Schedule for Boilers and Process Heaters;~~

(B) A NOx concentration limit of 5 ppmv for Boilers and the Corresponding CO Concentration Limit~~s~~ in Table 1~~, pursuant to the Table 5 Compliance Schedule for Boilers and Process Heaters~~; and

(C) A NOx concentration limit of 9 ppmv for Process Heaters and the Corresponding CO Concentration Limit in Table 1~~, pursuant to the compliance schedule in Table 5 Compliance Schedule for Boilers and Process Heaters~~.

(3) Conditional NOx Concentration Limits

~~(A)~~ An owner or operator of a Facility ~~may~~ that elects to meet the ~~Table 2 C~~conditional NOx and Corresponding CO Concentration Limits in Table 2 ~~and Corresponding CO Concentration Limit~~ for a Unit in lieu of the applicable NOx and Corresponding CO Concentration Limits in Table 1 ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ shall meet the compliance schedule pursuant to paragraph (f)(3) and demonstrate that~~provided~~:

~~(i)~~(A) The Executive Officer has not issued a Permit to Construct on or after December 4, 2015 for the installation of post-combustion air pollution control equipment for the Unit;

~~(ii)~~(B) ~~For a Process Heater with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour and less than or equal to 110 MMBtu/hour, t~~The Unit Reduction calculated pursuant to Attachment B of this rule is less than 10 tons per year based on the applicable ~~Table 1~~ NOx Concentration Limit in Table 1 for a Process Heater with a Rated Heat Input Capacity greater than or equal to 40 MMBtu/hour and less than or equal to 110 MMBtu/hour;

~~(iii)~~(C) ~~For a Boiler or Process Heater with a Rated Heat Input Capacity greater than 110 MMBtu/hour, t~~The Unit Reduction calculated pursuant to Attachment B of this rule is less than 20 tons per year based on the applicable ~~Table 1~~ NOx Concentration Limit in Table 1 for a Boiler or Process Heater with a Rated Heat Input Capacity greater than 110 MMBtu/hour;

~~(iv)~~(D) The ~~South Coast AQMD~~ Permit to Construct or South Coast AQMD Permit to Operate (Permit to Operate) for the Unit does not have a condition that limits the NOx concentration to a level at or below the applicable ~~Table 1~~ NOx Concentration Limit in Table 1;

~~(v)~~(E) The Representative NOx Concentration of the Unit is not at or below the applicable ~~Table 1~~ NOx Concentration Limit in Table 1; and

~~(vi)~~(F) The Unit is not identified as being decommissioned ~~in an approved B-Cap~~ pursuant to ~~sub~~paragraph (~~g~~)(2)(~~F~~)(f)(10).

~~(B) Notwithstanding the requirements pursuant to subparagraph (d)(3)(A) and the permit submittal deadline pursuant to subparagraph (f)(3)(A), an owner or operator of a Facility may elect to use the applicable Table 2 Conditional NOx Concentration Limits to establish the BARCT Equivalent Mass Emission Target in lieu of the Table 1 NOx Concentration Limits based on the schedule in an approved I-Plan if:~~

~~(i) The owner or operator is submitting a B-Plan or a B-Cap, and the Unit is listed in Table D-1 in Attachment D of this rule; or~~

~~(ii) The owner or operator is submitting a B-Cap, elects to comply with I-Plan Option 4, and the Unit is listed in Table D-2 in Attachment D of this rule.~~

TABLE 2: CONDITIONAL NOx AND CO CONCENTRATION LIMITS

Unit	NOx (ppmv)	CO (ppmv)	O_2 Correction (%)	Rolling Averaging Time[1]
Boilers >110 MMBtu/hour	7.5	400	3	24-hour
FCCUs	8	500	3	365-day
	16			7-day
Gas Turbines fueled with Natural Gas	2.5	130	15	24-hour
Process Heaters ≥40 – ≤110 MMBtu/hour	18	400	3	24-hour
Process Heaters >110 MMBtu/hour	22	400	3	24-hour
SMR Heaters	7.5	400	3	24-hour
Vapor Incinerators	40	400	3	24-hour

[1] Averaging times apply to Units operating a certified CEMS and shall be calculated pursuant to Attachment A of this rule; ~~emissions~~ compliance for Units without a certified CEMS shall be demonstrated pursuant to paragraph (l)(1).

(4) Gas Turbines

Notwithstanding the ~~Table 1~~ NOx Concentration Limit in Table 1, an owner or operator of a Facility shall not operate a Gas Turbine that exceeds a NOx ~~C~~concentration ~~L~~limit of 5 ppmv at 15 percent O_2 correction based on a 24-hour rolling average during Natural Gas curtailment periods, where there is a shortage in the supply of pipeline Natural Gas due solely to supply limitations or restrictions in distribution pipelines by the utility supplying the gas, and not due to the cost of Natural Gas.

(5) An owner or operator of a Facility with Units W~~w~~ith Combined Stacks shall be subject to the most stringent applicable ~~Table 1 or Table 2~~ NOx Concentration Limit ~~and Corresponding CO Emission Limit~~in Table 1 or Table 2.

(6) An owner or operator of a Facility with a Unit with a CO concentration limit in a ~~South Coast AQMD~~ Permit to Operate or Permit to Construct that was established before [*DATE OF ADOPTION*], shall meet the CO

concentration limit in the ~~South Coast AQMD~~ Permit to Operate or Permit to Construct in lieu of the applicable ~~Table 1 or Table 2~~ Corresponding CO Concentration Limit.

(e) Interim Concentration Limits

(1) An owner or operator of a Former RECLAIM Facility ~~complying with the concentration limits in Table 1 and Table 2 or that elects to comply with an approved B-Plan~~ shall not operate a Unit that exceeds the applicable ~~Table 3~~ ~~I~~interim NOx Concentration Limit ~~and~~ or Corresponding CO Concentration Limit in Table 3 until that Unit is required to meet another NOx and CO ~~C~~concentration ~~L~~limits in the rule ~~and Corresponding CO Concentration Limit~~ pursuant to the compliance schedule in subdivision (f) or an approved I-Plan for:

(A) All Units at a Facility subject to this rule where the owner or operator will meet the NOx and Corresponding CO Concentration Limits in Table 1 or Table 2;

(B) All Units at a Facility subject to this rule~~,~~ where the owner or operator elects to comply with an approved B-Plan; and

(C) Any Boiler or Process Heater at a Facility less than 40 MMBtu/hour that is not included in a B-Cap, where the owner or operator elects to comply with an approved B-Cap.

TABLE 3: INTERIM NOx AND CO CONCENTRATION LIMITS

Unit	NOx (ppmv)	CO (ppmv)	O_2 Correction (%)	Rolling Averaging Time[1]
Boilers and Process Heaters <6 MMBtu/hour[2]	60	400	3	365-day
Boilers and Process Heaters ≥6 MMBtu/hour and <40 MMBtu/hour[2]	40	400	3	365-day
Boilers and Process Heaters ≥40 MMBtu/hour	Pursuant to paragraph (e)(2)	400	3	365-day
Flares	105	400	3	365-day
FCCUs	40	500	3	365-day
Gas Turbines fueled with Natural Gas or Other Gaseous Fuel	20	130	15	365-day
Petroleum Coke Calciners	85	2,000	3	365-day
SMR Heaters	20[3]	400	3	365-day
	60[4]			365-day
SMR Heaters with Gas Turbine	5	130	15	365-day
SRU/TG Incinerators	100	400	3	365-day
Sulfuric Acid Furnaces	30	400	3	365-day
Vapor Incinerators	105	400	3	365-day

[1] Averaging times are applicable to Units with a CEMS and shall be calculated pursuant to Attachment A of this rule; ~~emissions~~ compliance for Units without a certified CEMS shall be demonstrated pursuant to paragraph (l)(1).

[2] Boilers and Process Heaters with a Rated Heat Input Capacity <40 MMBtu/hour that operate with a certified CEMS may comply with the NOx ~~concentration limit~~ emission limit pursuant to paragraph (e)(2) in lieu of the NOx Concentration Limit in Table ~~4~~3~~Interim NOx Concentration Limit~~.

[3] SMR Heaters equipped with post-combustion air pollution control equipment that was installed before [*DATE OF ADOPTION*].

[4] SMR Heaters not equipped with post-combustion air pollution control equipment as of [*DATE OF ADOPTION*].

(2) ~~Interim NOx Emission Rates for Boilers and Process Heaters Operating with a Certified CEMS~~An owner or operator of a Former RECLAIM Facility complying with the NOx and Corresponding CO ~~c~~Concentration ~~l~~Limits in Table 1 and Table 2 or that elects to comply with an approved B-Plan shall:

(A) Not exceed an interim facility-wide NOx emission limit of 0.03 pounds/MMBtu based on a daily rolling 365-day average, the day after the Facility becomes a Former RECLAIM Facility and everyday thereafter, calculated pursuant to Attachment A Section (A-2) of this rule for:

(i) All Boilers and Process Heaters with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour; ~~and~~or

(ii) All Boilers and Process Heaters with Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour and Boilers and Process Heaters with Rated Heat Input Capacity of less than 40 MMBtu/hour ~~that operate~~ with a certified NOx CEMS ~~if the owner or operator elects to comply with the Table 5 Interim NOx Emission Rate in lieu of the Table 4 Interim NOx Concentration Limit~~.

(B) Demonstrate compliance with the ~~Table 4 I~~interim NOx e~~E~~mission r~~R~~ate pursuant to subparagraph (e)(2)(A) until all Boilers and Process Heaters ~~subject to subparagraph (e)(2)(A)~~ meet the applicable NOx concentration limits in Table 1, Table 2, or an approved B-Plan.

~~**TABLE 4: INTERIM NOx EMISSION RATE FOR BOILERS AND PROCESS HEATERS OPERATING WITH A CERTIFIED CEMS**~~

~~Units~~	~~Facility NOx Emission Rate (pounds/million Btu)~~	~~Rolling Averaging Time~~

~~Boilers and Process Heaters: ≥40 MMBtu/Hour and <40 MMBtu/hour Operating with a Certified CEMS~~	~~0.03~~	~~365-day~~

(3) An owner or operator of a Facility ~~that elects to comply~~ with an approved I-Plan and an approved B-Cap shall meet the requirements of subparagraph (h)(6)(D) for Units in the approved B-Cap and shall meet the interim NOx and Corresponding CO Concentration Limits in Table 3 for all other Units. ~~not operate any Unit included in the approved B-Cap unless the NOx emissions for all Units in the B-Cap are in aggregate below either:~~

~~(A) The Baseline Facility if the Facility is complying with I-Plan Option 3;~~

~~(B) The Baseline Facility Emissions if the Facility is complying with I-Plan Option 4 and receives a Final Determination on before January 1, 2024; or~~

~~(C) The Phase I Facility BARCT Emission Target if the Facility is complying with I-Plan Option 4 and receives a Final Determination Notification after January 1, 2024 and on before July 1, 2029.~~

(f) Compliance Schedule

(1) An owner or operator of a Facility with a Unit that is required to meet the ~~Table 1 NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits in Table 1 pursuant to subdivision (d), with the exception of Boilers and Process Heaters with a Rated Heat Input Capacity of less than 40 MMBtu/hour, ~~subject to the compliance schedules pursuant to paragraphs (f)(2) or (f)(3)~~, shall:

(A) On or before July 1, 2023, submit a complete permit application ~~to apply~~ for a permit condition that limits the NOx and CO emissions to a level not to exceed the applicable ~~Table 1~~ NOx ~~Concentration Limit~~ and Corresponding CO Concentration Limits in Table 1~~,~~ ~~unless the owner or operator of a Facility has a South Coast AQMD Permit to Construct or a South Coast AQMD Permit to Operate with a condition that limits the NOx and CO emissions at or below the applicable Table 1 NOx Concentration Limit and Corresponding CO Concentration Limit~~; and

(B) Not operate a Unit that exceeds the ~~Table 1~~ NOx Concentration Limit ~~and~~ or Corresponding CO ~~Emission~~ Concentration Limit pursuant to subparagraph (f)(1)(A) on ~~or~~ and after either the date the South Coast AQMD issues the Permit to Operate or 36 months from the date the South Coast AQMD issues a Permit to Construct, whichever is sooner.~~:~~

~~(i) 36 months from the date the South Coast AQMD issues a Permit to Construct or Permit to Operate; or~~

~~(ii) The date the South Coast AQMD issues a Permit to Construct or Permit to Operate if a complete permit application was not required pursuant to subparagraph (f)(1)(A).~~

(2) An owner or operator of a Facility with a Boiler or Process Heater with a Rated Heat Input Capacity less than 40 MMBtu/hour that is required to meet the NOx and CO concentration limits pursuant to paragraph (d)(2) shall:

(A) Not operate a Boiler or Process Heater that exceeds the NOx ~~and~~ or CO concentration limits in paragraph~~s~~ (d)(2) pursuant to the compliance schedule in Table ~~5~~4 – Compliance Schedule for Boilers and Process Heaters Less Than 40 MMBtu/hour (Table 4) unless the Boiler or Process Heater is included in an approved I-Plan; ~~and~~

(B) Submit a complete permit application for a Boiler ~~to apply~~ for a permit condition that limits the NOx and CO emissions to a level not to exceed the NOx and CO concentration limits pursuant to subparagraph (d)(2)(B) ~~for a Boiler and subparagraph (d)(2)(C) for a Process Heater~~ no later than six months after an owner or operator of a Facility cumulatively replaces either 50 percent or more of the burners~~,~~ ~~in a Boiler or Process Heater,~~ or replaces burners that represent 50 percent or more of the Heat Input in ~~a~~the Boiler, ~~or Process Heater,~~ where the cumulative replacement begins on July 1, 2022~~ for a Boiler and [*FIVE YEARS AFTER DATE OF ADOPTION*] for a Process Heater.~~; and

(C) Effective [*TEN YEARS AFTER DATE OF ADOPTION*], submit a complete permit application for a Process Heater for a permit condition that limits the NOx and CO emissions to a level not to exceed the NOx and CO concentration limits pursuant to subparagraph (d)(2)(C) no later than six months after an owner or

operator of a Facility cumulatively replaces either 50 percent or more of the burners, or replaces burners that represent 50 percent or more of the Heat Input in a Process Heater, where the cumulative replacement begins [*FIVE YEARS AFTER DATE OF ADOPTION*].

TABLE ~~5~~4: COMPLIANCE SCHEDULE FOR BOILERS AND PROCESS HEATERS ~~<~~LESS THAN 40 MMBTU/HOUR

Unit	NOx Concentration Limit (ppmv)	Permit Application Submittal Date[1]	Compliance Date[1]
Boilers <40 MMBtu/ hour	40 ppmv pursuant to subparagraph (d)(2)(A)	On or before July 1, 2022	• ~~No later than~~ On and after the date the South Coast AQMD issues ~~either a Permit to Construct or~~ a Permit to Operate
	5 ppmv pursuant to subparagraph (d)(2)(B)	Pursuant to subparagraph (f)(2)(B)	• ~~No later than~~ On and after 18- months ~~after~~ from the date the South Coast AQMD issues ~~either~~ a Permit to Construct ~~or Permit to Operate~~
Process Heaters <40 MMBtu/ hour	40 ppmv pursuant to subparagraph (d)(2)(A)	On or before July 1, 2023	• ~~No later than~~ On and after the date the South Coast AQMD issues the Permit to Operate or on and after 18- months ~~after~~ from the date the South Coast AQMD issues ~~either~~ a Permit to Construct ~~or a Permit to Operate~~, whichever is sooner; or • ~~No later than~~ On and after 36 months ~~after~~ from the date the South Coast AQMD issues ~~either~~ a Permit to Construct ~~or a Permit to Operate~~ if the owner or operator of a Facility elects to meet the NOx concentration limit pursuant to subparagraph (d)(2)(C) in lieu of subparagraph (d)(2)(A)

	9 ppmv pursuant to subparagraph (d)(2)(C)	Pursuant to subparagraph (f)(2)(~~B~~C)	• ~~No later than~~ On and after 18 months ~~after~~ from the date the South Coast AQMD issues ~~either~~ a Permit to Construct ~~or Permit to Operate~~

~~[1] Does not apply to a Unit that has a South Coast AQMD Permit to Construct or a South Coast AQMD Permit to Operate with a condition that limits the NOx and CO emissions at or below the NOx and CO concentration limits pursuant to subparagraph (d)(2)(A).~~

(3) Table 2 Conditional Concentration Limits

An owner or operator of a Facility that meets the conditions in ~~sub~~paragraph (d)(3) ~~(A) and elects~~ to meet the ~~Table 2 C~~conditional NOx and Corresponding CO Concentration Limits in Table 2~~and Corresponding CO Emission Limits~~ in lieu of the ~~Table 1~~ NOx and Corresponding CO Concentration Limits in Table 1 ~~and Corresponding CO Emission Limits~~ shall:

(A) On or before June 1, 2022, submit a complete permit application ~~to apply~~ for a permit condition that limits the NOx and CO emissions to a level not to exceed the applicable ~~Table 2 C~~conditional NOx and Corresponding CO Concentration Limits in Table 2 ~~and Corresponding CO Concentration Limits~~ and provide documentation that the requirements in paragraph (d)(3) have been met; and

(B) Not operate a Unit that exceeds the applicable ~~Table 2~~ conditional NOx Concentration Limit~~s~~ ~~and~~ or Corresponding CO Emission Limit~~s~~ in Table 2 on ~~or~~ and after either the date the South Coast AQMD issues the Permit to Operate or 18 months from the date the South Coast AQMD issues ~~either~~ a Permit to Construct, whichever is sooner ~~or Permit to Operate~~.

(4) An owner or operator of a Facility that replaces existing NOx control equipment on a Unit complying with a ~~Table 2 C~~conditional NOx and Corresponding CO Concentration Limit~~s~~ in Table 2 shall:

(A) Submit a complete permit application ~~within six months of replacing the existing NOx control equipment to apply~~ for a permit condition that limits the NOx and CO emissions to a level not to exceed the applicable ~~Table 1~~ NOx and Corresponding CO Concentration

Limits in Table 1 prior to replacing the existing NOx control equipment ~~and Corresponding CO Concentration Limit~~. Replacement of the existing NOx control equipment will be determined as:

(i) Replacement of ~~E~~existing post-combustion air pollution control equipment on ~~for~~ a~~n~~ FCCU, Gas Turbine fueled with Natural Gas, or Process Heater with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour, or SMR Heater;

(ii) Replacement of components on existing post-combustion air pollution control equipment on any Unit listed in clause (f)(4)(A)(i) where ~~is replaced such that~~ the fixed capital cost of the new components for the post-combustion air pollution control equipment exceeds 50 percent of the fixed capital cost that would be required to construct and install a comparable new post-combustion air pollution control equipment; or

(iii) 50 percent or more of the burners in a Vapor Incinerator, or 50 percent or more of the Rated Heat Input Capacity of the burners in a Vapor Incinerator, are cumulatively replaced after [*DATE OF ADOPTION*];

(B) Not operate a Unit that exceeds the NOx ~~and~~or CO concentration limits pursuant to subparagraph (f)(4)(A) on ~~or~~and after either the date the South Coast AQMD issues the Permit to Operate or 18~~-~~ months from the date the South Coast AQMD issues a Permit to Construct, whichever is sooner ~~is issued~~.

(5) An owner or operator of a Facility with a Unit that is exempt pursuant to paragraph (o)(2), (o)(3), (o)(5), (o)(6), (o)(8) or (o)(9) shall:

(A) On or before July 1, 2022, submit a complete permit application to apply for a permit condition that limits the NOx emissions or operating hours pursuant to the applicable limits in subparagraph (o)(2)(A), (o)(3)(A), (o)(5)(A), (o)(6)(A), or clause (o)(8)(A)(i), (o)(9)(A)(i) or (o)(9)(B)(i); and

(B) Not operate a Unit that exceeds the limits pursuant to subparagraph (f)(5)(A) on and after the date the South Coast AQMD issues a Permit to Operate.

(~~5~~6) An owner or operator of a Facility with a Unit exempt from the ~~Table 1~~ NOx and Corresponding CO Concentration Limits in Table 1~~and Corresponding CO Emission Limits~~ pursuant to paragraph~~s~~ (o)(2), (o)(3), (o)(5), (o)(6), ~~(o)(7),~~ (o)(8) or (o)(9) that exceeds the applicable exemption limitations shall:

(A) Within six months of the exceedance, submit a complete permit application to apply for a permit condition that limits the NOx and CO emissions to a level not to exceed the applicable ~~Table 1~~ NOx and Corresponding CO Concentration Limit in Table 1~~and Corresponding CO Concentration Limit~~; and

(B) Not operate a Unit that exceeds the NOx ~~and~~ or CO concentration limits pursuant to subparagraph (f)(5)(A) on ~~or~~and after either the date the South Coast AQMD issues the Permit to Operate or 18 months from the date the South Coast AQMD Permit to Construct is issued, whichever is sooner.

(~~6~~7) An owner or operator of a Facility that fails to submit a permit application on or before~~with a Unit complying with~~:

(A) ~~Table 1 NOx and CO Concentration Limits that fails to submit a complete permit application on or before t~~The date ~~pursuant to~~ specified in subparagraph (f)(1)(A), shall expeditiously submit a complete permit application and meet the applicable ~~Table 1 NOx and CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits in Table 1 no later than 36 months after the permit application submittal date pursuant to subparagraph (f)(1)(A);

(B) ~~Table 1 NOx and CO Concentration Limits that fails to submit a complete permit application on or before t~~The date ~~pursuant to~~ specified in subparagraph~~s~~ (f)(4)(A) or (f)(5)(A), shall expeditiously submit a complete permit application and meet the applicable ~~Table 1 NOx and CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits in Table 1 no later than ~~18~~24 months after the respective permit application submittal date pursuant to subparagraph (f)(4)(A) or (f)(5)(A); ~~and~~or

(C) ~~Paragraph (d)(2) that fails to submit a complete permit application on or before the Permit Application Submittal Date pursuant to~~ The date specified in Table ~~5~~4 for Boilers subject to the 5 ppmv limits

and all Process Heaters, shall expeditiously submit a complete permit application and meet the applicable NOx and CO concentration limits pursuant to paragraphs (d)(2) no later than 1824 months after the applicable permit application submittal date pursuant to Table 54.

(78) An owner or operator of a Facility with a Unit subject to an averaging time less than a 365-day rolling average that operates a CEMS shall be required to demonstrate compliance with the applicable NOx Concentration Limits or Alternative BARCT NOx Limit, and Corresponding CO Concentration Limits six months after the date the South Coast AQMD Permit to Operate is issued, 36 months after the South Coast AQMD Permit to Construct is issued, or immediately after completion of thea initial NOx compliance demonstration source testpursuant to (l)(6), whichever is sooner.

(89) An owner or operator of a Facility with a Unit subject to a 365-day rolling average shall demonstrate compliance with the applicable NOx Concentration Limit or Alternative BARCT NOx Limit, and Corresponding CO Concentration Limit beginning 14 months after the date the South Coast AQMD Permit to Operate is issued, 36 months after the Permit to Construct is issued, or immediately after completion of athe initial NOx compliance demonstration source testpursuant to paragraph (l)(6), whichever is sooner.

(10) Decommissioned Units

(A) An owner or operator that decommissions a Unit to meet the requirements of this rule shall:

(i) Surrender the South Coast AQMD Permit to Operate of the Unit to be decommissioned, pursuant to the schedule in subparagraph (f)(10)(B);

(ii) Disconnect and blind the fuel line(s) of the Unit to be decommissioned, pursuant to the schedule in subparagraph (f)(10)(B); and

(iii) Not sell the decommissioned Unit to another entity for operation within the South Coast Air Basin.

(B) An owner or operator shall meet the requirements of clause (f)(10)(A)(i) and (f)(10)(A)(ii):

(i) No later than 54 months from Permit Application Submittal Date for Phase I specified in Table 6 for the I-Plan option

selected, if a Unit is excluded from a B-Plan pursuant to (g)(1)(B)(ii);

(ii) No later than the date specified by the Executive Officer, if an approved B-Plan is modified to remove a Unit that will be decommissioned;

(iii) No later than 90 days from commissioning a New Unit, if the New Unit is replacing in whole or in part a Unit to be decommissioned to meet the requirements of an approved B-~~-~~Cap and an approved I-Plan; or

(iv) No later than the B-Cap Effective Date of the Facility BARCT Emission Target specified in Table 6 for the I-Plan option selected for a B-Cap, if a Unit is to be decommissioned to meet the requirements of an approved B-Cap and an approved I-Plan and a New Unit is not replacing the Unit to be decommissioned. NOTE: THESE PROVISIONS WERE THROUGHOUT THE RULE. COLLAPSED INTO ONE SECTION. ALL PROVISIONS WHERE A UNIT WILL BE DECOMMISSIONED WILL POINT TO THIS SECTION.

(g) B-Plan and B-Cap Requirements

(1) An owner or operator of a Facility with six or more Units subject to this rule that elects to implement ~~meet the NOx concentration limits in~~ an approved B-Plan in lieu of meeting the ~~Table 1 or Table 2~~ NOx Concentration Limits in Table 1 or Table 2 shall:

(A) ~~On or before September 1, 2022, s~~Submit a complete B-Plan to the Executive Officer for review pursuant to subdivision (i); NOTE: MOVED DATED TO SUBMITTAL REQUIREMENTS

(B) ~~that i~~Include~~s~~ all Units subject to this rule with the option to exclude:

(i) Optional Units;

(ii) Any Unit that will be decommissioned on or before 54~~-~~ months from the Permit Application Submittal Date in Phase~~—~~ I of the selected I-Plan option in Table 6; and~~,identified by device identification number with a description of each Unit, with the exception of any Boiler or Process Heater with a Rated Heat Input Capacity of less than~~

~~40 MMBtu/hour that will meet the NOx concentration limits pursuant to subparagraph (d)(2)(B) or (d)(2)(C) after the last Compliance Date in Table 7 for the selected I-Plan option, for review pursuant to subdivision (i);~~ NOTE: ALLOWS OPERATOR TO REMOVE A UNIT THAT WILL BE DECOMMISSIONED FROM THE I-PLAN, PROVIDED DONE IN PHASE I.

(iii) Any Unit listed under paragraphs (o)(2), (o)(5), (o)(6), (o)(8), and (o)(9), and Units listed in paragraph (o)(1) shall not be included in the B-Plan.

(~~B~~C) Identify~~ies~~ all Facilities With The Same Ownership, by facility identification number, subject to the rule that are included in the B-Plan;

(~~C~~D) Select an Alternative BARCT NOx Limit, based on the applicable percent O_2 correction and averaging period specified in Table 1, for each Unit included in the B-Plan to meet the respective Phase I, Phase II, or if applicable, Phase III BARCT Equivalent Mass Emissions where the Alternative BARCT NOx Limit shall not exceed the applicable ~~Table 2 C~~conditional NOx Concentration Limit in Table 2, for any Unit that meets the ~~qualifies for a Table 2 Conditional NOx Concentration Limit, pursuant to the~~ conditions in ~~sub~~paragraph (d)(3)~~(A)~~ and the permit submittal deadline in subparagraph (f)(3)(A);

(E) Submit a complete permit application for each Unit in the approved B-Plan to apply for a permit condition that limits the NOx emissions to a level to not exceed the Alternative BARCT NOx Limit pursuant to subparagraph (g)(1)(~~C~~D) and the Corresponding CO Limits in Table 1,~~-~~ pursuant to the schedule in the approved I-Plan; and

(F) Not operate a Unit that exceeds the Alternative BARCT NOx Limit pursuant to subparagraph (g)(1)(~~C~~E) pursuant to the schedule in the approved I-Plan~~; and~~.

(2) An owner or operator of a Facility with six or more Units subject to this rule that elects to implement ~~meet the NOx concentration limits in~~ an approved B-Cap in lieu of meeting the ~~Table 1 and Table 2~~ NOx Concentration Limits in Table 1 and Table 2, shall:

(A) ~~On or before September 1, 2022, s~~Submit a complete B-Cap to the Executive Officer for review pursuant to subdivision (i); NOTE: MOVED DATED TO SUBMITTAL REQUIREMENTS

(B) ~~that i~~Include~~s~~ all Units subject to this rule with the option to exclude:

(i) Optional Units; and

(ii) Any Unit listed under paragraphs (o)(2), (o)(5), (o)(6), (o)(8), and (o)(9). ~~identified by device identification number with a description of each Unit, with the exception of any Boiler or Process Heater with a Rated Heat Input Capacity of less than 40 MMBtu/hour that will meet the NOx concentration limit pursuant to subparagraph (d)(2)(B) or (d(2)(C) after the last Compliance Date in Table 7 for the selected I-Plan option,;~~ NOTE: SEPARATED SUBMITTAL AND WHAT UNITS ARE INCLUDED. ADDED UNITS ARE EXEMPT

~~(B)~~(C) Identify all Facilities With The Same Ownership, by facility identification number, subject to the rule that are included in the B-Cap;

~~(C)~~(D) Select an Alternative BARCT NOx Limit, based on the applicable percent O_2 correction and averaging period specified in Table 5, for each Unit included in the B-Cap and calculate ~~to meet~~ the ~~respective~~ Phase I, Phase II, or if applicable, Phase III BARCT Equivalent Mass Emissions pursuant to Attachment B, where the Alternative BARCT NOx Limit shall not exceed:

(i) The applicable NOx Concentration Limit in Table 5~~6 Maximum Alternative BARCT NOx Concentration Limit~~; and

(ii) The applicable conditional NOx Concentration Limit in Table 2 ~~Conditional NOx Concentration Limit~~ for any Unit that qualifies ~~for~~ to meet a ~~Table 2 Conditional NOx Concentration L~~limit in Table 2 pursuant to the conditions in

~~sub~~paragraph (d)(3)~~(A)~~ and the permit submittal deadline in subparagraph (f)(3)(A).

~~(D)~~(E) Calculate the Phase I, Phase II, and if applicable, Phase III BARCT B-Cap Annual Emissions, pursuant to Attachment B, where the Unit BARCT B-Cap Annual Emissions can include emission reductions from~~are based on~~:

(i) The Alternative BARCT NOx Limit;

(ii) Any decommissioned Unit(s); or

(iii) Other emission reduction strategies;

~~(E) Provide an explanation when the Unit BARCT B-Cap Annual Emissions are less than the BARCT Equivalent Mass Emissions for any Unit;~~

~~(F) Specify which phase or phases in the I-Plan a complete permit application will be submitted for each Unit subject to the B-Cap to establish a permit condition that limits the NOx concentration to the Alternative BARCT NOx Limit;~~

~~(G) Specify each Unit that has an existing permit condition that limits the NOx concentration to the Alternative BARCT NOx Limit;~~ NOTE: IN SUBMITTAL REQUIREMENTS. NOT NEEDED HERE

~~(H)~~(F) Submit a complete permit application for each Unit in the approved B-Cap to apply for a permit condition that limits the NOx emissions to a level to not exceed the Alternative BARCT NOx Limit pursuant to subparagraph (g)(2)(~~C~~D) and the Corresponding CO Limits in Table 1, pursuant to the schedule in the approved I-Plan;

(G) Meet the requirements specified in paragraph (f)(10) for any Unit that is decommissioned;

~~(I)~~(H) Not operate a Unit that exceeds the Alternative BARCT NOx Limit ~~pursuant to paragraph (g)(2)(C)~~ pursuant to the schedule in the approved I-Plan;

~~(J)~~(I) Not operate any Unit unless the NOx emissions for all Units in the approved B-Cap are in aggregate at or below the applicable Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target pursuant to ~~the schedule in the approved I-Plan~~ paragraph (h)(6);

NOTE: MOVED ALL THE PROVISIONS FOR DECOMMISSIONING INTO THE COMPLIANCE SCHEDULE TO STREAMLINE.

~~(K) Designate any Unit that is decommissioned;~~

~~as Table 1 NOx Concentration Limit when establishing the Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target in an approved B-Cap; and:~~

~~(i) Surrender the South Coast AQMD Permit to Operate for the decommissioned unit no later than:~~

~~(A) The Table 7 Permit Submittal Date for each phase of I-Plan Option 3 with a B-Cap; or~~

~~(B) The Table 7 ompliance Date for Phase I in I-Plan Option 4 and no later than the Table 7 Permit Submittal Date for all other phases in a I-Plan Option 4;~~

~~(ii~~O) ~~Disconnect and blind the fuel line(s) for the decommissioned Unit on or before the date the South Coast AQMD Permit to Operate is surrendered pursuant to clause (g)(2)(K)(i); and~~

~~(iii~~P) ~~Not sell the decommissioned Unit to another entity for operation within the South Coast Air Basin.~~

~~(L)~~(J) Demonstrate that one or more of the following conditions are met if a New Unit is added to the Facility and provide in writing at the time the permit application is submitted to the Executive Officer for the New Unit which of the following condition(s) are met: ~~Not add a New Unit that will be subject to this rule that increases the Facility emissions above applicable Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target, unless:~~

NOTE: ADDED THAT B-CAP MUST BE MODIFIED AND THAT THEY MUST SATISFY ONE OF THESE. DEFINITION FOR "FUNCTIONALLY SIMILAR" INCLUDES DIFFERENT EQUIPMENT CATEGORIES WITH SAME PURPOSE

(i) The unit for which permit application is being submitted is not subject to this rule or is a Unit that is complying with an exemption pursuant to paragraphs (o)(1), (o)(2), (o)(3), (o)(5), (o)(6), (o)(8), or (o)(9); NOTE: NEW PROVISION

(ii) ~~Aggregated emissions for all Units in the approved B-Cap are~~ The BARCT Equivalent Mass Emissions with the New

Unit is below the Facility BARCT Emission Target for the current and any future phase of the I-Plan, as calculated in Attachment B; ~~when using the Alternative BARCT NOx Limits;~~

(iii) The New Unit is not Functionally Similar to any Unit that was decommissioned in the approved B-Cap and the New Unit will not increase the overall facility throughput; ~~or~~;

~~(iii) The new unit will not increase overall facility throughput; and~~

(iv) The total amount of NOx emission reductions from units that were decommissioned, represents 15 percent or less of the Final Phase Facility BARCT Emission Target in an approved B-Cap and the B-Cap is modified to include the New Unit and the Facility BARCT Emission Target is adjusted to incorporate the New Unit;

(~~i~~v) The New Unit is Functionally Similar to any Unit that was decommissioned and the B-Cap is modified with no increase of the Facility BARCT Emission Target.

TABLE ~~6~~5: MAXIMUM ALTERNATIVE BARCT NOx CONCENTRATION LIMITS FOR A B-CAP

Unit	Maximum Alternative BARCT NOx Limit	O_2 Correction (%)	Rolling Averaging Time[1]
Boilers and Process Heaters <40 MMBtu/hour	40 ppmv	3	24-hour
Boilers and Process Heaters ≥40 MMBtu/hour	50 ppmv	3	24-hour
FCCUs	8 ppmv	3	365-day
	16 ppm		7-day
Gas Turbines	5 ppmv	15	24-hour
Petroleum Coke Calciners	100 tons/year	N/A	365-day
SMR Heaters	12 ppm	3	24-hour
SRU/TG Incinerators	100 ppmv	3	24-hour
Vapor Incinerators	40 ppmv	3	24-hour

[1] Averaging times apply to Units operating a certified CEMS and shall be calculated pursuant to Attachment A of this rule; ~~emissions~~ compliance for Units without a certified CEMS shall be demonstrated pursuant to paragraph (l)(1).

(h) I-Plan Requirements

(1) ~~On or before September 1, 2022, a~~An owner or operator of a Facility with six or more Units subject to this rule that elects to implement an I-Plan in lieu of meeting the ~~the Table 1 or Table 2 NOx Concentration Limits and Corresponding CO Emission Limits using an alternative~~ compliance schedule specified in ~~pursuant to~~ paragraph (f)(1) ~~or that elects to comply with an approved B-Plan or B-Cap~~ shall: NOTE: MOVED COMPLIANCE DATE TO THE SUBMITTAL REQUIREMENTS AND CLEANED UP LANGUAGE

(A) ~~s~~Submit a complete I-Plan to the Executive Officer pursuant to paragraph (i)(1);

(B) ~~that i~~Include~~s~~ all Units in the I-Plan that are:

~~(A)~~(i) Included in an ~~the~~ accompanying B-Plan pursuant to subparagraph (g)(1)(B) ~~for the owner or operator that elects to comply with an approved B-Plan~~;

~~(B)~~(ii) Included in an ~~the~~ accompanying B-Cap pursuant to subparagraph (g)(2)(B) ~~for the owner or operator that elects to comply with an approved B-Cap~~; or

~~(C)~~(iii) For an owner or operator that is not submitting a B-Cap or a B-Plan, include all Units subject to this rule with the option to exclude:

(A) Optional Units; and

(B) Any Unit listed under paragraphs (o)(2), (o)(5), (o)(6), (o)(8), and (o)(9);~~Subject to Table 1 or Table 2 NOx Concentration Limits, with the exception of any Boiler or Process Heater with a Rated Heat Input Capacity of less than 40 MMBtu/hour that will meet the NOx concentration limit pursuant to subparagraph (d)(2)(B) or (d)(2)(C) after the last Compliance Date in Table 6 for the selected I-Plan option.~~

(~~2~~C) ~~An owner or operator of a Facility that submits an I-Plan pursuant to paragraph (h)(1) shall i~~Identify all Facilities With The Same Ownership, by facility identification number, subject to the rule that are included in the I-Plan;

(2) An owner or operator that elects to implement an I-Plan shall select one I-Plan Option from Table 6 where the selection of: NOTE: CLARIFIED THAT THEY MUST SELECT THE I-PLAN OPTION. THIS IS THE CRITERIA THAT IS IN TABLE 6.

(A) I-Plan Option 1 shall be allowed only if an owner or operator is implementing a B-Plan or complying with the NOx Concentration Limits in Table 1 or Table 2;

(~~7~~)(B) I-Plan Option 2, I-Plan, or I-Plan Option 5 shall be allowed only if an owner or operator is implementing a B-Plan;

(C) I-Plan Option 3 shall be allowed if an owner or operator is implementing a B-Plan or a B-Cap;

(D) I-Plan Option 4 shall be allowed only if an owner or operator is implementing a B-Cap; and

(E) I-Plan Option 2 and I-Plan Option 3 shall be allowed~~is~~ only if ~~available to~~ an owner or operator of a Facility is achieving a NOx emission rate of less than 0.02 pound/MMBtu ~~per million BTU~~ of Heat Input, based on annual emissions for the applicable Units as reported in the 2021 Annual Emissions Report and calculated pursuant to Attachment A, for all the Boilers and Process Heaters with Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour based on the maximum Rated Heat Input Capacity by [*DATE OF ADOPTION*]~~; for Units firing at less than the maximum Rated Heat Input Capacity, mass emissions shall be less than or equal to the quantity that would occur at maximum Rated Heat Input Capacity~~. NOTE: REMOVED LESS THAN MAX RATING, NOT NEEDED

TABLE ~~7~~6: I-PLAN PERCENT REDUCTION TARGETS OF REQUIRED REDUCTIONS AND SCHEDULE

I-Plan Option	Key Elements	Phase I	Phase II	Phase III
I-Plan Option 1 for B-Plan or ~~Table 1 and Table 2~~ Concentration Limits in Table 1 or Table 2	Percent Reduction Targets	80	100	N/A
	Permit Application Submittal Date	January 1, 2023	January 1, 2031	N/A
	Compliance Date	No later than 36 months after a South Coast AQMD Permit to Construct is issued		N/A
I-Plan Option 2 for B-Plan Only pursuant to subparagraph (h)(2)(E)~~(g)(3)~~	Percent Reduction Targets	65	100	N/A
	Permit Application Submittal Date	July 1, 2024	January 1, 2030	N/A
	Compliance Date	No later than 36 months after a South Coast AQMD Permit to Construct is issued		N/A
I-Plan Option 3 for B-Plan or B-Cap pursuant to subparagraph ~~(g)(3)~~(h)(2)(E)	Percent Reduction Targets	40	100	N/A
	Permit Application Submittal Date	July 1, 2025	July 1, 2029	N/A
	Compliance Date	No later than 36 months after a South Coast AQMD Permit to Construct is issued		N/A
	B-Cap Effective Date of the Facility BARCT Emission Target	January 1, 2030	January 1, 2034	N/A
I-Plan Option 4 for B-Cap Only	Percent Reduction Targets	50	80	100
	Permit Application Submittal Date	N/A	January 1, 2025	January 1, 2028
	Compliance Date	January 1, 2024	No later than 36 months after a South Coast AQMD Permit to Construct is issued	
	B-Cap Effective Date of the Facility BARCT Emission Target	January 1, 2024	July -1, 2029	July 1, 2032
I-Plan Option 5 for B-Plan Only	Percent Reduction Targets	50	70	100
	Permit Application Submittal Date	January 1, 2023	January 1, 2025	July 1, 2028
	Compliance Date	No later than 36 months after a South Coast AQMD Permit to Construct is issued		

(3) An owner or operator that elects to implement an I-Plan shall use the Baseline NOx Emissions and Representative NOx Concentrations listed in "Baseline NOx Emissions and Representative NOx Concentrations for Facilities Regulated Under Rule 1109.1- Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations" that was approved on [*DATE OF ADOPTION*] unless; NOTE: WE WILL HAVE THIS SEPARATE DOCUMENT THAT THE BOARD WILL APPROVE TO HELP LOCK IN THE DATA

(i) The owner or operator submits a request in writing to the Executive Officer for a change to the Baseline NOx Emissions or Representative NOx Concentration before December 1, 2021;

(ii) The Executive Officer approves the change as it more accurately represents the Baseline NOx Emissions or the Representative NOx Concentration considering annual emissions data, CEMS data, source test data, and any other documentation that substantiates the change; and

(iii) Any change to the Baseline NOx Emissions or Representative NOx Concentration that is greater than 5 percent of the corresponding value for an individual Unit is presented to the Stationary Source Committee no later than February 18, 2022. NOTE: ADDED TO ADDRESS CONCERNS ABOUT BASELINE AND REPRESENATIVE NOX CONCENTRATIONS

(~~3~~4) An owner or operator of a Facility that elects to implement ~~submits~~ an I-Plan ~~pursuant to paragraph (h)(1)~~ shall calculate the ~~Phase I, Phase II, and if applicable, Phase III~~ Final Phase Facility BARCT Emission Target~~s~~, pursuant to Attachment B using~~of this rule where the NOx concentration limit for each Unit shall be determined based on~~: NOTE: REVISED TO REFERENCE ONLY THE FINAL PHASE. WE USE THE FINAL PHASE AND BASELINE TO CALULATE THE EARLIER PHASE TARGETS. THIS IS MORE ACCURATE.

(A) The applicable ~~Table 2 C~~conditional NOx Concentration Limit in Table 2 for each Unit that:

(i) ~~m~~Meets the conditions in ~~either sub~~paragraph (d)(3)~~(A) or (d)(3)(B)~~ and a permit application was submitted pursuant to subparagraph (f)(3)(A);

(ii) Is listed in Table D-1 in Attachment D of this rule, for an owner or operator submitting a B-Plan or a B-Cap; or

(iii) Is listed in Table D-2 in Attachment D of this rule, for an owner or operator submitting a B-Cap that selects I-Plan Option 4;

(B) 5 ppmv for any Boiler with a Rated Heat Input Capacity less than 40 MMBtu/hour ~~included in the I-Plan~~;

(C) 40 ppmv for a Process Heater with a Rated Heat Input Capacity less than 40 MMBtu/hour ~~included in the I-Plan~~ with a Representative NOx Concentration greater than or equal to 75 ppmv, provided:

(i) The Unit will achieve a NOx ~~C~~concentration ~~L~~limit at or below 40 ppmv in Phase I of an I-Plan; and

(ii) Any additional ~~future~~ NOx emission reductions beyond those achieved to meet clause (h)(4)(C)(i) are not used ~~to achieve the NOx Concentration Limit in subparagraph (d)(2)(C) is not applied~~ to meet the Facility BARCT Emission Target for Phase II, or if applicable, Phase III of an I-Plan; NOTE: PROVIDED CLARITY

(D) 9 ppmv for any Process Heaters with a Rated Heat Input Capacity of less than 40 MMBtu/hour with a Representative NOx Concentration less than 75 ppmv~~that is not identified in subparagraph (h)(3)(C)~~; and

(E) The applicable ~~Table 1~~ NOx Concentration Limits in Table 1 for all other Units, including any Unit that will be decommissioned under a B-Cap. NOTE: ADDED THAT DECOMMISSIONED UNIT IS TABLE 1

(~~4~~5) An owner or operator of a Facility that ~~submits~~ elects to implement an I-Plan and ~~pursuant to paragraph (h)(1) that elects to comply with~~ a B-Plan, or an I-Plan to meet the NOx Concentration Limits and Corresponding CO Concentration Limits in Table 1 and Table 2 shall:

~~(A) Calculate the Phase I, Phase II, and if applicable, Phase III BARCT Equivalent Mass Emissions, using the Alternative BARCT NOx Limits, pursuant to Attachment B of this rule;~~

(~~B~~A) Demonstrate that the Phase I, Phase II, and if applicable, Phase III BARCT Equivalent Mass Emissions are less than the respective

Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target; and

(~~C~~B) ~~Implement emission reduction projects based on the schedule in the approved I-Plan to m~~Meet the Alternative BARCT NOx Concentration Limits in an approved B-Plan to achieve the ~~Phase I, Phase II, and if applicable, Phase III~~ Facility BARCT Emission Target for each phase, based on the schedule in the approved I-Plan.

(~~5~~6) An owner or operator of a Facility that elects to implement ~~submits~~ an I-Plan and ~~pursuant to paragraph (h)(1) that elects to comply with~~ a B-Cap shall:

(A) Incorporate an additional 10 percent reduction ~~to~~ of the ~~Phase I, Phase II, and if applicable, Phase III~~ overall NOx reductions used to calculate the Facility BARCT Emission Targets, pursuant to Attachment B of this rule;

(B) Demonstrate that the Phase I, Phase II, and if applicable, Phase III BARCT B-Cap Annual Emissions are less than the respective Phase I, Phase II, or Phase III Facility BARCT Emission Target;

(C) Implement emission reduction projects to meet the Alternative BARCT NOx Limit, decommission Units, or other emission reduction strategies, based on the schedule in the approved I-Plan to maintain BARCT B-Cap Annual Emissions ~~NOx mass emissions~~ below ~~the Phase I, Phase II, and if applicable, Phase III~~ Facility BARCT Emission Target for each phase; and NOTE: CLARIFICATION THAT EMISSION REDUCTION PROJECTS INCLUDES ALT NOX LIMITS, DECOMMISSIONED UNITS OR OTHER EMISSION REDUCTION STRATEGIES.

(D) Demonstrate daily compliance that mass emissions from all Units in the I-Plan are below ~~with~~ the Phase I, Phase II, and if applicable, Phase III Facility BARCT Emission Target, based on a 365-day rolling average as measured pursuant to subdivisions (k) or ~~(l)~~subparagraph (n)(2)(C), where the ~~effective date of the~~ Facility BARCT Emission Target is:

(i) For I-Plan Option 3:

(A) The Baseline Facility Emissions before January 1, 2031, only if the Facility is a Former RECLAIM Facility;

(B) Phase I Facility BARCT Emission Target on and after January 1, 2031 and before January 1, 2035; and

(C) Phase II Facility BARCT Emission Target on and after January 1, 2035; and

(ii) For I-Plan Option 4:

(A) The Baseline Facility Emissions before January 1, 2025, only if the Facility is a Former RECLAIM Facility;

(B) Phase I Facility BARCT Emission Target on and after January 1, 2025 and before July 1, 2030;

(C) Phase II Facility BARCT Emission Target on and after July 1, 2029 and before July 1, 2033; and

(D) Phase III Facility BARCT Emission Target on and after July 1, 2033.

~~(i) January 1, 2024 for Phase I of I-Plan Option 4; and~~

~~(ii) 54 months from the permit application Submittal Date specified in Table 6 for:~~

~~(A) Phase I and Phase II for I-Plan Option 3; and~~

~~(B) Phase II and Phase III for I-Plan Option 4.~~ NOTE: ADDED DATES FOR CLARITY

(i) I-Plan, B-Plan, and B-Cap Submittal and Approval Requirements

(1) I-Plan Submittal Requirements

On or before September 1, 2022, ~~A~~an owner or operator of a Facility that elects to implement an approved I-Plan pursuant to subdivision ~~paragraph~~ (h)~~(1)~~ shall submit an I-Plan to the Executive Officer for review that: NOTE: ADDED THE DATE HERE AND REMOVED UNDER I-PLAN REQUIREMENTS

(~~B~~A) Identifies each Unit required to be included in the I-Plan pursuant to subparagraph (h)(1)(B), ~~subject to the rule by~~ and includes the device identification number with a description of each Unit;

(~~A~~B) Identifies all Facilities With The Same Ownership, by facility identification number, subject to the rule that are included in the I-Plan pursuant to subparagraph (h)(1)(C);

(C) Identifies the anticipated start and end date (month and year) of the turnaround schedule for each Unit;

(D) Specifies the selected ~~either~~ I-Plan option that meets the requirements of paragraph (h)(2);~~Option 1 (for a B-Plan or Table 1 and Table 2 Concentration Limits), I-Plan Option 2 (for a B-Plan only), I-Plan Option 3 (for a B-Plan or B-Cap), I-Plan Option 4 (for a B-Cap only), or I-Plan Option 5 (for a B-Plan only) in Table 7;~~ NOTE: MOVED THIS INTO PARAGRAPH (h)(2), AND REFERENCE HERE

(E) Calculates the Phase I, Phase II, and if applicable, Phase III Facility BARCT Emission Target~~s,~~ pursuant to Attachment B of this rule using the NOx concentration limit for each Unit pursuant to paragraph (h)(4) and incorporating the additional 10 percent reduction for operators that are submitting a B-Cap, pursuant to subparagraph (h)(~~5~~6)(A); NOTE: CLARIFYING LANGUAGE. ~~(F) Identifies each Unit in an approved B-Plan or an approved B-Cap using I-Plan Option 3 that qualifies for the Table 2 Conditional Concentration Limits pursuant to subparagraph (d)(3)(A) and demonstrates that the owner or operator submitted a complete permit application pursuant to subparagraph (f)(3)(A);~~ NOTE: REQUIREMENTS FOR USING CONDITIONAL LIMITS IS INCLUDED IN THE REFERENCE TO LIMITS FOR THE TARGETS IN (h)(3), PROVISION NOT NEEDED

~~(G) Calculates the Phase I, Phase II, and if applicable Phase III Facility BARCT Emission Target pursuant to Attachment B of this rule for the selected I-Plan Option pursuant to subparagraph (i)(1)(D); and~~ NOTE: THIS IS REDUNDANT WITH SUBPARAGRAPH (i)(1)(D) ABOVE

(F) Calculate the BARCT Equivalent Mass Emissions using the Alternative BARCT NOx Limits pursuant to Attachment B of this rule; NOTE: MOVED FROM THE REQUIREMENT SECTION OF B-PLAN AND B-CAP TO HERE.

(~~H~~G) For operators that are not submitting a B-Cap, demonstrate that each phase of the BARCT Equivalent Mass Emissions are less than the respective phase of the Facility BARCT Emission Target, pursuant to subparagraph (h)(5)(B); and ~~Identifies each Unit by device identification number with a description of each Unit that~~

~~cumulatively meets Phase I, Phase II, and if applicable, Phase III Facility BARCT Emission Target.~~ NOTE: THIS IS THE MAIN DEMONSTRATION TO APPROVE THE I-PLAN WITH A B-PLAN OR A FACILITY COMPLYING WITH TABLE 1/TABLE 2.

(H) For operators that are submitting a B-Cap, demonstrate that each phase of the BARCT B-Cap Annual Emissions are less than the respective phase of the Facility BARCT Emission Target, pursuant to subparagraph (h)(6)(B), where the Facility BARCT Emission Target is reduced by 10 percent pursuant to subparagraph (h)(6)(A); NOTE: THIS IS THE MAIN DEMONSTRATION TO APPROVE THE I-PLAN WITH A B-CAP

(2) B-Plan Submittal Requirements

On or before September 1, 2022, ~~A~~an owner or operator of a Facility that elects to implement ~~meet Alternative BARCT NOx Limits in~~ an approved B-Plan pursuant to paragraph (g)(1), shall submit a B-Plan to the Executive Officer for review that: NOTE: MOVED THE SUBMITTAL DATE HERE, WAS IN B-PLAN REQUIREMENTS. "ALTERNATIVE BARCT NOX LIMITS" IS NOT NEEDED HERE

~~(B)~~(A) Identifies each Unit required to be included in the B-Plan pursuant to subparagraph (g)(1)(B), and includes the ~~subject to this rule by~~ device identification number with a description of each Unit; NOTE: CHANGES FOR CONSISTENCY WITH I-PLAN

~~(A)~~(B) Identifies all Facilities With The Same Ownership, by facility identification number, subject to the rule that are included in the B-Plan, pursuant to subparagraph (g)(1)(C);

(C) Specifies the Alternative BARCT NOx Limits for each Unit ~~-~~of the I-Plan that meets the requirements of subparagraph (g)(1)(D); ~~that:~~

(D) Calculates the Phase I, Phase II, and if applicable, Phase III BARCT Equivalent Mass Emissions using the Alternative BARCT NOx Limits identified in subparagraph (i)(2)(C), as calculated pursuant to Attachment B of this rule; ~~and~~

(~~i~~E) Specifies which phase or phases in the I-Plan ~~a complete~~ the permit application will be submitted for each Unit subject to the B-Plan to meet the requirements of subparagraph (g)(1)(E)~~establish a permit~~

~~condition that limits the NOx concentration to the Alternative BARCT NOx Limit~~; and

(~~ii~~F) Specifies each Unit that has an existing permit condition that limits the NOx concentration to the Alternative BARCT NOx Limit~~;~~.

~~(G) Demonstrates that the Phase I, Phase II, and if applicable, Phase III BARCT Equivalent Mass Emissions are less than the respective Phase I, Phase II, or Phase III Facility BARCT Emission Target.~~ NOTE: THIS IS IN THE I-PLAN SUBMITTAL. DELETED, REDUNDANT.

(3) B-Cap Submittal Requirements

On or before September 1, 2022, ~~A~~an owner or operator of a Facility that elects to implement ~~comply with~~ an approved B-Cap pursuant to paragraph (g)(2), shall submit a complete B-Cap to the Executive Officer for review that: NOTE: MOVED SUBMITTAL DATE FROM REQUIREMENTS TO HERE

~~(B)~~(A) Identifies each Unit required to be in the B-Cap pursuant to subparagraph (g)(2)(B), and includes the ~~subject to this rule by the~~ device identification number with a description of the Unit; NOTE: CHANGES FOR CONSISTENCY WITH I-PLAN

~~(A)~~(B) Identifies all Facilities With The Same Ownership, by facility identification number, subject to the rule that are included in the B-Cap, pursuant to subparagraph (g)(2)(C);

(C) Specifies the Alternative BARCT NOx Limits for each Unit of the I-Plan that meets the requirements of subparagraph (g)(2)(D);

(D) Calculates the Phase I, Phase II, and if applicable, Phase III BARCT Equivalent Mass Emissions using the Alternative BARCT NOx Limits identified in subparagraph (i)(3)(C), as calculated pursuant to Attachment B of this rule;

(E) Calculates the Phase I, Phase II, and if applicable Phase III BARCT B-Cap Annual Emissions pursuant to (g)(2)(E);

(F) Provide an explanation when the Unit BARCT B-Cap Annual Emissions are less than the BARCT Equivalent Mass Emissions for any Unit; NOTE: MOVED OVER FROM B-CAP REQUIREMENTS

~~(i)~~(G) Specifies which phase or phases in the I-Plan ~~a complete~~ the permit application will be submitted for each Unit subject to the

~~B-Plan~~B-Cap to meet the requirements of subparagraph (g)(2)(F)~~establish a permit condition that limits the NOx concentration to the Alternative BARCT NOx Limit~~; ~~and~~

(H) Specifies each Unit that has an existing permit condition that limits the NOx concentration to the Alternative BARCT NOx Limit;

(~~D~~I) Identifies any Unit that will be decommissioned, and the phase of the I-Plan that the Unit will be decommissioned ~~for each phase of the approved I-Plan~~;

(~~E~~J) Identifies any Unit that will have other reductions in mass emissions for each phase of the approved I-Plan;

~~(F~~K) ~~Calculates the Phase I, Phase II, and if applicable, Phase III BARCT B-Cap Annual Emissions based on emission reduction strategies identified in subparagraph (g)(2)(DE) as calculated pursuant to Attachment B of this rule; and~~

(~~G~~K) Demonstrates that the Phase I, Phase II, and if applicable, Phase III BARCT B-Cap Annual Emissions are less than the respective Phase I, Phase II, or Phase III Facility BARCT Emission Target that incorporates an additional 10 percent reduction pursuant to subparagraph (h)(~~5~~6)(A).

(4) I-Plan, B-Plan, and B-Cap Review and Approval Process

The Executive Officer will notify the owner or operator of a Facility in writing whether the I-Plan, B-Plan, or B-Cap is approved or disapproved based on the following criteria:

(A) The I-Plan contains information required in paragraph (i)(1), the B-Plan contains information required in paragraph (i)(2), and the B-Cap contains information required in paragraph (i)(3);

(B) All of the Units identified in subparagraph (i)(2)(B) for a B-Plan or identified in subparagraph (i)(3)(B) for a B-CAP are included in the corresponding I-Plan pursuant to subparagraph (i)(1)(A~~B~~);

(C) The I-Plan option selected meets the requirements of paragraph (h)(2);

(D) The Final Phase Facility BARCT Emission Target was calculated pursuant to Attachment B and using the NOx concentration limit for each Unit pursuant to paragraph (h)(3) and incorporating the additional 10 percent reduction for operators that are submitting a B-Cap, pursuant to subparagraph (h)(6)(A); ~~Any Units that will~~

~~establish the Phase I, Phase II, and if applicable, Phase III Facility BARCT Emission Target based on the~~ a ~~Table 2 C~~conditional NOx ~~limits, in lieu of a Table 1 NOx Concentration Limit, have been identified and the applicable requirements of subparagraphs (d)(3)(A) and (f)(3)(A) have been met~~;

(~~D~~E) The Phase I, Phase II, ~~or~~ and if applicable, Phase III Facility BARCT Emission Targets were established pursuant to Attachment B~~paragraph (h)(3)~~;

(~~E~~F) The Phase I, Phase II, and if applicable, Phase III Equivalent BARCT Mass Emissions for a B-Plan are less than the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target pursuant to subparagraph (h)(~~4~~5)(B);

(~~F~~G) The Phase I, Phase II, and if applicable, Phase III BARCT B-Cap Annual Emissions for a B-Cap are less than the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target that incorporates a 10 percent NOx emission reduction, pursuant to subparagraph (h)(~~5~~6)(~~A~~B); and

(~~G~~H) The Alternative BARCT NOx Limit for any Unit in a B-Cap does not exceed the applicable ~~Table 6 M~~maximum Alternative BARCT NOx Limit in Table 5.

(5) Within ~~30~~45 days of receiving written notification from Executive Officer that the I-Plan, B-Plan, or B-Cap is disapproved, the owner or operator shall correct any deficiencies and re-submit the I-Plan, B-Plan, or B-Cap.

(6) Upon receiving written notification from the Executive Officer that the I-Plan, B-Plan, or B-Cap re-submitted pursuant to ~~–~~paragraph (i)(5) is disapproved, the owner or operator shall comply with the NOx Concentration Limits in Table 1 or Table 2 ~~compliance schedule~~ pursuant to the compliance schedule and Percent Reduction Targets in the selected I-Plan option~~paragraph (f)(1)~~.

(7) Modifications to an Approved I-Plan, an Approved B-Plan, and an Approved B-Cap

An owner or operator of a Facility that seeks approval to modify an approved I-Plan, an approved B-Plan, or an approved B-Cap shall:

(A) Submit a request in writing to the Executive Officer to modify an Approved I-Plan, an Approved B-Plan, and an Approved B-Cap that includes all the plan submittal requirements pursuant to paragraph

(i)(1) for an approved I-Plan, paragraph (i)(2) for an approved B-Plan, or paragraph (i)(3) for an approved B-Cap; and

(B) Modify an approved I-Plan, B-Plan, or B-Cap if:

(i) A Unit identified as qualifying for ~~Table 2 a c~~Conditional NOx Concentration Limit in Table 2 no longer meets the requirements pursuant to ~~sub~~paragraph (d)(3)~~(A)~~;

(ii) A Unit in an approved B-Cap identified as qualifying for the ~~Table 2 C~~conditional NOx Concentration Limit in Table 2 for establishing the Phase I, Phase II, or Phase III BARCT Facility Emission Target is decommissioned or a Unit in an approved B-Plan is decommissioned;

(iii) A higher Alternative BARCT NOx Limit will be proposed in the complete permit application than the Alternative BARCT NOx Limit for that Unit in an approved I-Plan, an approved B-Plan, or an approved B-Cap;

(iv) Any emission reduction project is moved to a later implementation phase, any emission reduction project is moved between phases, or any emission reduction project is removed from a phase; ~~or~~

(v) The owner or operator receives a written notification from the Executive Officer that modifications to the I-Plan, B-Plan, or B-Cap are needed~~.~~; or

(vi) The owner or operator of a Facility with an approved B-Cap submits a permit application for a Permit to Construct for a New Unit that meets one or more of the provisions under subparagraph (g)(2)(J). NOTE: ADDED TO PROVIDE CLARITY THAT B-CAP WOULD NEED TO BE MODIFIED

(8) The Executive Officer will review any modifications to an I-Plan, B-Plan, or B-Cap in accordance with the review and approval process pursuant to paragraph (i)(4).

(9) Notification of Pending Approval of an I-Plan, B-Plan, or B-Cap

The Executive Officer will make the proposed I-Plan, B-Plan, or B-Cap or proposed modifications to an approved I-Plan, an approved B-Plan, or an approved B-Cap available to the public on the South Coast AQMD website 30 days prior to approval.

(10) Plan Fees

The review and approval of an I-Plan, B-Plan, and B-Cap, or review and approval of a modification of an approved I-Plan, an approved B-Plan, and an approved B-Cap shall be subject to applicable plan fees pursuant to Rule 306 – Plan Fees.

(11) An I-Plan, B-Plan, or B-Cap shall be subject to Rule 221 – Plans.

(j) Time Extensions

(1) An owner or operator of a Facility may request a one-time 12-month ~~time~~ extension~~-~~ from the compliance date in paragraph (f)(1) or the compliance date in an approved I-Plan, for each unit, to meet a NOx Concentration Limit and Corresponding CO Concentration Limit or the Alternative BARCT NOx Concentration Limit for ~~one 12-month extension for each Unit from the Compliance Date in paragraph (f)(1) or~~ specific circumstances provided:~~the Compliance Date in Table 7 to meet an Alternative NOx Limit for a Unit in a B-Plan, or B-Cap, or Table 1 NOx Concentration Limit and Corresponding CO Concentration Limit provided:~~

(A) The complete permit application for the Unit was submitted on or before the date specified in paragraph (f)(1) or the approved I-Plan; and

(B) There are specific circumstances outside of the control of the owner or operator that necessitate an extension of time.

(2) An owner or operator of a Facility ~~with an approved I-Plan~~ may request~~-~~, a time extension from the compliance date in an approved I-Plan, for each Unit, to meet a NOx Concentration Limit and Corresponding CO Concentration Limit or an Alternative BARCT Concentration Limit for a turnaround provided: ~~from the Compliance Date in Table 7 to meet an Alternative NOx Limit for a Unit in a B-Plan, B-Cap, or Table 1 NOx Concentration Limit and Corresponding CO Concentration Limit provided:~~

NOTE: SAME PROVISION, CLARIFIED

(A) The complete permit application for the Unit was submitted on or before the date specified in the approved I-Plan;

(B) The month and year of the scheduled turnaround and the month and year of the subsequent turnaround for the Unit is submitted in writing at the time of complete permit application submittal; and

(C) ~~One or more of the following occurred:~~

~~(i)~~ The South Coast AQMD Permit to Construct for the Unit was issued after the scheduled turnaround date or ~~the South Coast AQMD Permit to Construct for the Unit was issued~~ more than ~~24 months~~ 18 months after the complete permit application was submitted, ~~and~~provided ~~either~~:

(i) The scheduled turnaround date was between 18 and 54 months after the complete permit application was submitted; and the subsequent scheduled turnaround for the Unit will not occur until 12 months after the Compliance Date in the approved I-Plan; or

(~~i~~ii) The subsequent scheduled turnaround for the Unit will occur more than 48 months after the South Coast AQMD Permit to Construct was issued.

(3) An owner or operator of a Facility with an approved B-Cap may request a time extension for the dates specified in subparagraph (h)(6)(D) ~~effective date of~~ to meet the Facility BARCT Emission Targets in an approved I-Plan provided: ~~beyond the 54 months from the permit application submittal date specified in subparagraph (h)(65)(BD)st if:~~ NOTE: SAME PROVISION, CLARIFIED

(A) The South Coast AQMD Permit to Construct ~~for one or more Units~~ was issued more than 18 months after the complete permit application was submitted for a Unit, provided:

(i) The permit application was submitted on or before the date specified in the approved I-Plan; and

(ii) The time extension request is no longer than the time between 18 months after the complete permit application was submitted and when the South Coast AQMD Permit to Construct was issued;

(B) A time extension is requested pursuant to paragraph (j)(1); or

(C) A time extension is requested pursuant to paragraph (j)(2).

(4) An owner or operator of a Facility shall submit a time extension request in writing to the Executive Officer:

(A) No later than ~~90~~180 days prior to the Compliance Date in paragraph (f)(1) or the approved I-Plan, for a time extension request pursuant to paragraph (j)(1) or (j)(2); or

(B) No later than ~~90~~180 days prior to the effective date of the Facility BARCT Emission Target referenced in subparagraph (h)(5)(C), for a time extension request pursuant to paragraph (j)(3). NOTE: PROVISION ADDED FOR POTENTIAL ADDITIONAL INFORMATION AND EO REVIEW OF 60 DAYS

(5) An owner or operator of a facility that submits a time extension request pursuant to paragraph (j)(4) shall include:

(A) The phase and the Unit needing a time extension;

(B) The date the complete permit application was submitted;

(C) The date the Executive Officer issued the Permit to Construct;

(D) For a time extension request pursuant to paragraph (j)(3), specify the Unit BARCT B-Cap Annual Emissions;

(E) The additional time needed to complete the emission reduction project;

(F) Specify if the time extension request is for paragraph (j)(1), (j)(2), and/or (j)(3);

(G) Provide the month and year of the scheduled turnaround, and the subsequent turnaround, if applicable, for the Unit to qualify for time extension request pursuant to paragraph (j)(2); and

(H) The reason(s) a time extension is requested.

(6) The Executive Officer will review the request for the time extension and act on the request within 60 days of receipt provided an owner or operator of a Facility:

(A) Meets the requirements of paragraph (j)(1), (j)(2), or (j)(3) as applicable;

(B) Submitted the written request within the timeframe and includes the applicable information pursuant to paragraph (j)(4);

(C) For a time extension request pursuant to paragraph~~s~~ (j)(1), provides at a minimum:

(i) ~~Provides i~~Information on schedules and/or construction plans documenting the key milestones and which key milestone(s) were delayed with an explanation of actions the operator took to ensure milestones were met and why the delay necessitates additional time for delays due to missed milestones;

(ii) ~~Provides i~~Information to substantiate that the information submitted to another agency was timely, including the date when the application was submitted, and documentation from the agency of reason for the delay for delays related to the other agency approvals;

(iii) ~~Provides p~~Purchase orders, invoices, and communications from vendors that demonstrate that equipment was ordered in a timely fashion and delays are outside of the control of the operator for delays related to the delivery of parts or equipment; and

(iv) ~~Provides a~~An explanation of the service, when the service was requested, the response time, and information to substantiate why the delay necessitates additional time for delays related to contract workers, source testers, installers, or other services.

(D) Provides documentation to substantiate that one of the provisions under subparagraph (j)(2)(C) has been met if requesting a time extension request pursuant to paragraph (j)(2); and

(E) Provides documentation of the date the Permit to Construct was issued for each Unit, to substantiate that the Executive Officer issued the Permit to Construct more than 18 months after the date permit application was required to be submitted pursuant to an approved I-Plan if requesting a time extension request pursuant to paragraph (j)(3).

(7) The Executive Officer shall determine the duration of the time extension ~~be~~ based the information provided in paragraph (j)(6) and shall be no longer than: NOTE: THIS PROVISION WAS ADDED TO CLARIFY THE LENGTH OF TIME ALLOWED FOR A TIME EXTENSION FOR THE VARIOUS PROVISIONS

(A) 12 months for a time extension request pursuant to paragraph (j)(1) or subparagraph (j)(3)(B);

(B) The time necessary to meet the Alternative BARCT NOx Limit in the subsequent turnaround for a time extension request pursuant to paragraph (j)(2) or subparagraph (j)(3)(C); or

(C) The time between 18 months after the complete permit application was submitted and when the South Coast AQMD Permit to

Construct was issued for the Unit applicable to the time extension pursuant to subparagraph (j)(3)(A).

(~~7~~8) An owner or operator of a Facility that receives a request from ~~If~~ the Executive Officer ~~requests~~ to provide additional information to substantiate the time extension request, ~~the owner or operator of a Facility~~ shall provide th~~at~~e additional information within the timeframe specified by the Executive Officer. The Executive Officer will review the request for the time extension and act on the request within 60 days of the receipt of the additional information.

(~~8~~9) An ~~If the Executive Officer notifies the~~ owner or operator of a Facility that receives an ~~of~~ approval ~~of~~ for a time extension that was requested pursuant to paragraphs (j)(1) or (j)(2), ~~the owner or operator~~ shall meet the applicable NOx Concentration Limit and Corresponding CO Limit or the Alternative BARCT C~~c~~oncentration Limit ~~limits in Table 1, an approved B-Plan, or an approved B-Cap~~ within the timeframe in the approval of the time extension, where ~~and~~ the approval represents an ~~-~~ amendment to the I-Plan.

(~~9~~10) An owner or operator of a ~~The~~ Facility that receives an approval for a time extension that was requested pursuant to paragraph (j)(3), shall meet the adjusted Facility BARCT Emission Target where:

(A) The Facility BARCT Emission Target will be ~~adjusted~~ increased by adding the Unit BARCT B-Cap Annual Emissions for each Unit where a time extension was approved to the Facility BARCT Emission Target;

(B) The Facility BARCT Emission Target will be decreased by subtracting the Unit BARCT B-Cap Annual Emissions~~,~~ for each Unit where a time extension was approved~~,~~ from the Facility BARCT Emission Target based on limitation of the increase pursuant to paragraph (j)(7), for the Facility BARCT Emission Target;

(C) The increase and decrease of the Facility BARCT Emission Target shall be based on the duration of time determined by the Executive Officer and no longer than the duration of time specified under paragraph (j)(7), and shall be implemented on January 1 or July 1 of a calendar year; ~~for each Unit where a time extension~~

(D) The approval of a time extension request pursuant to paragraph (j)(3), represents an amendment to an approved I-Plan and B-Cap.

~~is approved pursuant to paragraph (j)(8) where adjustments to the Facility BARCT Emission Target shall be in increments no less than six months.~~

(~~10~~11) If the Executive Officer notifies the owner or operator of a Facility of a disapproval of a time extension request, the owner or operator shall meet the NOx and CO concentration limits in Table 1, an approved B-Plan, or an approved B-Cap within 60 calendar days after receiving notification of disapproval of the time extension request or pursuant to the compliance schedule in paragraph (f)(1) or the schedule in an approved I-Plan.

(k) CEMS Requirements

(1) An owner or operator of a Former RECLAIM Facility with a Unit with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour shall install, certify, operate, and maintain a CEMS to measure NOx and O_2 emissions pursuant to the applicable Rule 218.2 and Rule 218.3 requirements to demonstrate compliance with the applicable NOx ~~Concentration Limit~~ and Corresponding CO Concentration Limits.

(2) An owner or operator of a Former RECLAIM Facility with a Sulfuric Acid Furnace subject to the NOx and CO concentration limits in Table 1, Table 3, an approved B-Plan or an approved B-Cap shall:

(A) Install, certify, operate, and maintain a CEMS to measure NOx emissions pursuant to the applicable Rules 218.2 and 218.3 requirements to demonstrate compliance with the applicable NOx ~~Concentration Limit~~ and Corresponding CO Concentration Limits; and

(B) Within 12 months from [*DATE OF ADOPTION*] install, certify, operate, and maintain a CEMS that complies with the Rules 218.2 and 218.3 requirements to measure O_2 and demonstrate compliance with the applicable ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits.

(3) An owner or operator of a Unit with a CEMS that measures CO at [*DATE OF ADOPTION*] must operate and maintain the CO CEMS pursuant to the applicable Rules 218.2 and 218.3 requirements to demonstrate compliance with the ~~Table 1, Table 2, or Table 3~~6 Corresponding CO Concentration Limits in Table 1, Table 2, or Table 3 and certify the CEMS within 12 months of [*DATE OF ADOPTION*] pursuant to the applicable Rules 218.2 and 218.3 requirements.

(4) An owner or operator of a Former RECLAIM Facility with a Unit with a CEMS shall exclude invalid CEMS data pursuant to Rule 218.2 – Continuous Emission Monitoring System: General Provisions and Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications.

(5) Missing Data Procedures for a Facility Complying with a B-Cap

An owner or operator of a Facility with a Unit with an approved B-Cap with a non-operational CEMS that is not collecting data, shall:

(A) Calculate missing data using the average of the recorded emissions for the hour immediately before the missing data period and the hour immediately after the missing data period, if the missing data period is less than or equal to 8 continuous hours; or

(B) Calculate missing data using the maximum hourly emissions recorded for the previous 30 days, commencing on the day immediately prior to the day the missing data occurred, if the missing data period is more than 8 continuous hours.

(l) Source Test Requirements

(1) An owner or operator of a Facility with a Unit that is not required to install and operate a CEMS pursuant to subdivision (k) shall be required to conduct a source test, with a duration of at least 60 minutes but no longer than 120 minutes, to demonstrate compliance with the applicable ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~NOx and Corresponding CO C~~c~~oncentration ~~l~~Limits pursuant to the source test schedule in either ~~-~~Table ~~8~~7 – Source Testing Schedule for Units without Ammonia Emissions in the Exhaust (Table 7) or ~~-~~Table ~~9~~8 – Source Testing Schedule for Units with Ammonia Emissions in the Exhaust (Table 8).

(2) Source Test Schedule for Units without Ammonia Emissions in the Exhaust
An owner or operator of a Facility with a Unit that is not required to install and operate a CEMS pursuant to subdivision (k) and does not vent to post-combustion air pollution control equipment with ammonia injection, shall demonstrate compliance with the applicable ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits by conducting source tests according to the schedule in Table ~~8~~7.

TABLE ~~8~~7: SOURCE TESTING SCHEDULE
FOR UNITS WITHOUT AMMONIA EMISSIONS IN THE EXHAUST

Combustion Equipment	Source Test Schedule
Vapor Incinerators <40 MMBtu/~~-~~hr, Flares	• Conduct a source test simultaneously for NOx and CO within ~~36 months from previous source test~~ 12 months of being subject to a NOx and Corresponding CO Concentration Limits and every 36 months thereafter
All Other Units	
Units Operating without NOx or CO CEMS	• Conduct a source test simultaneously for NOx and CO ~~within~~ quarterly during the first 12 months of being subject to a ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits~~and quarterly thereafter~~ • Source tests may be conducted annually after the first 12 months of being subject to a ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits if four consecutive quarterly source tests demonstrate compliance with the NOx and Corresponding CO ~~c~~Concentration ~~l~~Limits • If an annual source test demonstrates an exceedance of a NOx Concentration Limit or Corresponding CO Concentration Limit~~is failed~~, four consecutive quarterly source tests must demonstrate compliance with the NOx and Corresponding CO ~~c~~Concentration ~~l~~Limits prior to resuming annual source tests

Combustion Equipment	Source Test Schedule
Units operating with NOx CEMS and without CO CEMS	• Conduct a source test for CO within 12 months of being subject to a Corresponding CO Concentration Limit ~~from previous source test~~ and annually thereafter
Units operating without NOx CEMS and with CO CEMS	• Conduct a source test for NOx ~~during the first~~ quarterly during the first 12~~-~~ months of being subject to a NOx Concentration Limit ~~and Corresponding CO Concentration Limit and quarterly thereafter~~ • Source tests may be conducted annually after the first 12 months of being subject to ~~-~~a NOx Concentration Limit ~~and Corresponding CO Concentration Limit~~ if four consecutive quarterly source tests demonstrate compliance with the NOx ~~and CO~~ Cc~~c~~oncentration ~~l~~Limits • If an annual source test demonstrates an exceedance of a NOx Concentration Limit~~is failed~~, four consecutive quarterly source tests must demonstrate compliance with the NOx ~~c~~Concentration ~~l~~Limit~~s~~ prior to resuming annual source tests

(3) Source Test Schedule for Units with Ammonia Emissions in the Exhaust

An owner or operator of a Facility with a Unit that is not required to install and operate a CEMS pursuant to subdivision (k) and vents to post-combustion air pollution control equipment with ammonia injection shall demonstrate compliance with the applicable ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO Concentration Limits and ammonia South Coast AQMD permit limit by conducting a source test according to the schedule in Table ~~9~~8.

TABLE ~~9~~8: SOURCE TESTING SCHEDULE
FOR UNITS WITH AMMONIA EMISSIONS IN THE EXHAUST

Combustion Equipment	Source Test Schedule
Units operating without NOx, CO, or ammonia CEMS	• Conduct a source test simultaneously for NOx, CO, and ammonia quarterly during the first 12 months of being subject to a NOx Concentration Limit, ~~and~~ Corresponding CO Concentration Limit, or ammonia South Coast AQMD permit limit ~~and quarterly thereafter~~ • Source tests may be conducted annually after the first 12 months of being subject to a NOx Concentration Limit, ~~and~~ Corresponding CO Concentration Limit, or ammonia South Coast AQMD permit limit if four consecutive quarterly source tests demonstrate compliance with the NOx Concentration Limit, Corresponding CO Concentration Limit, ~~NOx,~~ and ammonia concentration limit in a South Coast AQMD ~~concentration~~ permit ~~limit~~ • If an annual source test demonstrates an exceedance with the NOx Concentration Limit, Corresponding CO Concentration Limit, or ammonia concentration limit in a South Coast AQMD permit~~is failed~~, four consecutive quarterly source tests must demonstrate compliance with the ~~NOx, CO, and ammonia concentration limits~~ NOx Concentration Limit, Corresponding CO Concentration Limit, and ammonia concentration limit in a South Coast AQMD prior to resuming annual source tests

Combustion Equipment	Source Test Schedule
Units operating with NOx CEMS and without CO and ammonia CEMS	• Conduct a source test for CO and ammonia quarterly during the first 12 months of being subject to a ~~NOx Concentration Limit and~~ Corresponding CO Concentration Limit ~~or~~ and ammonia concentration limit in a South Coast AQMD permit limit ~~and quarterly thereafter~~ • Source tests may be conducted annually after the first 12 months of being subject to ~~a~~ a ~~NOx Concentration Limit and~~ Corresponding CO Concentration Limit ~~or~~and ammonia concentration limit in a South Coast AQMD permit, ~~limit~~ if four consecutive quarterly source tests demonstrate compliance with the Corresponding CO Concentration Limit and ammonia South Coast AQMD permit limit~~concentration limit~~ • If an annual source test demonstrates an exceedance with a Corresponding CO Concentration Limit or ammonia concentration in a South Coast AQMD ~~permit limit is failed~~, four consecutive quarterly source tests must demonstrate compliance with the Corresponding CO Concentration Limit and ammonia concentration limit in a South Coast AQMD permit limit ~~concentration limits~~ prior to resuming annual source tests

Combustion Equipment	Source Test Schedule
Units operating with NOx and CO CEMS and without ammonia CEMS	• Conduct a source test for ammonia quarterly during the first 12 months of being subject to an ammonia concentration limit in a South Coast AQMD permit ~~limit and quarterly thereafter~~ • Source tests may be conducted annually after the first 12 months of being subject to an ammonia concentration limit in a South Coast AQMD ~~permit limit~~ if four consecutive quarterly source tests demonstrate compliance with the ammonia concentration limit in a South Coast AQMD permit ~~concentration limit~~ • If an annual source test demonstrates an exceedance with the ammonia concentration limit in a South Coast AQMD permit ~~limit is failed~~, four consecutive quarterly source tests must demonstrate compliance with the ammonia concentration limit in a South Coast AQMD ~~concentration limits~~ prior to resuming annual source tests
Units operating with NOx and ammonia CEMS and without CO CEMS	• Conduct a source test for CO within 12 months of being subject to a Corresponding CO Concentration Limit ~~from previous source test~~ and annually thereafter

Combustion Equipment	Source Test Schedule
Units operating with ammonia CEMS and without NOx or CO CEMS	• ~~Conduct source tests to determine compliance with NOx and CO concentration limits pursuant to Table~~ Conduct a source test simultaneously for NOx and CO quarterly during the first 12 months of being subject to a NOx and Corresponding CO Concentration Limits • Source tests may be conducted annually after the first 12 months of being subject to a NOx and Corresponding CO Concentration Limits if four consecutive quarterly source tests demonstrate compliance with the NOx and Corresponding CO Concentration Limits • If an annual source test demonstrates an exceedance of a NOx Concentration Limit or Corresponding CO Concentration Limit, four consecutive quarterly source tests must demonstrate compliance with the NOx and Corresponding CO Concentration Limits prior to resuming annual source tests

(4) An owner or operator of a Facility that is required to conduct an annual source test pursuant to Table ~~8~~7 or Table ~~9~~8 shall:

(A) Conduct the source test every calendar year but no earlier than six calendar months after the previous source test; or

(B) Conduct a source test no later than 90 days after the date of resumed operation for a Unit that has not operated for at least six consecutive calendar months and maintain monthly fuel usage using a non-resettable fuel meter to demonstrate that the Unit has not been operated for at least six consecutive calendar months.

(5) An owner or operator of a Facility that elects to install and operate a CEMS to demonstrate compliance with ~~the~~ an applicable NOx and CO ~~C~~concentration ~~L~~limits, ~~-~~ or ammonia concentration limit in a South Coast AQMD permit limit shall meet the CEMS requirements under subdivision (k).

~~(6) An owner or operator of a Facility with a Unit subject to a NOx Concentration Limit and Corresponding CO Concentration Limit or ammonia South Coast AQMD permit limit, that is not required to install and operate a CEMS pursuant to subdivision (k) and has not conducted a source test within the schedule in Table 8 or Table 9, shall conduct a source test within:~~NOTE: DELETED, REDUNDANT WITH TABLE 7 AND 8 AND CAUSED CONFUSION

~~(A) Six months from being subject to the NOx Concentration Limit and Corresponding CO Concentration Limit for Units with a Rated Heat Input Capacity of greater than or equal to 20 MMBtu/hour.~~

~~(B) 12 months from being subject to the NOx Concentration Limit and Corresponding CO Concentration Limit for Units with a Rated Heat Input Capacity of less than 20 MMBtu/hour.~~

(~~7~~6) An owner or operator of a Facility with a new or modified Unit shall conduct the initial ~~demonstrate~~ compliance demonstration:

(A) Through an initial source test conducted within six months from commencing operation for a Unit with an averaging time less than 120 minutes pursuant to paragraph (l)(1);

(B) With a certified CEMS for Units with an averaging time greater than 120 minutes pursuant to Table 1 or Table 2; or

(C) Through CEMS recertification pursuant to the applicable requirements in Rule 218.2 and Rule 218.3 for Units that are required to adjust NOx span range.

(~~8~~7) An owner or operator of a Facility with a Unit required to conduct a source test pursuant to subdivision (l) shall:

(A) ~~For a unit that receive a South Coast AQMD Permit to Construct to comply with a NOx Concentration Limit and Corresponding CO Concentration Limit, s~~Submit a complete source test protocol, that includes an averaging time duration of at least 60 minutes but no longer than 120 minutes, for approval ~~within~~ at least 60 days prior

to conducting the source test ~~after the Permit to Construct was issued~~ unless otherwise approved by the Executive Officer; and

~~(B) For units that receive a South Coast AQMD permit condition that limits NOx or CO emissions to a NOx Concentration Limit and Corresponding CO Concentration Limit, submit a source test protocol that includes an averaging time duration of at least 60 minutes but no longer than120 minutes, for approval within 60 days after being subject to a NOx Concentration Limit and Corresponding CO Concentration Limit, unless otherwise approved by the Executive Officer; and~~

(~~C~~B) Conduct the source test within 90 days after a written approval of the source test protocol by the Executive Officer is distributed, unless otherwise approve by the Executive Officer.

(~~9~~8) At least one week prior to conducting a source test, an owner or operator of a Facility shall notify the Executive Officer by calling 1-800-CUT-SMOG of the intent to conduct source testing for a Unit and shall provide:

(A) Facility name and identification number;

(B) Device identification number; and

(C) Date when source test will be conducted.

(~~10~~9) Unless requested by the Executive Officer, after the approval of the initial source test protocol pursuant to paragraph (l)(8), an owner or operator of a Facility is not required to resubmit a source test protocol for approval pursuant to paragraph (l)(8) if:

(A) The method of operation of the Unit has not been altered in a manner that requires a complete permit application submittal;

(B) Rule or South Coast AQMD permit concentration limits have not become more stringent since the previous source test;

(C) There have been no changes in the source test method that is referenced in the approved source test protocol; and

(D) The approved source test protocol is representative of the operation and configuration of the Unit.

(~~11~~10) An owner or operator of a Facility with a Unit shall conduct the source test using a South Coast AQMD approved contractor under the Laboratory Approval Program:

(A) Using a South Coast AQMD approved source test protocol;

(B) Using at least one of the following test methods:

(i) South Coast AQMD Source Test Method 100.1 – Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling;

(ii) South Coast AQMD Source Test Method 7.1 – Determination of Nitrogen Oxide Emissions from Stationary Sources and South Coast AQMD Source Test Method 10.1 – Carbon Monoxide and Carbon Dioxide by Gas Chromatograph/Non-Dispersive Infrared Detector – Oxygen by Gas Chromatograph-Thermal Conductivity (GC/TCD);

(iii) South Coast AQMD Source Test Method 207.1 for Determination of Ammonia Emissions from Stationary Sources; or

(iv) Any other test method determined to be equivalent and approved by the Executive Officer, and either the California Air Resources Board or the U. S. Environmental Protection Agency, as applicable.

(C) During operation other than startup and shutdown; and

(D) ~~In as-found~~During normal operating condition.

(~~12~~11) An owner or operator of a Facility with a Vapor Incinerator may elect to demonstrate that the Unit meets the applicable NOx Concentration Limit based on the NOx emission from only the burner, without the waste stream being directed to the Unit.

(~~13~~12) An owner or operator of a Facility shall submit all source test reports, including the source test results and a description of the Unit tested, to the Executive Officer within ~~60~~ 90 days of completion of the source test.

(~~14~~13) Emissions determined to exceed any limits established by this rule by any of the reference test methods in subparagraph (l)(11)(B) shall constitute a violation of the rule.

(~~15~~14) An owner or operator of a Facility with a Unit that exceeds the applicable limit established by this rule by any of the reference test methods in subparagraph (l)(11)(B) shall inform the Executive Officer within 72 hours from the time the owner or operator knew of excess emissions, or reasonably should have known.

(m) Diagnostic Emission Checks

(1) An owner or operator of a Facility with a Unit required to perform a source test every 36 months pursuant to subdivision (l) shall also:

(A) Perform 30-minute diagnostic emissions checks of NOx, CO, and O_2 emissions, with a portable NOx, CO, and O_2 analyzer that is calibrated, maintained and operated in accordance with manufacturers specifications and recommendations of the South Coast AQMD Combustion Gas Periodic Monitoring Protocol for the Periodic Monitoring of Nitrogen Oxides, Carbon Monoxide, and Oxygen from Combustion Sources Subject to Rules 1110.2 – Emissions from Gaseous- and Liquid-Fueled Engines, 1146 – Emissions of Oxides of Nitrogen From Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters, and 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters;

(B) Conduct the diagnostic emission checks by a person who has completed an appropriate training program approved by South Coast AQMD in the operation of portable analyzers and has received a certification issued by the South Coast AQMD; and

(C) Conduct the diagnostic test every 365 days or every 8760 operating hours, whichever occurs earlier.

(2) A diagnostic emissions check that finds the emissions in excess of those allowed by this rule or a South Coast AQMD permit condition shall not constitute a violation of this rule if an owner or operator of a Facility corrects the problem and demonstrates compliance with another diagnostic emissions check within 72 hours from the time the owner or operator knew of excess emissions, or reasonably should have known, or shut down the Unit by the end of an operating cycle, whichever is sooner. Any diagnostic emission check conducted by South Coast AQMD staff that finds emissions in excess of those allowed by this rule or a South Coast AQMD permit condition shall be a violation.

(n) Monitoring, Recordkeeping, and Reporting Requirements

(1) Operating Log

An owner or operator of a Facility shall maintain the following daily records for each Unit, in a manner approved by the Executive Officer:

(A) Time and duration of startup and shutdown events;

(B) Total hours of operation;

(C) Quantity of fuel; and

(D) Cumulative hours of operation to date for the calendar year.

(2) An owner or operator of a Facility that elects to meet the NOx concentration limits in an approved B-Cap pursuant to paragraph (g)(2) shall:

(A) Report the following to the Executive Officer by the 15th of each month:

(i) Beginning no later than January 1, 2024, the daily facility-wide NOx mass emissions by device from the previous calendar month; and

(ii) Beginning no later than January 1, 2025, the daily facility-wide NOx mass emissions by device based on a 365-day rolling NOx averages from the previous 365 days .

(~~A~~B) Maintain CEMS for all applicable ~~equipment~~ Units operated with a certified CEMS ~~or an enforceable method approved by the Executive Officer~~ to determine daily mass emissions for those Units ~~without CEMS~~;

(C) Use an enforceable method, approved by the Executive Officer, for all applicable Units operated without a certified CEMS to determine daily mass emissions based on a source test pursuant to subdivision ~~-~~(l) and ~~-~~fuel use as determined based on a non-resettable totalizing fuel meter, where the owner or operator of a Facility shall:

(i) Beginning January 1, 2024, install and operate a non-resettable totalizing fuel meter, unless a metering system is currently installed and the fuel meter is approved in writing by the Executive Officer;

(ii) Each non-resettable totalizing fuel meter required under subparagraph (n)(2)(C) that requires dependable electric power to operate shall be equipped with a permanent supply of electric power that cannot be unplugged, switched off, or reset except by the main power supply circuit for the

building and associated equipment or the safety shut-off switch;

(iii) Ensure that the continuous electric power to the non-resettable totalizing fuel meter required under subparagraph (n)(2)(C) may only be shut off for maintenance or safety;

(iv) Ensure each non-resettable totalizing fuel meter required under subparagraph (n)(2)(C) is calibrated and recalibrate the meter annually, thereafter, based on the manufacturer's recommended procedures. If the non-resettable totalizing fuel meter was calibrated within one year prior to January 1, 2024, the next calibration shall be conducted within one year of anniversary date of the prior calibration; and

(v) Monitor and maintain hours of operation records using a:

(i) Calibrated non-resettable totalizing time meter or equivalent method approved in writing by the Executive Officer for the hours per year validation; or

(ii) Calibrated fuel meter or equivalent method approved in writing by the Executive Officer for the annual throughput limit equivalent to hours per year validation.

(~~B~~D) Maintain daily records of mass emissions, in pounds (lbs) per day, from all Units included in an approved B-Cap including:

(i) Emissions during start-ups, shutdowns, and maintenance;

(ii) CEMS data identified as invalid and justification;

(iii) Data substituted for missing data pursuant to paragraph (k)(5);

(~~C~~E) Demonstrate compliance with the Facility BARCT Emission Target in the B-Cap on a daily basis from 365-day rolling average.

(3) An owner or operator of a Facility subject to the ~~I~~interim e~~E~~mission ~~Rate~~ limit pursuant to paragraph (e)(2) shall maintain the following daily records for each Unit, in a manner approved by the Executive Officer:

(A) Actual daily mass emissions, in pounds, for all Boilers and Process Heaters with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour;

(B) Combined maximum Rated Heat Input Capacity for all Boilers and Process Heaters with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour; and

(C) Calculated interim NOx emission rate pursuant to Attachment A Section (A-2) of this rule.

(4) An owner or operator of a Facility shall keep and maintain the following records on-site for five years, except that all data gathered or computed for intervals of less than 15 minutes shall be maintained for a minimum of 48 hours, and shall make them available to the Executive Officer upon request:

(A) CEMS data;

(B) Source tests reports;

(C) Diagnostic emission checks; and

(D) Written logs of startups, shutdowns, and breakdowns, all maintenance, service and tuning records, and any other information required by this rule.

(5) An owner or operator of a Facility with a Boiler or Process Heater that is exempt from the applicable ~~Table 1~~ NOx Concentration Limits in Table 1 pursuant to paragraphs (o)(5) and (o)(6), or an owner or operator of a Facility with a Flare that is exempt from the applicable ~~Table 1~~ NOx Concentration Limits in Table 1 pursuant to subparagraph (o)(8)(A) shall:

(A) Within 90 days of [*DATE OF ADOPTION*], install and operate a non-resettable totalizing time meter or a fuel meter, unless a metering system is currently installed and the fuel meter is approved in writing by the Executive Officer;

(B) Within 90 days of [*DATE OF ADOPTION*], each non-resettable totalizing time meter or a fuel meter required under subparagraph (n)(5)(A) that requires dependable electric power to operate shall be equipped with a permanent supply of electric power that cannot be unplugged, switched off, or reset except by the main power supply

circuit for the building and associated equipment or the safety shut-off switch;

(C) Ensure that the continuous electric power to the non-resettable totalizing time meter or fuel meter required under subparagraph (n)(5)(A) may only be shut off for maintenance or safety;

(D) Within 90 days of [*DATE OF ADOPTION*], ensure that each non-resettable totalizing time meter or fuel meter is calibrated and recalibrate the meter annually, thereafter, based on the manufacturer's recommended procedures. If the non-resettable totalizing time meter or fuel meter was calibrated within one year prior to [*DATE OF ADOPTION*], the next calibration shall be conducted within one year of anniversary date of the prior calibration; and

(E) Monitor and maintain hours of operation records using a:

(i) Calibrated non-resettable totalizing time meter or equivalent method approved in writing by the Executive Officer for the hours per year validation; or

(ii) Calibrated fuel meter or equivalent method approved in writing by the Executive Officer for the annual throughput limit equivalent to hours per year validation.

(6) An owner or operator of a Facility with a Vapor Incinerator that is exempt from the applicable ~~Table 1~~ NOx Concentration Limits in Table 1 pursuant to paragraph (o)(9) shall record:

(A) The annual throughput using a calibrated fuel meter or equivalent method approved in writing by the Executive Officer; and

(B) Emissions using a source test pursuant to subdivision (l) or by using a default emission factor approved in writing by the Executive Officer.

(7) An owner or operator of a Facility with a Unit subject to the compliance schedule in subparagraphs (d)(2)(B), (d)(2)(C), and (f)(4)(A) shall maintain records of burner replacement, including number of burners and date of installation.

(8) An owner or operator of a Facility with a Unit subject to the compliance schedule in subparagraph (f)(4)(A) shall maintain records of the date the existing post-combustion air pollution control equipment was installed or replaced.

(9) An owner or operator of a Facility with a Gas Turbine complying with the NOx concentration limit pursuant to paragraph (d)(~~5~~4) shall:

(A) Maintain a daily operating record that includes the actual start and stop time, total hours of operation, and type (liquid or gas) and quantity of the fuel used;

(B) Maintain the operating records for at least five years from the initial date the Gas Turbine complied with the concentration limit pursuant to paragraph (d)(5); and

(C) Make the operating records available to the Executive Officer upon request.

(10) An owner or operator of a Former RECLAIM Facility shall submit a list of Boilers and Process Heaters, within 60 days of becoming a Former RECLAIM Facility, identified by device identification number with a description of each Unit, to the Executive Officer identifying which Units will meet the NOx and ~~CO~~ Corresponding CO Concentration Limits in Table 3~~4~~ ~~Interim NOx and CO Concentration Limits~~ and which Units will meet the ~~Table 4 I~~interim NOx ~~Concentration Limits~~ emission limit~~for Boilers and Heater~~ pursuant to paragraph (e)(2).

(o) Exemptions

(1) Boilers or Process Heater with a Rated Heat Input Capacity of 2 MMBtu/hour or less

The provisions of this rule shall not apply to an owner or operator of a Facility with a Boiler or Process Heater with a Rated Heat Input Capacity of 2 MMBtu/hour or less that are fired with liquid and/or gaseous fuel and used exclusively for space or water heating and are subject to Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters.

(2) Low-Use Boilers with a Rated Heat Input Capacity of less than 40 MMBtu/hour

An owner or operator of a Facility with a Boiler with a Rated Heat Input Capacity of less than 40 MMBtu/hour that operates 200 hours or less per calendar year, or with an annual throughput limit equivalent to 200 hours per calendar year, shall be exempt from the requirements in:

(A) Subdivision~~s~~ (d) provided:

(i) The Boiler has an enforceable South Coast AQMD permit conditions that limits the operating hours to 200 hours or the annual throughput equivalent to 200 hours; and

(ii) The Boiler operates in compliance with the permit conditions pursuant to clause (o)(2)(A)(i)~~.~~;~~-~~

(B) Subdivisions (k), (l), and (m) provided the Unit is not included in an approved B-Plan or an approved B-Cap.

(3) Low-Use Process Heater with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour

An owner or operator of a Facility with a Process Heater with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour that is fired at less than 15 percent of the Rated Heat Input Capacity per calendar year, shall be exempt from the applicable NOx and Corresponding CO ~~c~~Concentration ~~l~~Limits in Table 1, Table 2, and an approved B-Plan provided:

(A) The Process Heater has a South Coast AQMD permit that specifies a condition that limits the Process Heater to being fired at less than 15 percent of the Rated Heat Input Capacity per calendar year; and

(B) The Process Heater operates in compliance with the permit condition pursuant to subparagraph (o)(3)(A).

(4) An owner or operator of a Facility with a FCCU that must bypass the post-combustion air pollution control equipment to conduct Boiler inspections required under California Code of Regulations, Title 8, Section 770(b) shall be exempt from the applicable ~~NOx Concentration Limit and Corresponding CO Concentration Limit~~ NOx and Corresponding CO C~~c~~oncentration ~~l~~Limits during the required Boiler inspections.

(5) FCCU Startup Boilers and Process Heaters

An owner or operator of a Facility with a Boiler or Process Heater which is used only for startup of a FCCU and that Boiler or Process Heater is operated for 200 hours or less per calendar year shall be exempt from the requirements in:

(A) Subdivisions (d) provided:

(i) The Boiler or Process Heater has a South Coast AQMD permit that specifies conditions that limits the operating hours at or less than 200 hours per calendar year; and

(ii) The Boiler or Process Heater operates in compliance with the permit condition pursuant to clause (o)(5)(A)(i).

(B) Subdivisions (k), (l) and (m) provided the Unit is not included in an approved B-Plan or an approved B-Cap.

(6) Startup or Shutdown Boilers and Process Heaters at Sulfuric Acid Plants

An owner or operator of a Facility with a Process Heater used for startup or a Boiler used during startup or shutdown at a Sulfuric Acid Plant that does not exceed 90,000 MMBtu of annual Heat Input per calendar year shall be exempt from the requirements in:

(A) S ~~s~~ubdivision~~s~~ (d)~~, (k), (l), and (m)~~ provided:

(~~A~~i) The Boiler or Process Heater ~~or Boiler~~ has a South Coast AQMD permit that specifies conditions that limits the Heat Input to 90,000 MMBtu or lower per calendar year; and

(~~B~~ii) The Process Heater or Boiler operates in compliance with the South Coast AQMD permit condition pursuant to subparagraph (o)(6)(A);

(B) Subdivisions (k), (l), and (m) provided the Unit is not included in an approved B-Plan or an approved B-Cap.

(7) Boiler or Process Heater Operating Only the Pilot

An owner or operator of a Facility with a Boiler or Process Heater operating only the pilot prior to startup or after shutdown shall be exempt from the concentration limits in paragraph (d)(2), Table 1, Table 2, Table ~~6~~3, an approved B-Plan, or an approved B-Cap and may exclude those emission from the rolling average calculation pursuant to Attachment A of this rule.

(8) Flares

(A) An owner or operator of a Facility with a Flare that emits less than or equal to 550 pounds of NOx per calendar year shall be exempt from the requirements in subdivisions (d), (f) and (l), provided:

(i) The Flare has enforceable South Coast AQMD permit conditions that limits the emissions to not exceed 550 pounds of NOx per year; and

(ii) The Flare is in compliance with the permit condition pursuant to clause (o)(8)(A)(i);~~.~~

(B) An owner or operator of a Facility with an open Flare, which is an unshrouded Flare, shall not be required to conduct source testing pursuant to subdivision (l).

(9) Vapor Incinerators

An owner or operator of a Facility with a Vapor Incinerator with a Rated Heat Input Capacity of 2 MMBtu/hour or less that emits:

(A) Less than 100 pounds of NOx per calendar year shall be exempt from the requirements in subdivision (d) provided the Vapor Incinerator:

(i) Has enforceable South Coast AQMD permit conditions that limit NOx emissions to less than 100 pounds of NOx per calendar year through operating hours or annual throughput; and

(ii) Operates in compliance with the permit condition pursuant to clause (o)(9)(A)(i);

(B) Less than 1,000 pounds but more than 100 pounds of NOx per calendar year shall be exempt from the requirements in subdivision (d) until the Unit is replaced or [*TEN YEARS AFTER DATE OF ADOPTION*], whichever is sooner, provided the Vapor Incinerator:

(i) Has enforceable South Coast AQMD permit conditions that limit NOx emissions to less than 1,000 pounds of NOx per calendar year through operating hours or annual throughput; and

(ii) Operates in compliance with the permit condition pursuant to clause (o)(9)(B)(i).

ATTACHMENT A

SUPPLEMENTAL CALCULATIONS

(A-1) Rolling Average Calculation for Emission Data Averaging

$$C_{Avg} = \sum_{i=t}^{t+N-1} C_i \Big/ N$$

Where:

C_{Avg} = The average emission concentration at time t

t = Time of average concentration (hours)

C_i = The measured or calculated concentration for a Unit with a CEMS at the i^{th} subset of data; one-hour for a Unit with an averaging time of 24 hours or less and 24-hour for a Unit with an averaging time of greater than 24 hours[1]

N = Averaging time (hours).

[1] As calculated pursuant to South Coast AQMD Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications.

(A-2) Interim NOx Emission Rate Calculation

An owner of operator shall calculate interim NOx emission rates the mass emissions from the prior 365 days where emissions for 364 days will be based on emissions while the facility was in RECLAIM and emissions for the 365th day will be based on the day the facility became a former RECLAIM facility, as follows:

(A-2.1) Hourly Mass Emissions (lbs/hour)

Sum the actual annual mass emissions of all Boilers and Process Heaters with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour and any Boilers and Process Heaters with a Rated Heat Input Capacity of less than 40 MMBtu/hour that operate a certified CEMS, and divide by 8,760 hours for pounds per hour.

(A-2.2) Combined Maximum Rated Heat Input Capacity (MMBtu/hour)

Sum the combined maximum Rated Heat Input Capacity for all Boilers and Process Heaters with a Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour and any Boilers and Process Heaters with a Rated Heat Input Capacity of less than 40 MMBtu/hour that operate a certified CEMS.

(A-2.3) Interim Facility Wide NOx Emission Rate (lbs/MMBtu)

Divide the Hourly Mass Emissions in Section (A-2.1) by the combined Maximum Heat Input in Section (A-2.2) to determine the interim NOx emission rate.

ATTACHMENT B

CALCULATION METHODOLOGY FOR THE I-PLAN, B-PLAN, AND B-CAP

The purpose of this attachment is to provide details regarding how key elements of the I-Plan, B-Plan, and B-Cap are calculated. Key calculations provided in this attachment include: Baseline Unit Emissions and Baseline Facility Emissions; Final Phase Facility BARCT Emission Target; Total Facility NOx Emission Reductions; Phase I, Phase II, or Phase III Facility BARCT Emission Target; Phase I, Phase II or Phase III BARCT Equivalent Mass Emissions for a B-Plan; and Phase I, Phase II, or Phase III BARCT B-Cap Annual Emissions for a B-Cap.

(B-1) Baseline Unit Emissions and Baseline Facility Emissions

Baseline Unit Emissions shall be determined by the Executive Officer based on the applicable 2017 NOx Annual Emissions Reporting data, or another representative year, as approved by the Executive Officer, expressed in pounds per year. Baseline Facility Emissions are the sum of all the Baseline Unit Emissions subject to this rule and shall not include Baseline Unit Emissions for Units that are not operational on and after [*DATE OF ADOPTION*].

(B-2) Final Phase Facility BARCT Emission Target

The Final Phase Facility BARCT Emission Target is the Phase II Facility BARCT Emission Target for an I-Plan option with two phases or the Phase III Facility BARCT Emission Target for an I-Plan option with three phases. The Final Phase Facility BARCT Emission Target is used to establish the Phase II or Phase III BARCT Emission Target for a B-Cap. To establish the Final Phase Facility BARCT Emission Target, the owner or operator of a Facility must select if the basis of the emission target for each Unit will be based on ~~Table 1 or Table 2~~ NOx Concentration Limits in Table 1 or Table 2. The owner or operator of a Facility shall only select ~~Table 2 C~~conditional NOx Concentration Limits in Table 2 if the requirements of subparagraphs (d)(2)(A) and (d)(2)(B) for the ~~C~~conditional NOx Concentration Limits are met or if the Unit is identified in Attachment D. For all other Units, the owner or operator of a Facility shall use ~~Table 1~~ NOx Concentration Limits in Table 1 as the basis of the Facility BARCT Emission Targets. To calculate the Final Phase Facility BARCT Emission Target for B-Cap, the owner or operator of a Facility shall

use the ~~Table 1~~ NOx Concentration Limit in Table 1 for the Units that will be decommissioned.

(B-2.1) The Final Phase Facility BARCT Emission Target for a Facility complying with NOx concentration limits in Table 1, Table 2, an approved B-Plan or an approved B-Cap shall be calculated using the following equation:

$$\text{Final Phase Facility BARCT Emission Target} = \sum_{i=1}^{N} \left(\frac{C_{\text{Table 1 or Table 2}}}{C_{\text{Baseline}}} \times \text{Baseline Unit Emissions} \right)_i$$

Where:

N = Number of included Units in B-Plan or B-Cap

$C_{\text{Table 1 or Table 2}}$ = The applicable NOx concentration limit for each Unit i included in B-Plan or B-Cap

C_{Baseline} = Representative NOx Concentration as defined in subdivision (c) for Unit i included in B-Plan or B-Cap

Baseline Unit Emissions = Baseline Unit Emissions for Unit i as defined in subdivision (c) and included in the I-Plan, B-Plan or B-Cap as determined pursuant to section (B-1).

(B-3) Calculating Total Facility NOx Emission Reductions

Total Facility NOx Emission Reductions is the total reduction in NOx mass emissions per Facility or Facilities With The Same Ownership that would have been achieved if all Units met the ~~Table 1 or Table 2~~ NOx Concentration Limits in Table 1 or Table 2 of this rule based on the Baseline Facility Emissions.

(B-3.1) For a Facility complying with NOx ~~C~~concentration ~~L~~limits in Table 1 or Table 2, or an approved B-Plan, the Total NOx Emission

Reductions is the difference between Baseline Facility Emissions and the Final Phase Facility BARCT Emission Target.

$$\text{Total Facility NOx Emission Reductions} = \text{Baseline Facility Emissions} - \text{Final Phase Facility BARCT Emission Target}$$

(B-3.2~~1~~) For a Facility complying with NOx concentration limits in an approved B-Cap, the Total NOx Emission Reductions is the difference between Baseline Facility Emissions and the Final Phase Facility BARCT Emission Target with an additional 10 percent reduction.

$$\text{Total Facility NOx Emission Reductions}_{B-Cap} = \text{Baseline Facility Emissions} - (\text{Final Phase Facility BARCT Emission Target} \times 0.9)$$

(B-4) Calculating Phase I, Phase II, or Phase III Facility BARCT Emission Target

The Phase I, Phase II, or Phase III Facility BARCT Emission Target~~s are~~ is the total NOx mass emissions per Facility based on the Total Facility NOx Emission Reductions and the Percent Reduction Target of Phase I, Phase II or Phase III of an I-Plan option in Table 6. ~~For a B-Cap, each phase Facility BARCT Emission Targets shall be reduced by 10 percent.~~

(B-4.1) For a Facility complying with NOx ~~C~~concentration ~~L~~limits in Table 1 or Table 2, or an approved B-Plan, ~~T~~the Phase I Facility BARCT Emission Target represents the level of NOx emissions that must be achieved based on taking the difference between the Baseline Facility Emissions and applying the selected I-~~-~~Plan Phase I Percent Reduction Target from Table 6 to the Total NOx Emission Reductions.

$$\text{Phase I Facility BARCT Emission Target}_{B-Plan} = \text{Baseline Emissions} - (\text{Phase I Percent Reduction Target} \times \text{Total Facility NOx Emission Reductions})$$

(B-4.3~~2~~) For a Facility complying with NOx ~~C~~concentration ~~L~~limits in Table 1 or Table 2, or an approved B-Plan, ~~I~~if Phase II is not the final phase, Phase II Facility BARCT Emission Target represents the level of NOx

emissions that must be achieved based on taking the difference between the Baseline Emissions and applying the selected I-Plan Phase II Percent Reduction Target from Table 6 to the Total NOx Emission Reductions.

Phase II Facility BARCT Emission Target~~Phase II Facility BARCT Emission Target$_{B-Plan}$~~
= Baseline Emissions
− (Phase II Percent Reduction Target × Total Facility NOx Emission Reductions)

(B-4.3~~5~~) For a Facility complying with NOx ~~C~~concentration ~~L~~limits in Table 1 or Table 2, or an approved B-Plan, the final phase, Phase II for the two phase I-Plan or Phase III for the three phase I-Plan, the Phase II or Phase III Final Facility BARCT is the Final Phase Facility BARCT Target as calculated in Section B-2.1.

Phase II or Phase III Facility BARCT Emission Target~~Phase II or Phase III Facility BARCT Emission T~~
= Final Phase Facility BARCT Emission Target

(B-4.4) For a Facility complying with NOx concentration limits in an approved B-Cap, the Phase I, Phase II, and if applicable Phase III Facility BARCT Emission Target will be adjusted by adding the Unit BARCT B-Cap Annual Emissions for each Unit to the corresponding phase Facility BARCT Emission Target based on the following equation, where N is the total number of Units for which the South Coast AQMD Permit to Construct ~~was~~is delayed for ~~issued~~ more than 18 months after the complete permit application was submitted, and~~.~~ M is the total number of Units for which the South Coast AQMD Permit to Construct that was issued with a delay more than 18 months after the complete permit application was submitted, at the .

$$\text{Phase I, Phase II or Phase III Facility BARCT Emission Target}_{B-Cap} = \text{Baseline Emissions} - (\text{PhaseI, Phase II or Phase III Percent Reduction Target} \times \text{Total Facility NOx Emission Reductions}_{B-Cap}) + \sum_{i=1}^{N} \text{Unit BARCT B} - \text{Cap Annual Emissions}_i - \sum_{j=1}^{M} \text{Unit BARCT B} - \text{Cap Annual Emissions}_j$$

(B-5) Calculating Phase I, Phase II, ~~or~~ and Phase III BARCT Equivalent Mass Emissions for a B-Plan

The Phase I, Phase II, or Phase III BARCT Equivalent Mass Emissions ~~are~~ is the total remaining NOx mass emissions per Facility that incorporates emission reduction strategies designed to meet Phase I, Phase II, or Phase III target reductions in an I-Plan. The Phase I, Phase II, ~~or~~ and if applicable Phase III BARCT Equivalent Mass Emissions incorporate the Alternative BARCT NOx Limit for each of the Units included in different phases of the I-Plan. The Alternative BARCT NOx Limits are the Unit specific NOx concentration limits that are selected by the owner or operator of a Facility in the B-Plan to achieve the Facility BARCT Emission Targets in the aggregate, where the NOx and CO concentration limits will include the corresponding percent O_2 correction based on the averaging time pursuant to Table 1 or paragraph (k)(1), whichever is applicable. For the B-Plan, decommissioned Units shall be removed from the Baseline Facility Emissions and the Facility BARCT Emission Targets.

(B-5.1) For a B-Plan, the Phase I BARCT Equivalent Mass Emissions for all Units included in a B-Plan shall be calculated using the following equation:

$$\text{Phase I BARCT Equivalent Mass Emissions}_{B-Plan} = \sum_{i=1}^{N} \left(\frac{C_{\text{Phase I Alternative BARCT NOx Limit}}}{C_{\text{Baseline}}} \times \text{Baseline Unit Emissions} \right)_i$$

Where:

N	=	Number of included Units in B-Plan under Phase I
$C_{\text{Phase I Alternative BARCT NOx Limit}}$	=	The applicable Alternative BARCT NOx Limit in an approved B-Plan for Unit i included in the B-Plan
C_{Baseline}	=	Representative NOx Concentration as defined in subdivision (c) for Unit i included in the B-Plan
Baseline Unit Emissions	=	Baseline Unit Emissions for Unit i as defined in subdivision (c) and included in the B-Plan.

(B-5.2) For a B-Plan, the Phase II and if applicable, Phase III Equivalent Mass Emissions for each Unit included in a B-Plan shall be calculated using the equation for Section B-5.1, with the use of the Alternative BARCT NOx Limit for that Unit included in Phase II or Phase III, if applicable.

(B-6) Calculating Phase I, Phase II, ~~or~~ and Phase III BARCT B-Cap Annual Emissions for a B-Cap

The Phase I, Phase II, or Phase III BARCT B-Cap Annual Emissions ~~are~~ is the total remaining NOx mass emissions per Facility that incorporates emission reduction strategies. The Phase I, Phase II, ~~or~~ and Phase III BARCT B-Cap Annual Emissions must be at or below the respective Phase I, Phase II, or Phase III Facility BARCT Emission Targets an I-Plan. Under the B-Cap, there are three emission reduction strategies that can be used to meet the Facility BARCT Emission Targets: Establishing an Alternative BARCT NOx Limit for each Unit included in Phase I, Phase II, or Phase III, decommissioning Units, Replacing Units and Reducing Throughput for Units. The Phase I, Phase II, or Phase III BARCT B-Cap Annual Emissions calculation for the B-Cap acknowledges the three emission reduction strategies for each phase of the I-Plan. The Alternative BARCT NOx Limits are the Unit specific NOx concentration limits that are selected by the owner or operator of a Facility in the B-Cap to achieve the Final Phase Facility BARCT Emission Target in the aggregate~~,~~. The emission reductions from Decommission Units shall be

incorporated in B-Cap pursuant to sections ~~(B-2.2)~~(B-6.1) and (B-7). Other types of reductions in mass emissions ~~reductions~~ to demonstrate that the BARCT B-Cap Annual Emissions achieves the Total Facility NOx Emission Reductions for a B-Cap include emission reductions from reduced throughput, efficiency, reduced capacity, and any other strategy to reduce mass emissions.

(B-6.1) The Phase I BARCT B-Cap Annual Emissions for each Unit included in a B-Cap shall be calculated using the following equation

~~Phase I BARCT B – Cap Annual Emissions~~ Phase I BARCT B – Cap Annual Emissions

$$= \sum_{i=1}^{N} \left(\frac{C_{\text{Phase I Alternative BARCT NOx Limit}}}{C_{\text{Baseline}}} \times \text{Baseline Unit Emissions} \right)_i + (0_{\text{Decommissioned Units}})_i - (\text{Throughput or Other Reductions})$$

Where:

N = Number of included Units in B-Cap under Phase I

$C_{\text{Phase I Alternative BARCT NOx Limit}}$ = The applicable Alternative BARCT NOx Limit in an approved B-Cap for Unit i included in the B-Cap

C_{Baseline} = Representative NOx Concentration as defined in subdivision (c) for Unit i included in the B-Cap

Baseline Unit Emissions = Baseline Unit Emissions as defined in subdivision (c) and for Unit i included in the B-Cap

Throughput or Other Reductions = Emission reductions occurred from other than reducing the concentration limit.

(B-6.2) For a B-Cap, the emission reductions the Phase II and if applicable, Phase III BARCT B-Cap Annual Emissions for each Unit included in a B-Cap shall be calculated using the equation for Section B-6.1, with the use of three emission reduction strategies for Phase II and Phase III, if applicable.

(B-7) Emissions Reductions from Decommissioned Unit

For a B-Cap, emission reductions from decommissioned Units can be used to meet a Phase I, Phase II, or Phase III Facility BARCT Emission Target. The amount of emission reductions from a decommissioned Unit shall be determined using the equation below.

$$\text{Emission Reductions from Decommissioned Units} = \sum_{i=1}^{N} \left(\frac{C_{\text{Table 1}}}{C_{\text{Baseline}}} \times \text{Baseline Unit Emissions} \right)_i$$

Where:

N	=	Number of decommissioned Units in B-Cap
$C_{\text{Table 1}}$	=	The applicable ~~Table 1~~ NOx Concentration Limit in Table 1 for Unit i included in an approved B-Cap
C_{Baseline}	=	Representative NOx Concentration as defined in subdivision (c) for Unit i included in an approved B-Cap
Baseline Unit Emissions	=	Baseline Unit Emissions for Unit i as defined in subdivision (c) and included in an approved B-Cap.

(B-8) Unit Reductions for ~~Table 2 C~~conditional NOx and Corresponding CO Concentration Limits in Table 2

An owner or operator of a Facility with a Unit in a B-Plan or B-Cap that is demonstrating that the Unit Reduction is less than the thresholds pursuant to clause~~s~~ (d)(~~2~~3)(A)(ii) or (d)(~~2~~3)(A)(iii) shall calculate the Unit Reduction using the following equation:

$$\text{Unit Reduction} = \left(1 - \frac{C_{\text{Table 1}}}{C_{\text{Baseline}}}\right) \times \text{Baseline Unit Emissions}$$

Where:

$C_{Table\ 1}$	=	The applicable ~~Table 1~~ NOx Concentration Limit in Table 1 the Unit
$C_{Baseline}$	=	Representative NOx Concentration for the Unit
Baseline Unit Emissions	=	Baseline Unit Emissions.

ATTACHMENT C
FACILITIES EMISSIONS BASELINE

(C-1) Baseline Facility Emissions Table C-1 provides the Baseline Mass Emissions for Facilities with six or more Units subject to this rule. Baseline Facility Emissions in Table C-1 are based on 2017 reported emissions for Rule 1109.1 Units. A year other than 2017 was used for Units where the 2017 reported emissions were not representative of normal operations. Note: Table C-1 contains the emissions for all units at the Facilities with six or more Units, Facilities complying with an approved B-Plan or B-Cap may elect to exclude Boilers and Heaters <40 MMBtu/hour (e.g., Optional Units).

TABLE C-1: Baseline Mass Emissions for Facilities with Six or More Units

Facility	Facility ID	Baseline Facility Emissions (2017 or Representative Year) (tons/year)
AltAir Paramount, LLC	187165	28
Chevron Products Co.	800030	701
Lunday-Thagard Co. DBA World Oil Refining	800080	26
Phillips 66 Company/Los Angeles Refinery	171109	386
Phillips 66 Co/LA Refinery Wilmington PL	171107	462
Tesoro Refining and Marketing Co., LLC – Carson	174655	~~636 (~~613~~)~~
Tesoro Refining and Marketing Co., LLC – Wilmington	800436	~~674 (~~594~~)~~
Tesoro Refining and Marketing Co., LLC – Sulfur Recovery Plant	151798	~~8 (~~35~~)~~
Tesoro Refining and Marketing Co., LLC, Calciner	174591	261
Torrance Refining Company LLC	181667	898~~9~~
Ultramar Inc.	800026	248
Valero Wilmington Asphalt Plant	800393	5

ATTACHMENT D

UNITS QUALIFY FOR CONDITIONAL LIMITS IN B-PLAN AND B-CAP

TABLE D-1: Units That Qualify for Conditional Limits in B-Plan or B-Cap

Facility ID	Device ID	Size (MMBtu/hr)
171109	D429	352
171109	D78	154
174655	D1465	427
174655	D419	52
174655	D532	255
174655	D63	300
181667	D1236	340
181667	D1239	340
181667	D231	60
181667	D232	60
181667	D234	60
181667	D235	60
181667	D950	64
800026	D1550	245
800026	D6	136
800026	D768	110
800030	D643	220
800030	D82	315
800030	D83	315
800030	D84	219
800436	D1122	140
800436	D384	48
800436	D385	24
800436	D388	147
800436	D770	63
800436	D777	146

TABLE D-2: Units That Qualify for Conditional Limits in a B-Cap using I-Plan Option 4

Facility ID	Device ID	Size (MMBtu/hr)
171107	D220	350
171107	D686	304
171109	D429	352
171109	D78	154
171109	D79	154
174655	C2979	4
174655	D1465	427
174655	D250	89
174655	D33	100
174655	D419	52
174655	D421	82
174655	D532	255
174655	D539	52
174655	D570	650
174655	D63	360
181667	C686	4
181667	C687	4
181667	D1236	340
181667	D1239	340
181667	D231	60
181667	D232	60
181667	D234	60
181667	D235	60
181667	D920	108
181667	D950	64
800026	D1550	245
800026	D1669	342
800026	D378	128
800026	D429	30
800026	D430	200
800026	D53	68
800026	D6	136
800026	D768	110
800026	D98	57
800030	D453	44
800030	D643	220
800030	D82	315
800030	D83	315
800030	D84	219
800030	V-10	-
800436	D1122	140
800436	D158	204
800436	D214	56
800436	D215	36
800436	D216	31

Facility ID	Device ID	Size (MMBtu/hr)
800436	D217	31
800436	D33	252
800436	D384	48
800436	D385	24
800436	D386	48
800436	D387	71
800436	D388	147
800436	D770	63
800436	D777	146