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Ms. Cindy Hollenberg
Compliance & Enforcement Section Chief
Air Quality Bureau
New Mexico Environment Department
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505

Re: Kinder Morgan, Inc. Alternative Compliance Plan for Gas Turbines and Engines Subject to the New Mexico Ozone Precursor Rule

Dear Ms. Hollenberg:

In accordance with 20.2.50.113.B(10) of New Mexico Administrative Code (NMAC), Kinder Morgan, Inc. (Kinder Morgan) hereby submits the enclosed Alternative Compliance Plan (ACP) for engines and turbines subject to the emission standards for existing natural gas-fired combustion engines and turbines in Tables 1 and 3 of 20.2.50.113.B NMAC. This ACP addresses CO emissions from all subject units in the Kinder Morgan fleet and NOx emissions from units not addressed in the separately submitted Alternative Emission Standards plan for NOx pursuant to 20.3.50.113(B)(11) NMAC. The ACP includes:

- A list of engines and turbines subject to the plan
- A demonstration that the total allowable emissions for the engines and turbines will not exceed the total allowable emissions under Ozone Precursor Rule
- An independent third party certification of an evaluation of the proposed ACP

The proposed ACP addresses units at EPNG Blanco A Compressor Station that were analyzed in the recently resubmitted Four Factor Analysis (4FA) under the Regional Haze Rule. Kinder Morgan requests that consistent decisions be made under both the Regional Haze Rule and the Ozone Precursor Rule for these engines. To this end, Kinder Morgan desires to be actively and continuously engaged with the pertinent New Mexico Environment Department review groups as the reviews progress under both rules.

Kinder Morgan will contact you or your staff, as well as the Regional Haze team, periodically to follow up on the progress of this evaluation. In the meantime, if you have any questions on any of this information, please contact me at 713.420.3463 or at tom_mitchell@kindermorgan.com.

Sincerely,

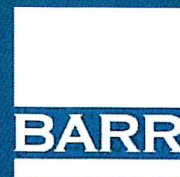
R. Thomas Mitchell

Digitally signed by R. Thomas Mitchell
DN: cn=R. Thomas Mitchell, o=Kinder Morgan, ou,
email=tom_mitchell@kindermorgan.com, c=US
Date: 2023.06.13 14:17:14 -05'00'

R. Thomas Mitchell
Manager, EHS

Enclosure

1001 Louisiana Street, Suite 1000, Houston, TX 77002



New Mexico Alternative Compliance Plan

Prepared for
Kinder Morgan, Inc.

June 2023

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80203
Floor 5, suite 500

1 Executive Summary

The New Mexico Environmental Department (NMED) proposed, and the New Mexico Environment Improvement Board (Board) adopted, the Ozone Precursor rule under 20.2.50 NMAC to reduce ozone precursor emissions—specifically nitrogen oxides (“NO_x”) and volatile organic compounds (“VOCs”)—at sources causing or contributing to ambient ozone concentrations that exceed ninety-five percent of the national ambient air quality standard for ozone. The Ozone Precursor Rule also sets carbon monoxide (CO) emission limits in conjunction with the NO_x and VOC limits. In lieu of meeting the emission standards established under 20.2.50.113 for stationary natural gas-fired combustion engines and turbines, owners and operators may elect to comply with the emission standards through an Alternative Compliance Plan (ACP) and/or an Alternate Emission Standard (AES) approved by the Department.

Kinder Morgan, Inc. (Kinder Morgan) on behalf of itself and its subsidiaries and affiliates El Paso Natural Gas Company, L.L.C. (EPNG), Natural Gas Pipeline of America (NGPL), and TransColorado Gas Transmission Company LLC (TC) (collectively “Kinder Morgan”) request approval of an ACP for the stationary natural gas-fired combustion engines and turbines identified in Appendix A, attached hereto. The proposed ACP demonstrates that Kinder Morgan will achieve a greater reduction in emissions than if emission standards were applied individually to each engine or turbine separately. The proposed ACP does not include NMNEHC emissions because all units subject to 20.2.50.113 currently meet the NMNEHC standards established under 20.2.50.113 for existing stationary natural gas-fired combustion engines and turbines.

This ACP addresses CO emissions from all subject units in the Kinder Morgan fleet and NO_x emissions from units not addressed in the separately submitted plan for NO_x that comply with 20.3.50.113 NMAC through an Alternative Emission Standards, pursuant to 20.3.50.113(B)(11) NMAC.¹ Table 1-1 summarizes the total amount of allowable emissions under the proposed ACP compared to the total allowable emissions under 20.2.50.113 for existing engines and turbines. If approved by NMED Kinder Morgan will meet the total allowable emissions established under the emission standards of 20.2.50.113 by January 1, 2028, for both engines and turbines, a year before the compliance schedule outlined in the rule for engines.

¹ See Statement of Reasons, at 111 (Section 113 “offers significant flexibility for sources that are unable to meet the emissions standards of Part 50: they may reduce the annual hours of operation, they may seek an Alternative Compliance Plan ACP to meet an equivalent amount of emission reductions, **and/or** they may seek alternative emissions standards if they can demonstrate that they cannot meet the existing standards through an ACP”) (emphasis added).

New Mexico Alternative Compliance Plan

June 2023

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Table 1-1 Comparison of Proposed ACP and 20.2.50.113 Total Allowable Emissions

Pollutant	Scenario	TPY Total Allowable Emissions	ACP Total Proposed Emissions Meet 20.2.50.113 Total Allowable Emissions?
NO _x	Proposed ACP	1,031.6	Yes
	20.2.50.113 Total Allowable Emissions ¹	1,064.6	
CO	Proposed ACP	600.2	Yes
	20.2.50.113 Total Allowable Emissions ¹	601.8	

1 - To be conservative, Kinder Morgan is using the lower of the current permit limits and the allowable mass emissions under the ozone precursor rule to establish the final allowable NO_x and CO emission rates for the ACP.

The proposed ACP incorporates emission reductions achieved, in part, by decommissioning seven (7) engine units rated just under 1,000 HP at EPNG Blanco A Station. On October 5, 2022, Kinder Morgan discussed with NMED's legal counsel (at the time) our proposal to include engine units rated just below 1,000 HP in Kinder Morgan's ACP. In this conversation, NMED indicated that the spirit and objectives of the rule would be met if Kinder Morgan demonstrated a benefit to the State through greater emissions reductions. As reflected in this ACP, Kinder Morgan would achieve a greater reduction in emissions through this proposed ACP (including the units <1,000 HP) than if emission standards were applied individually to each applicable engine or turbine.

The decommissioning of engine units requires additional approval by the Federal Energy Regulatory Commission (FERC). Based on Kinder Morgan's experience, the Company expects to be able to demonstrate to FERC that the decommissioning of these engines supports the public convenience and necessity in accordance with the federal Natural Gas Act and therefore that FERC should allow the decommissioning of these particular units. Note that, although not required under the Regional Haze Rule, Kinder Morgan through its subsidiary EPNG, also proposed voluntarily decommissioning these seven (7) engines at the station as part of the recently updated Regional Haze Four Factor Analysis submitted for the EPNG Blanco A station. Kinder Morgan respectfully requests that NMED approve the emission reductions associated with retiring these seven (7) engines as a compliance strategy with both the Regional Haze Rule and the Ozone Precursor Rule.

2 Regulatory Background

The Board adopted the Ozone Precursor rule under 20.2.50 NMAC to reduce ozone precursor emissions—specifically nitrogen oxides (“NOx”) and volatile organic compounds (“VOCs”)—at sources causing or contributing to ambient ozone concentrations that exceed ninety-five percent of the national ambient air quality standard for ozone. Sources located in Chaves, Dona Ana, Eddy, Lea, Rio Arriba, Sandoval, San Juan, and Valencia counties are subject to the rule. Kinder Morgan owns and operates multiple stationary natural gas-fired spark ignition engines and stationary natural gas-fired combustion turbines with a maximum design rating equal to or greater than 1,000 hp located at 12 different facilities in counties subject to 20.2.50 NMAC.

Applicable existing portable or stationary natural gas-fired spark ignition engines, compression ignition engines, or natural gas-fired combustion turbines shall meet the emissions standards in 20.2.50.113 listed in Table 2-1 and Table 2-2. Owners or operators shall comply with the emission standards for a specified percentage of all the company’s equipment subject to the standards by the dates specified in Table 2-3 below.

Table 2-1 Emission Standards For Existing Natural Gas-Fired Spark Ignition Engines

Engine Type	Rated bhp	NOx	CO	NMNEHC (as propane)
2 Stroke Lean Burn	>1,000	3.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	>1,000 bhp and <1,775 bhp	2.0 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
4-Stroke Lean Burn	≥1,775 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr
Rich Burn	>1,000 bhp	0.5 g/bhp-hr	0.60 g/bhp-hr	0.70 g/bhp-hr

Table 2-2 Emission Standards For Existing Stationary Combustion Turbines

Turbine Rating (bhp)	NOx (ppmvd @15% O ₂)	CO (ppmvd @ 15% O ₂)	NMNEHC (as propane, ppmvd @15% O ₂)
≥1,000 and <4,100	150	50	9
≥4,100 and <15,000	50	50	9
≥15,000	50	50 or 93% reduction	5 or 50% reduction

Table 2-3 Engine and Turbine Compliance Schedule

Unit	30% Compliance Due Date	65% Compliance Due Date	100% Compliance Due Date
Engines	January 1, 2025	January 1, 2027	January 1, 2029
Turbines	January 1, 2024	January 1, 2026	January 1, 2028

In lieu of meeting the emission standards established under 20.2.50.113 for portable and stationary natural gas-fired combustion engines and turbines, owners and operators may elect to comply with the emission standards through an ACP approved by NMED. In particular, the Board adopted Paragraphs (10) and (11) of Subsection B of 20.2.50.113 NMAC “for the reasons stated in the NMED Rebuttal . . . and the supporting argument by Kinder Morgan.” State of New Mexico, Environmental Improvement Board, Statement of Reasons and Final Order, In the Matter of Proposed New Regulation 20.2.50 NMAC – Oil and Gas Sector – Ozone Precursor Pollutants, No. EIB 21-27, at pp. 111 (June 27, 2022) (hereinafter, Statement of Reasons). In particular, and citing to Kinder Morgan’s supporting argument in the Board rulemaking, the Board stated that “[w]hile the emissions thresholds provided in Tables 1 and 3 for existing engines and turbines are appropriate in most cases, circumstances may exist where it is technically impracticable or economically infeasible to achieve compliance.” *Id.* at 111. Recognizing these practical limitations, the Board’s final rule “offers significant flexibility for sources that are unable to meet the emissions standards of Part 50: they may reduce the annual hours of operation, they may seek an Alternative Compliance Plan ACP to meet an equivalent amount of emission reductions, and/or they may seek alternative emissions standards if they can demonstrate that they cannot meet the existing standards through an ACP.” *Id.* at 111 (emphasis added). Thus, an operator may have in place both an AES (or multiple AESs for individual units), and an ACP.

The purpose of this report is to meet the requirement from 20.2.50.113(10) as follows:

“In lieu of complying with the emission standards for individual engines and turbines established in Subsection B of 20.2.50.113 NMAC, an owner or operator may elect to comply with the emission standards through an Alternative Compliance Plan (ACP) approved by the department. An ACP must include the list of engines or turbines subject to the ACP, and a demonstration that the total allowable emissions for the engines or turbines subject to the ACP will not exceed the total allowable emissions under the emission standards of this Part.”

3 Alternative Compliance Plan

To establish a baseline of equivalent emission reductions per year, Kinder Morgan calculated emissions for each engine or turbine if it were to meet the emissions standard set in the ozone rule (20.2.50.113.B) on a unit-by-unit basis for those units covered by the ACP. The allowable mass emissions under the ozone precursor rule are then compared to the current permit limits. To be conservative, Kinder Morgan is using the lower of the current permit limits and the allowable mass emissions under the ozone precursor rule to establish the final allowable NOx and CO emission rates for the ACP. Using the compliance schedule outlined in 20.2.50.113.B.2 for existing stationary natural gas-fired spark ignition engines and 20.2.50.113.B.7 for stationary natural gas-fired combustion turbines, Kinder Morgan determined the associated emission reductions for each year beginning with current permitted emissions, and projecting through January 1, 2029. This was then compared with the planned ACP schedule of emission control implementations.

Tables 3-1 and 3-2 show the current permitted NOx and CO emissions for units addressed in the ACP, annual milestones required by 20.2.50.113 and achieved by the proposed ACP based on the schedules outlined in 20.2.50.113.B.(2) and (7).

Table 3-1 NOx Compliance Schedule Under the Ozone Precursor Rule and the Proposed ACP

		Allowable Emissions under 20.2.50.113 (tpy)	ACP Proposed Emissions (tpy)
Current Permitted Emissions		1738.8	1738.8
20.2.50.113 Annual Milestones	1/1/2024	1718.5	1634.1
	1/1/2025	1536.5	1535.6
	1/1/2026	1512.8	1031.6
	1/1/2027	1300.6	1031.6
	1/1/2028	1276.8	1031.6
	1/1/2029	1064.6	1031.6
Final per 20.2.50.113		1064.6	1031.6

Table 3-2 CO Compliance Schedule Under the Ozone Precursor Rule and the Proposed ACP

		Allowable Emissions (tpy)	ACP Proposed Emissions (tpy)
Current Permitted Emissions		1253.2	1253.2
20.2.50.113 Annual Milestones	1/1/2024	1192.2	1081.7
	1/1/2025	1057.8	1039.5
	1/1/2026	986.7	974.4
	1/1/2027	829.8	660.6
	1/1/2028	758.7	600.2
	1/1/2029	601.8	600.2
Final per 20.2.50.113		601.8	600.2

If approved by NMED, as demonstrated by Tables 3-1 & 3-2, Kinder Morgan will meet the total allowable emissions established under the emission standards of 20.2.50.113 by January 1, 2028, for both engines and turbines, a year before the compliance schedule outlined in the rule for engines.

To achieve these important emissions reductions, Kinder Morgan plans to decommission seven engines at the EPNG Blanco A Station. These engines are rated at just below 1,000 hp and not otherwise subject to the standards due to the maximum design rating. However, the retirement of these engines will result in an excess of emissions reductions compared to the requirements under the emission standards of 20.2.50.113, and EPNG Blanco A Station is located in an area subject to the rule. Kinder Morgan proposes crediting only 75% of the emission reductions from the retirement of seven engines; therefore, an additional 168 tpy NO_x and 21.7 tpy CO will be reduced beyond the reductions presented in Tables 3-1 and 3-2. On October 5, 2022, Kinder Morgan discussed with NMED's legal counsel (at the time) a proposal to include engine units rated just below 1,000 HP in Kinder Morgan's ACP. In this conversation, NMED indicated that the spirit and objectives of the rule would be met if Kinder Morgan demonstrated a benefit to the state through greater emissions reductions. As reflected in this proposed ACP (including the units <1,000 HP), Kinder Morgan will achieve a greater reduction in emissions than if emission standards were applied individually to each applicable engine or turbine.

The decommissioning of engine units requires additional approval by the Federal Energy Regulatory Commission (FERC). Based on Kinder Morgan's experience, the Company expects to be able to demonstrate to FERC that the decommissioning of these engines supports the public convenience and necessity in accordance with the federal Natural Gas Act and therefore that FERC should allow the decommissioning of these particular units. Note that, although not required under the Regional Haze Rule, Kinder Morgan through its subsidiary EPNG, also proposed voluntarily decommissioning these seven (7) engines as part of the recently updated Regional Haze Four Factor Analysis submitted for the EPNG Blanco A station. Kinder Morgan respectfully requests that NMED approve the emission reductions associated with retiring these seven (7) engines as a compliance strategy with both the Regional Haze Rule and the Ozone Precursor Rule.

NOx reductions will be attained by adding low emission combustion (LE) upgrades on selected engines, and exchanging a Solar turbine component with a lower NOx component. The LE upgrades include a software update and tuning on the controls. The Solar turbine component exchange includes installation of the Solar SoloNOx system. CO emissions will be reduced by installing oxidation catalysts on selected engines, or submitting permit revision applications to establish lower CO permit limits based upon actual performance. The specific technology to be used on each unit is included in Appendix A.

Note, to be conservative, Kinder Morgan is using the lower of the current permit limits and the allowable mass emissions under the ozone precursor rule to establish the final allowable NOx and CO emission rates for the proposed ACP. In other words, Kinder Morgan is not claiming credit on reductions for existing units whose permitted limits are already below the allowable emission rates under the ozone precursor rule. Additionally, for each unit in the ACP, the proposed emission rate is provided on an hourly mass emission limit or performance limit basis consistent with the expected representation in the operating permits. These emission rates are converted to an annual basis assuming continuous operation (8,760 hr/yr). Emission reductions are calculated as the difference between the current permit limits and the proposed annual emission rate.

The ACP implementation or retrofitting schedule is depicted by the last column of Appendix A, to be completed in advance of the January 1 compliance date of the following calendar year.

Appendix A

ACP Control Technology Summary and Implementation Schedule