MEMORANDUM

To:	Kinder Morgan, Inc.	**Date:**	June 14, 2023
From:	ALL4 LLC		
Subject:	Independent 3rd Party Certification of Alternative Compliance Plan (ACP) Proposal for Demonstration of Compliance with Subsection B of 20.2.50.113 New Mexico Adminstrative Code		

Introduction

Kinder Morgan, Inc. (KMI) subsidiaries El Paso Natural Gas Company, L.L.C (EPNG), Natural Gas Pipeline of America (NGPL), and TransColorado Gas Transmission Company, L.L.C (TC) own and operate 17 stationary natural gas-fired spark ignition engines and 19 stationary natural gas-fired combustion turbines with a maximum design rating equal to or greater than 1,000 horsepower (hp) located at the following 12 facilities in counties subject to 20.2.50 New Mexico Administrative Code (NMAC):

EPNG

- Afton Compressor Station, Doña Ana County
- Belen Compressor Station, Valencia County
- Caprock Compressor Station, Lea County
- Eunice Compressor Station, Lea County
- Monument Compressor Station, Lea County
- Pecos River Compressor Station, Eddy County
- Rio Vista Compressor Station, San Juan County
- Roswell Compressor Station, Chaves County
- San Juan River Compressor Station, San Juan County
- Washington Ranch Storage Facility, Eddy County

NGPL

- Maljamar Compressor Station, Lea County

TC

- Blanco Compressor Station, San Juan County

Each engine and turbine located at the above facilities are subject to the applicable emissions standards in Table 1 of Paragraph (2) and Table 3 of Paragraph (7) of Subsection B of 20.2.50.113 NMAC [Table 1 20.2.50.113.B(3); Table 3 20.2.50.113.B(7) NMAC]. In lieu of meeting the emissions standards for each individual engine and turbine, 20.2.50.113.B(10)

NMAC allows for the owner or operator to comply with the emissions standards through an Alternative Compliance Plan (ACP) that must be approved by the New Mexico Environment Department (Department). Prior to submitting the ACP, 20.2.50.113.B(10)(a) NMAC requires that the owner or operator contract with an independent third-party engineering or consulting firm to conduct a technical and regulatory review of the ACP proposal. KMI prepared an ACP request for nitrogen oxides (NO_X) and carbon monoxide (CO) from the engines and turbines at the aforementioned 12 facilities and has contracted with ALL4 LLC (ALL4) to review the proposal. This submittal contains a summary of ALL4's review of the ACP, including a certification that it is a complete submittal and adheres to the requirements of 20.2.50.113.B(10) NMAC.

ACP Review and Certification

As discussed in the introduction, KMI has identified 17 engines and 19 turbines that are greater than 1,000 hp and subject to the emissions standards in Table 1 of 20.2.50.113.B(3) NMAC and Table 3 of 20.2.50.113.B(7) NMAC. All the engines and turbines are in compliance with the applicable nonmethane non-ethane hydrocarbon (NMNEHC) emissions limits. Additionally, for ten of the turbines (those located at Afton, Belen, Caprock, and Pecos River Compressor Stations), an Alternative Emissions Standard (AES) has been separately requested for NO_X emissions. KMI has prepared an ACP for NO_X emissions from the remaining nine turbines and for CO emissions from all engines and turbines.

The following requirement in 20.2.50.113.B(10) NMAC must be met for an ACP:

(10) 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.

Appendix A of the proposed ACP contains a list of all engines and turbines subject to the ACP. It also includes the standards from 20.2.50.113(B)(2) and (7) NMAC that would otherwise be applicable to each engine or turbine and the corresponding allowable mass-based emissions limits. Based on the known specifications of each engine and turbine, ALL4 reviewed Appendix A and confirmed the following:

- All engines and turbines greater than 1,000 hp and operated in a county subject to 20.2.50 NMAC were considered for inclusion in the ACP.
- The Unit ID, equipment type, and current permit limits match the most recent permit documents for each engine and turbine.
- The correct standards were selected from Table 1 based on the type and rated brake horsepower (bhp) for engines and from Table 3 based on the rating in bhp for each turbine.
- The calculation method used for estimating the allowable mass-based emission limits was reasonable and accurate.

In determining the final emissions rate allowed by the ACP, KMI took the additional step of comparing the existing permit limit for each piece of equipment to the emissions rate allowed by the applicable standard. In each case, the final allowable emissions rate for each engine or turbine was restricted to the lesser of its current permit limit or the value corresponding to the Table 1 or Table 3 emissions standard. ALL4 agrees that this approach is reasonable given that the emissions allowed by the ACP should not be based on any individual emissions rates that exceed current permit limits. The total emissions rate allowed by the standard was then calculated by summing the allowable emissions limits for each engine and turbine across all 12 facilities. For NO_X emissions, this value excludes the ten turbines associated with the AES, and for CO emissions, it includes all engines and turbines. The final values (1,064.6 tons per year (tpy) of NO_X emissions and 601.8 tpy of CO emissions) as listed in Table 1-1 were verified to be accurate.

In addition to the applicable standards and mass-based emissions limits, Appendix A specifies the following for each engine and turbine:

- The NO_X and CO emissions limits that are proposed under the ACP.
- The total reduction in allowable NO_X and CO emissions associated with the proposed ACP limits.
- The actions that are necessary to implement the reductions and a schedule for those actions.

The reductions in allowable emissions are proposed to be achieved through the installation of pollution controls, revision of permits to create lower enforceable limits, or a combination of both. For each emissions rate of NO_X and CO proposed under the ACP, ALL4 verified the method used to determine the value and the accuracy of the results.

The ACP proposal includes the retirement of seven engines that are not subject to the standards in 20.2.50.113(B)(2) and (7) NMAC. These engines are located at the EPNG Blanco Compressor Station in San Juan County. The county is covered by 20.2.50 NMAC. However, the engines are slightly below the applicability threshold of 1,000 hp (~943 hp). With the ACP submittal, KMI is requesting approval from NMED to retire these engines and include the corresponding decreases in the estimate of the final allowable emissions rate allowed by the ACP. The final total allowable emissions proposed in the ACP are calculated by summing together the allowable emissions rates of the engines and turbines greater than 1,000 hp and subtracting the decreases associated with the retirement of the seven engines at EPNG Blanco.

This is not explicitly allowed by 20.2.50.113.B(10). However, ALL4 understands that KMI discussed this approach with NMED's legal counsel on October 5, 2022, and that NMED indicated at that time that the spirit and objectives of the rule would be met if KMI demonstrated a benefit to the state through greater emissions reductions. The retirement of these engines at EPNG Blanco Compressor Station would cause a reduction of

emissions of ozone precursors from the covered counties, an outcome that aligns with the intent of the final rule. ALL4 reviewed the procedure for incorporating the retirement of EPNG Blanco's engines into the final calculations. The calculation method is conservative as the emissions from these engines are not included in the total emissions allowed by the rule and the decreases are limited to 75% of the allowable emissions rate reductions associated with each engine. ALL4 believes this to be a reasonable and conservative method for incorporating the retirement of these engines into the ACP and supports KMI's request to NMED to allow for this approach.

The ACP document includes the following tables:

- Table 1-1 - compares the total emissions allowed by the rule to the total allowed emissions proposed in the ACP;
- Table 3-1 - compares the reductions in NO_X emissions in tons per year achieved by the proposed ACP to the reductions required in 20.2.50.113 NMAC; and
- Table 3-2 - compares the reductions in CO emissions in tons per year achieved by the proposed ACP to the reductions required in 20.2.50.113 NMAC.

It is evident from Table 1-1 that if approved to consider the retirement of EPNG Blanco's engines, the total allowable emissions proposed under the ACP will not exceed the total emissions allowed by the standards in the rule. Additionally, Tables 3-1 and 3-2 when considered together demonstrate that the rate of reductions achieved by the ACP will meet or exceed the minimum rate of reductions prescribed by the rule.

After reviewing the ACP document, ALL4 believes that the requirement to include an inventory of engines and turbines subject to the ACP has been met. If NMED approves KMI's approach of accounting for the retirement of EPNG Blanco's engines in the total allowable emissions rate proposed in the ACP, it also demonstrates that the total allowable emissions under the ACP will remain below the total emissions allowed by the standards in 20.2.50.113.B(2) and (7). Finally, if followed, the ACP would result in emissions reductions that would exceed what would be achieved by compliance with the standards in the rule alone. The acceptability of the ACP is contingent upon NMED's approval of the inclusion of the retirement of EPNG Blanco's engines and KMI's approach for accounting for those decreases. ALL4 believes that the representation of the retirement of the engines and calculation method used to quantify the impact to the ACP is reasonable and encourages NMED to approve KMI's request.

This memorandum summarizes the review by ALL4 and why the ACP proposal by KMI is complete and sufficient. Should you have any questions about this submittal, please feel free to contact Christopher Ward at 770.557.2798 or cward@all4inc.com.

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