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

Capitalized defined terms globally

(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~~ Units at ~~petroleum refineries~~ Petroleum Refineries and Facilities ~~with~~ With Related Operations ~~to~~ To Petroleum Refineries.

(b) Applicability

The provisions of this rule shall apply to an owner or operator of Facilities with ~~units~~ Units at ~~petroleum refineries~~ Petroleum Refineries and Facilities ~~with~~ With Related Operations ~~to~~ To Petroleum Refineries.

Streamlined definitions to incorporate "Phase I, Phase II, or Phase III" within the definition

(c) Definitions

(1) ALTERNATIVE BARCT NOx LIMIT ~~FOR PHASE I, PHASE II, OR PHASE III~~ means ~~the unit~~ a Unit specific NOx ~~c~~Concentration ~~l~~Limit that is selected by ~~the~~ 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~~to achieve the Phase I, Phase II, or Phase III Facility BARCT Emission Target in the aggregate in the B-Plan or B-Cap, where the NOx concentration limit will include the corresponding percent O_2 correction and determined based on the averaging time in Table 1 or subdivision (k), whichever is applicable~~.

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

Re-alphabetized streamlined definitions

(~~34~~3) ~~PHASE I, PHASE III, OR PHASE III~~ BARCT B-CAP ANNUAL EMISSIONS means the total Facility NOx mass emissions remaining ~~per Facility~~ in Phase I, Phase II, or if applicable, Phase III of an I-Plan in Table 6 ~~that incorporates BARCT~~ based on the Alternative BARCT NOx Limits ~~for Phase I, Phase II, and Phase III~~, decommissioned ~~u~~Units, and other emission reduction strategies to meet the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target~~s~~ in an I-Plan and are calculated pursuant to Attachment B of this rule.

(~~5~~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 ~~concentration~~ limits for all Units subject to ~~this~~ the B-Plan ~~rule~~ that will achieve emission reductions that are equivalent, in the aggregate, to the mass emission reductions that would be achieved based on the Table 1 or Table 2 NOx ~~concentration~~ Concentration ~~l~~Limits ~~specified in Table 1 and Table 2~~.

(~~6~~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 ~~this rule~~ that, in the aggregate, ~~are~~ is ~~equivalent to or~~ less than the Final Phase Facility BARCT Emission Target.

(~~356~~) ~~PHASE I, PHASE II, OR PHASE III~~ BARCT EQUIVALENT MASS EMISSIONS means the total Facility NOx mass emissions remaining ~~per Facility~~in Phase I, Phase II, or if applicable, Phase III of an I-Plan option in Table 6 ~~that incorporates respective~~based on the ~~BARCT~~ Alternative BARCT NOx Limits ~~for Phase I, Phase II, and Phase III~~ in an approved B-Plan that are designed to meet the respective ~~Phase I, Phase II, or Phase III~~ Facility BARCT Emission Targets in an I-Plan and are calculated pursuant to Attachment B of this rule.

(~~3~~7) BASELINE FACILITY EMISSIONS means the sum of all the Baseline Unit Emissions at a Facility as calculated according to Attachment B of this rule.

(~~4~~8) BASELINE UNIT EMISSIONS means ~~a Unit's~~ emissions from a Unit as reported in the 2017 NOx Annual Emissions Report, or another representative year, as approved by the Executive Officer.

(~~7~~9) BIOFUEL PLANT means a Facility that produces fuel by processing feedstocks including vegetable oil, animal fats, and tallow.

(~~8~~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 ~~b~~Boilers.

(~~9~~11) CO BOILER means a ~~boiler~~Unit that is fired with gaseous fuel with an integral waste heat recovery system used to oxidize CO-rich waste gases generated by the FC[illegible]

New definition to streamlined rule language

(~~10~~12) CONTINUOUS EM[illegible]G SYSTEM (CEMS) is as defined by Rule 218 – Continuous Emission Monitoring.

(13) CORRESPONDING CO CONCENTRATION LIMIT(S) means the CO concentration limit, that corresponds to the referenced NOx concentration

limit, at the applicable percent O_2 correction and averaging period specified in either Table 1, Table 2, Table 3, or Table 6.

(~~11~~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 ~~g~~Gas ~~t~~Turbine exhaust.

(~~12~~15) FACILITIES WITH RELATED OPERATIONS TO PETROLEUM REFINERIES includes Asphalt Plants, Biofuel Plants, Hydrogen Production Plants, ~~p~~Petroleum ~~c~~Coke ~~c~~Calcining ~~f~~Facilities, Sulfuric Acid Plants, and Sulfur Recovery Plants.

(~~13~~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.

(~~14~~17) FACILITY means, for the purpose of this rule, any ~~u~~Unit or group of ~~u~~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 ~~w~~With ~~t~~The Same Ownership.

(~~36~~18) ~~PHASE I, PHASE II, OR PHASE III~~ FACILITY BARCT EMISSION TARGET means the total Facility NOx mass emissions ~~per Facility~~ that must be achieved in an approved B-Plan or an approved B-Cap ~~that are~~ based on the percent reductions in ~~of~~ Phase I, Phase II, or if applicable, Phase III of an I-Plan ~~option~~ in ~~Table 6~~Table 7 ~~and areas~~ calculated pursuant to Attachment B of this rule.

(~~15~~19) FINAL DETERMINATION NOTIFICATION means the notification issued by the Executive Officer to a RECLAIM ~~f~~Facility designating that the ~~f~~Facility is no longer in the NOx RECLAIM program.

(~~16~~20) FINAL PHASE FACILITY BARCT EMISSION TARGET means the total mass emissions remaining per Facility calculated based on the applicable ~~Table 1 emission~~concentration limits in Table 1 or Table 2 ~~conditional emission limits~~ and the Baseline Unit Emissions as calculated pursuant to Attachment B of this rule.

(~~17~~21) ~~)~~ FLARE means, for the purpose of this rule, a comb hat oxidizes combustible gases or vapors from tank farms ng, where the combustible gases or vapors being destroyed tly into the burner without energy recovery, and that is not subject to Rule 1118 – Control of Emissions from Refinery Flares.

Revised "emission limits" to "concentration limits" globally

(~~18~~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 ~~b~~Boiler.

(~~19~~23) FORMER RECLAIM FACILITY means a Facility, ~~or any of~~ 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.

(~~20~~24) FUNCTIONALLY SIMILAR means, for the purpose of this rule, a Unit that will perform the same purpose as a Unit that was decommissioned in an approved B-Cap.

(~~21~~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~~Gas Turbine that recovers heat from the Gas Turbine exhaust and can include a Duct Burner.

Capitalizing terms

(~~22~~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.

(~~23~~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~~Standard Conditions undergo complete combustion and all resulting products are brought to their standard states at ~~standard conditions~~Standard Conditions.

Revised "an owner or operator" to "an owner or operator of a Facility"

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 ~~p~~Petroleum ~~r~~Refineries and Facilities ~~with~~ With Related Operations ~~to~~ To Petroleum Refineries.

IMPLEMENTATION COMPLIANCE PLAN (I-PLAN) means an implementation plan for an owner or operator of a Facility ~~Facilities~~ with

six or more Units subject to this rule that includes an ~~alternative~~ implementation schedule and emission reduction targets.

(~~26~~30) I-PLAN PERCENT REDUCTION TARGET means the percent reduction target ~~specified~~ for each phase of an I-Plan as specified in ~~Table 6~~Table 7.

(~~27~~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.

(~~28~~32) NEW UNIT means, for the purpose of this rule, any Unit that is subject to this rule that m division (b) where the South Coast AQMD ed on or after [*DATE OF ADOPTION*].

Replaces "Rule 1109.1 Emission Limit"

(~~34~~33) 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 Table 6.

(~~29~~34) 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.

Clarification

(~~30~~35) PARTS PER MILLION BY VOLUME (ppmv) means, for the purpose of this rule, ~~milligram~~ Parts Per Million By Volume of a pollutant ~~per liter of~~ corrected to a dry basis ~~combustion exhaust gas~~ at ~~standard conditions~~Standard Conditions.

(~~31~~36) 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.

(~~32~~37) PETROLEUM COKE CALCINING FACILITY means a Unit within a Petroleum Refinery, or ~~as~~ a separate Facility, that operates a ~~p~~Petroleum ~~c~~Coke ~~c~~Calciner.

(~~33~~38) PETROLEUM REFINERY means a Facility identified by the North American Industry Classification System Code 324110, Petroleum Refineries.

(~~37~~39) PROCESS HEATER means any Unit fired with gaseous and/or liquid fuels which transfers heat from combusted gases to water or process streams.

(~~38~~40) RATED HEAT INPUT CAPACITY means the maximum ~~heat input~~Heat Input capacity, which is the total heat of combustion released by burning a fuel source, as specified by the So ermit.

Clarification

(~~39~~41) REPRESENTATIVE NOx CONCENTRATION means the most representative NOx emissions in the exhaust of ~~the~~a Unit, 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 ~~u~~Units not operating a certified CEMS. The Representative NOx Concentration for ~~u~~Units that do not have CEMS or source test emission data will be ba on Report default emission factor for ~~that~~ those Units.

Replaced by "NOx Concentration Limit" and "Corresponding CO Concentration Limit"

~~(40) RULE 1109.1 EMISSION LIMITS mean the NOx and CO emission limits and corresponding percent O2 correction listed in paragraphs (d)(3), (d)(4), Table 1, Table 2, Table 4, Table 5 an approved B-Plan, or an approved B-Cap.~~

(~~41~~42) STANDARD CONDITIONS for a Former RECLAIM Facility is as defined by Rule 102 – Definition of Terms.

(~~42~~43) 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.

(~~43~~44) 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.

(~~44~~45) SULFURIC ACID PLANT means a Unit within a Petroleum Refinery, or ~~as~~ 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.

(~~45~~46) SULFUR RECOVERY PLANT means a Unit within a Petroleum Refinery, or ~~as~~ a separate Facility, that recovers elemental sulfur or sulfur compounds from sour or acid gases and/or sour water generated by Petroleum Refineries.

(~~46~~47) SULFUR RECOVERY UNITS/TAIL GAS (SRU/TG) INCINERATORS means the thermal or catalytic oxidizer where the residual hydrogen sulfide

in the gas exiting the ~~s~~Sulfur ~~r~~Recovery ~~p~~Plant (tail gas) is oxidized to SO_2 before being emitted to the atmosphere.

(~~47~~48) UNIT means, for the purpose of this rule, any ~~b~~Boilers, ~~f~~Flares, FCCUs, ~~g~~Gas ~~t~~Turbines, ~~p~~Petroleum ~~c~~Coke ~~c~~Calciners, ~~p~~Process ~~h~~Heaters, SMR ~~h~~Heaters, ~~s~~Sulfuric ~~a~~Acid ~~f~~Furnaces, SRU/TG ~~i~~Incinerators, or ~~v~~Vapor ~~i~~Incinerators requiring a South Coast AQMD permit and not required to comply with a~~nother~~ NOx ~~emission~~concentration limit in another South Coast AQMD Regulation XI rule.

(49) UNIT BARCT B-CAP ANNUAL EMISSIONS means the mass to meet Phase I, Phase II, or if applicable, Phase III of an I-Plan in Table 6 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~~s~~ in an I-Plan and are calculated pursuant to Attachment B of this rule.

(~~48~~50) UNIT REDUCTION means the potential NOx emission reduction for a Unit if the ~~Unit's~~ NOx emissions for that Unit were reduced from the Representative NOx Concentration to the applicable Table 1 NOx ~~concentration~~ Concentration ~~l~~Limit ~~in Table 1~~ based on the Baseline Unit Emissions calculated pursuant to Attachment B of this rule.

(~~49~~51) UNITS WITH COMBINED STACKS means two or more Units where the flue gas from the~~se~~ Units are combined in one or more common stack(s).

(~~50~~52) 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.

(d) ~~Emission~~ Concentration Limits

(1) An owner or operator of a Facility shall not operate a ~~u~~Unit that exceeds the applicable NOx Concentration Limit and Corresponding CO ~~emission~~Concentration ~~l~~Limit~~s~~ ~~at the percent O_2 correction~~ specified in Table 1 ~~and the averaging time specified in Table 1 or subdivision (k)~~, ~~whichever is applicable~~ pursuant to the compliance schedule in subdivision ~~(g)~~(f).

Defined two new terms "NOx Concentration Limits" and "Corresponding CO Concentration Limits" to streamline language to remove the repetitive oxygen correction and averaging times for NOx and CO limits.

TABLE 1: NOx AND CO ~~EMISSION~~CONCENTRATION LIMITS

Unit	NOx (ppmv)	CO (ppmv)	O_2 Correction (%)	Rolling Averaging Time[1]
Boilers <40 MMBtu/hour	Pursuant to paragraph ~~(d)(3)~~(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)(4)~~(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 ~~unit~~Units operating a certified CEMS and shall be calculated pursuant to Attachment A of this rule;~~. Requirements, including averaging times, for~~ emissions for ~~unit~~Units without CEMS shall be demonstrated ~~are specified in~~ pursuant to ~~subdivision (k)~~paragraph (l)(1).

Revised footnote regarding averaging times for units without CEMS

(~~3~~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 ~~b~~Boiler or Process Heater with a R~~r~~ated ~~h~~Heat ~~i~~Input C~~c~~apacity less than 40 MMBtu/hour that exceeds ~~shall~~:

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

Moved all compliance dates to subdivision (f) Compliance Schedule (formerly subdivision (g))

B) A NOx concentration limit of 5 ppmv for Boilers and the Corresponding CO Concentration Limits, pursuant to the Table 5 Compliance Schedule for Boilers and Process Heaters; and

~~Process Heaters with Rated Heat Input Less Than 40 MMBtu/hour~~

~~An owner or operator ofa process heater with a rated heat input capacity less than 40 MMBtu/hour shall:~~

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

(~~2~~3) Conditional NOx ~~and CO~~ Concentration~~Emission~~ Limits

(A) An owner or operator of a Facility ~~a unit is eligible~~ may elect to meet the Table 2 Conditional NOx Concentration Limit and Corresponding CO Concentration Limits~~and CO emission limits in Table 2~~ for a Unit~~,~~ in lieu of the applicable Table 1 NOx Concentration Limit and Corresponding ~~and~~ CO ~~emission~~ Concentration ~~l~~Limit~~s in Table 1~~ provided:

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

(ii) For a ~~p~~Process ~~h~~Heater with a ~~rated heat input capacity~~ Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour and less than or equal to 110 MMBtu/hour ~~or less~~, 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 ~~emission~~ ~~l~~Limit;

(iii) For a ~~b~~Boiler~~s~~ or ~~p~~Process ~~h~~Heater~~s~~ with a Rated Heat Input Capacity greater than 110 MMBtu/hour, 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 ~~emission l~~Limit;

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

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

Moved former paragraph (d)(2)(B) for permit submittal to subdivision (f)

(vi) The ~~u~~Unit is not identified as being decommissioned in an ~~approved B-Plan for reductions in an I-Plan or~~ approved B-Cap pursuant to ~~subparagraph (e)(1)(D)~~subparagraph (g)(2)(F).

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

Clarified language and revised references to address rule restructure

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

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

TABLE 2: CONDITIONAL NOx AND CO ~~EMISSION~~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~~ Units operating a certified CEMS and shall be calculated pursuant to Attachment A of this rule~~:. Requirements, including averaging times,~~ emissions for ~~units~~ Units without CEMS shall be demonstrated pursuant to~~are specified in subdivision (k)~~ paragraph (l)(1).

(~~5~~4) Gas Turbines

Notwithstanding the Table 1 NOx Concentration Limit, an owner or operator of a Facility shall not operate a ~~g~~Gas ~~t~~Turbine that exceeds a NOx Concentration 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.

Moved to the Monitoring Record-keeping and Reporting subdivision

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

~~(B) This information is available to South Coast AQMD staff upon request for at least five years from the date of entry.~~

(~~6~~5) An owner or operator of a Facility with ~~u~~Units with ~~c~~Combined ~~s~~Stacks shall be subject to the most stringent applicable Table 1 or Table 2 NOx ~~and CO emission~~Concentration ~~l~~Limit and Corresponding CO Emission Limit ~~at the percent O_2 correction based on the averaging time in Table 1 or subdivision (k), whichever is applicable~~.

(~~7~~6) An owner or operator of a Facility with a ~~unit~~Unit with a CO ~~emission~~concentration limit in a South Coast AQMD Permit to Operate that was established before [*DATE OF ADOPTION*], shall meet the CO ~~emission~~concentration limit in the South Coast AQMD Permit to Operate in lieu of the applicable Table 1 or Table 2 Corresponding CO ~~emission~~Concentration ~~limit~~ Limit~~specified in Table 1 or Table 2~~.

(~~f~~e) Interim ~~Emission~~ Concentration Limits

This was previously subdivision (f)

(1) An owner or operator of a Former RECLAIM ~~f~~Facility ~~that elects to~~ complying with the ~~emission~~concentration limits in Table 1 and~~,~~ Table 2~~,~~ or that elects to comply with an approved B-Plan shall not operate a ~~unit~~Unit that exceeds the applicable Table 3 ~~i~~Interim NOx ~~and CO emission~~Concentration ~~l~~Limit~~s~~ and Corresponding CO Concentration Limit ~~based on the measured O_2 correction and the averaging time in Table 4~~3 ~~or subdivision (k), whichever is applicable,~~ until that ~~unit~~Unit is required to meet another ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit and Corresponding CO Concentration Limit pursuant to the compliance schedule in ~~paragraph (g)(1)~~subdivision (f) or an approved I-Plan.

Streamlined language using new terms

TABLE 43: INT CO EMISSION CONCENTRATION LIMITS

Added another interim limit to address one small heater not currently achieving 40 ppmv

U	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 (f)(2)(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[23]	400	3	365-day
	60[34]			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~~ Units with a CEMS and shall be calculated pursuant to Attachment A of this rule;. ~~Requirements, including averaging times,~~ emissions for ~~units~~ Units without CEMS ~~are specified in~~ shall be demonstrated pursuant to ~~subdivision (k)~~ paragraph (l)(1).

~~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 pursuant to paragraph (e)(2) in lieu of the Table 4 Interim NOx Concentration Limit-.

~~2~~[3] SMR Heaters equipped with post-combustion air pollution control equipment that was installed before [*DATE OF ADOPTION*].

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

(2) Interim NOx ~~e~~Emission ~~limits~~ Rates for Boilers and Process Heaters Operating with a Certified CEMS

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:

(A) Not exceed the applicable Table 4 ~~i~~Interim NOx ~~emission~~ Emission ~~r~~Rate ~~in Table 5~~, calculated pursuant to Attachment A Section (A-2) of this rule~~,~~ for:

(i) A ~~a~~ll ~~boilers~~Boilers and ~~process heaters~~Process Heaters with ~~a rated heat input capacity~~ Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour; and

(ii) ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with ~~a rated heat input capacity~~ Rated Heat Input Capacity of less than 40 MMBtu/hour that operate with a 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.

Clarified that both interim limits do not apply

(B) Demonstrate compliance with the ~~applicable~~Table 4 ~~i~~Interim NOx ~~e~~Emission ~~r~~Rate ~~in Table 5~~ until all ~~boilers~~Boilers and ~~process heaters~~ Process Heaters subject to subparagraph ~~(f)(2)~~(e)(2)(A) meet the applicable NOx concentration limits in Table 1, Table 2, or an approved B-Plan.

TABLE ~~5~~4: INTERIM NO~~X~~x EMISSION RATES FOR BOILERS AND PROCESS HEATERS ~~≥40 MMBTU/HOUR~~OPERATING WITH A CERTIFIED CEMS

~~n Owner or perator that Elects to Comply with an Approved:~~	Facility NOx Emission Rate (pounds/million Btu)	Rolling Averaging Time
Boilers and Process Heaters: ≥40 MMBtu/Hour and	~~B-Plan using I-Plan Option 3~~	~~0.02~~	~~365-day~~

Removed the 0.02 lbs/MMBtu interim limits – that limit is used to qualify for I-Plan Options 2 and 3

<40 MMBtu/hour Operating with a Certified CEMS	~~B-Plan~~	0.03	365-day

(3) An owner or operator of a ~~Former RECLAIM~~ Facility that elects to comply with an approved B-Cap shall not operate any Unit included in the approved B-Cap unless the NOx emissions for all Units in the B-Cap are in aggregate ~~at or~~ below either:

Added separate provisions for facilities complying with B-Cap with I-Plan Option 3 and Option 4

(A) ~~t~~The Baseline Facility Emission 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 Notification on or 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 or before July 1, 2029.

This was previously subdivision (g). Revised subdivision to include all compliance dates not associated with plans

(~~g~~f) Compliance Schedule

(1) An owner or operator of a Facility with a ~~u~~Unit that is required to meet the Table 1 NOx ~~and CO~~ C~~c~~oncentration ~~l~~Limit~~s~~ and Corresponding ~~Emission~~ CO Concentration Limit~~s specified in Table 1~~, 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:

Streamlined language

(A) On or ~~B~~before July 1, 2023, submit a complete ~~South Coast AQMD~~ permit application to ~~establish~~ apply for a permit condition that limits the NOx ~~concentration~~ and CO emissions to a level not to exceed the applicable Table 1 NOx Concentration Limit and Corresponding CO Concentration Limit~~sbased on the percent O_2 correction and the averaging time in Table 1 or subdivision (k), whichever is applicable~~, 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 ~~the NOx concentration limit~~ a condition that limits the NOx and CO emissions at or below the applicable Table 1 NOx Concentration Limit and Corresponding

CO Concentration Limits ~~at the percent O_2 correction, based on the averaging time specified in Table 1~~; and

(B) Not operate a ~~unit~~Unit~~,~~ that exceeds the Table 1 NOx ~~and CO emission~~ Concentration ~~l~~Limits and Corresponding CO Emission Limit ~~based on the percent O_2 correction and the averaging time in Table 1 or subdivision (k), whichever is applicable~~ pursuant to subparagraph (f)(1)(A) on or after:

Streamlined language

(i) ~~No later than~~ 36 months ~~after a~~ from the date the South Coast AQMD issues a Permit to Construct or Permit to Operate~~is issued~~; or

(ii) ~~No later than~~ The date the South Coast AQMD issues a Permit to Construct or Permit to Operate ~~July 1, 2023~~ if a complete permit application was not required ~~as specified in~~ pursuant to subparagraph ~~(g)(1)(A)~~(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 CO concentration limits in paragraphs (d)(2) pursuant to the Table 5 Compliance Schedule for Boilers and Process Heaters unless the Boiler or Process Heater is included in an approved I-Plan; and

Moved and streamlined compliance schedule for boilers and heaters <40 MMBtu/ hour and included Table. Also combined requirements for Boilers and Heaters.

(B) 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 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 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.

TABLE 5: COMPLIANCE SCHEDULE FOR BOILERS AND PROCESS HEATERS <40 MMBTU/HOUR

Using table format to clarify compliance schedule

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 the date the South Coast AQMD issues either a Permit to Construct or Permit to Operate
	5 ppmv pursuant to subparagraph (d)(2)(B)	Pursuant to subparagraph (f)(2)(B)	• No later than 18 months after 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 18 months after the date the South Coast AQMD issues either a Permit to Construct or a Permit to Operate; or • No later than 36 months after 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)	• No later than 18 months after 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) Boilers with Rated Heat Input Less Than 40 MMBtu/hour~~

~~An owner or operator of a boiler with a rated heat input capacity less than 40 MMBtu/hour shall:~~

Streamlined all provisions into (f)(2) and Table 5

~~(A) Before January 1, 2023, have a South Coast AQMD Permit that includes an enforceable emission limit that does not exceed 40 ppmv NOx and 400 ppmv CO at three percent O_2 correction and limits the averaging times to Table 1 or subdivision (k), whichever is applicable.~~

~~(B) On and after January 1, 2023, not operate a boiler that exceeds 40 ppmv NOx and 400 ppmv CO at three percent O_2 correction as demonstrated pursuant to the averaging times in Table 1 or subdivision (k), whichever is applicable; and~~

~~(C) No later than six months after an owner or operator cumulatively replaces either 50 percent or more of the burners in a boiler or replaces burners that represent 50 percent or more of the heat input in a boiler, where the cumulative replacement begins from July 1, 2022, shall:~~

~~(i) Submit a complete South Coast AQMD permit application to impose a 5 ppmv NOx emission limit and a 400 ppmv CO emission limit at three percent O_2 correction that limits the averaging times to Table 1 or subdivision (k), whichever is applicable; and~~

~~(ii) Meet the emission limits pursuant to clause (d)(3)(C)(i) no later than 36 months after a South Coast AQMD Permit to Construct is issued.~~

~~Process Heaters with Rated Heat Input Less Than 40 MMBtu/hour~~

~~An owner or operator of a process heater with a rated heat input capacity less than 40 MMBtu/hour shall:~~

~~(A) Before January 1, 2023, have a South Coast AQMD Permit that includes an enforceable emission limit that does not exceed O40 ppmv Nox and 400 ppmv CO at three percent O_2 correction and limits the averaging times to Table 1 or subdivision (k), whichever is applicable;~~

~~(B) On and after January 1, 2023, not operate a process heater that exceeds 40 ppmv Nox and 400 ppmv CO at three percent O_2 correction as demonstrated pursuant to the averaging times in Table 1 or subdivision (k), whichever is applicable; and~~

Streamlined all provisions into (f)(2) and Table 5

~~(C) Effective [*TEN YEARS AFTER DATE OF ADOPTION*], no later than six months after an owner or operator cumulatively replaces either 50 percent or more of the burners in a process heater or replaces burners that represent 50 percent or more of the heat input in a process heater, where the cumulative replacement begins from [*FIVE YEARS AFTER DATE OF ADOPTION*], shall:~~

~~(i) Submit a complete South Coast AQMD permit application to impose a 9 ppmv NOx emission limit and a 400 ppmv CO emission limit at three percent O_2 correction and limits the averaging times to Table 1 or subdivision (k), whichever is applicable; and~~

~~(ii) Meet the emission limits pursuant to clause (d)(4)(C)(i) no later than 36 months after a South Coast AQMD Permit to Construct is issued.~~

(~~4~~3) Table 2 Conditional Concentration Limits

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

Streamlined language

Revised permit submittal language to make it consistent throughout the rule

(~~i~~A) On or ~~B~~before ~~July 1, 2022~~ June 1, 2022, submit a complete ~~South Coast AQMD~~ permit application to apply for a permit condition that limits the NOx emissions to a level not to exceed ~~to~~ the applicable Table 2 Conditional NOx Concentration Limits and Corresponding CO Concentration Limits~~levels specified in Table 2~~ ; and

(~~ii~~B) Not operate a Unit that exceeds the Table 2 NOx Concentration Limits and Corresponding CO Emission Limits on or after ~~No later than~~ 18 months ~~after~~ from the date the South Coast AQMD issues either a Permit to Construct ~~is issued~~or Permit to Operate~~, meet the NOx and CO emission limits at the percent O_2 correction and the averaging time specified in Table 2 or subdivision (k), whichever is applicable.~~

(~~5~~4) An owner or operator of a Facility that replaces existing NOx control equipment on a ~~unit~~Unit complying with Table 2 C~~c~~onditional ~~emission~~Concentration ~~l~~Limits ~~that replaces existing NOx control equipment~~ shall:

~~(A) Within six months of replacing the existing NOx control equipment, be subject to the applicable Table 1 emission limit;~~

(~~B~~A) ~~Apply for~~ Submit a complete ~~South Coast AQMD~~ permit ~~condition~~ 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 ~~to limit the NOx and CO concentration~~ not to exceed ~~to~~ the applicable Table 1 NOx ~~emission~~Concentration ~~l~~Limit and Corresponding CO Concentration Limit~~at the corresponding percent O_2 correction and averaging times in Table 1 or subdivision (k), whichever is applicable~~. Replacement of existing NOx control equipment will be determined as:

(i) Existing post-combustion air pollution control equipment for an FCCU, ~~gas turbine~~Gas Turbine fueled with ~~natural gas~~Natural Gas, ~~process heater~~Process Heater with a ~~rated heat input capacity~~Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour, or SMR Heater 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 ~~unit~~ post-combustion air pollution control equipment; or

(ii) 50 percent or more of the burners in a ~~vapor incinerator~~Vapor Incinerator, or 50 percent or more of the ~~rated heat input capacity~~ Rated Heat Input Capacity of the burners in a ~~vapor incinerator~~Vapor Incinerator, are cumulatively replaced after [*DATE OF ADOPTION*];~~.~~

(B) Not operate a Unit that exceeds the NOx and CO concentration limits pursuant to paragraph (f)(4)(A) on or after 18 months from the date the South Coast AQMD Permit to Construct is issued.

Revised permit submittal language to make it consistent throughout the rule

Capitalized defined terms

Clarification

Revised permit submittal language to make it consistent throughout the rule

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

Revised references

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

(B) ~~Meet the emission limits specified on Table 1~~Not operate a Unit that exceeds the NOx and CO concentration limits pursuant to subparagraph (f)(5)(A) ~~no later than~~ on or after ~~36~~ 18 months ~~after a~~ from the date the South Coast AQMD Permit to Construct is issued.

Revised permit submittal language to make it consistent throughout the rule

(~~5~~6) An owner or operator of a Facility with a ~~unit~~Unit complying with:

(A) Table 1 NOx and CO Concentration Limits that fails to submit a complete permit application on or before the date pursuant to subparagraph~~s~~ (f)(1)(A) ~~s~~hall meet the applicable Table 1 NOx and CO Concentration Limit 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 the date pursuant to subparagraphs (f)(4)(A) or (f)(5)(A) shall meet the applicable Table 1 NOx and CO Concentration Limit no later than 18 months after the respective permit application submittal date pursuant to subparagraph (f)(4)(A) or (f)(5)(A); and

(C) Paragraph (d)(2) that fails to submit a complete permit application on or before the Permit Application Submittal Date pursuant to Table 5, shall meet the applicable NOx and CO concentration limits pursuant to paragraphs (d)(2) no later than 18 months after the applicable permit application submittal date pursuant to Table 5.

~~clauses (d)(2)(B)(i); (d)(3)(C)(i); (d)(4)(C)(i); or subparagraphs (g)(1)(A) or (g)(5)(A) that fails to submit a complete South Coast AQMD permit application by the date specified in causes~~

Added new clauses to address shorter implementation times in rule and updated rule reference due to restructures

~~(d)(2)(B)(i); (d)(3)(C)(i); (d)(4)(C)(i); or subparagraphs (g)(1)(A) or (g)(5)(A) , shall meet the applicable Rule 1109.1 Emission Limits no later than 36 months after the permit application submittal date pursuant to causes (d)(2)(B)(i), (d)(3)(C)(i), or (d)(4)(C)(i), or subparagraphs (g)(1)(A) or (g)(5)(A)~~

Moved from subdivision (d)

(~~8~~7) An owner or operator of a Facility with a ~~unit~~Unit ~~with~~ subject to an averaging time less than a 365-day rolling average ~~in Table 1 or Table 2~~ that operates a CEMS shall be required to demonstrate compliance with the applicable ~~NOx emission limits in Table 1, Table 2, an approved B-Plan, or an approved B-Cap~~ NOx Concentration Limits and Corresponding CO Concentration Limits six months after~~, either~~ the date the South Coast AQMD Permit to Operate is issued, 36 months after the South Coast AQMD Permit to Construct is issued, or completion of a NOx compliance demonstration source test, whichever is sooner.

(~~9~~8) An owner or operator of a Facility with a ~~unit~~Unit subject to a 365-day rolling average shall demonstrate compliance with the applicable ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit and Corresponding CO Concentration Limit~~s~~ beginning 14 months after ~~either~~ the date the South Coast AQMD Permit to Operate is issued, 36 months after the Permit to Construct is issued, or completion of a NOx compliance demonstration source test, whichever is sooner.

(~~e~~g) B-Plan and B-Cap Requirements

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

Revised submittal date, included requirement for submittal of device ID, capitalized terms, revised references

(A) On or ~~B~~before ~~July 1, 2022~~ September 1, 2022, submit ~~an application for~~ a complete B-Plan to the Executive Officer that includes all ~~units~~ Units subject to this rule, identified by device identification number with a description of each Unit, with the exception of any ~~boiler~~Boiler or ~~process heater~~Process Heater with a Rated Heat Input Capacity of less than 40 MMBtu/hour that will meet the NOx concentration limits ~~specified in~~pursuant to subparagraph ~~(d)(3)(C)~~(d)(2)(B) or ~~(d)(4)(C)~~(d)(2)(C) after the last

Compliance Date in ~~Table 6~~Table 7 for the selected I-Plan option, for review ~~and approval~~ pursuant to subdivision (i);

New requirement

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

(~~B~~C) Select an Alternative BARCT NOx Limit ~~for Phase I, Phase II, and Phase III~~ for each Unit included in the B-Plan to meet the respective Phase I, Phase II, ~~and~~ or if applicable, Phase III BARCT Equivalent Mass Emissions where the Alternative BARCT NOx Limit shall not exceed the applicable Table 2 Conditional NOx ~~and CO~~ Concentration ~~l~~Limit~~s in Table 2~~, for any ~~unit~~Unit that ~~is meeting~~ qualifies for a Table 2 Conditional NOx ~~and CO Emission~~Concentration Limit, pursuant to the conditions in subparagraph~~s (d)(2)(A)~~(d)(3)(A) and the permit submittal deadline in subparagraph ~~(d)(2)(B)~~(f)(3)(A);

Fixed references

Revised permit submittal language to make it consistent throughout the rule

(~~C~~E) Submit a complete permit application for each Unit in the approved B-Plan to apply for a permit condition ~~Comply with a condition in the Permit to Operate~~ that limits the NOx ~~concentration~~ emissions to a level to not exceed the Alternative BARCT NOx Limit pursuant to paragraph (g)(1)(C) ~~for Phase I, Phase II, and if applicable or Phase III for each unit in the approved B-Plan based on~~pursuant to the schedule ~~established~~ in the approved I-Plan;

(~~E~~F) Not operate a ~~unit~~Unit that exceeds the Alternative BARCT NOx Limit~~, CO emission limit, based on the averaging time in Table 1 or the subdivision (k), whichever is applicable, in an approved B-Plan,~~ pursuant to paragraph (g)(1)(C) ~~based on~~pursuant to the ~~implementation~~ schedule in the approved I-Plan; and

(~~D~~G) Not include ~~emission reductions for~~ any ~~unit~~ Unit that has been or will be ~~that is~~ permanently decommissioned.~~; and~~

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

(A) On or b~~B~~efore ~~July 1, 2022~~ September 1, 2022, submit a complete B-Cap to the Executive Officer ~~and an I-Plan~~ that includes all ~~units~~ Units subject to this rule, identified by device identification number

Revised submittal date, included requirement for submittal of device ID, capitalized terms, revised references

with a description of each Unit, with the exception of any ~~boiler~~Boiler or ~~process heater~~Process Heater with a Rated Heat Input Capacity of less than 40 MMBtu/hour that will meet the NOx concentration limit ~~specified in~~ pursuant to subparagraph ~~(d)(3)(C)~~(d)(2)(B) or ~~(d)(4)(C)~~(d(2)(C) after the last Compliance Date in ~~Table 6~~Table 7 for the selected I-Plan option, for review ~~and approval~~ pursuant to subdivision (i);

New requirement

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

(~~B~~C) Select an Alternative BARCT NOx Limit ~~for Phase I, Phase II, and Phase III~~ for each Unit included in the B-Cap 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:~~;~~

(i) The applicable Table 6 Maximum Alternative BARCT NOx Concentration Limit ~~for the applicable unit, specified in Table 3~~; and

(ii) The applicable Table 2 Conditional NOx ~~and CO~~ Concentration ~~l~~Limit ~~in Table 2,~~ for any ~~unit~~Unit that ~~is meeting a~~ qualifies for a Table 2 Conditional NOx ~~and CO Emission~~Concentration Limit pursuant to the conditions in subparagraph~~s~~ ~~(d)(2)(A)~~(d)(3)(A) ~~or~~and the permit submittal deadline in subparagraph ~~(d)(2)(B)~~(f)(3)(A).

Requirements from Attachment B

(D) Calculate the Phase I, Phase II, and if applicable, Phase III BARCT B-Cap Annual Emissions where the Unit BARCT B-Cap Annual Emissions are based on:

(i) The Alternative BARCT NOx Limit;

(ii) Any decommissioned Unit(s); or

(iii) Other emission reduction strategies;

New requirements

(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;

(~~C~~H) ~~Comply with a condition in~~ Submit a complete permit application for each Unit in the approved B-Cap to apply for a permit condition~~the South Coast AQMD Permit to Operate~~ that limits the NOx ~~concentration~~ emissions to a level to not exceed ~~to~~ the Alternative BARCT NOx Limit pursuant to paragraph (g)(2)(C) ~~for Phase I, Phase II, and if applicable Phase III for each unit in the approved B-Cap based on~~pursuant to the schedule ~~established~~ in the approved I-Plan;

(~~D~~I) 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;

Revised permit submittal language to make it consistent throughout the rule

(~~E~~J) Not operate any ~~unit~~Unit unless the NOx emissions for all ~~units~~ 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~~, based on~~ pursuant to the schedule in the approved I-Plan;~~ and~~

(~~D~~K) ~~For any unit that is permanently decommissioned, represent~~ Designate any Unit that is ~~the~~ decommissioned ~~unit~~ as Table 1 NOx ~~emission~~Concentration~~s~~ Limit ~~in~~when establishing the Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target in an approved B-Cap~~,~~ and ~~for the unit that is decommissioned the owner or operator shall~~:

(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) ~~t~~The Table 7 C~~c~~ompliance ~~d~~Date for Phase I in I-Plan Option 4 and no later than the Table 7 P~~p~~ermit ~~s~~Submittal ~~d~~Date for all other phases in a~~n approved~~ I-Plan Option 4;

(ii) Disconnect and blind the fuel line(s) for the decommissioned Unit on or before the date the South Coast AQMD Permit to

Added separate provisions for facilities complying with I-Plan Option 3 and Option4 because Option 4 includes a specific date for emission reductions in Phase 1

Operate is surrendered pursuant to clause ~~(e)(2)(D)(i)~~(g)(2)(K)(i); and

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

(~~F~~GL) Not add a ~~new unit~~New Unit that will be subject to this rule that increases the ~~facility~~Facility emissions above applicable Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target, unless:

Replaced "Equivalent Mass Emissions with "Alternative BARCRT NOx Limits"

(i) Aggregated emissions for ~~A~~all ~~units~~ Units in the approved B-Cap ~~meet the Equivalent Mass Emission~~ are below the Facility BARCT Emission Target when using the Alternative BARCT NOx Limits;

(ii) The ~~new~~ New ~~unit~~Unit is not F~~f~~unctionally ~~s~~Similar to any ~~unit~~Unit that was decommissioned in the approved B-Cap; 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 Final Phase Facility BARCT Emission Target in an approved B-Cap.

TABLE ~~3~~6: 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-~~day~~hour
Boilers and Process Heaters ≥40 MMBtu/hour	50 ppmv	3	24-~~day~~hour
FCCUs	8 ppmv	3	365-day
	16 ppm		7-day
Gas Turbines	5 ppmv	15	24-~~day~~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-~~day~~hour
Vapor Incinerators	40 ppmv	3	24-~~day~~hour

Included SMR Heaters which were inadvertently omitted

[1] Averaging times apply to ~~units~~ Units operating a certified CEMS and shall be calculated pursuant to Attachment A of this rule;~~.~~ ~~Requirements, including averaging times,~~emissions for ~~units~~ Units without CEMS ~~are specified in~~ shall be demonstrated pursuant to paragraph (l)(1)~~subdivision (k)~~.

Subdivision (h) was formerly paragraph (g)(2)

(h) I-Plan Requirements

(1) On or ~~B~~before September 1, 2022, ~~A~~an owner or operator of a Facility with six or more ~~units~~ Units subject to this rule that elects to meet the Table 1 or Table 2 NOx ~~and CO emission~~Concentration ~~limits~~ Limits and Corresponding CO Emission Limits using an alternative compliance schedule pursuant to paragraph ~~(g)(1)~~(f)(1) or that elects to comply with an approved B-Plan or B-Cap shall~~: Before July 1, 2022~~ submit a~~n~~ complete I-Plan to the Executive Officer pursuant to paragraph (i)(1) that includes all ~~units~~Units: ~~subject to Table 1 NOx emission limits~~

Expanded the provision to allow a facility to comply with Table 1 and Table 2 limits using an alternative schedule in an I-Plan

(A) In the accompanying B-Plan for the owner or operator that elects to comply with an approved B-Plan;

(B) In the accompanying B-Cap for the owner or operator that elects to comply with an approved B-Cap; or

(C) Subject to Table 1 or Table 2 NOx Concentration Limits, ~~for review and approval pursuant to paragraph (i)(4),~~ with the exception of any

~~boiler~~Boiler or ~~process heater~~Process Heater with a Rated Heat Input Capacity of less than 40 MMBtu/hour that will meet the NOx concentration limit ~~specified in~~ pursuant to ~~subparagraph (d)(3)(C) or (d)(4)(C)~~subparagraph (d)(2)(B) or (d)(2)(C) after the last Compliance Date in Table 6 for the selected I-Plan option.~~;~~

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

New Requirement

(~~B~~3) An owner or operator of a Facility that submits an I-Plan pursuant to paragraph (h)(1) shall ~~C~~calculate the Phase I, Phase II, ~~or~~and if applicable, Phase III Facility BARCT Emission Targets, pursuant to Attachment B of this rule where the NOx concentration limit for each Unit shall be determined based on:~~;~~

(A) The applicable Table 2 Conditional NOx Concentration Limit for each Unit that meets the conditions in either subparagraph (d)(3)(A) or (d)(3)(B);

(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 75 ppmv, provided:

(i) The Unit will achieve a NOx Concentration Limit at or below 40 ppmv in Phase I of an I-Plan, and

(ii) Any future NOx emission reductions to achieve the NOx Concentration Limit in subparagraph ~~in~~ (d)(2)(~~B~~C) is not applied to meet the Facility BARCT Emission Target for ~~not included in in~~ Phase II, or if applicable, Phase III of an I-Plan;

Added specific conditions to clarify how to establish BARCT Emission targets

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

(E) The applicable Table 1 NOx Concentration Limits for all other Units.

Moved not deleted

~~(C) For a B-Cap, the Phase I, Phase II, and Phase III Facility BARCT Emission Targets shall incorporate a reduction of 10 percent, pursuant to Attachment B of this rule;~~

(4) An owner or operator of a Facility that submits an I-Plan pursuant to paragraph (h)(1) that elects to comply with a B-Plan shall:

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

(B) Demonstrate that the Phase I, Phase II, ~~or~~and if applicable, Phase III BARCT Equivalent Mass Emissions~~,~~ are ~~equal to or~~ less than the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target; and

Moved

(C) Implement emission reduction projects based on the schedule in the approved I-Plan to 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.

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

Re-organized

(A) Incorporate an additional 10 percent reduction to the Phase I, Phase II, and if applicable, Phase III Facility BARCT Emission Targets ~~shall incorporate a reduction of 10 percent~~, 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;

Regrouped to B-Plan provisions and B-Cap provisions – not deleted

~~(D) For a B-Plan, calculate the Phase I, Phase II, or Phase III BARCT Equivalent Mass Emissions, pursuant to Attachment B of this rule;~~

~~(E) For a B-Plan, demonstrate that Phase I, Phase II, or Phase III BARCT Equivalent Mass Emissions, are equal to or less than the respective Phase I, Phase II, or Phase III Facility BARCT Emission Target;~~

~~(F) For a B-Cap, calculate the Phase I, Phase II, or Phase III BARCT B-Cap Annual Emissions, pursuant to Attachment B of this rule;~~

~~(G) For a B-Cap, demonstrate that Phase I, Phase II, or Phase III BARCT B-Cap Annual Emissions, are equal to or less than the respective Phase I, Phase II, or Phase III Facility BARCT Emission Target;~~

(C) Implement emission reduction projects based on the schedule in the approved I-Plan to maintain NOx mass emissions below the Phase I, Phase II, and if applicable, Phase III Facility BARCT Emission Target; and

(D) ~~For an owner or operator with an approved B-Cap, d~~Demonstrate daily compliance 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), where the effective date of the Facility BARCT Emission Target is:~~, with the emissions requirements and all other requirements no later than:~~

(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.

~~the compliance date for Phase I in I-Plan Option 4 and no later 54 months from South Coast AQMD Permit Application Submittal Date for all other phases of the selected I-Plan option in Table 6 to meet the Phase I, Phase II, or Phase III Facility BARCT Emission Targets.~~.

Clarified the compliance demonstration requirements for B-Cap

TABLE ~~6~~7: I-PLAN PERCENT REDUCTION TARGETS AND SCHEDULE~~1~~

		Phase I	Phase II	Phase III
I-Plan Option 1 for B-Plan ~~Only~~or Table 1 and Table 2 Concentration Limits	Clarifying that Facilities complying with Table 1 and Table 2 can use I-Plan	~~70~~80	100	N/A
		~~July~~ January 1, 2023	January 1, ~~2027~~2031	Shifted dates to achieve more early reductions while allowing some projects a longer timeframe
		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 paragraph (g)(3)	Percent Reduction Targets	~~60~~65	~~80~~100	~~100~~N/A
	Permit Application Submittal Date	July 1, ~~2023~~2024	January 1, ~~2025~~2030	~~January 1, 2028~~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 ~~and as allowed~~ pursuant to paragraph (g)(3)	Percent Reduction Targets	~~50~~40	100	N/A
	Permit Application Submittal Date	~~January 1, 2025~~ July 1, 2025	~~January 1, 2029~~ July 1, 2029	N/A
	Compliance Date	No later than 36 months after a South Coast AQMD Permit to Construct is issued		N/A
I-Plan Option 4 for B-Cap Only	Percent Reduction Targets	50 ~~to 60 (Still in development)~~	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	
I-Plan Option 5 for ~~B-Cap Only~~B-Plan Only	Percent Reduction Targets	50	70	100
	Permit Application Submittal Date	~~July 1, 2022~~ January 1, 2023	~~July 1, 2024~~ January 1, 2025	~~January~~ July 1, 2028

		Phase I	Phase II	Phase III
	Compliance Date	No later than 36 months after a South Coast AQMD Permit to Construct is issued		

(6) Table 7 compliance schedule shall include the construction, commissioning, and initial source test of the Unit but not the additional time allowed pursuant to paragraphs (f)(7) and (f)(8).

(~~3~~7) I-Plan Option 2 and I-Plan Option 3 is only available to an owner or operator of a ~~facility~~Facility achieving a NOx emission rate of less than 0.02 pound per million BTU of ~~heat input~~Heat Input, based on annual emissions for the applicable ~~units~~ Units as reported in the 2021 Annual Emissions Report and calculated pursuant to Attachment A, for all the ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with ~~a rated heat input capacity~~ Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour based on the maximum ~~rated capacity~~ Rated Heat Input Capacity by [*DATE OF ADOPTION*]; for ~~units~~ Units firing at less than the maximum ~~rated capacity~~ Rated Heat Input Capacity, mass emissions shall be less than or equal to the quantity that would occur at maximum ~~rated capacity~~ Rated Heat Input Capacity.

Added clarification regarding the allowances in (f)(7) and (f)(8)

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

(1) I-Plan Submittal Requirements

An owner or operator of a Facility that elects to implement an approved I-Plan pursuant to ~~paragraph (g)(2)~~paragraph (h)(1) ~~to meet the Alternative BARCT NOx Limits in an approved B-Plan or approved B-Cap~~ shall submit an I-Plan to the Executive Officer for review ~~and approval~~ that:

New Requirement

(A) Identifies all Facilities With The Same Ownership, by facility identification number, subject to the rule that are included in the I-Plan;

(~~A~~B) Identifies each ~~unit~~Unit subject to the rule by device identification number with a description of each ~~unit~~Unit~~, with the exception of any boiler or process heater less than 40 MMBtu/hour that will meet the NOx limit specified in subparagraph (d)(3)(C) or (d)(4)(C) after the last Compliance Date in Table 6 for the selected I-Plan option~~;

Streamlined

(~~B~~C) ~~For facilities to use the time extension pursuant to paragraph (h)(2), i~~Identifies the anticipated start and end date (month and year) of the turnaround schedule for each ~~unit~~Unit;

(~~C~~D) Specifies either I-Plan Option 1 (for a B-Plan ~~only~~or Table 1 and Table 2 Concentration Limits), I-Plan Option 2 (for a B-Plan only) ~~2~~, 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-~~Cap~~ Plan only) in ~~Table 6~~Table 7;

(~~D~~E) Calculates the Phase I, Phase II, ~~or~~and if applicable, Phase III Facility BARCT Emission Target, pursuant to Attachment B of this rule;

Revised for Clarity

(~~E~~F) ~~For a B-Plan, i~~Identifies each ~~unit~~Unit in an approved B-Plan or an approved B-Cap using I-Plan Option 3 that ~~meets the~~qualifies for the Table 2 Conditional Concentration Limits ~~requirements under~~ pursuant to ~~subparagraph (d)(2)(A)~~ subparagraph (d)(3)(A) ~~for use of a conditional NOx emission limit in Table 2~~ and demonstrates that the owner or operator submitted a complete ~~South Coast AQMD~~ permit application pursuant to ~~clause (d)(2)(B)(i)~~ subparagraph (f)(3)(A);

(~~F~~G) ~~For the selected I-Plan option specified pursuant to subparagraph (i)(1)(B), c~~Calculates the Phase I, Phase II, ~~or~~ 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

(~~G~~H) Identifies each ~~unit~~Unit by device identification number with a description of each ~~unit~~Unit~~,~~ that cumulatively meets Phase I, Phase II, ~~or~~ and if applicable, Phase III Facility BARCT Emission Target.

(2) B-Plan Submittal Requirements

An owner or operator of a Facility that elects to meet Alternative BARCT NOx Limits in an approved B-Plan pursuant to paragraph ~~(e)(1)~~(g)(1), shall submit a B-Plan to the Executive Officer for review that:

New

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

(~~A~~B) Identifies ~~for~~ each ~~unit~~Unit subject to the~~e~~is rule by device identification number with a description of each ~~unit~~Unit~~, with the exception of any boiler or process heater less than 40 MMBtu/hour that will meet the NOx limit specified in subparagraph (d)(3)(C) or~~

~~(d)(4)(C) after the last Compliance Date in Table 6 for the selected I-Plan option~~;

(~~B~~C) Specifies the Alternative BARCT NOx Limits for each Unit ~~Phase I, Phase II, and if applicable Phase III~~ of the I-Plan that:~~;~~

Clarified Requirements

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

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

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

(~~D~~E) Demonstrates that the Phase I, Phase II, ~~or~~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.

(3) B-Cap Submittal Requirements

An owner or operator of a Facility that elects to ~~meet the Alternative BARCT NOx Limits in~~ comply with an approved B-Cap pursuant to ~~paragraph (e)(2)~~paragraph (g)(2), shall submit a B-Cap to the Executive Officer for review that:

New

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

(~~A~~B) Identifies each ~~unit~~Unit subject to the~~e~~is rule by the device identification number with a description of the ~~unit~~Unit~~;~~ ~~with the exception of any boiler or process heater less than 40 MMBtu/hour that will meet the NOx limit specified in subparagraph (d)(3)(C) or (d)(4)(C) after the last Compliance Date in Table 6 for the selected I-Plan option, and:~~

Streamlined

(~~B~~C) Specifies the Alternative BARCT NOx Limits each Unit of the I-Plan ~~that is at or below Maximum Alternative BARCT NOx Limit in Table 3~~;

Clarified Requirements

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

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

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

(~~D~~E) Identifies any ~~unit~~Unit that will have ~~a~~other reductions in ~~throughput~~ mass emission for each phase of the approved I-Plan;

(~~E~~F) Calculates the Phase I, Phase II, ~~or~~ and if applicable, Phase III BARCT B-Cap ~~Equivalent Mass~~ Annual Emissions ~~using the~~ based on emission reduction strategies identified in ~~subparagraph (g)(3)(B)~~subparagraph (g)(2)(D)~~;~~ as calculated pursuant to Attachment B of this rule; and

(~~F~~G) Demonstrates that the Phase I, Phase II, ~~or~~ 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 (g)(2)(C)~~subparagraph (h)(5)(A)~~;~~.

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

~~(A)~~ 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:

(~~i~~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)(B);

Clarified

(~~ii~~C) ~~The~~Any Units that will establish the Phase I, Phase II, and if applicable, Phase III Facility BARCT Emission Target based on the Table 2 Conditional NOx limits, in lieu of a Table 1 NOx Concentration Limit, have been identified and ~~owner or operator demonstrates that~~ the applicable requirements of subparagraphs

Clarified

~~(d)(2)(A)~~(d)(3)(A) and ~~(d)(2)(B)~~(f)(3)(A) have been met~~; for any unit that is meeting a Table 2 conditional NOx emission limit, in lieu of a Table 1 NOx emission limit~~;

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

(~~iii~~E) ~~For a B-Plan, t~~The Phase I, Phase II, ~~or~~and Phase III Equivalent BARCT Emissions for a B-Plan are less than ~~or equal to~~ the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target ~~as required in~~ pursuant to ~~subparagraph (g)(2)(B)~~subparagraph (h)(4)(B);

(~~iv~~F) ~~For a B-Cap,t~~The Phase I, Phase II, ~~or~~and if applicable, Phase III BARCT B-Cap Annual Emissions for a B-Cap are less than ~~or equal to~~ the respective Phase I, Phase II, or if applicable, Phase III Facility BARCT Emission Target that incorporates a 10 percent NOx emission reduction~~s~~ pursuant to ~~subparagraph (g)(2)(C)~~ subparagraph (h)(5)(A); and

(~~v~~G) ~~For a B-Cap, t~~The Alternative BARCT NOx Limit ~~concentration limit~~ for any ~~unit~~Unit in a B-Cap does not exceed the applicable Table 6 Maximum Alternative BARCT NOx Limit~~s in Table 3~~.

(~~B~~5) Within 30 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.

(~~C~~6) Upon receiving written notification from the Executive Officer that the I-Plan, B-Plan, or B-Cap re-submitted pursuant to ~~subparagraph (i)(4)(B)~~ paragraph (i)(5) is disapproved, the owner or operator shall comply with the compliance schedule pursuant to ~~paragraph (g)(1)~~ paragraph (f)(1).

(~~5~~7) Modifications to an Approved I-Plan, an Approved B-Plan, and an Approved B-Cap

~~(A)~~ 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) S~~s~~ubmit a request in writing to the Executive Officer to modify an Approved I-Plan, an Approved B-Plan, and an Approved B-Cap~~.~~

~~(B) The modification request submitted pursuant to subparagraph (i)(5)(A) shall~~ that includes all the plan submittal requirements pursuant to paragraph (i)(1) for an approved I-Plan, paragraph (i)(2)

for ~~a modification of~~ an approved B-Plan, or paragraph (i)(3) for ~~a modification of~~ an approved ~~B-Plan~~B-Cap; and

(~~C~~B) ~~An owner or operator shall m~~Modify an approved I-Plan, B-Plan, or B-Cap if:

(i) A ~~unit~~Unit identified as ~~meeting~~ qualifying for Table 2 Conditional NOx Concentration Limit no longer meets the requirements ~~of~~pursuant to subparagraph ~~(d)(2)(A)~~ (d)(3)(A) ~~or (d)(2)(B)~~;

(ii) A ~~unit~~Unit in an approved B-Cap ~~or B-Plan,~~ identified as ~~meeting~~ qualifying for the Table 2 Conditional NOx Concentration Limit 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 ~~South Coast AQMD~~ permit application than the Alternative BARCT NOx Limit for that ~~unit~~Unit in ~~the currently~~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 written notification from the Executive Officer that modifications to the I-Plan, B-Plan, or B-Cap are needed.

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

(~~6~~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.

(~~7~~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 ~~as specified in~~ pursuant to Rule 306 – Plan Fees.

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

Most changes to subdivision are for clarification how time extensions apply to the B-Cap

(~~h~~j) Time Extensions

(1) An owner or operator of a Facility ~~a unit~~ may request one 12-month extension for each ~~unit~~Unit from the ~~c~~Compliance ~~d~~Date in paragraph (f)(1) ~~(g)(1),~~ or 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:

(A) The complete ~~South Coast AQMD~~ permit application for the ~~unit~~Unit was submitted on or before the date specified in paragraph ~~(g)(1)~~(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 ~~a unit~~ with an approved I-Plan may request a time extension from the Compliance Date in Table 7 to meet an Alternative NOx Limit for a ~~u~~Unit in a B-Plan, B-Cap, or Table 1 NOx Concentration Limit and Corresponding CO Concentration Limit provided:

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

(B) The month and year ~~for~~ of the ~~unit's~~ scheduled turnaround and the month and year ~~for~~ of the ~~unit's~~ subsequent turnaround for the Unit is submitted in writing at the time of complete ~~South Coast AQMD~~ permit application submittal; and

(C) One or more of the following occurred:

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

(ii) The subsequent scheduled turnaround for the ~~unit~~Unit will not occur until 12 months after the Compliance Date in the approved I-Plan; or

(iii) The subsequent scheduled turnaround for the ~~unit~~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 effective date of the Facility BARCT Emission Target beyond the 54 months from the permit application submittal date specified in subparagraph (h)(6)(B) if:

(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;

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

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

(~~3~~4) An owner or operator of a Facility ~~that requests a time extension pursuant to paragraphs (h)(1) or (h)(2)~~ shall submit a time extension ~~the~~ request in writing to the Executive Officer:

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

(B) No later than 90 days prior to the effective date of the Facility BARCT Emission Target referenced in subparagraph (h)(6)(B), for a time extension request pursuant to paragraph (j)(3).

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

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

(B) The date the ~~South Coast AQMD~~ 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;

(~~C~~D) The additional time needed to complete the emission reduction project;

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

(~~E~~F) ~~For time extension requests for paragraph (h)(2), p~~Provide the month and year of the scheduled turnaround, and the subsequent turnaround, if applicable, for the ~~unit~~Unit to qualify for time extension request pursuant to paragraph (j)(2); and

(~~F~~G) The reason(s) a time extension is requested.

(~~4~~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 ~~(h)(1) or (h)(2)~~(j)(1), (j)(2), or (j)(3) as applicable;

(B) Submitted the written request within the timeframe and includes the applicable information ~~specified in~~ pursuant to paragraph~~s (h)(1) and (h)(2)~~ (j)(4); ~~and~~

(C) For a time extension request pursuant to paragraphs (j)(1)~~(h)(1) and (h)(2), the owner or operator shall~~ at a minimum:

Clarified Requirements

(i) ~~For delays due to missed milestones, p~~Provides 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) ~~For delays related to other agency approvals, p~~Provides information to substantiate that the ~~submittal of~~ information submitted to ~~the~~ another agency was timely, including the date when the application was submitted~~the approval was requested~~, and documentation from the agency of reason for the delay for delays related to the other agency approvals;

(iii) ~~For delays related to the delivery of parts or equipment, p~~Provides 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) ~~For delays related to contract workers, source testers, installers, or other services, p~~Provides 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) ~~For a time extension request allowed under paragraphs (h)(2), t~~The ~~owner or operator shall p~~Provides documentation to substantiate that one of the provisions under subparagraph ~~(h)(2)(C)~~(j)(2)(C) ~~have~~ has been met if requesting a time extension request pursuant to paragraph~~s (h)(1) and (h)(2)~~ (j)(2);~~.~~ and

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

(~~5~~7) If the Executive Officer requests additional information to substantiate the time extension request, the owner or operator of a Facility shall provide that information within the timeframe specified by the Executive Officer.

(8) If the Executive Officer notifies the owner or operator of a Facility of approval of a time extension request, the owner or operator shall meet the NOx and CO ~~emission~~concentration limits in Table 1, an approved B-Plan, or an approved B-Cap within the timeframe in the approval, and the approval represents an amendment to the I-Plan.

(9) The Facility BARCT Emission Target will be adjusted by adding the Unit BARCT B-Cap Annual Emissions to the Facility BARCT Emission Target for each Unit where a time extension is approved pursuant to paragraph (j)(8) where adjustments to the Facility BARCT Emission Target shall be in increments no less than six months.

(~~7~~10) 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 ~~emission~~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 ~~(g)(1)~~(f)(1) or the schedule in an approved I-Plan.

(~~j~~k) CEMS Requirements

(1) An owner or operator of a Former RECLAIM Facility with a ~~unit~~Unit with a ~~rated heat input capacity~~ 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 ~~emission~~Concentration ~~l~~Limit~~s at the corresponding percent O_2 correction and averaging times~~.

(2) An owner or operator of a Former RECLAIM Facility with a Sulfuric Acid Furnace subject to the NOx and CO ~~emission~~concentration limits in Table 1, Table 3~~4~~, an approved B-Plan or an approved B-Cap shall:

(~~i~~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 ~~Rule 1109.1~~NOx Concentration Limit~~s~~ and Corresponding CO Concentration ~~Emissions~~ Limit~~s~~; and

(~~ii~~B) Within 12 months from [*DATE OF ADOPTION*] ~~shall~~ 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 ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit and Corresponding CO Concentration Limit~~s at the corresponding percent O_2 correction~~.

(3) An owner or operator of a ~~unit~~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~~Table 6 Corresponding CO ~~emissions~~Concentration ~~l~~Limits 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 ~~for~~ with a ~~unit~~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~~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.

(~~k~~l) Source Test Requirements

(1) An owner or operator of a Facility with a ~~unit~~Unit that is not required to install and operate a CEMS pursuant to ~~subdivision (i)~~subdivision (k) shall be required to conduct a source test, with a duration of at least ~~15~~ 60 minutes but no longer than ~~two hours~~120 minutes, to demonstrate compliance with the applicable ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit~~s~~ and Corresponding CO Concentration Limit~~s~~ pursuant to the source test schedule in either ~~Table 7~~ Table 8 or ~~Table 8~~ Table 9.

(2) Source Test Schedule for Units without Ammonia Emissions in the Exhaust

An owner or operator of a Facility with a ~~unit~~Unit that is not required to install and operate a CEMS pursuant to ~~subdivision (i)~~ subdivision (k) and does not vent to post-combustion air pollution control equipment with

ammonia injection, shall demonstrate compliance with the applicable ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit~~s~~ and Corresponding CO Concentration Limit~~s~~ by conducting source tests according to the schedule in ~~Table 7~~ Table 8.

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

Combustion Equipment	Source Test Schedule
Vapor Incinerators ~~less than~~ <40 MMBtu/ hr, Flares	• Conduct source test simultaneously for NOx and CO within 36 months from previous source test and every 36 months thereafter
All Other Units	
Units Operating without NOx or CO CEMS	• Conduct source test simultaneously for NOx and CO within 12 months of being subject to a ~~Rule 1109.1 Emission Limit~~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 ~~Rule 1109.1 Emission Limit~~ NOx Concentration Limit and Corresponding CO Concentration Limit if four consecutive quarterly source tests demonstrate compliance with the NOx and CO ~~emission~~concentration limits • If an annual test is failed, four consecutive quarterly source tests must demonstrate compliance with the NOx and CO ~~emission~~concentration limits prior to resuming annual source tests
Units operating with NOx CEMS and without CO CEMS	• Conduct source test for CO within 12 months from previous source test and ~~every 12 months~~annually thereafter

Combustion Equipment	Source Test Schedule
Units operating without NOx CEMS and with CO CEMS	• Conduct source test for NOx during the first 12 months of being subject to ~~Rule 1109.1 Emission Limit~~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 ~~Rule 1109.1 Emission Limit~~ a NOx Concentration Limit and Corresponding CO Concentration Limit if four consecutive quarterly source tests demonstrate compliance with the NOx and CO ~~emission~~concentration limits • If an annual test is failed, four consecutive quarterly source tests must demonstrate compliance with the NOx ~~emissions~~ concentration limits 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~~Unit that is not required to install and operate a CEMS pursuant to subdivision ~~(i)~~(k) and vents to ~~with~~ post-combustion air pollution control equipment ~~that requires~~ with ammonia injection shall demonstrate compliance with the applicable ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit and Corresponding CO Concentration Limit and ammonia South Coast AQMD permit limit by conducting a source test according to the schedule in ~~Table 8~~ Table 9.

~~TABLE 8~~ TABLE 9: 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 source test simultaneously for NOx, CO, and ammonia quarterly during the first 12 months of being subject to ~~Rule 1109.1 Emission Limit~~ a NOx Concentration Limit and Corresponding CO Concentration Limit ~~or~~ 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 ~~Rule 1109.1 Emission Limit~~ 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 CO, NOx, and ammonia ~~emission~~concentration limit • If an annual test is failed, four consecutive quarterly source tests must demonstrate compliance with the NOx, CO, and ammonia ~~emissions~~ concentration limits prior to resuming annual source tests

Combustion Equipment	Source Test Schedule
Units operating with NOx CEMS and without CO and ammonia CEMS	• Conduct source test for CO and ammonia quarterly during the first 12 months of being subject to ~~Rule 1109.1 Emission Limit~~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 ~~Rule 1109.1 Emission Limit~~ 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 CO and ammonia ~~emission~~concentration limit • If an annual test is failed, four consecutive quarterly source tests must demonstrate compliance with the CO and ammonia ~~emissions~~ concentration limits prior to resuming annual source tests
Units operating with NOx and CO CEMS and without ammonia CEMS	• Conduct source test for ammonia quarterly during the first 12 months of being subject to an ammonia 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 South Coast AQMD permit limit if four consecutive quarterly source tests demonstrate compliance with the ammonia ~~emission~~concentration limit • If an annual test is failed, four consecutive quarterly source tests must demonstrate compliance with the ammonia ~~emissions~~ concentration limits prior to resuming annual source tests
Units operating with ~~Nox~~ NOx and ammonia CEMS and without CO CEMS	• Conduct source test for CO within 12 months from previous source test and ~~every 12 months~~annually thereafter

Combustion Equipment	Source Test Schedule
Units operating with ammonia CEMS and without ~~Nox~~ NOx or CO CEMS	• Conduct source tests to determine compliance with ~~Nox~~ NOx and CO ~~emission~~concentration limits pursuant to ~~Table 7~~ Table 8

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

Clarification on annual requirement

(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.

(~~4~~5) An owner or operator of a Facility that elects to install and operate a CEMS to demonstrate compliance with the applicable ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit and Corresponding CO Concentration Limit~~s~~ or ammonia South Coast AQMD permit limit ~~at the corresponding percent O_2 correction~~ shall meet the CEMS requirements under ~~subdivision (j)~~ subdivision (k).

(~~5~~6) An owner or operator of a Facility with a ~~unit~~Unit subject to a ~~Rule 1109.1 Emission Limit~~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 (i)~~ subdivision (k) and has not conducted a source test within the schedule in ~~Table 7~~ Table 8 or ~~Table 8~~ Table 9, shall conduct a source test within:

(A) Six months from being subject to the ~~Rule 1109.1 Emission Limit~~a NOx Concentration Limit and Corresponding CO Concentration Limit for ~~units~~ Units with a ~~rated heat input capacity~~ Rated Heat Input Capacity of greater than or equal to 20 MMBtu/hour.

(B) 12 months from being subject to the ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit and Corresponding CO

Concentration Limit for ~~units~~ Units with a ~~rated heat input capacity~~ Rated Heat Input Capacity of less than 20 MMBtu/hour.

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

(A) Through an ~~conduct the~~ initial source test~~s~~ 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.

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

(A) For a unit~~s~~ that receive a South Coast AQMD Permit to Construct to comply with ~~Rule 1109.1 Emission Limit~~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 than ~~2 hours~~120 minutes, for approval within 60 days after the Permit to Construct was issued unless otherwise approved by the Executive Officer;

(B) For units that receive a South Coast AQMD permit condition that limits NOx or CO emissions to a~~to a Rule 1109.1 Emission Limit~~ 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 than~~2 hours~~120 minutes, for approval within 60 days after being subject to a ~~Rule 1109.1 Emission limit~~ NOx Concentration Limit and Corresponding CO Concentration Limit, unless otherwise approved by the Executive Officer; and

(C) 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.

(~~8~~9) At least one week prior to conducting a source test, an owner or operator of a Facility ~~a unit~~ 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.

(~~9~~10) Unless requested by the Executive Officer, after the approval of the initial source test protocol pursuant to ~~paragraph (k)(7)~~ paragraph (l)(8), an owner or operator of a Facility is not required to resubmit a source test protocol for approval pursuant to ~~paragraph (k)(7)~~ paragraph (l)(8)if:

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

(B) Rule or South Coast AQMD permit ~~emission~~ 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~~Unit.

(~~10~~11) An owner or operator of a Facility with a ~~unit~~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; or

(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 operating condition.

(12) 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.

(~~11~~13) An owner or operator of a Facility ~~a unit~~ shall submit all source test reports, including the source test results and a description of the ~~unit~~Unit tested, to the Executive Officer within 60 days of completion of the source test.

(~~12~~14) Emissions determined to exceed any limits established by this rule by any of the reference test methods in ~~subparagraph (k)(9)(B)~~ subparagraph (l)(11)(B) shall constitute a violation of the rule.

(~~13~~15) An owner or operator of a Facility with a ~~unit~~Unit that exceeds ~~any~~ the applicable limit~~s~~ established by this rule by any of the reference test methods in ~~subparagraph (k)(9)(B)~~ subparagraph (l)(11)(B) shall inform the Executive Officer within 72 hours from the time ~~an~~ the owner or operator knew of excess emissions, or reasonably should have known.

(~~l~~m) Diagnostic Emission Checks

(1) An owner or operator of a Facility with a ~~unit~~Unit required to perform a source test every 36 months pursuant to ~~subdivision (k)~~ 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 ~~an~~ the owner or operator knew of excess emissions, or reasonably should have known, or shut down the ~~unit~~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.

(~~m~~n) Monitoring, Recordkeeping, and Reporting Requirements

(1) Operating Log

An owner or operator of a Facility ~~a unit~~ shall maintain the following daily records for each ~~unit~~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~~Facility that elects to meet the NOx ~~emission~~concentration limits in an approved B-Cap pursuant to ~~paragraph (e)(2)~~ paragraph (g)(2) shall:

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

(B) Maintain daily records of mass emissions, in pounds (lbs) per day, from all ~~units~~ 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 (j)(5)~~paragraph (k)(5);

(C) 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 ~~interim~~ Interim ~~emission~~ Emission ~~rate~~ Rate pursuant to ~~paragraph (f)(2)~~ paragraph (e)(2) shall maintain the following daily records for each ~~unit~~Unit, in a manner approved by the Executive Officer:

(A) Actual daily mass emissions, in ~~lbs.~~pounds, for all ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with a ~~rated heat input capacity~~ Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour;

(B) Combined maximum ~~rated heat input~~ Rated Heat Input Capacity for all ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with a ~~rated heat input capacity~~ 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 ~~a unit~~ 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~~Boiler or ~~process heater~~Process Heater that is exempt from the applicable Table 1 NOx ~~emission~~Concentration ~~l~~Limits pursuant to ~~paragraphs (n)(5) and (n)(6)~~ paragraphs (o)(5) and (o)(6), or an owner or operator of a Facility with a ~~flare~~Flare that is exempt from the applicable Table 1 NOx ~~emission~~Concentration ~~l~~Limits pursuant to ~~subparagraph (n)(8)(A)~~ 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 (m)(4)(A)~~ 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 (m)(4)(A)~~ 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 ~~as follows~~using a:

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

(ii) ~~For the annual throughput limit equivalent to hours per year validation, using a c~~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~~Vapor Incinerator that is exempt from the applicable Table 1 NOx ~~emission~~Concentration ~~l~~Limits pursuant to ~~paragraph (n)(9)~~ 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 (k)~~ 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~~Unit subject to the compliance schedule in subparagraphs ~~(d)(3)(B)~~(d)(2)(B), ~~(d)(4)(B)~~(d)(2)(C), and ~~(g)(3)(B)~~(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~~Unit subject to the compliance schedule in ~~subparagraph (g)(3)(A)~~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~~s~~ complying with the NOx concentration limit pursuant to paragraph (d)(5) shall:

Provision moved from subdivision (d)

(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, identified by device identification number with a description of each Unit, to the Executive Officer identifying which Units will meet the Table 4 Interim NOx and CO Concentration Limits and which Units will meet the Table 4 Interim NOx Concentration Limits for Boilers and Heater pursuant to paragraph (e)(2).

New reporting requirement for interim limits as <40 MMBtu/hour boilers/heater can comply with 40 ppm or 0.03 lbs/ MMBtu

(~~n~~o) Exemptions

(1) Boilers or Process Heater with a R y 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~~Boiler or ~~process heater~~Process Heater with a ~~rated heat input capacity~~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~~Boiler with a ~~rated heat capacity~~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) Subdivisions (d) provided:

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

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

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

An owner or operator of a Facility with a ~~process heater~~Process Heater with a ~~rated heat input capacity~~ 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~~ Rated Heat Input Capacity ~~on an annual basis~~per calendar year, shall be exempt from the applicable ~~emission~~concentration limits in Table 1, Table 2, and an approved B-Plan.

(4) An owner or operator of a Facility with a FCCU that must bypass the post-combustion air pollution control equipment to conduct ~~boiler~~Boiler inspections required under California Code of Regulations, Title 8, Section 770(b) shall be exempt from the applicable ~~Rule 1109.1 Emission Limit~~NOx Concentration Limit and Corresponding CO Concentration Limit~~s~~ during the required ~~boiler~~Boiler inspections.

(5) FCCU Startup Boilers and Process Heaters

An owner or operator of a Facility with a Boiler or ~~process heater~~Process Heater which is used only for startup of a FCCU and that ~~process heater~~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~~Process Heater ~~or boiler~~ has a South Coast AQMD permit that specifies conditions that limits the operating hours at or less than ~~to~~ 200 hours ~~or less~~per calendar year; and

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

(B) ~~Subdivisions (k) and (l)~~Subdivisions (l) and (m) provided the ~~unit~~Unit is not included in 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~~Process Heater used for startup or a ~~boiler~~Boiler used during startup or shutdown at a Sulfuric Acid Plant that does not exceed 90,000 MMBtu of annual ~~heat input~~Heat Input per calendar year shall be exempt from the requirements in ~~subdivisions (d), (i), (j), and (k)~~subdivisions (d), (k), (l), and (m) provided:

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

(B) The ~~process heater~~Process Heater or ~~boiler~~Boiler operates in compliance with the South Coast AQMD permit condition ~~specified in~~ pursuant to ~~subparagraph (n)(6)(A)~~subparagraph (o)(6)(A).

(7) Boiler or Process Heater Operating Only the Pilot

An owner or operator of a Facility with a ~~boiler~~Boiler or ~~process heater~~Process Heater operating only the pilot prior to startup or after shutdown shall be exempt from the ~~emission~~concentration limits in ~~paragraphs (d)(3)~~paragraph (d)(2)~~, (d)(4)~~, Table 1, Table 2, ~~Table 3~~Table 6, 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~~Flare that emits less than or equal to 550 pounds of NOx ~~or less~~ per calendar year shall be exempt from the requirements in subdivisions (d), ~~(g)~~(f) and ~~(k)~~(l), provided:

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

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

(9) Vapor Incinerators

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

(A) L~~l~~ess than 100 pounds of NOx per calendar year shall be exempt from the requirements in subdivision (d) provided the ~~vapor incinerator~~Vapor Incinerator:

(~~A~~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

(~~B~~ii) Operates in compliance with the permit condition pursuant to ~~subparagraph (n)(9)(A)~~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~~Unit with a CEMS at the i^{th} subset of data; one-hour for a ~~unit~~Unit with an averaging time of 24 hours or less and 24-hour for a ~~unit~~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 as follows:

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

Sum the actual annual mass emissions of all ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with a ~~rated heat input capacity~~ Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour and any ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with a ~~rated heat input capacity~~ Rated Heat Input Capacity of less than 40 MMBtu/hour that operate a certified CEMS, and divide by 8760 hours for ~~lbs~~pounds per hour.

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

Sum the combined maximum ~~rated heat input~~ Rated Heat Input Capacity for all ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with a ~~rated heat input capacity~~ Rated Heat Input Capacity of greater than or equal to 40 MMBtu/hour and any ~~boilers~~Boilers and ~~process heaters~~ Process Heaters with a ~~rated heat input capacity~~ 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~~ 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~~Unit will be based on Table 1 or Table 2 NOx ~~concentration~~ Concentration ~~l~~Limits. The owner or operator of a Facility shall only select Table 2 Conditional NOx ~~concentration~~ Concentration ~~l~~Limits if the requirements of subparagraphs (d)(2)(A) and (d)(2)(B) for the Conditional NOx Concentration Limits are met or if the ~~unit~~Unit is identified in Attachment D. For all other ~~units~~Units, the owner or operator of a Facility shall use Table 1 NOx Concentration ~~l~~Limits ~~from Table 1~~ as the basis of the Facility BARCT Emission Target. 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~~ Concentration ~~l~~Limit ~~of Table 1~~ for the ~~units~~ Units that will be decommissioned.

(B-2.1) The Final Phase Facility BARCT Emission Target for a ~~facility~~Facility complying with NOx ~~emission~~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~~ Units in B-Plan or B-Cap
$C_{\text{Table 1 or Table 2}}$	= The applicable NOx concentration limit for each ~~unit~~Unit i included in B-Plan or B-Cap
C_{Baseline}	= Representative NOx Concentration as defined in subdivision (c) for ~~unit~~Unit i included in B-Plan
Baseline Unit Emissions	= Baseline Unit Emissions for ~~unit~~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~~Facility or Facilities With The Same Ownership that would have been achieved if all ~~units~~ Units met the Table 1 or Table 2 NOx ~~concentration~~ Concentration ~~l~~Limits ~~in Table 1 or Table 2~~ of this rule based on the Baseline Facility Emissions.

(B-3.1) For a ~~facility~~Facility complying with NOx ~~emission~~Concentration ~~limits~~ Limits in Table 1 or Table 2, or an approved B-Plan ~~or an~~

~~approved B-Cap~~, the Total NOx Emission Reductions is the difference between Baseline Facility Emissions and the Final Phase Facility BARCT Emission Target.

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

(B-3.1) 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 a 10 percent reduction.

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

(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 Targets are the total NOx mass emissions per ~~facility~~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 the 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.

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

~~(B-4.2) For the B-Cap, 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, less 10 percent.~~

~~Phase I Facility BARCT Emission Target$_{B-Cap}$~~
~~= [Baseline Emissions~~
~~– (Phase I Percent Reduction Target~~
~~× Total Facility NOx Emission Reductions)] × 0.9~~

(B-4.3) ~~For the B-Plan, i~~If Phase II is not 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.

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

~~(B-4.4) For a B-Cap, if Phase II is not 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$_{B-Cap}$~~
~~= [Baseline Emissions~~
~~– (Phase II Percent Reduction Target~~
~~× Total Facility NOx Emission Reductions)] × 0.9~~

(B-4.5) For ~~a B-Plan, for~~ 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.

$$\text{Phase II or Phase III Facility BARCT Emission Target}_{B-Plan} = \text{Final Phase Facility BARCT Emission Target}$$

~~(B-4.6) For a B-Cap, for 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$_{B-Cap}$ = (Final Phase Facility BARCT Emission Target) × 0.9~~

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

The Phase I, Phase II, or Phase III BARCT Equivalent Mass Emissions are the total remaining NOx mass emissions per ~~facility~~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 Phase III BARCT Equivalent Mass Emissions incorporate the Alternative BARCT NOx Limit for ~~Phase I, Phase II, or Phase III~~ each of the ~~units~~ Units included in different phases of the I-Plan. The Alternative BARCT NOx Limits are the ~~unit~~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 ~~subdivision (k)~~paragraph (k)(1), whichever is applicable. For the B-Plan, decommissioned ~~units~~ 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~~ Units included in a B-Plan shall be calculated using the following equation:

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

Where:

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

(B-6) Calculating Phase I, Phase II, or 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 the total remaining NOx mass emissions per ~~facility~~Facility that incorporates emission reduction strategies. The Phase I, Phase II, ~~and~~or 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, ~~D~~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~~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, ~~where the NOx concentration limit will include the corresponding~~

~~percent O_2 correction, CO emission~~concentration ~~limit, and averaging time per Table 1~~. The emission reductions from Decommission Units shall be incorporated in B-Cap pursuant to section (B-2.2). Other reductions in mass emission reductions to demonstrate that the BARCT B-Cap Annual Emissions 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~~Unit included in a B-Cap shall be calculated using the following equation ~~where the Unit Throughput Reductions calculated pursuant to Section B-7.~~

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

Where:

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

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

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

Baseline Unit Emissions = Baseline Unit Emissions as defined in subdivision (c) and for ~~unit~~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~~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~~ 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~~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~~ Units in B-Cap
$C_{\text{Table 1}}$	=	Table 1 NOx ~~concentration~~ Concentration ~~l~~Limit for ~~unit~~Unit i
C_{Baseline}	=	Representative NOx Concentration as defined in subdivision (c) for ~~unit~~Unit i included in an approved B-Cap
Baseline Unit Emissions	=	Baseline Unit Emissions for ~~unit~~Unit i as defined in subdivision (c) and included in an approved B-Cap.

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

An owner or operator of a Facility with a ~~unit~~Unit in a B-Plan that is demonstrating that the Unit Reduction is less than the thresholds ~~specified in~~ pursuant to clauses (d)(2)(A)(i) or (d)(2)(A)(ii) 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~~ Concentration ~~l~~Limit the ~~unit~~Unit
$C_{Baseline}$	=	Representative NOx Concentration for the ~~unit~~Unit
Baseline Unit Emissions	=	Baseline Unit Emissions.

ATTACHMENT C

FACILITIES EMISSIONS – BASELINE ~~AND TARGET~~

(C-1) Baseline Facility Emissions

Table C-1 provides the Baseline Mass Emissions for Facilities with six or more ~~units~~ Units subject to this rule. Baseline Facility Emissions in Table C-1 are based on 2017 reported emissions for Rule 1109.1 ~~units~~Units. A year other than 2017 was used for ~~units~~ Units where the 2017 reported emissions were not representative of normal operations.

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
Tesoro Refining and Marketing Co., LLC – Wilmington	800436	674
Tesoro Refining and Marketing Co., LLC – Sulfur Recovery Plant	151798	8
Tesoro Refining and Marketing Co., LLC, Calciner	174591	261
Torrance Refining Company LLC	181667	899
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~~	~~D159~~	~~176~~
~~800030~~	~~D160~~	~~176~~
~~800030~~	~~D161~~	~~176~~
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	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	D250	89
174655	D33	100~~252~~
174655	D419	52
174655	D421	82
174655	D532	255
174655	D539	52
174655	D570	650
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	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
800436	D1122	140
800436	D158	204
~~800436~~	~~D250~~	~~89~~
800436	D33	252
800436	D384	48
800436	D385	24
800436	D386	48
800436	D387	71
800436	D388	147
800436	D770	63
800436	D777	146