



**Michelle Lujan Grisham**  
Governor

**Howie C. Morales**  
Lt. Governor

## NEW MEXICO ENVIRONMENT DEPARTMENT

525 Camino de los Marquez, Suite 1  
Santa Fe, New Mexico 87505  
Phone (505) 476-4300 Fax (505) 476-4375  
[www.env.nm.gov](http://www.env.nm.gov)



**James C. Kenney**  
Cabinet Secretary

**Jennifer J. Pruett**  
Deputy Secretary

December 23, 2019

Mr. Larry Campbell  
Transwestern Pipeline  
6381 Main Street  
Roswell, NM 88201

[larry.campbell@energytransfer.com](mailto:larry.campbell@energytransfer.com)

Subject: Request for Additional Information for Four-Factor Analysis under the Regional Haze Program

Dear Mr. Campbell:

This letter is to request additional information for the Transwestern Pipeline Company, LLC four-factor analysis for the Roswell Compressor Station. The four-factor analysis report was received by the New Mexico Environment Department (NMED) on November 1, 2019. Pursuant to [NMED's Regional Haze Guiding Principles](#), the four-factor analysis must consider new ideas that potentially offer better solutions to problems and must evaluate the newest engineering methods and technology advances in potential control measures.

Please provide the following information for the reciprocating internal combustion engines (RICE) that were evaluated in four-factor analysis for potential nitrogen oxides (NO<sub>x</sub>) controls.

1. What options does the quotation from Cooper Machinery Services evaluate for emission reductions (i.e., upgrades to the air-to-fuel ratio (AFR) controller, turbocharger, adjusting ignition timing, installing cylinder heads fitted with pre-combustion chambers, larger intercooling applications, enhanced mixing, bypass valves, and increased ignition energy)? Please provide a copy of the quotation that shows the Low Emission Controls (LEC) upgrades presented can lower NO<sub>x</sub> emission rates to 2.5 grams per horsepower-hour (g/hp-hr.). Consider and include a discussion of variations of LEC upgrades that might lower the cost of compliance while still achieving meaningful NO<sub>x</sub> reductions.
2. The referenced document indicating that selective catalytic reduction (SCR) retrofits have not occurred as of 2014 is dated 2014, so it may not reflect applications that may have occurred since that document was published. Please verify that there have been no SCR retrofits on RICE in the gas transmission industry and provide additional information on why this technology is not appropriate for your operation. This additional information is important, as the costs of control (\$4,300-\$5,500/ton NO<sub>x</sub> removed) may be considered reasonable.
3. Please include a discussion on the technical feasibility of non-selective catalytic reduction for the Cooper-Bessemer compressor engines. If it is determined that this option is technically feasible, please complete a four-factor analysis for this technology.

4. Consider Good Combustion Practices (GCP) and routine maintenance as controls and provide details on how these would be achieved, including a maintenance schedule and operating procedures.
5. Please consider and include a discussion on the feasibility of replacing natural gas-fueled engines with commercial electric powered compressors.
6. Please provide a current quote on the installation of SCR on Units 903 and 904, as adjusting costs from a quote obtained in 1994 is not appropriate.
7. Submit all electronic spreadsheets used for control technology calculations.

Please note that per EPA's Guidance on Regional Haze State Implementation Plans for the Second Implementation Period (August 20, 2019), "as part of meeting the requirement of the Regional Haze Rule for the state to document the cost and engineering information on which the State is relying every source-specific cost estimate used to support an analysis of control measure must be documented in the SIP". If you feel that your supplemental information should be classified as confidential business information (CBI), it will need to be reviewed and approved as such by NMED and EPA. Submit CBI with the word 'confidential' included in the electronic file name and on each page of the document. Do not combine non-confidential business information and CBI in the same files. Also, the claimant must satisfy the conditions in 20.2.1.115.B(3)(a)-(d) NMAC when the CBI is submitted. Until NMED and EPA determines if the information qualifies as CBI, the information will not be disclosed to anyone other than those listed in 20.2.1.115 NMAC.

NMED respectfully requests that your company submit the additional information on four-factor analysis electronically as soon as possible to Mark Jones at [mark.jones@state.nm.us](mailto:mark.jones@state.nm.us) and myself at [kerwin.singleton@state.nm.us](mailto:kerwin.singleton@state.nm.us). Please contact NMED if you have questions about the additional information request. We encourage your questions in order to help expedite the technical analysis required under the Regional Haze Program. Staff would be happy to meet with you in person to discuss these requirements in more detail. Likewise, staff may further contact you with questions or require additional information during its review of your submittals.

Thank you for your assistance in this matter. Should you have questions or require clarification, please contact me at 505.476.4350, or Mark Jones at 505.566.9746.

Sincerely,

Kerwin C. Singleton  
Planning Section Chief