Environmental Improvement Board
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STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF:
Regional Haze State Implementation Plan Revision for the Second Planning Period and Proposed Companion Rule 20.2.68 NMAC —Regional Haze Requirements

No. EIB 24–49 (R)

ORDER AND STATEMENT OF REASONS

This matter comes before the New Mexico Environmental Improvement Board (Board) on a Petition brought by the New Mexico Environment Department ("NMED" or "the Department") for the Adoption of Regional Haze State Implementation Plan Revision (SIPr) and Proposed New Rule 20.6.28 NMAC—Regional Haze Requirements.

An evidentiary hearing was held on April 28-30, 2025 in Santa Fe, New Mexico; all interested persons had an opportunity to submit data, views, and arguments and to examine witnesses testifying at the hearing. Persons and organizations participating as a party in addition to Petitioner included the New Mexico Oil and Gas Association (NMOGA); Enterprise Field Services, LLC; Targa Resources Corp.; El Paso Natural Gas Company, LLC (EPNG); Nicholas Maxwell; and the Conservation Groups, comprised of Citizens Caring for the Future, Conservation Voters New Mexico, Dine C.A.R.E., National Parks Conservation Association, New Mexico Interfaith Power and Light, Sierra Club, and San Juan Citizens Alliance.

On December 8, 2025, following an extended time for post-hearing submittals from the parties, the Board deliberated and voted to adopt the SIPr with Appendices A through G and Proposed New Rule 20.2.68 NMAC based on the substantial evidence in the record for the reasons set out below.

During the deliberations, the Board took a number of votes on the issues raised by the parties. All votes on the issues were decided unanimously. Prior to the Board discussion on the merits of the Petition, the Board considered the Hearing Officer's recommendation and denied the post-hearing Motion to Strike or Sur-rebut filed by EPNG.

The Board voted that the draft SIPr and proposed Rule are not more stringent than federal law. The Board is not considering EPA's new policy presumption that reasonable progress for this period is already being made; the URP is not a safe harbor. Tr. pp. 11-16.

As to whether NMED fully accounted for the emission reductions resulting from the Ozone Precursor Rule adopted in 2022, NMED did take into account those measures taken by facilities in response to that Rule, such as DCP installing NOx controls at three of their facilities. Industry first had the opportunity to go through the four-factor assessment. NMED engaged in a full back-and-forth with companies on its way to the final draft, and adequately accounted for emissions reductions resulting from the Ozone Precursor rule. Tr. pp. 16-21.

The Board found it proper to require the installation of emission controls at all three Enterprise facilities. NMED is not requiring the installation of any particular kind of equipment; they are requiring that the facility meet certain emission standards in the manner they choose. As for Blanco C and D, Enterprise did not provide adequate evidence to show they could not put controls there, notwithstanding concerns about space and electricity demands. Although it takes a while to do an engineering analysis, Enterprise was granted a delay in the hearing and had more time to consider controls. Enterprise's use of windroses and visibility impacts was not compelling; NMED did a good job of explaining why these are regional pollutants.

Regarding the impact of smaller emissions reductions for NOx on Mesa Verde, comparison of Phase I implementation with Phase II implementation is not appropriate. Emissions reductions may be less, but cumulatively they are meaningful. As to economic feasibility, Enterprise did not provide a cost estimate, but NMED included a 10% adjustment factor to address the increased cost of building modifications, doing the best they could with the SCR tool. It is economically feasible to comply with the rule.

Enterprise's South Carlsbad compressor is in San Juan County; Enterprise made similar arguments opposing its inclusion. Their windrose argument is not credible. NMED provided good justification for the cost threshold of $10,000, which is credible. NMED had been proposing SCR; they are now proposing Dry Low NOx Combustion, which they say comes in under the threshold. Like Blanco and Chaco, South Carlsbad needs controls. The emission limits based on the controls suggested are reasonable and should be applied. Although Enterprise asserted flaws in the cost analysis for Chaco, the Department has flexibility and discretion, and showed that they explained their conclusions and worked with industry as required. It is proper to require the installation of emissions controls at all three Enterprise facilities. Tr. pp 21-29.

The Board found NMED's source screening Q/d threshold of 5.6 to be reasonable. EPA affords the states a lot of discretion in choosing a threshold, and various states chose various values. NMED's explanation supporting a value of 5.6 was compelling and their expertise is worthy of deference. NMED's value is not out of line with several other states. It is reasonable and well-documented. Tr. pp 29-32.

The Board found that NMED was not required to consider visibility benefits in determining control measures, or the effectiveness of individual control equipment. Emission reductions might be imperceptible in isolation, but it is necessary to consider cumulative effects and combined impacts, where there is an effect. NMED did conclude that reductions in SOx and NOx will probably translate into perceptible visibility benefits, but they had the flexibility not to use them. Arizona and Colorado do not consider visibility benefits on individual controls, either. Tr. pp 32-34.

The Board found that NMED used an appropriate cost threshold for assessing cost-effectiveness. The cost-effectiveness threshold proposed by NMED was supported by the evidence and there was no credible evidence that it was flawed in any way. Many other states have similar cost thresholds. Industry offered examples of cost thresholds from the first implementation period, which is not an appropriate comparison. NMED used an appropriate cost threshold for assessing cost-effectiveness and supported it in the record. Tr. p 34-37.

The Board found that as to Enterprise's facilities, facility-wide averaging should not be allowed in the SIPr. NMED was open to allowing companies to use various methods to reach their compliance goals, but the approach Enterprise proposed was not adequately substantiated. Enterprise proposed averaging, but not amendments to conform with emission limits. They did not provide technical evidence that facility-wide emission limits would not interfere with the federal requirement to make reasonable progress. Enforceability would also be an issue. Tr. pp. 37-43.

The Board found that the SIPr should include Targa's Monument facility. Although Targa asserts that its Q/d would currently be below 5.6, the record does not include calculations showing that. It is resource-intensive and inappropriate to review revised emissions data, having consulted with federal land managers and agreed on the set of sources for the second implementation period. There is not substantial evidence in the record to screen Targa out of the Q/d. Tr. pp. 43-46.

On the question of whether NMED has the authority to require replacement of existing units, the Board found that NMED has the authority to require that the regulated community meet emission limits, and if that means replacement of existing units is necessary, the authority is there to require replacement. The rule provides a lot of flexibility on how to meet emission limits, and replacement is not outside the scope of the program. Tr. pp 46-48.

The Board was not persuaded by EPNG's argument that the federal Natural Gas Act (NGA) preempts state regulation of interstate natural gas pipeline engines that are FERC-certified. Tr. pp. 48-51.

As to whether NMED's earlier determination under the Ozone Precursor Rule that SCR at the Pecos River unit is not economically feasible control, the Board found that the record does not include evidence that the economic analysis done under the Ozone Precursor Rule was provided to the Regional Haze team, nor does it include information on what cost threshold was considered under the other rule. The rules also have two different functions. The Ozone Precursor Rule reduces ozone levels in the state; Regional Haze Rule and SIPr deals with visibility. The economic analysis is probably different. There is no substantial evidence showing that the Department was mistaken in their determination of feasibility for compliance. NMED's

earlier determination under the Ozone Precursor Rule should not control for Regional Haze. Tr. pp. 52-54.

As to whether the assessment of cost-effectiveness should be performed using actual emissions or potential emissions, the Board found that NMED used the appropriate emissions data in assessing cost-effectiveness. EPNG, Targa, and Enterprise each certified that the data was accurate, and the Department's use of it was well within guidelines. Tr. pp 54-58.

On whether the Board should adopt any emissions limits for Pecos River or Blanco A, the Board found that EPNG's arguments do not show that replacing the engines is not feasible. It's only not feasible if the company's preferred approach is followed; they did not provide sufficient evidence to show infeasibility. They expressed safety concerns about moving the engines, but did not provide sufficient evidence on that point either. The National Park Service specifically requested that Blanco A be considered in the second implementation period. The engines at the compressor station there date to 1953. Their arguments for Pecos River are also not persuasive. NMED's cost estimate is legal, based on the four-factor analysis, and it was provided to the company in 2019. Infeasibility and economic issues are different considerations at this point. The Department does have enforcement discretion down the road. Tr. pp 58-63.

The Board found that the negative effects of ammonia slip do not outweigh the benefits of NOx reductions; there is insufficient evidence to conclude otherwise. Enterprise overestimated ammonia slips because they included SCR for two of the three plants when SCR is proposed only for Blanco. Improvements in technology have made ammonia more manageable, and slip does not outweigh NOx reductions. The Rule also limits ammonia emissions. Tr. pp 63-65.

The specific findings and conclusions supporting the Board's decision are below.

I. JURISDICTION

A. THE BOARD'S AUTHORITY TO PROMULGATE RULES

1. Under the New Mexico Air Quality Control Act ("AQCA"), the Legislature vested the Board with the authority to "adopt, promulgate, publish, amend and repeal rules and standards consistent with the Air Quality Control Act to attain and maintain national ambient air quality standards and prevent or abate air pollution," including "rules to protect visibility in mandatory class I areas to prevent significant deterioration of air quality and to achieve national ambient air quality standards in nonattainment areas." NMSA 1978, §§ 74-2-5(B)(1) and (D)(1) (1967 as amended through 2021).
2. The AQCA provides the Board broad authority in making its rules, instructing the Board to give the weight it deems appropriate to all facts and circumstances, including the following:
    a. character and degree of injury to or interference with health, welfare, visibility and property;
    b. the public interest, including the social and economic value of the sources and subjects of air contaminants; and
    c. technical practicability and economic reasonableness of reducing or eliminating air contaminants from the sources involved and previous experience with equipment and methods available to control the air contaminants involved. Id., § 74-2-5(F).

3. Interference with visibility: With respect to the first criterion, all states, including New Mexico are required under the Clean Air Act ("CAA") to adopt state implementation plans ("SIP") to help meet Congress' "national goal [of] the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution." 42 U.S.C. § 7491(a)(1).
4. To assure reasonable progress toward meeting this goal, the United States Environmental Protection Agency ("EPA") promulgated the Regional Haze Rule ("RHR") that set out the requirement for each state to submit "an implementation plan for regional haze meeting the requirements of . . . [40 C.F.R. § 51.308(d) and (e)] no later than December 17, 2007" and to submit periodic comprehensive revisions of its plan "by July 31, 2021, and every 10 years thereafter." 40 C.F.R. §§ 51.308(a)-(b), (f). The RHR requires each state to "address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State." 40 C.F.R. § 51.308(d).
5. Under Section 51.308(f)(2)(i) of the RHR, when evaluating the emission reduction measures necessary to make reasonable progress toward the national goal, states should consider evaluating "major and minor stationary sources or groups of sources, mobile sources, and area sources" of visibility impairing pollutants.

6. Under this mandate, and in accordance with the RHR and respective sources of EPA guidance, the Department reviewed monitoring data and emissions inventories to identify sources contributing to visibility impairment in Class I areas. The Department focused on larger point sources of emissions within the Department's Title V major source permitting program, which require regular emission inventory reporting. The Department determined that these sources were significant contributors of pollutants causing visibility impairment.
7. The Department's SIPr and Proposed Rule are not elective rulemakings, but rather a federal requirement that fully satisfies the Board's first criterion. Substantial evidence supports the necessity for the SIPr and Proposed Rule.
8. The public interest, and the social and economic value of the sources and subjects of air contaminants: With respect to the second criterion, while the oil and gas sector is unquestionably of significant economic value to New Mexico, it is also a major source of air pollutants. New Mexico is now the second largest oil producing state in the Country and oil and gas facilities are significant sources of haze forming pollutants. The economic benefits of this sector must be balanced against the visibility impairment it contributes to, which has economic impacts for the State.
9. Protecting and improving visibility in New Mexico's pristine wilderness and national parks is a critical matter for New Mexicans, and for those who come from all over the world to enjoy New Mexico's natural beauty – it is a self-

evident social and economic value. Tourism ranks along oil and gas as a major driver of the State's economy, and a major driver of tourism is our wilderness areas and national parks. It is in the public interest that the Board adopt rules satisfying the mandates of the CAA and the RHR to bring New Mexico into harmony with federal laws and regulations.

10. Technical practicability and economic reasonableness: Regarding the third criterion, the Department's extensive direct and rebuttal testimony, combined with the over 10,000 pages of documentary evidence, provide substantial evidence in support of a finding that the SIPr and Proposed Rule are both technically feasible and economically reasonable.

B. THE DEPARTMENT'S JURISDICTION

11. In 1991, the Legislature passed the Department of Environment Act ("DEA"), NMSA 1978, §§ 9-7A-1 to -12 (1991 as amended through 2003), to "establish a single department to administer the laws and exercise the functions relating to the environment." NMSA 1978, § 9-7A-3. The DEA created a cabinet secretary ("Secretary") empowered to "to administer and enforce the laws with which he or the department is charged." Id., §§ 9-7A-5 and 6. These laws include the Environmental Improvement Act, NMSA 1978, §§ 74-1-1 to –18 (1971 as amended through 2024), under which the Department is empowered to "maintain, develop and enforce rules and standards" with regard to "air quality management." NMSA 1978, § 74-1-7(A)(4).

12. The Legislature passed the AQCA, NMSA 1978, §§ 74-2-1 to -17, which reaffirmed the Legislature's intent to provide the Secretary with the statutory authority to "develop and present to the environmental improvement board or the local board a plan for the regulation, control, prevention or abatement of air pollution, recognizing the differences, needs, requirements and conditions in the different portions of the geographical area of the department's responsibility." NMSA 1978, § 74-2-5.1(H).
13. Under the CAA, individual states are required to submit to the EPA state implementation plans demonstrating how each respective state is going to move toward complying with the federal air quality standards. 42 U.S.C. § 7410 (2023). The EPA approved New Mexico's air quality SIPs beginning in 1996. 61 Fed. Reg. 53639; 62 Fed. Reg. 50514 to 50518. See Espinoza v. Roswell Tower, Inc., 32 F.3d 491, 492 (10th Cir. 1994) (affirming New Mexico's "state implementation plan has the force and effect of federal law").
14. The Department has primary authority to submit SIPs on behalf of New Mexico and pursuant to the EPA and AQCA has regulatory jurisdiction over the sources subject to the SIPr and Proposed Rule. See New Mexico Environmental Improv. Div. v. Thomas, 789 F.2d 825, 828 (10th Cir. 1986) (holding that states have primary authority to submit SIPs).

C. STANDARD OF REVIEW

15. The Board adopts air quality regulations pursuant to its authority under Section 74-2-5 of the AQCA. The Board's decision to adopt a regulation will

be upheld unless it is found to be (1) arbitrary, capricious or an abuse of discretion; (2) not supported by substantial evidence in the record; or (3) otherwise not in accordance with law. § 74-2-9(C).

16. Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." Rinker v. State Corporation Commission, 1973-NMSC-021, ¶ 5, 506 P.2d. 783. An agency's findings can be found to be supported by substantial evidence even if two inconsistent conclusions can be drawn from the evidence in the record. Trujillo v. Emp't Sec. Dep't, 1987-NMCA-008, ¶ 18, 734 P.2d 245.

II. OVERVIEW OF THE REGIONAL HAZE PROGRAM REQUIREMENTS

17. In 1977, the United States Congress created a program to protect visibility within mandatory Class I areas, which include national parks that exceed 6,000 acres and national wilderness areas that exceed 5,000 acres that existed at the time. 42 U.S.C. § 7291 (2022); 40 C.F.R. § 81.400 (2022). Congress set as a "national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution." 42 U.S.C. § 7491(a)(1). Regional Haze is "visibility impairment that is caused by the emission of air pollutants from numerous anthropogenic sources located over a wide geographic area. Such sources include, but are not limited to, major and minor stationary sources, mobile sources, and area sources." 40 C.F.R. § 51.301. Pollutants that impair visibility include fine and

course particulate matter (“PM”) and their precursors (e.g. sulfur dioxide (“SO2”), nitrogen oxides (“NOX”), and in some cases volatile organic compounds (“VOC”) and ammonia (“NH3”). 90 Fed. Reg. 31928 (July 26, 2025). Fine particle precursors react in the atmosphere to form fine particulate matter (“PM2.5”), which impairs visibility by scattering and absorbing light. Id. Visibility impairment reduces the perception of clarity and color, as well as visible distance. Id.

18. In 1999, the EPA promulgated the RHR that required each state to submit “an implementation plan for regional haze meeting the requirements of . . . [40 C.F.R. § 51.308(d) and (e)] no later than December 17, 2007.” 40 C.F.R. §§ 51.308(a)-(b). The RHR requires each state to “address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State.” 40 C.F.R. § 51.308(d).

19. To meet the RHR requirements, states are required to submit for EPA approval, a SIP that contains (1) Reasonable Progress Goals that provide for progress toward natural visibility conditions by 2064; (2) calculations of baseline and natural visibility conditions expressed in deciviews; (3) a long term strategy for regional haze that addresses visibility impairment for each mandatory Class I area within the State and for Class I areas located outside the State that may be affected by emissions from the State that includes “enforceable emissions limitations, compliance schedules, and other

measures as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal areas;" and (4) a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all mandatory Class I Federal areas within the State, and various other plan requirements. 42 U.S.C. § 7491(b)(2)(B); 40 C.F.R. § 51.308(d).

20. In 2017, the EPA promulgated revisions to the RHR for the second and subsequent implementation periods requiring states to revise and submit SIP revisions to EPA by July 31, 2021, July 31, 2028, and every 10 years thereafter. 40 C.F.R. § 51.308(f). To meet the requirements for regional haze, periodic SIP revisions must contain: (1) calculations of baseline, current, and natural visibility conditions; progress to date; and the uniform rate of progress; (2) a long term strategy for addressing regional haze that addresses visibility impairment for Class I Federal areas within the State and for each Class I area outside the State that may be affected by emissions from the State, that includes enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress; (3) reasonable progress goals (expressed in deciviews) that reflect the visibility conditions to be achieved by the end of the applicable implementation period as a result of those enforceable emissions limitations, compliance schedules, and other measures; and (4) a monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment that is representative of all

mandatory Class I Federal areas within the State, and various other plan requirements. 40 C.F.R. § 51.308(f).

21. In addition, states must submit a SIP containing emission limitations representing Best Available Retrofit Technology ("BART") and compliance schedules for BART-eligible sources that may cause or contribute to any impairment of visibility in any Class I areas, "unless the State demonstrates that an emissions trading program or other alternative will achieve greater reasonable progress toward natural visibility conditions." 40 C.F.R. § 51.308(e).

III. REQUIREMENTS FOR PUBLIC NOTICE

22. New Mexico has extensive notice requirements for the adoption of any regulations. Pursuant to Section 74-2-6(C) of the AQCA and 20.1.1.301(A) NMAC, notice of a public hearing must be given at least sixty days prior to the hearing date and shall state the subject, the time and the place of the hearing and the manner in which interested persons may present their views. The notice of hearing must state "where interested persons may secure copies of any proposed regulation or air quality standard . . . [and] shall be published in a newspaper of general circulation in the area affected." Id. In addition, reasonable efforts "shall be made to give notice to all persons who have made a written request to the environmental improvement board or the local board for advance notice of its hearings." Id.

23. Under the State Rules Act, the Department was required to provide to the public and publish in the New Mexico register a notice of proposed rulemaking that includes:

    a. a summary of the full text of the proposed rule;

    b. a short explanation of the purpose of the proposed rule;

    c. a citation to the specific legal authority authorizing the proposed rule and the adoption of the rule;

    d. information on how a copy of the full text of the proposed rule may be obtained;

    e. information on how a person may comment on the proposed rule, where comments will be received and when comments are due;

    f. information on where and when a public rule hearing will be held and how a person may participate in the hearing; and

    g. a citation to technical information, if any, that served as a basis for the proposed rule, and information on how the full text of the technical information may be obtained. NMSA 1978, Section 14-4-5.2(A) (2017). If a hearing date is changed or if any comment submission deadlines change, then notice must be provided to the public. Id. at § 14-4-5.2(D).

24. The Board's rulemaking procedures include additional requirements to identify "the statutes, regulations and procedural rules governing the conduct of the hearing . . . the manner in which persons may present their views or

evidence to the board, including the time, place, and information on participating in the public hearing . . . an internet link providing free access to the full text of the proposed rule; and . . . [state] if applicable, that the board may make a decision on the proposed regulatory change at the conclusion of the hearing." 20.1.1.301(B) NMAC.

25. Under the State Rules Act, the Department was required to provide notice to the public by:

    a. posting it on the agency website, if any;

    b. posting it on the sunshine portal;

    c. making it available in the agency's district, field and regional offices;

    d. sending it by electronic mail to persons who have made a written request for notice from the agency of announcements addressing the subject of the rulemaking proceeding and who have provided an electronic mail address to the agency;

    e. sending it by electronic mail to persons who have participated in the rulemaking and who have provided an electronic mail address to the agency;

    f. sending written notice that includes, at a minimum, an internet and street address where the information may be found to persons who provide a postal address; and

    g. providing it to the New Mexico legislative council for distribution to appropriate interim and standing legislative committees. NMSA 1978,

§ 14-4-2(E). The Department was also required to provide a copy of the proposed rule to the Small Business Regulatory Advisory Commission "at the same time as persons who have requested advance notice of rulemaking." NMSA 1978, § 14-4A-4(A) (2005).

26. With regard to providing an opportunity for public participation, the State Rules Act requires that "[t]he notice of proposed rulemaking shall specify a public comment period of at least thirty days after publication in the New Mexico register during which a person may submit information and comment on the proposed rule. The information or comment may be submitted in an electronic or written format or at a public rule hearing . . . [and] the agency shall consider all information and comment on a proposed rule that is submitted within the comment period." NMSA 1978, § 14-4-5.3(A) (2017).

27. In addition to these notice requirements, the Department is subject to federal requirements detailed below with regard to participation by the public, stakeholders, and government entities. The Department met and exceeded all the state and federal legal requirements for notice and participation in the proceeding.

IV. PROCEDURAL BACKGROUND

A. PETITION FOR RULEMAKING, THE VACATED HEARING, AND FIRST NOTICE

28. On September 11, 2024, the Department filed with the Board its Petition, requesting that the Board adopt the Department's SIPr and Proposed Rule. Copies of the entire SIPr and Proposed Rule were included in the filing. The

Board finds that the Department's Petition is sufficient and concludes that the Department fully met the requirements of 20.1.1.300(A) and (B) NMAC.

29. Due to extenuating circumstances, including, but not limited to, the State of New Mexico potentially having a FIP being imposed upon it by the EPA, the Department decided to petition the Board before the public comment period on the public review draft SIPr had concluded. The Department continued to take public comments after the Petition was filed. [NMED Ex. 24, Bates 10302-10303].

30. On October 7, 2024, the Board entered its Order Scheduling Hearing on Petition and Request for Hearing and Hearing Officer Appointment ("First Scheduling Order"). The First Scheduling Order appointed a hearing officer and set a public hearing for December 18-20, 2024, at the State Capitol in Santa Fe, New Mexico.

31. The following parties entered appearances: El Paso Natural Gas Company, LLC ("EPNG"); Enterprise Field Services, LLC ("Enterprise"); New Mexico Oil and Gas Association ("NMOGA"); Nick Maxwell ("Mr. Maxwell"), Targa Resources Corp. ("Targa"); and Western Environmental Law Center ("WELC").

32. The Department proceeded with the public outreach and notice process; however, the hearing date was eventually vacated and moved to a future date. [Id. at 10303-10304; NMED Ex. 5 at 10313-10316; 10317-10340; 10314-10347; 10348-10355; 10358-10360; 10366-10375; 10391-10395; 10376-10380; 10356-10357; 10361-10365; 10381-10385; 10386-10390].

33. On November 5, 2024, EPNG filed a motion to extend the deadline for submittal of rebuttal testimony and reset the hearing for a later date. Enterprise then filed an emergency motion to vacate and reschedule the hearing date on November 14, 2024. These motions were subsequently granted by the Hearing Officer and notice of the postponement was published, in English and Spanish, in the New Mexico Register on December 10, 2024, and copies were published in the Farmington Tri-City Record on November 29, 2024; the Carlsbad Current Argus on December 3, 2024; and the Albuquerque Journal on December 7, 2024. It was also posted to the New Mexico Sunshine Portal. [NMED Ex. 41, Bates 10403-10405; NMED Ex. 38, Bates 10396-10398; NMED Ex. 39, Bates 10399–10400; NMED Ex. 40, Bates 10401 – 10402; NMED Ex. 43, Bates 10408-10411].
34. An update to the Department's Regional Haze Planning Website containing the updated hearing dates was published on December 12, 2024, along with links to the English and Spanish versions of the public notice and public comment portal. [NMED Exhibit 42, Bates 10406-10407]. This website has the option to translate from English into Spanish or Vietnamese with a dropdown menu located on each individual webpage. [NMED Ex. 24 at 103045].
35. A listserv announcement containing the public notice was distributed to all individuals who voluntarily signed up to receive emails from the Department; a copy was directly provided to all regional haze contacts NMED maintains information for on November 26, 2024, and to Tribal representatives on

December 11, 2024 [NMED Ex. 45, Bates 10415–10416; NMED Ex. 46, Bates 10417-10418l; NMED Ex. 49, Bates 10425-10427].

36. Notice of the postponement was provided to the Legislative Council, the New Mexico Land Grant Council, and each of the NMED field offices. [NMED Ex. 47, Bates 10419-10421; NMED Ex. 48, Bates 10422-10424; NMED Ex. 44, Bates 10412-10414]. Physical copies of the public notice were posted at each of these locations. [NMED Ex. 24 at 10305].

B. THE RESET HEARING AND SECOND NOTICE

37. On November 25, 2024, the Hearing Officer entered an Order rescheduling the hearing for April 28-30, 2025, and all previous deadlines were updated to reflect this new hearing schedule. Notice of the rescheduled hearing dates were published, in English and Spanish, in the New Mexico Register on February 11, 2025, and copies were published in the Albuquerque Journal on February 9, 2025, the Farmington Tri-City Record on February 10, 2025, and the Carlsbad Current Argus on February 11, 2025. [NMED Ex. 52, Bates 10440-10446; NMED Ex. 50, Bates 10428 -10431; NMED Exhibit 51, Bates 10432-10439; NMED Ex. 53, Bates 10447-10449]. This information was also posted to the New Mexico Sunshine Portal on February 11, 2025, with links to documents and public comment. [NMED Ex. 55, Bates 10452-10454].

38. On December 9, 2024, the Hearing Officer entered an Order setting new pre-hearing deadlines for Notices of Intent to Present Technical Testimony ("NOI"), Rebuttal NOIs, pre-hearing motions, responses, and replies.

39. The Department published an update to the Regional Haze Planning Website containing the updated hearing dates on February 11, 2025, along with links to the English and Spanish versions of the public notice and public comment portal. [NMED Ex. 54, Bates 10450-10451]. This website has the option to translate from English into Spanish or Vietnamese with a dropdown menu located on each individual webpage. [Id.].
40. The Department distributed a listserv announcement on February 11, 2025, to all individuals who voluntarily signed up to receive emails from the Department, and provided a copy directly to Tribal representatives, along with other regional haze contacts. [NMED Ex. 57, Bates 10461-10471; NMED Ex. 61 Bates 10487-10491; NMED Ex. 58, Bates 10472 - 10476].
41. The Department provided copies of the new public notice, in English and Spanish, to the Legislative Council, the New Mexico Land Grant Council, and each of the Department's field offices. [NMED Ex. 59 at Bates 10477-10481l; NMED Ex. 60, Bates 10482-10486; NMED Ex. 56, Bates 10455-10460]. Physical copies of the public notice were posted at each of these locations. [NMED Ex. 24 at 10306].
42. On March 3, 2025, the Department, Enterprise, EPNG, and Targa filed their respective NOIs containing written direct technical testimony and exhibits.
43. On March 31, 2025, the Department, Enterprise, and EPNG filed their respective Rebuttal NOIs.

44. The Board held a public hearing for EIB No. 24-49(R) at the State Capitol in Santa Fe, New Mexico April 28 through April 30, 2025.
45. At the hearing, all interested persons were given a reasonable opportunity to submit data, views or arguments orally and in writing and to examine witnesses testifying at the hearing. [4-29-25 2 Tr. 413, 502, 504, 508, 513, 516, 566, and 627].
46. The Board finds that the record contains substantial evidence showing that the Department's public notice efforts for both the vacated hearing and the public hearing were robust and sufficient.
47. The Board concludes that the Department fully met all the notice requirements under 40 C.F.R. Section 51.102; NMSA 1978, Section 74-2-6(C); 20.1.1.301(A) and (B) NMAC; and NMSA 1978, Sections 14-4-5.2(A), 14-4-5.2(D), 14-4-2(E) (2017), 14-4A-4(A) (2005), and 14-4-5.3(A) (2017).
48. The Board finds that the record contains substantial evidence that the parties and members of the public were afforded multiple and substantial opportunities to submit data, views or arguments orally or in writing and to examine witnesses testifying at the hearing and concludes that the public hearing fully complied with 40 C.F.R. Section 51.102; NMSA 1978, Sections 74-2-6(C) and (D), and 20.1.1.305, 20.1.1.306, 20.1.1.400, 20.1.1.401, 20.1.1.402, and 20.1.1.403 NMAC.

V. STAKEHOLDER COORDINATION AND ENGAGEMENT

A. COORDINATION WITH THE WESTERN REGIONAL AIR PARTNERSHIP

49. The 1990 CAA amendments established the Grand Canyon Visibility Transport Commission ("GCVTC"). 42 U.S.C. § 7492 (1990). This commission created a model to assess regional air quality for the Colorado Plateau and made recommendations to the EPA on measures to reduce pollution. The Western Regional Air Partnership ("WRAP") succeeded the GCVTC and is responsible for implementing the GCVTC's recommendations and addressing other air quality issues. [NMED Ex. 7 at 9427].

50. New Mexico belongs to WRAP, a voluntary partnership of government agencies from fifteen western states involved in air quality regulation and planning. [NMED Ex. 24 at 10290].

51. For this RHR implementation period, WRAP has compiled ambient monitoring, emission inventories, air quality modeling, and data analysis to support regional haze planning for the 15 western states. [Id.].

52. WRAP also provided a forum for coordination and consultation between states, tribes, and Federal Land Managers ("FLMs"). Beginning in 2018, WRAP's Regional Haze Planning Work Group formed specific subcommittees for the second planning period to develop Regional Haze data sets and suggested recommendations on how a state may choose to use the data in support of their implementation plans. [Id.].

53. The Department actively participated in the WRAP Regional Haze planning efforts during this period. [Id.]. During the initial planning stages for developing the Department's SIPr, in early 2019, the Department formed a regional haze planning team. This team helped to formulate a set of guiding principles for developing the New Mexico regional haze state implementation plan based on the Department's four tenets: Science, Innovation, Collaboration, and Compliance. [Id.; NMED Exhibit 5, Bates 8410].

54. Development of a dedicated Regional Haze website followed in 2019 for the general public. This website was designed with the intention to provide information to the public and has been useful as a platform for the Department to provide updates, place important documents, and give background on the development process. Through listserv announcements, including the Department's dedicated regional haze planning listserv, along with emails to stakeholders who requested periodic updates and provided contact information, the Department has effectively distributed all relevant updates on this project since it first began. Meetings with EPA, outside states, and FLMs occurred between 2019 and 2021 as the plan began to take shape. The Department met with FLMs and EPA representatives regularly since this time and has allowed for numerous opportunities to gather feedback and collaborate while developing the SIPr. [Id.].

B. COORDINATION WITH STATE, LOCAL AND TRIBAL GOVERNMENTS

55. In accordance with 40 C.F.R. Section 51.308(f)(2)(ii) the Department must coordinate with State governments while developing the SIPr. EPA also encourages coordination with Tribal governments. The Department recognizes the value in this practice and maintained communication with Tribal representatives while developing the SIPr. [Id.].

56. Under the AQCA, the Department maintains air quality jurisdiction over all lands in, with the exception of the City of Albuquerque and Bernalillo County, where the City of Albuquerque Environmental Health Department ("EHD") maintains jurisdiction, and sovereign Tribal lands. [Id. at 10292]. The SIPr functions in tandem with a separate plan prepared by EHD to cover the State, with the exception of tribal lands. [Id.].

57. State governments: The Department informally met with states in the Four-Corners region, including the Arizona Department of Environmental Quality ("Arizona DEQ"), the Utah Department of Environmental Quality ("Utah DEQ"), and the Colorado Department of Public Health and Environment ("CDPHE"). The Department has also met one-on-one with Arizona DEQ, Utah DEQ, and CDPHE to check in and gather further information on the development of our respective Regional Haze draft SIPs. In 2021, the Texas Commission on Environmental Quality ("TCEQ") requested a series of consultations, which were focused on sharing the information gathered from Texas's emission modeling, along with their draft SIP's long-term strategy for

reasonable progress. As a part of the outreach and consultation program, the Department shared the same draft SIP that was distributed to FLMs with the contiguous states on June 20, 2024, and requested feedback by July 19, 2024. The Department received a letter acknowledging the receipt of the SIPr from the Arizona DEQ, and TCEQ submitted formal comments. [Id; NMED Exhibit 5, 8189 – 8192].

58. Local government: At the request of the EPA, the Department coordinated extensively with representatives from EHD, meeting frequently to discuss relevant topics and providing project updates as milestones were met. [NMED Ex. 24 at 10293]. The Department and EHD jointly discussed and agreed upon the source selection criteria used to screen facilities for further analysis, along with the second-tier screen method, and the Department provided EHD with a copy of the complete draft SIPr and requested formal comments in June 2024. EHD provided no formal comments. [Id.].
59. Tribal government: The EPA maintains jurisdiction over air quality standards for most of New Mexico's 23 nations, pueblos, and tribes, so the Department does not have the authority to require control measures for sources located on Tribal lands. [Id.].
60. Given the nature of regional haze, actions described in the SIPr and the Proposed Rule may have an impact on Tribal lands. As such, the Department distributed a copy of the draft SIPr to each Tribal Governor, President, or

Chair, along with their respective environmental contacts, for review and comment. [Id; NMED Exhibit 5 at 8213- 8290].

61. The Department held two separate virtual webinars to introduce tribal representatives to the SIPr contents and again provide an opportunity for them to ask questions or provide comments to the Department. [NMED Ex. 24 at 10293-10294; NMED Ex. 5 at 8291-8308]. These webinars were well attended, with representatives of the Pueblo of Santa Ana, the Pueblo of Acoma, the Pueblo of San Felipe, and the Ute Mountain Ute Tribe. [NMED Ex. 24 at 10294]. Representatives from the Ute Mountain Ute Tribe were the only ones to submit formal comments to NMED and are included in Appendix E of the SIPr. [Id.; NMED Ex. 5 at 8309–8312].

62. The Board finds that the record contains substantial evidence that the Department undertook a robust and thorough program of coordination with state, local and tribal governments.

63. The Board concludes that the Department has fully met the requirements of 40 C.F.R. Section 51.308(f)(2)(ii).

C. COORDINATION WITH THE EPA

64. The Department began meeting with EPA Region 6 representatives in the beginning of the SIPr development process, with the EPA providing feedback on how the Regional Haze Rule and EPA guidance could be applied to New Mexico's SIPr. [NMED Ex. 24 at 10294]. The Department has utilized

numerous EPA technical products, such as the SCR cost analysis tool, while creating estimates for implementation of this control technology. [Id.].

65. The Department shared the FLM review draft with EPA Region 6 on May 23, 2024, with a deadline of July 26, 2024, to provide feedback. After an extension, the EPA submitted comments to the Department on July 30, 2024. [Id.; NMED Ex. 5 at 8205-8208]. After the Department provided a public review draft SIPr and draft Proposed Rule, the EPA provided the Department additional comments on September 9, 2024. [NMED Ex. 24 at 10294; NMED Ex. 5 at 8209-8211].

66. The Regional Haze Rule at 40 C.F.R. Section 51.308(d)(3) states that "the long-term strategy must include enforceable emissions limitations … as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal Areas." Included in the comments submitted by EPA were suggestions that the initial approaches taken by NMED to address this requirement were deficient at the time of review and provided examples on how to correct this deficiency. [NMED Ex. 24 at 10295]. Based on these comments, the Department determined that the most effective way to meet these requirements was to develop the Proposed Rule as a companion to the SIPr. The Proposed Rule thus fulfills the requirements of the RHR for enforceable emissions limitations. [Id.].

67. The Board finds that the record contains substantial evidence that the Department undertook a robust and thorough program of coordination with

EPA in the development of the SIPr and Proposed Rule. The Board further finds substantial evidence that EPA reviewed and provided comments on the SIPr, and that the Proposed Rule was developed in response to input from the EPA that emissions limitations must be enforceable.

D. COORDINATION WITH FEDERAL LAND MANAGERS

68. The Regional Haze Rule requires States to consult with FLMs in the development of their regional haze SIPs. [Id.]. 40 C.F.R. §51.308(i). The Department began coordination on the second planning period with its FLM partners early in 2019, working together to determine which sources would be selected to undergo further evaluation for the long-term strategy. [NMED Ex. 5 at 6326]. Since 2019, FLMs have provided input on topics such as source selection methodology, information on control measure implementation costs, and other key topics. The Regional Haze Rule also requires States to provide FLMs with a 60-day formal review period, which must occur prior to any other public comment period. 40 C.F.R. §51.308(i)(2). The Department is required to discuss how comments received from FLMs were addressed and requires the commitment to continue consultation throughout the implementation of this and future SIP revisions and progress reports. 40 C.F. R. §51.308(i)(3) and (4).

69. The formal review process began when the Department submitted a draft SIPr to FLMs on May 20, 2024, and concluded on July 26, 2024. [NMED Ex. 24 at 10296; NMED Ex. 5 at 9366]. The Department held an informational

webinar for FLMs on June 6, 2024, as a way to help introduce the SIPr and its contents, and provide an opportunity to informally discuss comments. [NMED Ex. 24 at 10296; NMED Ex. 5 at 9367–9383]. Members from the National Park Service ("NPS"), U.S. Forest Service ("USFS"), and U.S. Fish and Wildlife Service ("USFWS") were in attendance. Among the attendees, the NPS took an active role in asking clarifying questions of NMED during the webinar, hosted a follow-up webinar on July 11, 2024, and provided extensive formal comments on the draft SIPr, which were deemed significant enough for further analysis. [NMED Ex. 24 at 10296; NMED Ex. 5 at 9386–9412].

70. The Board finds that the record contains substantial evidence that the Department undertook a robust and thorough program of coordination and consultation with Federal Land Managers.

71. The Board concludes that the Department fully complied with the requirements of 42 U.S.C. Section 7491(D) and 40 C.F.R. Section 51.308(i).

E. COORDINATION WITH INDUSTRY

72. The Department's stakeholder outreach to Industry began with sending letters to the owners and operators of the 23 affected facilities, notifying them of the selection of their facilities for analysis under the program. [NMED Ex. 24 at 10290; NMED Ex. 5 at 8314-8366].

73. After notifying facilities, the Department arranged a follow-up conference call on July 23, 2019, with affected facilities as a group to discuss industry questions and the four-factor analysis process. [NMED Ex. 24 at 10291].

74. On September 11, 2019, the Department met with affected companies to review facility progress on developing a four-factor analysis and to continue engagement on early stages of regional haze SIP development. [Id.]. The Department also met with individual companies for additional communication on an as-requested basis during this initial phase. Outreach was ongoing through the development of the SIPr with the Department engaging with industry to request and gather updated information throughout the source selection process and development of the four-factor analyses, and to notify industry representatives of any major milestones or updates. [Id. at 10298].

75. The Department contacted all of the affected companies in May 2023 and offered to meet to help finalize the four-factor analysis development process, resulting in the Department conducting individual meetings with several companies between May and November 2023: DCP Operating Company, El Paso Natural Gas Company, Enterprise Field Services, ET Gathering & Processing, Transwestern Pipeline Company, Harvest Four Corners, Hilcorp Energy Company, IACX Roswell, Targa Midstream Services, and Xcel Energy. [Id. at 10298-10299].

76. The Department requested additional information several times throughout the four-factor analysis development process and used this information in conjunction with additional documentation from facilities to complete the first drafts of the cost analyses in early December 2023. [Id. at 10299]. These

were shared with the affected facilities for review, and an opportunity to submit comments was provided until January 15, 2024. [Id.; NMED Ex. 5 at 8367–8384]. Several companies requested an additional meeting with the Department which allowed additional time for the Department to gather information from the facilities on the accuracy of the analyses. [Id. at 10299]. Using this information, the Department completed the final drafts of the cost analyses, along with a complete draft SIPr in May 2024. [Id.].

77. Industry comments on selective catalytic reduction: During the comment period, the Department received comments from industry which provided additional information regarding Selective Catalytic Reduction ("SCR") as a control technology. [Id.]. The Department had originally estimated that application of SCR would result in a 90% reduction of NOX emissions from the combustion turbines it evaluated. Enterprise submitted a letter from Solar Turbines dated September 9, 2024, that stated there were only a small number of Solar turbines to which SCR had been applied, and the NOX removal efficiency had been more realistically observed to be in the 60%-80% removal range in their experience. [NMED Ex. 24 at 10299-10300; NMED Ex. 5 at 9198]. In response, the Department re-evaluated the cost effectiveness of SCR using a more conservative NOX removal efficiency for gas-fired compressor drivers. [NMED Ex. 24 at 10300]. With the updated information in hand, the Department revised the emission limits wherever SCR was both still cost effective, and the most stringent control option available based on

the new efficiency ratings. [Id.; NMED Ex. 5 at 8661-9363]. The Department's responses to comments received are provided in a separate document marked as NMED Exhibit 62.

78. The Board finds that the record contains substantial evidence that Department's engagement with Industry stakeholders was robust, thorough, and provided substantial opportunity for Industry input. The Board also finds that the Department was responsive to Industry input and reevaluated and modified its approach to developing the SIPr and Proposed Rule based on Industry comments.

F. PRE-PETITION STAKEHOLDER ENGAGEMENT

79. The Department provided numerous opportunities for public engagement and commentary throughout the SIPr development process. The first public webinar provided an introduction to the Regional Haze program for the second implementation period, was held via Webex in October 2019, and a progress report webinar was held on August 25, 2020. [NMED Ex. 24 at 10301]. Between February and April 2023, a series of re-engagement webinars were held online to update stakeholders and the general public and following the completion of the draft SIPr in August 2024, the Department held two additional webinars on September 9 and 10, 2024, to introduce the draft plan. [Id.; NMED Ex. 5 at 8641-8660].

80. These webinars were held with the intention of providing as much accommodation as possible for members of the public; for example, the most

recent webinars were held after business hours, with a repeat webinar occurring in the middle of the day, which allowed individuals to attend whichever webinar fit their personal schedules. [NMED Ex. 24 at 10301]. The Department posted the presentation on the Department's YouTube channel for those who were unable to attend the live presentations, and slides were posted on the Regional Haze website, and links to all the recordings posted to YouTube were provided for ease of access to the public. [Id.].

81. The Board finds that the record contains substantial evidence that the Department's engagement with stakeholders and members of the public was robust, thorough, and provided substantial opportunity for input by members of the public.

G. POST-PETITION STAKEHOLDER ENGAGEMENT

82. The delay of the public hearing gave the Department additional time to consider previously submitted comments and complete further revisions to the SIPr in response to comments submitted by EPA and Industry representatives in late September. [Id.]. The Department received numerous comments from industry stating that the use of the Consumer Price Index ("CPI") was inappropriate for use to adjust for cost inflation, and that the Chemical Engineering Plant Cost Index ("CEPCI") was a better representation of the costs associated with procuring emission control equipment. [Id. at 10306-10307; NMED Ex. 5, 8661-0363]. The Department agreed with this and has made this adjustment for all costs which required an adjustment. [NMED

Ex. 24 at 10307]. The Department also updated several chapters of the SIPr to more closely align with the RHR in response to suggestions made by EPA, adding Interagency Monitoring of Protected Visual Environments ("IMPROVE") monitoring data from the most current 5-year period. [Id.].

83. Coordination with other parties and further revisions: The Department distributed a preliminary version of the SIPr to all parties to the hearing on December 13, 2024, provided an opportunity for any Party representative who wished to comment on the new draft SIPr by January 7, 2025, and received comments from several parties on the revised SIPr and companion rule during this timeframe. [Id.]. Western Environmental Law Center ("WELC") submitted comments on changes in the bank prime interest rate for lending which had occurred since the time of the cost evaluation development, suggesting that NMED should be using the most current rate for the purposes of cost estimation [NMED Ex. 5 at 9199-9363]. The Department agreed with WELC's comment on the suggestion and updated this figure to reflect the prime rate for lending of 7.5% as of December 2024. [NMED Ex. 24 at 10307-10308; NMED Ex. 5 at 6603-8171].

84. EPNG fully participated in the SIPr process: EPNG was critical of the Department's timing of the SIPr review process. EPNG argued that the time period of "approximately one month" provided by the Department for EPNG to submit comment on the FFAs for Blanco A, Pecos River, and Washington Ranch was too short. [EPNG Ex. 1 at 11]. Nevertheless, EPNG "sent a formal

letter on January 19, 2024, responding with detailed support to NMED's cost evaluations for the affected facilities." [Id. at 12]. EPNG further complained that the Department did not issue a public review draft of the SIPr until "more than eight months" after EPNG's formal letter regarding the FFAs and requested comments on the draft SIPr in twenty-five days. [Id.]. Again, EPNG submitted to the Department "a detailed, 134-page document, including the attached exhibits," containing comments on the Draft SIPr. [Id.].

85. The Board finds that EPNG's testimony on this point establishes that it has been involved in the SIPr development process for years, meeting on numerous occasions with the Department and submitting hundreds of pages of comments. The Board further finds that EPNG has fully participated in the development of the SIPr and was afforded robust due process. The Board finds EPNG's complaints on these points are not credible.

86. The Board concludes that the Department's efforts to confer and coordinate with stakeholders was in the nature of an investigation, not an adjudication, and therefore EPNG's due process claims have no legal merit. See El Paso Elec. Co. v. N.M. Pub. Regul. Comm'n, 2025-NMSC-009, ¶ 33 (restating the principle that "[w]hen governmental action does not partake of an adjudication, as for example, when a general fact-finding investigation is being conducted, it is not necessary that the full panoply of judicial procedures be used . . . [t]he Due Process Clause is not implicated under such

circumstances because an administrative investigation adjudicates no legal rights) (internal citations and quotation marks omitted).

87. The Board finds that the record contains substantial evidence that the Department engaged in a very robust and extensive program of outreach coordination with the public, Industry stakeholders, and government entities at all levels. The Board finds that the record contains substantial evidence that the Department listened to input from these parties and undertook numerous revisions to the SIPr in order to improve it and better reflect the needs of the State, the Nation, and regulated entities. In addition, the Board finds that the record contains substantial evidence that the Department's public notice far exceeds the statutory and regulatory requirements and provided robust notice to the public and interested parties.

88. The Board concludes that the Department met all of the public engagement requirements of 40 C.F.R. Section 51.308(f)(2)(ii), (3) and (g), and NMSA 1978, Sections 74-2-6(C) and 14-4-5.3.

VI. DEVELOPMENT OF THE SIPr AND PROPOSED RULE

A. FUNDAMENTALS OF VISIBILITY

89. Absorption/scattering of light: The Regional Haze rule requires states to establish goals for each affected Class I Area that provide for improved visibility on the most impaired days and ensure no degradation in visibility on the clearest days. [NMED Ex. 7 at 9430]. It is helpful to provide a clear picture of the meanings of haze and visibility and how those are calculated in order

to understand the nature of the regulatory goals. [Id.]. Molecules and particles suspended in the air can absorb or scatter the light going through the air. [Id.]. Visible light is electromagnetic energy within a range of wavelengths that our eyes can detect. [Id.]. One type of scattering, Rayleigh scattering, occurs when light passing close to particles much smaller than the wavelength of the light transfers energy to the particle through its electric field, which is then re-emitted in a random direction. [Id.]. A consistent approach based on practical measurements is used throughout the USA for the Regional Haze Program. [Id.]. Information such as particle composition and relative humidity are gathered at monitors at or near the Class I areas that enable the analysis of visibility to be calculated. [Id.].

90. Visibility in Mandatory Federal Class I Areas (1994–1998): A Report to Congress provides helpful information about how visibility is analyzed. [Id. at 9431]. Light scattering from some particles change in different climates. [Id.]. The report says, "Sulfate and nitrate particles take on water from the atmosphere and become more efficient at scattering light under humid conditions." [NMED Ex. 9, Bates 9437]. The report also says that light scattering due to particles is typically the largest contributor to total light extinction in most locations. [Id. at 9436]. Equations for estimating the light extinction are provided, and inputs for the calculations are provided by analyzing the materials in the air that are gathered at IMPROVE monitors located at places of interest for visibility calculations. [Id.].

91. Definition of deciview: Models and measurements estimate or determine the distance of visibility. [Id.]. The difference in distance is much more perceivable to human sight at short distances than at long range. [Id.]. For example, the difference between one and two miles of visibility is much, much more apparent than the difference between 101 and 102 miles of visibility. [Id.]. Light extinction is a relative measure of light attenuation due to absorption and scattering with units of inverse megameters. [Id.]. A deciview applies a formula to the light extinction to relate the measure to noticeable differences in visibility. [Id.]. The deciview scale is nearly zero for a pristine atmosphere and increases as visibility decreases. [Id.].
92. Natural vs. anthropogenic sources: Some haze is caused by natural sources. [Id.]. The goal of the Regional Haze Program is to mitigate the portion of haze caused by anthropogenic (or human-caused) sources. [Id.]. Because many types of molecules and articles with many origins contribute to visibility impairment, monitoring and modeling are used to determine which contributions are natural and which compounds with human sources cause the most visibility reduction so that those sources can be targeted for analysis of achievable reductions. [Id. at 9431-9432].
93. Primary vs. secondary pollution: Chemicals from different sources may react in the atmosphere to form haze-causing particles. [Id.]. These secondary pollutants are the source of much of the haze, such as ammonium nitrate and ammonium sulfate. [Id.]. Primary pollutants emitted directly from sources

also contribute to haze. [Id.]. Tiny diamond or graphite particles in the air absorb light and are called “elemental carbon.” Elemental carbon is one example of a primary pollutant. [Id.].

B. VISIBILITY CONDITIONS IN NEW MEXICO’S CLASS I AREAS

94. IMPROVE monitoring network: The primary monitoring network for regional haze, nationwide and in New Mexico, is the IMPROVE network. [NMED Ex. 10 at 9441]. The IMPROVE program is a collaborative measurement effort governed by a steering committee from federal, regional, and state organizations. [Id.]. The program was established by EPA in collaboration with the NPS and other federal and state agencies to aid the creation of Federal and State Implementation Plans for the protection of visibility in Class I Areas, as stipulated in Section 7491 of the CAA and expanded upon in the Section 7492 amendments. [Id.]. Class I Areas, as defined by the CAA, and listed in 40 C.F.R. Part 81 Subpart D, include national parks greater than 6,000 acres, wilderness areas and national memorial parks greater than 5,000 acres, and international parks that existed as of August 1977. [Id.]. Figure 1 in NMED Exhibit 10 shows a map of the 156 Class I Areas and the respective FLM that oversees the areas. [Id. at 9441-9442].

95. The IMPROVE network began operating in 1988 with 20 monitor sites in Class I Areas and has subsequently grown to 110 monitor sites sponsored by the FLMs plus an additional 48 protocol sites sponsored by state, regional, Tribal, and national organizations that provide expanded spatial coverage for the

network. [NMED Ex. 10 at 9443]. The network consists of individual monitor sites containing aerosol speciation samplers, which measure the types, i.e., species, and amounts of pollutants that reduce visibility present in the air in or around Class I Areas. A small number of IMPROVE monitor sites also perform direct optical measurements of visibility extinction. The IMPROVE network objectives are:

a. to establish current visibility and aerosol conditions in Class I Areas;
b. to identify chemical species responsible for existing man-made visibility impairment, thereby allowing inference of emission sources for those species;
c. to document long-term trends for assessing progress towards the Clean Air Act's national visibility goal, which is returning Class I Areas to natural visibility conditions; and,
d. beginning with the EPA's enactment of the Regional Haze Rule in 1999, to provide regional haze monitoring representing all visibility-protected Class I Areas, using specific metrics and approaches defined in the Rule. Figure 2 in NMED Exhibit 10 shows a map with all the IMPROVE monitor locations, as of 2021. [NMED Ex. 10 at 09443-09444].

96. New Mexico Class I areas and IMPROVE monitoring network: New Mexico's Class I areas span more than 830,000 acres, ranging in size from Wheeler Peak Wilderness Area in Northeastern New Mexico, just over 6,000 acres, to

the Gila Wilderness Area in Southwestern New Mexico, at over 430,000 acres. [NMED Ex. 10 at 9445]. Five of New Mexico's nine Class I areas are managed by the USFS, two by the NPS, and two by the USFWS. [Id.]. The nine Class I Areas in New Mexico include: Bandelier Wilderness Area, Bosque del Apache Wilderness Area, Carlsbad Caverns National Park, Gila Wilderness Area, Pecos Wilderness Area, Salt Creek Wilderness Area, San Pedro Parks Wilderness Area, Wheeler Peak Wilderness Area, and White Mountain Wilderness Area. [Id.]. Eight IMPROVE monitors in New Mexico and one in Texas provide visibility information for New Mexico's Class I Areas. [Id.]. The IMPROVE monitor names and the New Mexico Class I Areas they represent are shown in Table 1 in NMED Exhibit 10. [Id.]. A map of the geographic locations is shown in Figure 3 in NMED Exhibit 10. [Id. at 9445-9446].

97. As seen in Table 1, the WHPE1 monitor provides data for the Pecos Wilderness Area and Wheeler Peak Wilderness Area. The GUMO1 monitor provided visibility monitoring information for Carlsbad Caverns National Park prior to the establishment of the CAVE1 monitor in 2017. [Ex. 10 at 9446].

98. Each IMPROVE monitoring site includes four independent sampler modules. [Id.]. An image of an example IMPROVE monitor from one of New Mexico's Class I Areas at Bosque del Apache is shown in Figure 2-1 of the SIPr. [Id.; NMED Ex. 5, 6162]. Figure 2-2 provides additional details on the description of the samples collected from each of the four IMPROVE monitor modules. [NMED Ex. 10 at 9447; NMED Ex. 5 at 6163]. The modules collect 24-hour

samples from midnight to midnight every three days. Particle-laden filters from the sampler modules are manually retrieved and shipped to laboratories for analysis. [NMED Ex. 10 at 9447]. The resulting data are then compiled and reported to publicly available databases. [Id.]. The analysis of filters from IMPROVE sampler modules generates extensive data, including the mass of visibility-reducing PM species (measured in units of micrograms per cubic meter, or ug/m3), that are used in determining visibility conditions. [Id.]. Visibility-reducing PM species include ammonium nitrate, ammonium sulfate, coarse mass, elemental carbon, fine soil, organic mass, and sea salt. [Id.]. The contribution to visibility impairment from each of these key species varies from site to site and is influenced by proximity to sources, land use patterns, climate, and meteorological conditions. [Id.]. Table 3-1 of the SIPr shows common human-made and natural sources of these visibility-reducing PM species. [Id.; NMED Ex. 5 at 6186].

99. The Regional Haze Rule requires states to have certain strategies and elements in place for assessing and reporting on visibility. [NMED Ex. 10 at 9447]. "Compliance with the monitoring strategy requirement may be met through a state's participation in the [IMPROVE] monitoring network, which is used to measure visibility impairment caused by air pollution at the 156 Class I areas covered by the visibility program." 40 C.F.R. § 51.308(f)(6). NMED relies on the IMPROVE monitoring network and deems the IMPROVE network representative of conditions in all of New Mexico's Class I Areas. [Id.].

100. The Western States Air Resources Council ("WESTAR") represents New Mexico's interests on the IMPROVE Steering Committee. [Id.]. WESTAR members include the air quality program managers from the fifteen westernmost states. [Id.]. The Department plans to rely on the IMPROVE Steering Committee to advise states if conditions change such that additional monitors are necessary. [Id.].

101. The Regional Haze Rule requires that the implementation plan must also provide for "A statewide inventory of emissions of pollutants that are reasonably anticipated to cause or contribute to visibility impairment in any mandatory Class I Federal area. The inventory must include emissions for the most recent year for which data are available, and estimates of future projected emissions. The State must also include a commitment to update the inventory periodically." [NMED Ex. 5 at 6334; NMED Ex. 24 at 10309]. The State of New Mexico prepares annual and triennial emission inventories in compliance with the Consolidated Emissions Reporting Rule (CERR), promulgated by EPA in 2002 200 and codified at 40 CFR Part 51 Subpart A, thereby satisfying the requirement to provide for the preparation of an emissions inventory for the most recent year for which data are available. NMED will continue to submit annual inventories of pollutants, including those reasonably anticipated to cause or contribute to visibility impairment. Estimates of future projected emissions for regional haze planning are typically developed by EPA and Multi-Jurisdictional Organizations such as the

Western Regional Air Partnership (WRAP), with state coordination. For the second planning period WRAP developed several future year emissions inventory projections for western states that were made available publicly through the WRAP Technical Support System (TSS). [NMED Ex. 5 at 6334]

102. The Board finds that the record contains substantial evidence demonstrating that the Department's monitoring strategy for measuring, characterizing, and reporting of regional haze visibility impairment is representative of all mandatory Class I Federal areas within the State.

103. The Board concludes that the Department has met all of the requirements for a monitoring strategy under 40 C.F.R. Section 51.308(f)(6).

104. The board concludes that the Department has met all of the requirements for providing a statewide inventory of emissions of pollutants" under 40 C.F.R. Section 51.308(f)(6)(v).

105. Ambient monitor data for New Mexico Class I areas: As part of assessing whether a SIP submission for the second implementation period is providing for reasonable progress towards the national visibility goal, the RHR contains requirements on "calculations of baseline, current, and natural visibility conditions; progress to date; and the uniform rate of progress." 40 C.F.R. § 51.308(f)(1). For each mandatory Class I Federal area located within the State, the State must determine the following:

a. Baseline visibility conditions for the most impaired and clearest days. 40 C.F.R. § 51.308(f)(1)(i).

b. Natural visibility conditions for the most impaired and clearest days. 40 C.F.R. § 51.308(f)(1)(ii).

c. Current visibility conditions for the most impaired and clearest days. 40 C.F.R. § 51.308(f)(1)(iii).

d. Progress to date for the most impaired and clearest days, 40 C.F.R. § 51.308(f)(1)(iv).

e. The differences between current visibility conditions and natural visibility conditions. 40 C.F.R. § 51.308(f)(1)(v).

f. The uniform rate of progress. 40 C.F.R. § 51.308(f)(1)(vi). [NMED Ex. 10 at 9448].

106. The WRAP Technical Support System ("TSS") provided analytical tools for accessing visibility conditions, in deciviews, for all WRAP member states via the WRAP TSS in line with the Regional Haze Rule and EPA's 2018 technical guidance on tracking visibility progress. [NMED Ex. 10 at 9449]. NMED shows this required information in Tables 3-2 and 3-3 of the SIPr. [Id.; NMED Ex. 5 at 6187-6188]. By providing this information, the Department demonstrates that all New Mexico IMPROVE monitor sites showed improvement in visibility conditions from the baseline period to the interim period and from the interim period to the current period during both the most impaired and clearest days. [NMED Ex. 10 at 9449].

107. Extinction trends on most impaired days and clearest days: NMED considered extinction budgets provided by the WRAP TSS for the 2019-2023

(current period) most impaired days and clearest days as part of better understanding the species causing extinction at Class I Areas. [NMED Ex. 10 at 9449]. Visibility extinction on most impaired days varies substantially amongst the New Mexico Class I Areas. [Id.]. For example, the measured average extinction on most impaired days (2019-2023) at Salt Creek Wilderness Area was 14.3 deciviews compared to 5.7 deciviews at Wheeler Peak Wilderness Area, so some areas in the state have more light extinction (less visual range) on the most impaired days compared to others. [Id.]. Another clarification is that light extinction as monitored and provided to EPA for meeting requirements in 40 C.F.R. Section 51.308(f)(1), is total extinction on the average most impaired days and clearest days metric, meaning that it includes anthropogenic sources as well as natural sources. [Id.]. Some of the observed trends across the network during the current period (2019-2023), which are summarized in Section 3.4 of the SIPr, include:

108. Ammonium sulfate was the primary driver of light extinction at all New Mexico Class I Areas on the most impaired days. On the clearest days, all sites were dominated by ammonium sulfate except for Bandelier Wilderness, Bosque del Apache Wilderness, and Gila Wilderness, where organic mass made an equal or slightly larger contribution to light extinction, and Salt Creek Wilderness, where coarse mass made the largest contribution.

109. Though the order changed from site to site, the top three contributors to light extinction at New Mexico Class I Areas were ammonium sulfate, organic

mass, and coarse mass on both the most impaired days and the clearest days. The only exceptions to this were Salt Creek Wilderness on the most impaired days and San Pedro Parks Wilderness on the clearest days, when ammonium nitrate was one of the top three contributors instead of either organic mass or coarse mass.

110. The combined ammonium sulfate and ammonium nitrate contribution to light extinction makes up approximately half of the total contribution at all site through to the current period (2019-2023) on both the most impaired days and the clearest days. Sulfur dioxide (SO2) and nitrogen oxides (NOX), are precursors to ammonium sulfate and ammonium nitrate.

111. The largest haze reductions over time (i.e., the largest reduction in individual species' contributions to light extinction) are generally associated with ammonium sulfate and ammonium nitrate, which have likely occurred due to reduced SO2 and NOX emissions since EPA first promulgated the Regional Haze Rule in 1999. [NMED Ex. 10 at 9450-9451].

112. Uniform rate of progress and proposed 2064 endpoint adjustment: The Regional Haze Rule requires calculation of a uniform rate of progress glidepath ("URP") for each Class I Area in the state. 40 CFR § 51.308(f)(1)(vi). [NMED Ex. 10 at 9451]. To calculate the uniform rate of progress, the Department compared baseline visibility conditions for the most impaired days to natural visibility conditions for the most impaired days in the Class I Area and determined the uniform rate of visibility improvement (measured in

deciviews of improvement per year) that would need to be maintained during each implementation period in order to attain natural visibility conditions by the end of 2064. [Id.]. As part of its Regional Haze SIP submission, a state is allowed to propose:

a. an adjustment to the [URP] for a Class I Area to account for impacts from anthropogenic sources outside the United States;

b. an adjustment to the URP for the mandatory Class I Area to account for impacts from wildland prescribed fires that were conducted with the objective to establish, restore, and/or maintain sustainable and resilient wildland ecosystems, to reduce the risk of catastrophic wildfires, and/or to preserve endangered or threatened species during which appropriate basic smoke management practices were applied. [NMED Ex. 10 at 9451].

113. The WRAP modelling contractor Ramboll developed URP glidepaths and options for the adjustments for all Class I Areas in WRAP states. The methods Ramboll used to calculate these adjustments are provided in Appendix B of the SIPr. [Id.; NMED Ex. 5 at 6385-6388]. The Department consulted with FLMs as well as neighboring WRAP states on options for glidepath adjustments. [NMED Ex. 10 at 9451-9652].

114. The USFS recommended that the Department incorporate the prescribed fire adjustment to account for specific forest management objectives that

apply smoke management practices, with which the Department concurred. [NMED Ex. 10 at 9652].

115. The Department proposed to use the international anthropogenic emissions impacts adjustment because these emissions sources are outside of the state's control. [Id.]. The Department incorporated these adjustments, which require EPA approval, into the 2064 endpoint. [Id.]. International impacts constitute the majority of the adjustment, contributing 1.7-5.0 deciviews to the endpoint depending on the Class I Area, whereas wildland prescribed fire adds 0.0-0.3 deciviews. [Id.]. The adjusted URP glidepaths for all nine New Mexico Class I Areas are presented in Figures 3-10 through 3-17 of the SIPr. [Id.; NMED Ex. 5 at 6201-6208]. By way of example, Figure 4 of NMED Exhibit 10 shows the glidepath figure for Bandelier Wilderness Area and the accompanying numerical values for key visibility conditions in the URP glidepath. [NMED Ex. 10 at 9452-9653].

116. The Board finds that the record contains substantial evidence that the Department's SIPr contains accurate and detailed calculations of baseline, current, and natural visibility conditions; progress to date; and the uniform rate of progress.

117. The Board concludes that the Department has met the requirements of 40 C.F.R. Section 51.308(f)(1)(i) through (vi) and (g)(3).

C. THE DEPARTMENT APPROPRIATELY USED SOURCE SELECTION CRITERIA AS REQUIRED BY THE REGIONAL HAZE RULE

118. Regulatory requirements for source selection: Source selection is an integral component of a state's long-term strategy for addressing regional haze under 40 C.F.R. Section 51.308(f)(2). Before conducting the four-factor analysis, each state must determine which sources and pollutants to evaluate. Under Section 51.308(f)(2)(i) states should consider evaluating "major and minor stationary sources or groups of sources, mobile sources, and area sources" of visibility impairing pollutants for potential four-factor analysis.

119. According to EPA's 2021 Clarifications Memo, each state is responsible for submitting a long-term strategy that addresses regional haze visibility impairment resulting from in-state emissions. Thus, source selection should prioritize contributions to visibility impairment, capturing a meaningful portion of the state's total contribution to visibility degradation in Class I Areas. States should not exclude their largest in-state sources simply because larger out-of-state contributors exist. [NMED Ex. 14 at 9573].

120. States have flexibility in selecting sources, but 40 C.F.R. Section 51.308(f)(2)(i) requires that a state's SIP submission describe the criteria used to select sources for evaluation. Additionally, the technical basis for source selection, including methods for quantifying potential visibility impacts such as emissions divided by distance metrics, trajectory analyses, residence time analyses, and/or photochemical modeling, must also be appropriately

documented, as per Section 51.308(f)(2)(iii). Consistent with the first implementation period, EPA expected states to analyze at least SO2 and NOX when selecting sources and control measures. [NMED Ex. 13 at 9501; NMED Ex. 14 at 9573].

121. The 2019 EPA guidance notes that "a key flexibility of the regional haze program is that a state is not required to evaluate all sources of emissions in each implementation period. Instead, a state may reasonably select a set of sources for an analysis of control measures." The 2019 guidance adds that "selecting a set of sources for analysis… is also consistent with the Regional Haze Rule, which sets up an iterative planning process and anticipates that a state may not need to analyze control measures for all its sources in a given SIP revision." [NMED Ex. 13 at 9498]. However, source selection remains the foundation for all subsequent control decisions, and a "reasonable source selection process" must ensure that selected sources have the potential to meaningfully reduce visibility impairment. [NMED Ex. 14 at 9572].

122. The Department undertook robust efforts in coordination with regional partners: Mr. Jones testified that NMED began early engagement for the second implementation period planning in 2017, working with WRAP, along with other partner agencies. [NMED Ex. 10 at 9455]. Mr. Jones further testified that the Department participated in the Western and National Regional Haze Planning Workshop in Denver, CO, in December 2017, and joined WRAP's Regional Haze Planning Work Group ("RHPWG") in 2018,

participating in several subcommittees, including those focused on coordination and glidepaths, emissions inventory and modeling, and control measures. [Id.]. Mr. Jones described how the Department was an active participant in the RHPWG, including the Control Measures Subcommittee, that worked collaboratively to develop the WRAP Reasonable Progress Source Identification and Analysis Protocol for Second 10-Year Regional Haze State Implementation Plans ("WRAP Source Identification Guidance"), which was completed in February 2019, incorporating the 2016 EPA draft regional haze guidance and the collective expertise of many WRAP member agencies. [Id. at 9455-9456].

123. The Department used EPA and WRAP supported approaches to source selection: The RHR leaves state discretion in how to select sources, and the WRAP Source Identification Guidance acknowledges that states may use surrogate metrics, such as an emissions/distance relationship, to identify sources likely to impact Class I Areas. [NMED Ex. 10 at 9456; NMED Ex. 12 at 9465]. This aligns with EPA's 2019 guidance which supports the use of reasonable surrogate metrics for visibility impact assessments. [NMED Ex. 10 at 9456; NMED Ex. 13 at 9499]. A surrogate metric is a quantitative metric correlated to some degree with visibility impacts as they would be estimated via air quality modeling - for example, a simple surrogate metric is emissions in tons/year divided by distance to an affected Class I area in kilometers, also known as "Q/d." [NMED Ex. 10 at 9456].

124. In early 2019, The Department and EHD reviewed monitoring data and emissions inventories to identify sources contributing to visibility impairment in Class I areas. [Id.]. Their analysis included ammonium sulfate, ammonium nitrate, organic carbon ("OC"), elemental carbon ("EC"), fine soil, and coarse mass ("CM"). [Id.]. The Department and EHD focused on larger point source emissions within the Title V major source permitting program, which require regular emission inventory reporting. [Id.]. The Department and EHD determined that these sources were significant contributors of pollutants causing visibility impairment. [Id.].

125. The Department's inventories identified large amounts of NOX, a precursor to ammonium nitrate, and SO2, a precursor to ammonium sulfate. [Id. at 9456]. The Department chose not to focus on organic carbon for the second implementation period, following WRAP Source Identification Guidance that "Most OC particulates are associated with fires or biogenic sources, but anthropogenic VOC emissions do form secondary OC particulates and past modeling suggests the anthropogenic VOC emission source contribution to OC is typically very small (~ 2 - 4%) and therefore not considered a significant contributor to visibility impairment at most western CIAs." [NMED Ex. 10 at 9457; NMED Ex. 12 at 9466]. The sources of visibility-impairing pollutants, OC, EC, and PM are not well documented because of emission inventory limitations associated with natural sources. [NMED Ex. 10 at 9457]. The Department and EHD chose not to focus on particulate matter

with a diameter of 10 micrometers or less ("PM10") for the second implementation period, because estimated PM10 emissions from Title V facilities were considered negligible for this analysis. [Id.]. The Department consulted FLMs and EPA, who were satisfied with its focus on NOX and SO2 for the second implementation period. [Id.; NMED Ex. 5 at 8194-8195; NMED Ex. 62 at 10535-10536].

126. The Board finds that the record contains substantial evidence that the Department's determination, after consulting with FLMs and the EPA, to focus its source selection analysis on NOX, a precursor to ammonium nitrate, and SO2, a precursor to ammonium sulfate, is reasonable and in accordance with both WRAP and EPA guidance.

127. The Department's inclusion of both NOX and SO2 in the source selection criteria was reasonable and necessary: Enterprise argues that the Department erred in considering NOx emissions (precursors to ammonium nitrate) from Enterprise facilities as part of the source selection process. [Ent. Ex. 3 at 19]. Enterprise claims ammonium sulfate is the dominant pollutant and the primary driver of visibility impairment in the Class I areas closest to the Enterprise facilities: Mesa Verde National Park in Colorado and Carlsbad Caverns National Park in New Mexico (represented by IMPROVE monitor GUMO1). [Ent. Ex 3 at 16]. Enterprise contends that "according to EPA guidance, when selecting sources for evaluation under the four-factors, states should focus on the pollutants that dominate visibility impairment at the

Class I areas the state is evaluating. States are empowered to conduct four-factor assessments only of the sources that emit those dominant pollutants." [Ent. Ex 3 at 15-16].

128. According to Mr. Jones, Enterprise misquoted and mischaracterized EPA's 2019 Guidance. [NMED Reb. Ex. 1 at 3]. Contrary to Mr. Jewell's assertion, the EPA's 2019 Guidance provides different guidelines: The Regional Haze Rule does not explicitly list factors that a state must or may not consider when selecting the sources for which it will determine what control measures are necessary to make reasonable progress . . .When selecting sources for analysis of control measures, a state may focus on the PM species that dominate visibility impairment at the Class I areas affected by emissions from the state and then select only sources with emissions of those dominant pollutants and their precursors. [NMED Ex. 13 at 9499-9500].

129. Mr. Jones testified that a key term that Enterprise is using incorrectly is visibility impairment (visibility extinction caused by anthropogenic sources), which differs from overall visibility extinction. [NMED Reb. Ex. 1 at 3]. Mr. Jones points out that this section of EPA's 2019 Guidance on determining which pollutants to consider provides a significant degree of flexibility, and warns against using the fact that a PM species accounts for only a small percentage of total light extinction, by itself, to eliminate the species from subsequent analysis, because a large portion of the total light extinction may

be due to natural source impacts - even on the 20 percent most anthropogenically impaired days. [Id.; NMED Ex. 13 at 9500].

130. According to Mr. Jones, the Department considered this critical factor, in addition to other evidence, to determine which pollutants to consider that are more directly attributed to anthropogenic visibility impairment. [NMED Reb. Ex. 1 at 3]. Mr. Jones explained that "most [OC] and [EC] are primarily associated with natural sources, such as fires and dust (natural sources)." [Id.]. NMED [and EHD] decided to focus on SO2 and NOx, since both sulfates and nitrates are major anthropogenic contributors to visibility impairment in New Mexico Class I Areas. In New Mexico's case, while nitrate might not be the top contributor to total extinction at every Class I area, it is nonetheless a significant part of anthropogenic extinction. Measurements of overall total visibility extinction trends at New Mexico Class I areas on the most impaired days and clearest days can be found in the SIPr in Sections 3-3 through Section 3-4. [NMED Ex. 5 at 6189-6198].

131. The Board is not persuaded by Enterprise's contention that the Department erred in considering NOX emissions from Enterprise facilities as part of the source selection process. The Board is also not persuaded by Enterprise's argument that the Department should have focused exclusively on ammonium sulfate as the dominant pollutant and the primary driver of visibility impairment in the Class I areas closest to the Enterprise facilities (Mesa Verde National Park in Colorado and Carlsbad Caverns National Park in

New Mexico). The Board finds Enterprise's testimony on these contentions lack credibility and gives them little weight.

132. The Board finds that the record contains substantial evidence that the Department's inclusion of both NOX and SO2 in the source selection criteria was both reasonable and necessary to make reasonable progress pursuant to 40 C.F.R. Section 51.309(f)(2)(i) through (iv).

133. The Department's decision to analyze major Title V point sources for source selection complied with the Regional Haze Rule: Targa opined that the Department did not appropriately use the source selection criteria as required by 40 C.F.R. § 51.308(f)(2)(i), which provides in relevant part that "[t]he State should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources." In support of this opinion, Targa testified that the Department's SIPr "makes clear that [the Department] did not consider minor sources when conducting its tier one Q/d assessment for selecting facilities for control measure analysis . . . EHD's [sic] stated reason for this failure to include the minor stationary sources in its selection analysis is a claimed "lack of [emissions] information for minor stationary sources and area sources in NMED's and EHD's jurisdictions[.]" However, NMED completes minor source emission inventories every three years . . . Data for minor sources is available for 2023 and 2020 . . . Without consideration of this minor source emission data, the Draft SIPr's process for selection of facilities was not based on the express practices recommended

by the EPA, nor was it based on the WRAP Analysis that NMED expressly claimed to follow. The Draft SIPr's selection of sources for control measure analysis was therefore contrary to EPA's rules and guidance, the assessment for selecting facilities in the Draft SIPr was deficient, and the Draft SIPr's selection of facilities should be reconsidered and redetermined accordingly." [Targa Ex. A at 7-8].

134. In response, Mr. Jones testified that NMED documented its source selection methodology in Chapter 6 of the SIPr, which included selecting criteria for source selection that comply with the requirements in the RHR. [NMED Reb. Ex. 1 at 14; NMED Ex. 5 at 6237-6247]. In Mr. Jones' view, "[Targa's] testimony lacks perspective that source screening and selection by NMED and EHD occurred in June 2019, before the notification letters being sent to companies selected for further four-factor analysis requirements." [NMED Reb. Ex. 1 at 14-15].

135. Mr. Jones continued: "[The SIPr] states, "NMED and EHD lack detailed emissions inventory data for minor stationary sources and area sources for the current regional haze implementation period. Sufficient statewide data was not available to adequately assess the potential visibility impact of such sources at Class I Areas. Therefore, NMED and EHD chose not to evaluate minor stationary sources or area sources for potential new control measures in the current Regional Haze planning period. Minor stationary sources and area sources may be addressed in future planning periods or addressed

through other rule makings." [NMED Ex. 5 at 6238]. NMED considered evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources; however, in agreement with EHD, it chose a statewide approach that evaluated all New Mexico major Title V facilities to determine which sources to select for further four-factor analysis." [NMED Reb. Ex. 1 at 14].

136. The Department conducted a two-tiered source selection process in coordination with EHD to select sources for an analysis of potential control measures. Under the Department's Tier One Q/d assessment, the Department calculated Q/d scores for every Title V facility in the state and identified a Q/d threshold necessary to capture [at least] 80% of the total NOX and SO2 emissions from all New Mexico Title V facilities combined. [NMED Ex. 10 at 9457]. The Department's 2019 Q/d assessment determined that a threshold of 5.6 would capture 80% of total combined NOX and SO2 emissions from Title V facilities. [Id. at 9458].

137. The Department's tier-one Q/d assessment: Mr. Jones testified that the Department's comprehensive four-factor analyses for the 23 NMED facilities and 133 individual emissions units "required an immense amount of effort and time to complete. Redoing the source selection after it was completed would be unreasonable and would have wasted resources for all parties; not to mention it would have compromised NMED's formal consultation with FLMs on the agreed-upon set of sources for the second implementation

period evaluation." [NMED Reb. Ex. 1 at 15]. Mr. Jones explained that the Department's minor source inventory for 2020 "was not completed and quality assured until well after 2021, which was even after EPA's deadline for regional haze SIP submittals, and not available at the time of source selection." [Id.]. Mr. Jones concluded by describing the Department's set of criteria (i.e., types of pollutants and types of sources) as being applied "consistently over the entire population of major Title V facilities state-wide to select an inclusive set of sources that NMED then evaluated for reasonable progress control measure determinations." [Id.].

138. While some affected companies, such as Enterprise and EPNG, have objected to the Tier One screening assessment, Public Service Company of New Mexico ("PNM") supported the Department's methodology, stating, "PNM supports the methodology [the Department] applied in identifying the sources to review for additional control measures and the control measures selected for those sources to include in the long-term strategy for the second round SIP. The Department's conservative screening process appropriately selected 23 facilities for an analysis of potential control measures, comprised of the 133 individual emission units most likely to impact visibility in Class 1 areas based on their emission levels and distance to those areas." [NMED Exhibit 10 at 9458; NMED Ex. 5 at 8665-8666].

139. Geographically, facilities selected in Tier One screening were predominantly in the Northwestern part of New Mexico and Southeastern

New Mexico, and the facilities selected within NMED's jurisdiction were comprised of two coal-fired power plants; one natural gas-fired electric generating unit; and twenty natural gas compressor stations and gas plants. [NMED Ex. 10 at 9459].

140. The Tier One source selection process identified a reasonable set of facilities to be further evaluated for cost-effective emission control measures. NMED and EHD consulted with EPA and FLMs on the Tier One source assessment process and received a favorable response on the facilities selected. [Id. at 9459-9460]. The NPS made comments on Blanco A Compressor Station, San Juan Gas Plant, and Blanco C&D Compressor Station and requested that these three facilities be evaluated together since they had previously been treated as parts of a single facility for New Source Review purposes. [Id. at 9460; NMED Ex. 5 at 8194-8195 and 9394]. NMED agreed to the NPS request and included this stipulation in the four-factor analysis request sent to El Paso Natural Gas, Enterprise, and Harvest (now Hilcorp) representatives for these three facilities. [NMED Ex. 10 at 9460].

141. The Department's tier-two screening: After selecting facilities based on the Q/d assessment, the Department and EHD conducted a second-tier screen to identify specific emission units within those facilities requiring further analysis. The Tier Two selection process focused on (1) equipment with a potential to emit greater than 10 pounds per hour of NOX or SO2; and (2) excluding sources exempt under 20.2.72 NMAC or 20.2.70 NMAC or

emitting less than five tons per year. [NMED Ex. 10 at 09460, NMED Ex. 5 at 06246-06247].

142. Title V facilities are often complex and usually have numerous regulated sources of air pollutants. [Id.]. To identify the most significant contributors to visibility impairment from NOx and SO2, the Department and EHD applied the Tier Two methodology. [Id.]. In total, NMED identified 133 pieces of equipment across 23 facilities. [Id.]. The units selected are made up of two-stroke lean burn engines, four-stroke lean-burn engines, four-stroke rich burn engines, combustion turbines, industrial and utility boilers, and amine treatment systems. [Id.]. At nearly all selected facilities within NMED's jurisdiction, equipment meeting these criteria accounted for over 90%, and in some cases, 100%, of the facility's total allowable NOX and/or SO2 emissions. [NMED Ex. 10 at 9460-9461].

143. The Board is unpersuaded by Targa's contention that the Department's exclusion of minor sources renders the assessment for selecting facilities in the SIPr deficient under 40 C.F.R. Section 51.308(f)(2)(i), and that the SIPr's selection of facilities should be reconsidered and redetermined accordingly. The Board finds Targa's testimony on this point is not credible and lends it little weight.

144. The Board finds that the record contains substantial evidence that the Department's source selection methodology is sound, reasonable, and a necessary part of the Department's long-term strategy for addressing

regional haze under 40 C.F.R. Section 51.308(f)(2). The Board further finds that the Department's source selection methodology is in accordance with the EPA's 2019 Guidance and the EPA's 2021 Clarification Memo.

145. The Board concludes that the Department's source selection methodology met all the requirements under 40 C.F.R. Section 51.308(f)(2)(i).

D. THE VISIBILITY METRIC USED BY THE DEPARTMENT FOR SOURCE SELECTION IS BOTH REASONABLE AND WELL SUPPORTED

146. The Department's use of a Q/d value of 5.6 is reasonable and consistent with EPA guidance and WRAP recommendations: Enterprise, EPNG and Targa contended that the Department's 5.6 Q/d facility screening threshold for the second implementation period was unreasonable and more inclusive compared to other states' approaches. [NMED Reb. Ex. 1 at 15]. The Board rejects this argument. There are many examples of WRAP states using thresholds and approaches that align with and are similar to NMED's. EPA has approved Oregon's regional haze SIP, the only SIP approved by EPA thus far in the WRAP region, and Oregon used a Q/d of 5. [Id. at 15-16]. Enterprise, EPNG, and Targa also argue that the Department's Q/d threshold is inconsistent with EPA and WRAP guidance.

147. Enterprise disagreed with the Q/d threshold (5.6) the Department used. [Ent. Ex. 3 at 21-22]. Enterprise contends that the Department's screening threshold of 5.6 "is not . . . reasonable based on the recommendations of EPA, the thresholds used by the majority of states, and the thresholds used by EPA itself when it has issued FIPs to address regional haze. As Enterprise

set out in its comments to NMED, EPA recommended the use of a Q/d threshold of 10 in what are called the 'BART Guidelines' for implementing the regional haze rule." [Id. at 22]. Enterprise makes the unsupported claim that the EPA has rejected thresholds below 10, because, as Enterprise puts it: "Using a threshold of 10, Blanco and South Carlsbad would have screened out based on 2016 data. . . Based on 2022 and 2023 data, Chaco would also screen out of further review." [Id.].

148. EPNG provides a similar rationale to Enterprise, relying on a prescriptive focus on a particular Q/d numerical threshold, which does not exist in the Regional Haze Rule, guidance, or the Clean Air Act. EPNG objects that "this [NMED's Q/d threshold] is inconsistent with regional haze SIPs that [EPNG has] reviewed in other jurisdictions. For example, Arizona used a cutoff of 10 for the Q/d threshold, and the EPA recently approved that aspect of Arizona's SIP. Likewise, Wisconsin used a Q/d of 10 for its SIP, and EPA recently approved that aspect of the SIP." [EPNG Ex. 1 at 15]. EPNG fails to mention that there is no statutory or regulatory basis to require the Department to use a Q/d of 10. EPNG, like Enterprise, advocates for a Q/d threshold of 10 because it would remove one or more of their facilities from the SIPr and Proposed Rule. EPNG also fails to disclose to the Board that the Arizona SIP example was partially disapproved due to issues with the state's source selection method. [NMED Reb. Ex. 1 at 21].

149. As Mr. Jones testified, "the example [EPNG] references does not endorse Arizona's Q/d threshold; instead, it emphasizes the importance of the method being 'adequately explained and documented.'" [Id.]. Mr. Jones stated that "[r]elying on a disapproved long-term strategy as a model for [the Department] is, at best, misguided . . . the EPA rejected not only the long-term strategy itself (of which source selection is a key component under 40 CFR § 51.308(f)(2)), but also found the plan deficient in meeting the FLM consultation requirements [40 CFR § 51.308(i)]." [Id.].

150. The Board is unpersuaded by Enterprise's, EPNG's, and Targa's respective contentions that the Department's use of a 5.6 Q/d facility screening threshold for the second implementation period was unreasonable and more inclusive compared to other states' approaches. The Board finds Enterprise's and EPNG's testimony on this issue lacks credibility and lends it little weight.

151. The Board finds that the record contains substantial evidence that the Department's use of a Q/d value of 5.6 is reasonable and consistent with EPA Guidance and WRAP recommendations.

152. The Department accurately calculated Blanco Compressor Station A's distance to the nearest Class I area, and its inclusion was properly substantiated: EPNG claimed that the Department miscalculated the distance used in the Q/d calculation for the Blanco Compressor Station A, arguing that the facility should have been excluded from screening. This is unsubstantiated and reflects a misunderstanding of the Department's

methodology. [4-29-25 Tr. 455] First, The Department and EHD calculated "d" as the distance in kilometers from the centroid of each facility to the boundary of the nearest Class I area, using ArcGIS, a GPS-based mapping tool.[1] These distances were verified and consistently applied in the Department's methodology, as described in Chapter 6 of the [NMED Ex. 5 at 06237–06247]. Second, even if the distance to Blanco Compressor Station A were marginally different from the Department's verified GIS measurement, the facility would not have been excluded from selection. The Department's source selection required that 80% of total Title V SO_2 and NO_X emissions be captured by the Q/d threshold. Excluding Blanco A would have reduced the captured emissions below 80%, thereby lowering the Q/d threshold and once again including Blanco A within the screened set of sources. EPNG's suggestion that Blanco A should have been excluded is misinformed and does not alter the fact that the facility was properly included under the Department's robust and transparent source selection methodology. The National Park Service, which oversees Mesa Verde National Park, also specifically requested that Blanco A be included as one of New Mexico's selected sources for the second implementation period. This lends even more

[1] EPNG noted that there were two separate distances listed in the SIPr: "The Proposed SIP Revision states (on page 111) that the closest Class I Area to Blanco A is 39.8 miles, which is 64.052 kilometers. Elsewhere, however, NMED says that the kilometer distance is 63.35 kilometers." **[EPNG Ex. 1 at 23.]** It should be noted that the larger distance of 39.8 miles was taken from the Title V operating permit application for Blanco Compressor Station A, and thus was provided by EPNG. The Department obtained general locational information for all of the facilities it evaluated from their respective Title V permit applications, and included this information in the general facility descriptions in Chapter 7 of the SIPr. However, for purposes of calculating Q/d scores, the Department used GIS to independently measure the distance to the nearest Class I area to ensure accurate results.

weight to the Department's decision to further evaluate the facility in the four-factor analysis.

153. The Board is not persuaded by EPNG's contention that the Department's calculation of the distance from Blanco A Compressor station to Mesa Verde National Park was inaccurate. The Board finds that EPNG's testimony on this point is not credible and lends it little weight.

154. The Board finds that the record contains substantial evidence that The Department accurately calculated Blanco Compressor Station A's distance to the Mesa Verde National Park, and that its inclusion was substantiated.

155. The Department's goal of capturing 80% of emissions is reasonable and consistent with multiple other states: EPNG argues that the Department's decision to "include 80% of statewide NOx and SO2 emissions is based on an erroneous interpretation of both the WRAP Protocol and 2016 EPA Draft Guidance." [EPNG Ex. 1 at 15]. This argument appears intended to exclude EPNG's facilities from further analysis. The WRAP Source Identification Guidance does indeed suggest that WRAP states "evaluate about 80% of emissions impact at each Class I area…to ensure a reasonably large fraction of emissions impacting a Class I area extinction on the 20 percent most impaired days are assessed." [NMED Exhibit 12 at 9465] Furthermore the WRAP source identification guidance clarifies, "[t]he over-arching goal in assessing emissions is to ensure states identify anthropogenic sources that are most likely impacting the 20 percent most impaired days (MID) at one or more

Class I areas (CIAs)." [NMED Ex. 12 at 9465]. Mr. Jones testified that the Department "pursued this goal through a statewide approach, in coordination with the [EHD], using a Q/d methodology designed to approximate visibility impact and to capture a significant share of emissions from visibility-impairing pollutants." [NMED Reb. Ex. 1 at 25-26]. Mr. Jones testified that "In practice, we followed the step-by-step methods detailed in Chapter 6 of New Mexico's revised proposed SIP revision for the second implementation period" which states "NMED and EHD calculated Q/d scores for every Title V facility in the state, including in Albuquerque – Bernalillo County. NMED and EHD then identified a Q/d threshold necessary to capture 80% of the total NOX and SO2 emissions from all New Mexico Title V facilities combined." [NMED Ex. 5 at 6238]. "NMED and EHD decided to use a Q/d threshold of 5.6, which captures 24 Title V facilities responsible for 80.69% of the total NOX and SO2 emissions from all New Mexico Title V facilities combined in 2016." [NMED Ex. 5 at 6245].

156. This methodology was discussed in consultation with the National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, EPA Region 6, and WRAP staff. [NMED Reb. Ex. 1 at 25-26]. Mr. Jones noted that EPNG's argument on this point "lacks credibility in the context of [the Department's] well-documented, inclusive, and regionally coordinated approach . . . [and] appear[s] less focused on constructive analysis and more intent on finding a procedural loophole to exempt EPNG facilities from scrutiny." [Id. at 26].

157. Mr. Jones pointed out that the WRAP region states of Oregon (used Q/d of 5.0), Idaho (used Q/d of 2.0), Nevada (used Q/d of 5.0), and Washington "all adopted source selection methods aimed at capturing approximately 80% of emissions impacting visibility in Class I areas during the second implementation period." [Id. at 26-27]. In addition, several non-WRAP states such as Louisiana, Michigan (used Q/d of 4.0), New Hampshire, and Minnesota (used Q/d of 4.6) "also set goals to assess roughly 80% of emissions affecting visibility impairment." [Id.].

158. The Board is not persuaded by EPNG's contention that the Department's decision to include 80% of statewide NOx and SO2 emissions is based on an erroneous interpretation of both the WRAP Protocol and 2016 EPA Draft Guidance. The Board finds EPNG's testimony on this point not credible and lends it little weight.

159. The Board finds that the record contains substantial evidence that the Department's goal of capturing 80% of emissions is reasonable and consistent with multiple other states.

160. The Department reasonably used facility reported emissions inventory data for the most recent quality assured emissions inventory reporting year at the time of source selection: Enterprise and Targa contended that the Department used inappropriate emissions inventory estimates for their facilities as part of the source selection step, even though the Department used facility-reported information. EPNG states that "NMED's source

screening did not use actual emissions volumes," [EPNG Ex. 1 at 21]. Targa contends that "NMED's Q/d analysis was inappropriately based on facility reported emission inventories for RY 2016, with no adjustments for recent data." [Targa Ex. A at 10].

161. The WRAP baseline year for developing tools for states to access Q/d was the 2014 National Emissions Inventory (NEI). The Department used a more recent year, the Department's 2016 Title V major source inventory, for determining tier one of selecting facilities. Mr. Jones testified that "[t]he 2016 emissions inventory was the most current, quality-assured inventory available to NMED at the time of source selection. EPNG, Targa, and Enterprise submitted emissions inventory data to NMED, [each] certifying that [the data] was accurate and representative of operations at their respective facilities." [NMED Reb. Ex. 1 at 30]. Mr. Jones observed that the opposing parties "[i]ndicating that the data is accurate for the purpose of demonstrating compliance and then turning around to say it's not accurate because you disagree with the results of an analysis that uses the data does not seem to be a valid approach." [Id. at 31].

162. Mr. Jones further described the Department's methodology: "WRAP's Q/d tool used 2014 as the base year for its Q/d assessments; from this information, NMED updated and expanded its source selection to 2016 information and to account for 80% of Title V Major Source SO2 and NOX emissions that are impactful to visibility at Class I Areas, by NMED and EHD's

approach. WRAP partners did not raise objections to the methodology, and the overall results of the source selection process yielded a reasonable set of facilities (Tier 1) and units (Tier 2) distributed across the state. These selections encompassed an adequate share of visibility-impairing pollutants and were appropriately situated in proximity to Class I areas." [Id. at 31].

163. The Board is not persuaded by EPNG's claim that the Department's source screening methodology did not use actual emissions volumes. The Board finds EPNG's and Targa's testimony on this point is not credible.

164. The Board finds the record contains substantial evidence that the Department's use of facility reported emissions inventory data for the most recent quality assured emissions inventory reporting year at the time of source selection was reasonable and based on a sound methodology.

165. The Department's source selection process for the Regional Haze SIP was thorough, rational, and in full compliance with the applicable requirements: The Department's approach to source selection, as described in Chapter 6 of the SIPr [NMED Ex. 5 at 06237–06247] and in Mr. Jones' direct testimony [NMED Ex. 10] and rebuttal testimony [NMED Reb Ex 1], meets all the requirements of the Clean Air Act and Regional Haze Rule, and uses guidance with the flexible intent it was created with. EPA's 2019 Guidance states, "Thresholds should be evaluated and justified based on the facts and circumstances of the available technical information for the second implementation period." [NMED Exhibit 13 at 9502, fn. 25]. Mr. Jones further

testified that the Department has been in regular communication with other WRAP states throughout the second implementation period and continues to collaborate and share lessons learned from regional planning efforts. [NMED Reb Ex 1 at 21]. Mr. Jones offered that in his nearly 20 years of experience working with various WESTAR-WRAP planning groups, "it has been clear that states approach regional haze planning differently, based on their unique circumstances. That flexibility has always been acknowledged and respected . . . the WRAP source identification guidance has always been treated as a flexible framework, not a one-size-fits-all rulebook." [Id. at 21-22]. According to Mr. Jones, EPA Region 6 "has repeatedly indicated that norms for the first implementation period may not apply to the second implementation period, and that the selection process may be more inclusive. The reasonable cost-effectiveness of control measures may be more inclusive." [Id. at 19].

166. The Department's source selection process was sound, reasonable and in accordance with the WRAP protocol and EPA guidance. The opposing parties did not provide the board a legal or policy basis for denying the Petition on the grounds that the source selection process is somehow flawed. The opposing parties simply disagree with the process and have done nothing more than express preferences for a different process.

167. The Board finds that the record contains substantial evidence demonstrating that the Department's SIPr describes in substantial detail the

criteria used to select sources for evaluation under the four-factor analysis pursuant to 42 U.S.C. Section 7491(g)(1) and 40 C.F.R. Section 51.308(f)(2)(i).

168. The Board finds that the record contains substantial evidence showing that the Department's decision to select larger point source emissions within the Title V major source permitting program that require regular emission inventory reporting, and the Department's determination that these sources were significant contributors of pollutants causing visibility impairment, is reasonable and well supported.

169. The Board finds that the record contains substantial evidence to establish that the technical basis employed by the Department for source selection, including methods for quantifying potential visibility impacts such as emissions divided by distance metrics, trajectory analyses, residence time analyses, and/or photochemical modeling, was appropriately documented in the SIPr pursuant to 40 C.F.R. Section 51.308(f)(2)(iii).

170. The Board concludes that the Department has met all the requirements of 40 C.F.R. 51.308(f)(2)(i) and (iii).

E. THE DEPARTMENT'S FOUR FACTOR ANALYSIS IS REASONABLE AND IN ACCORDANCE WITH THE APPLICABLE LAW AND GUIDANCE

171. Statutory and regulatory basis for the four-factor analysis: Under the CAA's regional haze provisions, Congress declared as a national goal the prevention any future, and the remedying any existing, visibility impairment in mandatory class I Federal areas which impairment results from manmade

air pollution and required EPA to develop regulations to assure reasonable progress toward meeting this goal. 42 U.S.C. § 7491(a)(1), (4).

172. These regulations, which EPA promulgated in 1999 and amended in 2017, require states to develop implementation plans for regional haze that include long-term strategies containing all emission reduction measures that are necessary to make reasonable progress. In determining what those measures are, a State must consider the Clean Air Act's required four factors and document the technical basis on which it is relying to make the determination.

173. Pursuant to 42 U.S.C. § 7491(g)(1) and Section 51.308(f)(2)(i) of the RHR, the four factors are: (1) the costs of compliance; (2) the time necessary for compliance; (3) the energy and non-air quality environmental impacts of compliance; and (4) the remaining useful life of any potentially affected sources. As Mr. Sidner testified, "[a] corresponding four-factor analysis ("FFA"), a cornerstone of the [Regional Haze] Program, provides a balanced framework designed to ensure that pollution reduction measures are effective, economically feasible, and equitable." [NMED Ex. 17, Bates 9590].

174. The Department employed a wide variety of resources in completing the FFAs that include, but are not limited to the following: EPA guidance regarding Regional Haze SIPs for the second implementation period (dated August 20, 2019); EPA Air Pollution Control Cost Manual (Sixth Edition dated January 2002, with subsequent chapter updates); Regional haze FFAs

completed in and by other States; EPA and State air quality permits; Best Available Control Technology (“BACT”) and Best Available Retrofit Technology (“BART”) determinations; Various other EPA and State guidance documents, memoranda, and related resources; Discussions with, and product literature available from equipment manufacturers; Discussions with state air quality agency personnel; Discussions with federal land management agency personnel; and the EPA RACT/BACT/LAER Clearinghouse. [Id.].

175. Before any of the four factors were evaluated, the Department undertook a multi-step review of emission reduction options in a top-down fashion like that of a BART or BACT analysis, in the following multi-step process:

a. Step 1: Identify potential air pollution control options. In this step, all available air pollution control (“APC”) options for the emission unit and the pollutant under consideration were identified. This includes commercially available technologies used throughout the world or emission reductions attainable through the application of available APC techniques, changes in process design, and/or operational limitations. In general, techniques used to reduce air pollutant emissions fall into two categories: [1] those designed to minimize the formation of a pollutant at the point of generation (aka "pollution prevention"), and [2] those designed to reduce the amount of air pollution emitted to the atmosphere by capturing and/or destroying a portion of the pollutant(s) generated (aka "add-on pollution control").

Dry low nitrogen oxide ("NOx") combustors and flue gas recirculation are examples of the first category, while selective catalytic reduction ("SCR") is a relevant example of the second. [Id. at 9590-9591].

176. Step 2: Eliminate technically infeasible APC options. In this step, the technical feasibility of the various APC options in relation to the specific emission unit under consideration were evaluated. If clear documentation and demonstration – based on physical, chemical, and engineering principles – indicated that technical difficulties would preclude the successful use of an APC option, it was eliminated from further consideration. [Id. at 9591].

177. Step 3: Rank remaining APC options by effectiveness. In this step, the remaining APC options were listed in order of control effectiveness, with the most effective option at the top. Information about the expected control efficiency and estimated post-control pollution emission rate were determined. [Id.].

178. The Department's general methodology and documentation: Consistent with EPA guidance, regulatory best practices, and reasonable engineering judgement, NMED adhered to the prescribed methodology during the development of its FFAs. [Id. at 09592]. Unit-specific documentation submitted by facilities was extensively reviewed, and (to the extent possible) compared as part of benchmarking and quality assurance efforts. [Id.]. The Department thoroughly reviewed FFAs completed by other states and facilities subject to the RH Program. [Id.]. The Department observed that the

readily available FFA documentation was typically limited. [Id.]. Summaries of control measures, narrowly qualitative explanations of methodology, minimal descriptions of technical details and rationale, and scarce calculations were common limitations encountered by the Department. [Id.]. In response to these limitations, the Department designed and developed an unparalleled template for its calculation of emissions, costs and cost effectiveness to maximize transparency and facilitate understanding by stakeholders. [Id.; for example: NMED Exhibit 5, Bates 06612.].

179. The Department's template identifies the methodology, values, data sources, and reasoning used to evaluate the cost of compliance for each affected facility. [Id.]. Copies of the supporting calculations and a detailed review of all four statutory factors (for each unit) is provided in Appendix C of the SIPr. [NMED Exhibit 5, Bates 06427-06602].

180. Factor 1--The Cost of Compliance: The cost of compliance is typically the most substantive, visible and debated factor in a FFA. [NMED Ex. 17, Bates 09592]. It refers to the estimated financial liability placed on a pollution-emitting source when they are required to implement an APC measure. [Id.]. The Department evaluated the cost of compliance in terms of cost effectiveness (i.e., dollars per ton of projected actual emissions reductions). [Id.]. This dollar-per-ton metric is ubiquitously used to evaluate, compare, and select appropriate and reasonable APC measures by state and federal agencies. [Id. at 09592-09593]. The Department expended significant

attention to developing the most reasonably accurate annualized costs ($/yr, the numerator) and expected actual emissions reductions (ton/yr, the denominator) - given the available information - of each technically feasible APC option. Facility-provided costs were heavily relied on when calculating annualized costs. [Id. at 09593].

181. Emissions reductions: The expected emissions reductions of a unit should reasonably reflect its projected operation and emissions rate. [Id.]. For this reason, expected emissions reductions are the product of a unit's projected actual emissions ("PAE"), and the estimated emissions reduction effect of the evaluated APC measure. [Id.]. The emissions reduction effect can be expressed in terms of anticipated percent reduction (e.g., 80% reduction) or a not-to-exceed (maximum) emissions rate (e.g. 5 grams NOX per bhp-hr). [Id.]. As appropriate, not-to-exceed emission rates were obtained from facility submittals, equipment manufacturer documentation, and NMED's Ozone Precursor Rule (20.2.50 NMAC). [Id.; for example: NMED Exhibit 5, 06847-06886 and 06883-06841].

182. Impact of operations on emissions: Consistent with relevant industry practices, most of the affected units have annual operating schedules that can vary significantly from one calendar year to another. [NMED Ex. 17 at 9593; for example: NMED Ex. 5 at 6460-6461]. The more a unit operates, the greater its emissions. [NMED Ex. 17 at 9593]. This recognized operating irregularity resulted in the Department's use of six years' worth of operating

data (hours per year, per unit) to determine baseline actual emissions ("BAE"). [NMED Ex. 17 at 9593; for example: NMED Ex. 5 at 6461-6462]. In some cases, a year with unusually low or high operation was deemed to be an outlier and omitted from the corresponding calculation. [NMED Ex. 17 at 9593]. When projected operation (i.e., annual utilization or capacity factor) of a unit is reasonably anticipated to differ relative to historical (baseline) operation, the calculation of PAE can be adjusted commensurately. [NMED Ex. 17 at 9593-9594]. Except in the case of unit retirement, none of the facilities indicated that the anticipated future/projected utilization of a unit would change relative to its baseline - as a result, it was reasonable to determine that a unit's PAE was equal to its BAE. [NMED Ex. 17 at 9594].

183. Use of emissions test results: The calculation of BAE from a unit typically utilizes a short-term (i.e., pounds per hour) emissions rate obtained from one of several sources. [Id.]. By virtue of its design, unit-specific data from a properly designed, operated, and maintained continuous emissions monitoring system ("CEMS") is unquestionably the most accurate and reliable source of emissions data. Unfortunately, essentially none of the units that were evaluated are equipped with CEMS. [Id.].

184. Results from periodic emissions testing are generally recognized as the second most accurate and reliable source for emissions factors. [Id.]. The results are routinely relied on by air quality authorities for compliance assessments, and periodic testing is typically less expensive – over a unit's

lifetime – than continuous monitoring systems. [Id.]. Repeat testing can therefore produce emissions data that spans many operating years. [Id.].

185. Testing conditions and equipment operation can vary significantly from one emissions test to another, which can lead to seemingly inconsistent test results. [Id.]. Another contributing factor is unit age: increased wear, decreased efficiency, and increased maintenance needs typically occur as a unit advances in age. [Id.]. During a historical review of facility emissions reports, it was observed that tested emission rates for many of the affected units varied significantly. [Id.]. For these reasons, the most recent emissions test data is believed to be the most representative and was thus selected as a basis for the Department's BAE calculations. [Id.].

186. Use of full load in emissions calculations: Most of the units for which a FFA was completed are a type of engine that combusts natural gas to produce mechanical energy (i.e. power), i.e., the unit is either a reciprocating internal combustion engine ("RICE") or a combustion turbine ("turbine"). [NMED Ex. 17 at 9595; NMED Ex. 5 at 6247[2]]. In general, the more fuel an engine consumes, the more air pollution it emits per unit of time. [NMED Ex. 17 at 9595]. More specifically, the efficiency – i.e., the amount of fuel consumed per unit of power produced – of an engine depends on several factors, including the percent load at which it operates. [Id.]. In this context, the

[2] Providing a tally of the individual units we selected for analysis through the Department's second tier screening, broken down by unit type. It shows that 71 of the 133 units selected (53%) were RICE and 42 of them (32%) were turbines. Combined, RICE and turbines accounted for 85% of the selected units.

percent load of an engine is the ratio of its actual output to its maximum output. [Id.]. For example, an engine with a maximum rated output of 1,000 horsepower that produces 900 horsepower is operating at 90% load. [Id.]. The relationship between the emission rate and load of an engine is not linear. [Id.]. However, while emissions from an engine depend on several design and operating factors, NO_X emissions – on a mass per unit output basis – generally increase proportionally to engine load because of increased fuel consumption. [Id.].

187. Continuous emissions data is not available for any of the RICE or turbines evaluated by the Department. [Id.[3]]. The most accurate approach to calculating BAE would therefore involve unit-specific operating data (e.g., actual load), load-specific emissions rates for each engine (typically available from the manufacturer), and operating time. [Id.]. Sufficient information was not available to characterize the emissions/load relationship for individual emissions units. [Id.]. Considering this and the affected facilities' emphasis on the importance of operational flexibility, it was reasonably concluded that BAE would be based on full (100%) load operation. [Id.].

188. EPNG has argued that assuming full load operation unjustifiably exaggerates PAE. [NMED Exhibit 17, Bates 9595; NMED Ex. 5 at 8796-8797; 8803-8805; 8970-8972; 8979; 8986; 8988; and 8995]. In an attempt to

[3] Cunningham Units 3 and 4 are exceptions; continuous emissions data is available for those units (see NMED Exhibit 5 at 8094).

support its claim, the facility analyzed emissions data that indicated average NO_X emissions from its units operating at >90% load is in the 7 to 16 lb/hr range, with a median value of approximately 11.5 lb/hr. [NMED Exhibit 17 at 9595-9596; NMED Exhibit 5 at 8797 (figure 3 – Blanco A Emission Test Results)]. NMED's calculated average NO_X emissions rate for the respective units – assuming a linear relationship and full load operation – was 11.6 lb/hr. [NMED Exhibit 17 at 9596; for example: NMED Exhibit 5 at 6470]. While this is just one example, the marginal difference appears to support NMED's methodology and judgement. [Id.].

189. Types of costs: Costs included in the cost of compliance evaluation belong in two primary categories: capital costs and operating costs. [NMED Ex. 17, Bates 9596]. Capital costs include one-time expenses like equipment purchases, labor for design and engineering, construction materials, permitting costs, and contingency. [Id.]. The Department refers to the sum of relevant capital costs as total capital investment ("TCI"). [Id.]. Operating costs – collectively referred to as operating and maintenance ("O&M") costs in NMED documentation – are recurring expenses. [Id.]. O&M costs include expenses like fuel, parts, electricity, and labor (operating, maintenance, and supervisory). [Id.].

190. In an FFA, O&M costs should only include the increased (i.e., incremental) costs directly or indirectly associated with the APC measure. [Id.]. O&M costs independent of the APC measure should be omitted from the cost of

compliance evaluation. [Id.; NMED Ex. 12 at 9476; NMED Ex. 13 at 9518]. For example, an existing RICE must be maintained to function reliably and safely, and maintenance costs typically include parts and labor. [Id.]. Maintenance costs often increase as a RICE ages, especially when it operates beyond its expected life. [Id.]. Those maintenance costs will be incurred by a facility regardless of whether an APC measure is selected and installed. [Id.]. In contrast, the addition of an APC measure could require supplemental maintenance (of it and the RICE) beyond what would be necessary otherwise.

191. Selection of Costs: When appropriately detailed and documented, facility or vendor-supplied information (e.g., cost estimates and manufacturer specifications) were used instead of estimates based on reasonable assumptions. [NMED Ex. 17 at 9597]. For example, several facilities provided reasonably substantiated costs related to the retrofit of existing RICE with Low Emissions Combustion technology. [Id.; NMED Ex. 5 at 6833-6841; 6795-6796]. As a result, the cost information was evaluated by the Department, adjusted if necessary, and used in the cost of compliance calculation. [NMED Ex. 17 at 9597].

192. When a cost calculated by the Department differed from that provided by a facility, an explanation of the disparity and NMED's reasoning was generally noted in the Department's documentation. [NMED Ex. 17 at 9597]. It was observed that facility-supplied cost estimates were, at times, unsubstantiated and appeared to incorporate questionable judgement. [Id.]. For example, APC

measure O&M costs calculated by a facility frequently included the existing (i.e. not incremental) maintenance costs of the emissions unit. [Id.]. This inappropriate approach drastically overstated O&M costs and resulted in inflated cost effectiveness, as determined by the facility. [Id.].

193. Total capital investment: In the context of the Department's FFAs, the calculated total annualized costs ("TAC") of an APC measure were typically dominated by the contribution from TCI. [Id.]. As described in Appendix C of the SIPr, the calculation of TCI received considerable attention through the FFA development process. [NMED Ex. 17, Bates 09597; NMED Ex. 5, Bates 06427-06602]. The Department's selection of a cost metric used to estimate the TCI of a new, replacement RICE or turbine was a noteworthy element to this regard. [NMED Ex. 17, Bates 09597]. Many of the affected facilities have asserted that replacing an existing unit with a new unit is beyond the scope and authority of the regional haze program and thus did not provide replacement cost estimates. [Id.; for example: NMED Ex. 5 at 07052]. Kinder Morgan – an owner and operator of several facilities subject to the Department's SIPr and Proposed Rule – provided internal TCI cost metrics (on a $ per power output basis) based on its extensive experience in the natural gas compression industry. [NMED Ex. 17 at 9597-9598; NMED Ex. 5 at 7021 and 7023]. Following a review and comparison of publicly available resources, it was ultimately determined that the Kinder Morgan TCI cost metrics were reasonable. [NMED Exhibit 17 at 9598]. As a result, NMED used these metrics

to evaluate the cost of compliance for replacement RICE and turbines at other companies' facilities as well. [Id.]. It is understood that the Kinder Morgan metrics are likely accurate to within ±30 percent, but various non-contractual vendor quotes/estimates are often caveated with a similar degree of accuracy. [Id.].

194. Cost effectiveness: The cost effectiveness calculation requires all applicable costs to be on an annual basis ($/yr). [Id.]. As described in SIP Appendix C, TCI was converted to annualized capital costs using the appropriate capital recovery factor, which accounts for interest rate and remaining useful life (the fourth factor). [Id., 9598; NMED Ex. 5 at 6427-6602].

195. Selective catalytic reduction and costs: The Department undertook an investigation and evaluation of SCR, a mature and highly effective APC technology used to reduce NOX from various types of combustion units (including turbines). [NMED Ex. 17 at Bates 9598; NMED Ex. 5 at 6427-6602]. There are many APC technology evaluations in which SCR was determined to be appropriate to meet regulatory requirements of the Regional Haze Rule. In recognition of SCR's value as a highly effective and prolific APC measure suitable for use in many industries, the EPA developed and dedicated an extensive chapter of its Control Cost Manual to SCR evaluation. [NMED Ex. 17, Bates 9598-9599]. EPA also developed the "SCR Tool," to estimate capital

and O&M costs associated with the retrofit of utility boilers and similar-sized industrial boilers. [Id. at 9599].

196. The SCR Tool is relatively unique: it is specific to an add-on APC measure with the highest potential NOX control, developed by a trusted entity, easily accessible, and available to anyone at no cost. [Id.]. The SCR Tool is designed to estimate SCR costs associated with utility and industrial-scale boilers. [Id.]. However, the design, operation, and cost of a SCR system is primarily dependent on certain exhaust characteristics: NOX concentration, flow rate, and (especially) temperature. [Id.]. The information typically requested by SCR manufacturers to produce SCR budgetary cost estimates supports this understanding; the "design data" they use focuses on these characteristics. [Id.]. For these reasons, the SCR Tool is used by air quality authorities, consultants, environmental groups and other stakeholders to estimate SCR costs for various types of emissions units (including turbines). [Id.]. It is important to note that nearly every facility that eventually evaluated SCR, at the Department's direction, used the SCR Tool. [Id.].

197. Despite the prevalence of SCR, none of the affected facilities provided the Department with vendor-developed SCR cost estimates. [Id.]. Many companies, in fact, claimed it was technically infeasible for one or more reasons. [Id.]. For example, Enterprise cited physical space constraints as its justification to classify SCR as technically infeasible. [Id.; NMED Ex 5 at Bates 7084; 7174; and 7241]. The Department initially agreed with this conclusion,

but – following comments from the National Park Service and additional investigation – ultimately determined that such constraints affected economic feasibility and not technical feasibility. [Id.]. The Department's cost evaluations of SCR are based on the SCR Tool and the underlying EPA methodology. [Id. at 9600].

198. SCR control efficiency and slip: According to the SCR Chapter of EPA's Control Cost Manual, SCR has been successfully utilized since the early 1970s in the U.S., Europe, Japan, and other countries and routinely reduces NOX emissions by more than 90 percent. [Id.]. The magnitude of SCR emissions reduction is highly influenced by the amount of time a SCR system operates within the appropriate temperature range. [Id.]. That is, in turn, affected by the degree of intermittent operation of the upstream emission unit, as the hot exhaust from a unit maintains the SCR system temperature. [Id.]. Knowledgeable representatives from industry end-users, turbine manufacturers, SCR vendors and developers, federal and state government agencies, and environmental groups appear to agree that SCR is effective on units that operate intermittently. [Id.]. This understanding appears to be the product of proper SCR design, the development and use of lower temperature catalysts, and precise parametric monitoring. [Id.]. For these reasons, NMED initially estimated that SCR would achieve an average reduction of 90 percent. [Id.].

199. In response to facility comments, the Department updated its FFA evaluations for RICE and turbines that operate intermittently, using an expected SCR reduction of 80 percent. [Id.]. This decision was primarily based on the following:

a. Air permits for turbines that operate in natural gas compression issued in several states indicate that 70 to 90 percent reduction (on an average annual basis) with SCR is achievable. Those permits include the commensurate regulatory requirements designed to ensure that the reductions are obtained.

b. Discussions with SCR manufacturers.

c. Additional consideration of how intermittent operation can impact average annual SCR operating efficiency.

d. Additional communication with affected facilities, in which assertions have been made that 70 to 80 percent reduction is a more reasonable target.

e. Eighty (80) percent reduction is the median value between 70 and 90 percent. The corresponding difference between this value (80%) and the reasonable upper bound (90%) is expected to provide an adequate margin for operational flexibility. [Id. at 9600-9601].

f. As described in Appendix C of the SIPr, SCR operation requires the use of a reagent (i.e., ammonia). [NMED Ex. 17 at 9601; NMED Ex. 5 at 6431]. Even in a properly designed and optimized SCR system, small

amounts of unreacted ammonia will be present in the stack exhaust. [NMED Ex. 17 at 9601]. In the atmosphere, ammonia can function as a precursor to the formation of particulate matter, which can contribute to visibility impairment. [Id.]. Air permits issued by air quality agencies for SCR systems typically include ammonia slip limits to prevent excess emissions. [Id.]. The impact of ammonia slip is not anticipated to outweigh the NOX reduction benefits of SCR nor have an appreciable effect on reasonable progress. [Id.].

200. Additional rebuttal on cost factor: EPNG contends that the Department "fails to consider that new engines must also install and operate emissions controls. Specifically, any new replacement engine would need to meet New Source Performance Standards ("NSPS") for carbon monoxide and volatile organic compounds ("VOCs") under Subpart JJJJ [under 40 C.F.R. § 60.4230 et seq]." [EPNG Ex. 1 at 26]. EPNG argues that in order to meet regulatory standards "the new engines would employ oxidation catalysts that require quarterly maintenance, chemical cleaning every 7,000 hours, and replacement of the catalyst elements every 24,000 hours or as needed," along with maintenance costs. [Id]. As a result, EPNG claims that the Department should have used the EPA's base 4% of total capital cost for the ongoing indirect annual costs that EPNG calculates at $121,722 per year. [Id.].

201. In response, Mr. Sidner challenged the accuracy of EPNG's estimate for additional costs associated with engine replacement. Mr. Sidner testified that

"EPNG attempts to correct the Department's cost effectiveness calculation for unit replacement by significantly underestimating anticipated emissions reductions and inflating Other Indirect Annual Costs (OIAC)." [NMED Reb. Ex. 2 at 7]. Mr. Sidner explains that "[a]s for OIAC: EPNG asserts that the OIAC for a replacement engine is reasonably equal to the cost associated with oxidation catalysts that are required for compliance with NSPS Subpart JJJJ." EPNG assumed that 4% of TCI was a "reasonable proxy for those costs," equaling approximately $121,000 per year for both Unit A-11 and A-13.

202. The type of oxidation catalyst identified by EPNG may also be required for compliance with NESHAP Subpart ZZZZ. According to EPA's Regulatory Impact Analysis for that rule, the annual costs (in 2009$) associated with a two-stroke lean burn engine oxidation catalyst was determined to be equal to 11.4 x [engine hp rating] +13,928. With an engine rating of 943 hp, the resulting annual cost is ~$35,000 per year (adjusting to 2024$), or less than one-third ENPG's cost. This additional cost increases calculated cost effectiveness by an estimated $400/ton and thus does not change NMED's determination that unit replacement is an economically feasible control option for Units A-11 and A-13 at EPNG Blanco A. [Id. at 7-8].

203. EPNG also takes issue with the Department's assumption of 100% load from engines, which EPNG argues is not "reasonably accurate or reflective of actual emissions because the engines at Blanco A operate at variable loads,"

and emissions rates are influenced by "other factors" than engine load. [EPNG Ex. 1 at 27].

204. Mr. Sidner pointed out that "[d]uring the development of [the Department's] FFAs, none of the respective facilities provided comprehensive or representative emissions and operating data," but rather chose to submit data that was "questionable and inconsistent." [NMED Reb. Ex. 2 at 8]. This required the Department "to calculate emissions and emissions reductions based on readily available information, reasonable judgement, and consideration of existing NMED policies and procedures, as explained previously and in Appendix C of the revised SIP." [Id.]. According to Mr. Sidner, EPNG exaggerates the effect of the Department's assumptions on emissions. [Id.]. Mr. Sidner acknowledged that the relationship between engine load and emission of NOx is not perfectly linear, "NOX emissions – on a mass per unit output basis – generally increase proportionally to engine load because of increased fuel consumption." [Id.]. Mr. Sidner testified that the Department's review of emissions data from Blanco A "indicates that average NOX emissions from its units operating at >90% load are in the 7 to 16 lb/hr range, with a median value of approximately 11.5 lb/hr." [Id. at 8-9]. The Department's calculated average NOX emissions rate – assuming a linear relationship – is 11.6 lb/hr. [Id. at 9]. Mr. Sidner concludes that "[t]his negligible difference substantiates [the Department's] methodology while refuting EPNG's claim. [Id.].

205. The Board finds that EPNG's contentions that the Department failed to consider that new engines must also install and operate emissions controls, and that the Department should have used a base 4% of total capital cost to calculate the ongoing indirect annual costs are not supported by EPNG's testimony. The Board lends them little weight.

206. The Board is not persuaded by EPNG's contention that the Department's assumption of 100% load from engines is not reasonable, accurate, or reflective of actual emissions because emissions are influenced by factors other than engine load. The Board finds that EPNG's testimony on this point lacks credibility and lends it little weight.

207. The Board finds that the record contains substantial evidence that the Department's cost effectiveness calculation for unit replacement is reasonable and supports the Department's determination that unit replacement is an economically feasible control option for Units A-11 and A-13 at Blanco A.

208. The Board finds that the record contains substantial evidence that the Department's method to calculate emissions and emissions reductions based on readily available information, reasonable judgement, and consideration of existing Department policies and procedures was reasonable and sufficient to support the Department's determination for cost effectiveness of engine replacement at Blanco A.

209. Factor 2--Time Necessary for Compliance: Time is an essential component in planning for and achieving emissions reductions, as the design, installation, and optimization of APC technologies require significant planning and effort. [Id.]. Factor 2 of the FFA refers to the reasonable timeframe required for a facility to implement an identified APC measure. [Id.]. The Department considered the following in evaluating Factor 2:

a. Technological Complexity and Installation. APC technologies can be highly specialized and require significant time to design, manufacture, and install. This characteristic is particularly relevant in the context of retrofitting existing emissions sources.

b. Permitting and Other Regulatory Obligations. The air permitting process for APC measures can take significant time, especially if an agency is overburdened with a backlog of permit applications and inadequately staffed. In some cases, environmental impact assessments or other regulatory reviews (e.g., by the Federal Energy Regulatory Commission) may be required before a project can begin.

c. Workforce and Supply Chain Constraints. The availability of skilled labor, materials, manufactured components and even electricity is another consideration. Supply chain disruptions, workforce shortages, lack of electric utility distribution lines, or logistical challenges can impede the installation of necessary pollution control equipment.

> Accounting for these potential bottlenecks can be critical in the FFA process and setting realistic deadlines. [Id. at 9601-9602].

210. A reasonable timeline allows affected facilities to properly implement a project, ensuring that APC measures are designed, installed, and operated as intended. [Id. at 9602]. Setting overly aggressive deadlines can lead to rushed development, which may compromise safety, increase costs, or result in suboptimal emissions reductions. [Id.]. Conversely, overly lenient timelines can delay needed environmental improvements necessary to mitigate visibility impairment. [Id.].

211. Factor 3--Energy and Non-Air Quality Environmental Impacts: While improving visibility by reducing contributory air pollution is the principal focus of the regional haze program, the implementation of APC measures or strategies can have broader environmental implications. [Id.]. Factor 3 of a FFA involves the evaluation of associated energy demands and non-air quality environmental impacts. [Id. at 9602-9603]. Energy in this context includes increased electricity and fuel consumption. [Id. at 9603]. Non-air quality impacts typically include water consumption, and solid waste generation and disposal. [Id.]. Proper assessment of this factor ensures that the adoption of an APC measure does not result in unintended consequences such as mandatory emissions reductions dependent on the significant consumption of water, when that resource is not available. [Id.].

212. Most APC measures require electricity to operate. [Id.]. If the increased electric demand cannot be satisfied by a facility's existing electricity infrastructure, that infrastructure must be upgraded or new infrastructure (onsite and/or offsite) must be designed and installed. [Id.]. Considerations to this regard were particularly relevant during the Department's expanded evaluation of electrification as a potential APC measure (electrification is a term, in this context, used to refer to the replacement of a conventional fossil fuel fired unit with an electric powered equivalent). [Id.]. As documented in Appendix C, none of the APC measures evaluated by the Department are expected to appreciably increase non-air quality impacts. [Id.; NMED Ex. 5 at 6429-6452].

213. Factor 4--Remaining useful life: Factor 4 accounts for the remaining useful life of the affected unit; a consideration that includes both how long the unit is expected to remain in operation and the expected lifetime of potential APC measures. [Id.]. A reasonable and appropriate evaluation of remaining useful life is integral to the FFA because of how much weight is given to the cost of compliance. By adequately considering the remaining useful life of a unit, regulators can make more informed decisions about where to allocate APC resources. [Id.]. Factor 4 helps ensure that measures are not applied to units that are on the verge of retirement, which can greatly undermine cost-effectiveness and long-term environmental goals. [Id.].

214. Since the remaining useful life of each unit was expected to exceed the life of each potential APC measure, annualized capital costs are based on the expected useful life of the APC measure. [Id. at 9604]. For example, 20 years was determined to be appropriate for selective catalytic reduction and turbine dry low NOX combustors. [Id.]. As documented in SIP Appendix C, the Department evaluated unit replacement as a potential APC measure. [Id.]. In these situations, the applicable remaining useful life is the anticipated lifespan of the new unit (25 or 30 years). [Id.; NMED Ex 5 at 6466].

215. The Board finds that the record contains substantial evidence that the Department's four-factor analyses were reasonable, and the SIPr adequately describes and characterizes the Department's evaluation and determination of the emission reduction measures that are necessary to make reasonable progress by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected source. The Board further finds that the Department's four-factor analyses are in accordance with the EPA's 2019 Guidelines.

216. The Board concludes that the Department has met all of the requirements for the four-factor analysis under 42 U.S.C. Section 4791(g)(1) and 40 C.F.R. 51.308(f)(2)(i).

F. THE PROPOSED RULE DOES NOT REQUIRE REPLACEMENT, ELECTRIFICATION, NOR DOES IT REDEFINE SOURCES

217. EPNG makes the misleading claim that neither the Clean Air Act nor the Regional Haze Rule authorizes the replacement of emission units nor electrification. [EPNG Non-Technical Statement at 10]. EPNG makes this claim despite the fact that the Proposed Rule does not require replacement, electrification of any equipment by any entities covered by the Proposed Rule nor do the SIPr and Proposed Rule redefine sources. The Department's witness Mr. Miller's testimony affirmed that under the Proposed Rule, no covered entity "is being required to replace anything. The Rule sets an emissions limit based on . . . a new engine . . . but in many cases . . . there are potentially other ways that facilities could comply with limits beyond or besides replacing . . . the equipment." [4-29-25 2 Tr. 395:16-25; 396:1-3]. With regard to electrification, Mr. Miller testified that the Department "categorically excluded electrification . . . due to significant concerns about the reliability of its cost estimates and its ability to ascertain whether electrification is, in fact, technically feasible for many of the units it evaluated. Therefore, electrification was eliminated at the outset of the control selection process." [NMED Ex. 19 at 9619-9620].

218. EPNG asserts that the Proposed Rule would "eliminate" or "redefine" the facilities' emission sources. [EPNG Non-Technical Statement at 10 and 11, fn.

9]. To support this assertion, EPNG cited to certain court cases; the Board finds these cases irrelevant to its action on the SIPr and the Proposed Rule. EPNG's arguments regarding replacement, electrification, and source redefinition have no merit.

219. The Board does have the authority to require replacement: Despite the fact that the Proposed Rules does not require replacement, the Board does in fact have the authority to require replacement. The CAA's Regional Haze provisions state that "Congress hereby declares as a national goal *the prevention* of any future, and *the remedying* of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution . . . the [EPA] shall complete a study and report to Congress on available methods for implementing the national goal set forth in paragraph (1). Such report shall include recommendations for . . . methods for *preventing and remedying* such manmade air pollution and resulting visibility impairment." 40 U.S.C. §7491(a).

220. Section 7491 further mandates that the EPA must promulgate regulations that require states to submit SIPs that "contain such emission limits, schedules of compliance and *other measures as may be necessary* to make reasonable progress toward meeting the national goal . . . Id. at § 7491(b). Section 7491 explicitly grants broad authority to states to craft SIPs that will move the United States toward the national goal of natural visibility conditions. In addition, the AQCA empowers the Board to "adopt,

promulgate, publish, amend and repeal rules and standards consistent with the [AQCA] to attain and maintain national ambient air quality standards and prevent or abate air pollution, including . . . rules prescribing air standards within the geographic area of the environmental improvement board's jurisdiction."[4] § 74-2-5(B). Furthermore, the Board has statutory authority to adopt rules "to protect visibility in mandatory class I areas . . . at least as stringent as required by the federal act and federal regulations pertaining to visibility protection in mandatory class I areas." § 74-2-5(D)(1). The Board's authority under the AQCA in combination with the broad discretion afforded by the federal regional haze statutes, regulations, and guidance provide ample authority for the Board to require replacement.[5]

221. The Board is unpersuaded by EPNG's claims that neither the Clean Air Act nor the Regional Haze Rule authorizes the replacement, electrification, or redefinition of emission units.

222. The Board finds that the record contains substantial evidence that the SIPr and Proposed Rule do not require the replacement nor electrification of

[4] Section 74-2-2(B) of the AQCA defines *air pollution* as "the emission, except emission that occurs in nature, into the outdoor atmosphere of one or more air contaminants in quantities and of a duration that may with reasonable probability injure human health or animal or plant life or as may unreasonably interfere with the public welfare, **visibility** or the reasonable use of property." (emphasis added).

[5] See 40 U.S.C. §7491(a) and (b) (above); 40 C.F.R. 51.308(f)(2)(i) (granting the states discretion in their responsibility to "evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of visibility impairment"); and the EPA's 2019 Guidance (giving agencies the flexibility to "develop a cohesive strategy that demonstrates reasonable progress over time") [NMED Exhibit 13 at 36, Bates 09525]. There are many other citations throughout this Closing Argument detailing the enormous latitude that federal statutes, regulations, and guidance grant afford the Department and the Board in implementing the national goal of natural visibility in Class I areas by 2064.

any equipment, nor do the SIPr and Proposed Rule redefine any of the selected sources.

223. Even though the Board finds that the SIPr and Proposed Rule do not require engine replacement, electrification, nor redefinition sources, the Board concludes that it does have the authority to require replacement and electrification pursuant to 40 U.S.C. §7491 and the AQCA's mandate that the Board "prevent or abate air pollution." 74-2-5(A). See *New Energy Econ., Inc. v. Shoobridge,* 2010-NMSC-049, ¶ 2 (reaffirming that "[t]he Legislature empowered the Environmental Improvement Board (Board) to prevent or abate air pollution and to adopt or promulgate regulations consistent with the Air Quality Control Act") (internal citation omitted).

G. THE NATURAL GAS ACT DOES NOT PREEMPT THE PROPOSED RULE

224. EPNG's testimony regarding the Natural Gas Act ("NGA") and the Federal Energy Regulation Commission ("FERC") lacks merit. EPNG asserts that "the Board may not issue a requirement for a FERC-certified pipeline to replace engines" **[EPNG Ex. 20 at 2];** and that "The Board does not have authority to require that FERC-regulated facilities be abandoned." [Id.]. The Proposed Rule does *not require* any regulated entity to do anything in particular but instead imposes emissions limitations in order to make reasonable progress toward the federally mandated national goal of natural visibility conditions in Class I

areas by 2064.[6] The choice of retrofitting, replacement, or abandonment lie entirely within the discretion of regulated entities in complying with the Proposed Rule.

225. EPNG argues is that "the Board should understand . . . that the State of New Mexico may not require that EPNG replace existing FERC-certified engines because that action would require abandonment of such engines, which is preempted by the Natural Gas Act . . ." and that, ". . . because the federal Natural Gas Act preempts state authority that intrudes on federal regulation of natural gas pipelines, the Board is limited in certain actions it may take in regulating interstate natural gas pipeline facilities, including both Blanco A and Pecos River." [EPNG Ex. 20 at 6; EPNG Non-Technical Statement at 15].

226. The Board finds that the Natural Gas Act does not preempt state actions under the Clean Air Act: The NGA unequivocally mandates that "nothing under [the NGA] . . . affects the rights of States under . . . the Clean Air Act (42 U.S.C. 7401 et seq.) . . ." 15 U.S.C. § 717b(d) (2023) (emphasis added). See also Dominion Transmission, Inc. v. Summers, 723 F.3d 238, 240 (affirming that "[o]ne regulatory regime the NGA expressly does not preempt is the system of state emissions regulations established by the Clean Air Act").

227. This exception to the NGA is one of only three exemptions, the others being the federal Coastal Zone Management Act and the federal Water

[6] See 4-29-25 2 Tr. 395:16-25 (Mr. Miller testifying that no entity subject to the Proposed rule "is being required to replace anything . . . the Rule sets emission limits . . . [t]here are other ways that facilities could comply with the limits beyond or besides replacing").

Pollution Control Act. Id.; 15 U.S.C. § 717b(d) (2023). The fact that Congress specifically carved out three exceptions indicates a clear intent to provide states with the authority to administer the CAA free of undue deference to the NGA. Federal courts have upheld the CAA exemption. See Dominion Transmission, Inc. v. Town of Myersville Town Council, 982 F. Supp. 2d 570, 577 (D. Md. 2013) (holding that state and local regulations "passed and validly enacted pursuant to one of these reserved powers are not preempted" by the NGA); and Federal Power Comm'n v. Panhandle Eastern Pipe Line Co., 337 U.S. 498, 502-503 (1949) (holding that the NGA "did not envisage federal regulation of the entire natural-gas field to the limit of constitutional power. Rather it contemplated the exercise of federal power as specified in the [NGA] particularly in that interstate segment which the states were powerless to regulate because of the Commerce Clause of the Federal Constitution. The jurisdiction of [FERC] was to complement that of the state regulatory bodies") (internal citations omitted).

228. The Department and the Board have primary responsibility for implementing air quality control in the state of New Mexico. Beginning in 1996, the EPA has consistently approved New Mexico's air quality SIPs, affirming that New Mexico has primacy over the regulation of the State's air quality. 61 Fed. Reg. 53639; 62 Fed. Reg. 50514 to 50518; See also Espinoza v. Roswell Tower, Inc., 32 F.3d 491, 492 (10th Cir. 1994) (affirming New Mexico's "state implementation plan has the force and effect of federal law").

229. FERC gives priority to environmental factors when considering whether to issue certificates of public convenience: The NGA, 15 U.S.C. §§ 717-717z, establishes a "comprehensive scheme of federal regulation" that grants FERC exclusive jurisdiction over “the transportation . . . of natural gas in interstate commerce for resale." Dominion Transmission, Inc. v. Summers, 723 F.3d 238, 240 (DC Cir. 2013) (internal citations and quotation marks omitted). Congress enacted the NGA in 1938 to encourage reasonably priced natural gas and to protect “consumers against exploitation at the hands of natural gas companies.” NAACP v. Fed. Power Comm'n, 425 U.S. 662, 669-70 (1976); and Fed. Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944). The NGA also serves subsidiary purposes that include conservation and environmental issues. Pub. Utils. Comm'n of Cal. v. FERC, 900 F.2d 269, 281 (D.C. Cir. 1990).

230. The scope of FERC is limited to “the transportation of natural gas in interstate commerce, to the sale in interstate commerce of natural gas for resale for ultimate public consumption for domestic, commercial, industrial, or any other use, and to natural-gas companies engaged in such transportation or sale, and to the importation or exportation of natural gas in foreign commerce and to persons engaged in such importation or exportation, but shall not apply to any other transportation or sale of natural gas or to the local distribution of natural gas or to the facilities used for such distribution or to the production or gathering of natural gas.” 15 U.S.C. § 717(b) (2022).

231. Federal courts have recognized that a natural gas compressor "is one piece of a multi-state pipeline and storage project" subject to FERC's jurisdiction. Dominion Transmission, Inc. v. Town of Myersville Town Council, 982 F. Supp. 2d 570, fn. 8 (D. Md. 2013).

232. It is true that before EPNG constructs or expands a facility that transports natural gas, it must obtain from FERC "a certificate of public convenience and necessity" ("Certificate"), 15 U.S.C. § 717f(c), and comply with all other federal, state, and local regulations not preempted by the NGA. However, contrary to how EPNG characterizes the hurdles of obtaining a Certificate, FERC's determination on whether to issue a Certificate turns on whether issuance is, on the whole, in the public interest, not simply on the preferences of regulated entities.

233. FERC issued an updated Certificate policy statement ("Policy Statement") in March 2022, describing how FERC "will evaluate all factors bearing on the public interest" in determining "whether a proposed natural gas project 'is or will be required by the present or future public convenience and necessity.'"[7] In deciding whether to issue a Certificate, FERC weighs "the need that will be served by the project, against its adverse impacts" and is expressly committed to considering "*all* relevant factors bearing on the need for a project." Id. at 11,556. FERC's Policy Statement asserts that "[t]he most important consideration in assessing benefits will be evidence demonstrating

[7] "Certification of New Interstate Natural Gas Facilities," 87 Fed. Reg. 11,548 (March 1, 2022).

that a project is needed . . . which may include evidence that that project will displace more pollution-heavy generating sources . . .” Id. at 11,561.

234. In assessing whether a pipeline project is needed, FERC’s Policy Statement specifically highlights pipeline projects that are “intended to support more efficient system operations by replacing older and inefficient facilities (e.g., compressors and leak-prone pipes) to respond to changing State and Federal Government pipeline safety or environmental requirements.” Id. at 11,557. FERC’s Policy Statement guides natural gas companies to document how a project such as “compressor replacements . . . avoids adverse impacts or satisfied any changing State or Federal Government regulations.” Id. FERC encourages gas companies to “submit analyses showing how market trends as well as expected policy and regulatory developments” reflect the need for a project. Id.

235. FERC also considers the adverse impacts of a pipeline project under a four-factor analysis: “(1) the interests of the applicant’s existing customers; (2) the interests of existing pipelines and their captive customers; (3) environmental interests; and (4) the interests of landowners and surrounding communities.” Id. A Certificate may be denied for any of these four factors. Id. In considering the interest of the company’s existing customers, a company must show that they are not passing the cost of the project on to those customers, and show all efforts made will minimize degradation in service. Id. Regarding existing pipelines and their captive customers, a

company must show that the project will not unreasonably interfere with market shares of existing pipelines nor adversely affect their captive customers. FERC's consideration of environmental impacts requires companies to "structure their projects to avoid, or minimize, potential adverse environmental impacts." Id. at 11,558. Lastly, FERC will consider the impact of a project on the property rights of landowners and impacts on environmental justice communities. Id. at 11,560.

236. FERC's Policy Statement makes it clear that the consideration of environmental health and justice are given deference in determining whether to issue a Certificate.[8] Federal law requires FERC to issue a Certificate to any qualified applicant that is "able and willing properly to do the acts and to perform the service proposed and to conform to the provisions of this chapter and the requirements, rules, and regulations of [FERC] and that the proposed . . . construction [or] extension, is or will be required by the present or future public convenience and necessity." 15 U.S.C. § 717f(e).[9] And contrary to any concern that replacement, retrofit, or retirement might

[8] See 87 Fed. Reg. 11,548 at 11,566 (stating that in considering applications for a Certificate, FERC "will consider four categories of adverse impacts from the construction and operation of new projects: (1) The interests of the applicant's existing customers; (2) the interests of existing pipelines and their captive customers; (3) *environmental interests*; and (4) the interests of landowners and surrounding communities, including *environmental justice communities* . . . [and will] consider environmental impacts and potential mitigation in both our environmental reviews") (emphases added).

[9] See Id. at 11,557 (stating that in the context for an application for a Certificate, "pipeline projects may be intended to support more efficient system operations by replacing older and inefficient facilities (e.g., compressors and leak-prone pipes) and performing other infrastructure improvements, or to respond to changing ***State*** and Federal Government pipeline safety or *environmental requirements*. For these projects, applicants may document how proposed facilities, for example . . . *compressor replacements*, provide expected system benefits . . . [and] an applicant may document how a project avoids adverse impacts or satisfies any changing *State or Federal Government regulations*").

create a break in service while waiting for a Certificate, the NGA provided for the issuance of temporary certificates during the application and hearing process.[10] [11] Determining whether a proposal meets the requirement of public convenience and necessity requires FERC "to evaluate all factors bearing on the public interest." City of Oberlin v. FERC, 39 f.4th 719, 722 (DC Cir. 2022) (internal citations and quotation marks omitted). Given FERC's Policy Statement, there is little room to doubt that any party subject to the Proposed Rule will be able to obtain a Certificate to comply with the Clean Air Act, which is explicitly exempted from NGA preemption. Obtaining certificates of public convenience are a normal course of business for owners and operators of natural gas pipeline facilities. It is close to certain that EPNG will be able to obtain approval from FERC for any changes EPNG's chooses to make in compliance with the Proposed Rule.

237. The Board finds that EPNG's arguments regarding the difficulties obtaining a certificate of public convenience pursuant to 15 U.S.C. § 717f(c) are exaggerated. EPNG's testimony on this point lack credibility and the Board gives it little weight.

[10] See 15 U.S.C. Section 717(f)(b)(1)(B) (providing that "the Commission may issue a temporary certificate in cases of emergency, to assure maintenance of adequate service or to serve particular customers, without notice or hearing, pending the determination of an application for a certificate").

[11] EPNG's witness, Mr. Tarin admitted at the public hearing that "if [EPNG] would decide to replace a compressor unit there is a regulatory process that would allow you to do so. There are also various regulations that would facilitate replacement of a compressor unit so long as it meets the requirements associated with each of those regulations.

238. The Board concludes that the Natural Gas Act, 15 U.S.C. §§ 717-717z, does not preempt the CAA, does not preempt the Board's authority to adopt SIPr and Proposed Rule, nor does it preempt the SIPr and Proposed Rule.

H. EPNG HAS FAILED TO ESTABLISH THAT REPLACEMENT IS INFEASIBLE

239. Determination of feasibility is delegated to the Department's discretion: Even though the Department's Proposed Rule is not requiring replacement of any equipment, EPNG contends that the Proposed Rule would require the replacement of Units A11 and A13 at the Blanco A facility. As set forth below, EPNG has failed to provide sufficient evidence that would support a factual finding of infeasibility or technical impracticability.

240. Under the federal regional haze statutes and regulations, feasibility is a determination explicitly delegated to the Department's discretion. See 42 U.S.C. §§ 7491(b)(2) and (g)(1) (requiring states to develop SIPs that ensure reasonable progress toward natural visibility by taking into consideration "the costs of compliance, the time necessary for compliance, and the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements"); and 40 C.F.R. § 308(f)(2)(i) (requiring states to "evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of

visibility impairment" in developing their long-term strategies for regional haze).

241. The Board's evidentiary standard: In New Mexico, in adopting a rule, the Board "shall give weight it deems appropriate to all facts and circumstances, including . . . technical practicability and economic reasonableness of reducing or eliminating air contaminants from the sources involved and previous experience with equipment and methods available to control the air contaminants involved." NMSA 1978, § 74-2-5(F)(3) (1967 as amended through 2021). Like its federal counterparts in the CAA and RHR, the AQCA does not require the Department to establish feasibility, rather the Board is directed to consider technical practicability. In determining technical practicability, the Board must apply the CAA and RHR provisions to the evidence, and in considering the facts "make credibility determinations about the evidence before it."[12] Alto Coal. for Env't Pres. v. Roper Constr., Inc., 2025-NMCA-018, ¶ 25. In considering the interpretation of statutes and regulations that implicate agency expertise, tribunals will generally defer to the agency's interpretation. Gila Res. Info. Project v. N.M. Water Quality Control Comm'n, 2005-NMCA-139, ¶24, 138 N.M. 625.

242. New Mexico's courts will overturn the Board's decisions if it is "not supported by substantial evidence in the record." § 74-2-9(C)(2) (1971 as

[12] The AQCA does not contain the type of burden-shifting evidentiary standards found in the AQCA's permitting statutes or regulations. See § 74-2-7(K) and 20.1.2.302 NMAC (setting forth evidentiary standards in permit hearings before the Board).

amended through 1992). Substantial evidence is evidence "that is credible in light of the whole record and that is sufficient for a reasonable mind to accept as adequate to support the conclusion. N.M. Indus. Energy Consumers v. N.M. Pub. Regulation Comm'n, 2019-NMSC-015, ¶ 8 (internal citation and quotation marks omitted).

243. The BART Guidelines establish that replacement is technically feasible for Blanco A: To establish technical infeasibility, the evidence must show "based on physical, chemical, or engineering *principles*, why technical difficulties would preclude the successful use of the control option on the emissions unit under review."[13] The BART Guidelines make it clear that "[w]here the resolution of technical difficulties is merely a matter of increased cost, you should consider the technology to be technically feasible." Id. Physical modifications, such as expanding a building or re-piping a facility "do not, in and of themselves, provide a justification for eliminating the control technique on the basis of technical infeasibility." Id.

244. EPNG does not provide sufficient evidence for the Board to make a finding of infeasibility: EPNG contends that "the only way to achieve this emissions rate [in the Proposed Rule] is to remove the two units and replace them with a brand new unit that operates at a higher horsepower," and that replacement is infeasible due to space and engineering constraints at EPNG's Blanco A facility. [EPNG Ex. 13 at 5-9]. However, EPNG's feasibility arguments

[13] 70 Fed. Reg. 39,104, 39,165 (July 6, 2005) (emphasis added).

rest on a set of self-imposed limitations rather than a full evaluation of various potential replacement scenarios. First, EPNG prefers to replace Unit A11 and A13 with a single, higher-capacity engine because that would be less expensive. [Id. at 6]. Second, EPNG expresses a preference for a Caterpillar 3606 engine because it is common in its system and "we prefer installing equipment with which we have deep experience." [Id.]. Finally, EPNG prefers to retire engines in place rather than removing an engine to add a replacement engine, again because it is less expensive. [Id. at 7]. Based on EPNG's expressed preference for a Caterpillar 3606 engine, which EPNG claims would cause incompatible vibrations within the Blanco A compressor building, as well as its preference to retire in place, making it impossible to use the same physical space for new engine(s), EPNG argues that it is infeasible to install replacement horsepower in the building. [Id. at 9]. Increased cost and complexity bears on the economic – not technical – feasibility of replacement.

245. Notwithstanding EPNG's expressed preference to retire in place, their witness describes exactly how EPNG would replace an engine, demonstrating that it ***is*** technically feasible: "remove the top of the building, hire a crane to remove the engine, hire a crew to break the concrete and rebuild a new, re-designed pad, re-pipe the entire system, and place a new engine in with a crane." [Id. at 7]. Regarding EPNG's claim that housing a higher speed engine with the existing lower speed engines "would result in conditions with

incompatible vibrations that can result in operational disruptions and increased need for costly repairs . . . [creating] a very real safety concern," EPNG utterly ignores the possibility of using a different make and/or model engine than a Caterpillar 3606, specifically one that operates at lower speed, which would eliminate any potential vibration issues.[14] Furthermore, EPNG never identifies what the "safety concern" associated with these issues is, and the Board should decline to speculate as a substitution for gaps in EPNG's evidence.

246. EPNG provided two exhibits in support of its feasibility argument regarding installing replacement horsepower in the Blanco A compressor building. The first is a PowerPoint presentation on equipment pulsation and vibration from a 2020 gas machinery conference. It covers a wide range of topics, from basic theory to mechanical design, and was "intended for educational purposes only and [does] not replace independent professional judgment." [EPNG Ex. 15 at 1-2]. The second exhibit is a 2006 guideline on the installation of reciprocating compressors in pipeline projects prepared for the Gas Research Machinery Council. [EPNG Ex. 16]. The purpose of the guidelines is "to provide the end-user with a framework and mechanism for requesting the same scope of work from all bidding organizations, which also helps the suppliers provide a competitive price on an equal basis." [Id. at 5].

[14] None of the engines the Department evaluated at EPNG's three facilities are Caterpillar engines, indicating that EPNG has "deep experience" with other makes/models of engines, too. [NMED Ex. 5 at 6468-6491].

The guidelines are intended to "help project stakeholders install separable compressors that encounter a minimum of problems, that enhance reliable deliverability of the U.S. pipeline system, that represent valuable business assets to pipeline companies, and that the diverse supplier teams can profit from with justifiable pride." [Id. at 22]. Both the PowerPoint and the guidance are generic documents of general application. EPNG offers them in support of its contention that "engines operating at different speeds need to be separated because of incompatible vibration issues," without explaining how the Board should use them or how exactly they support or apply in any way to it its argument regarding feasibility.

247. EPNG also did not provide any data nor any manufacturer's information regarding the Caterpillar 3606, so the Board has no information on what range of RPMs the Caterpillar 3606 runs at, its size, its weight, nor its RPMs in relation to units it might be placed next to.[15] Furthermore, the PowerPoint says nothing about placing together engines operating at different speeds at all. The PowerPoint is filled with methods for combating vibration and resonance such as piping design, relative stiffness of clamping materials, and skid and foundation design. [Id. at 66-67, 69, 78-81]. EPNG provides no alternative scenarios, no alternative engines, no cost estimates, no vendor

[15] EPNG states that "a new engine" would run at 1,000 RPMs along with the other units 300 RPMs but does not specify that the new engine is the Caterpillar 3606, nor does EPNG provide any information about what RPMs the 3606 runs at. In order to find this credible, the Board will have to assume, without any evidence, that 3606 is the "new engine" that runs at 1,000 RPMs. The Board should not do that. See *Romenesco v. Barber*, 1968-NMSC-066, ¶11, 79 N.M. 83 (stating that tribunals will not speculate on issues where facts must be assumed).

quotes. EPNG provides no engineering or architectural elevations, blueprints, nor any other evidence supporting its claim regarding space and engineering constraints in the building housing Units A11 and A13. This leaves the Board with no way to verify EPNG's arguments, so there is no way for the Board to make a factual finding of infeasibility or technical practicability on this point.

248. EPNG further argues that with space and engineering constraints preventing the installation of replacement horsepower in the compressor building at Blanco A, the only place to do so would be elsewhere at the site, specifically on the southern portion of the parcel where the facility is located. [Id. at 9-10]. EPNG contends that this too is not feasible because installation of a replacement engine near "another entity's equipment" would require EPNG to share an emergency shutdown system with third parties. [Id. at 10]. EPNG then argues that land further to the south that is further away from other companies' facilities will not work because running the piping would be "complex" and because another facility has a flare in that area, which again EPNG claims presents unspecified "safety concerns." [Id.]. In support of these claims, EPNG offers two satellite images that have no scale marking and are not unlike looking out of an airplane window. [Id. at 10-11]. EPNG never specifies what "another entity's equipment" is or where it is located in relation to where EPNG might install a replacement engine on the southern portion of the site, nor does EPNG offer any evidence supporting the claim that a shared emergency shutdown system would be required, let alone that

it is “not feasible, practical, or safe.” [Id.]. EPNG provides no engineering elevations, no cost estimates, no vendor quotes, no blueprints, nor any other evidence outside of the two photographs supporting its claim regarding space constraints elsewhere at the site. EPNG did not “undertake a detailed site-specific engineering analysis of installing replacement horsepower at any of its facilities.”

249. EPNG itself stated: “performing an engineering analysis on the feasibility and cost of installing replacement horsepower or a control technology is a resource-intensive undertaking. Doing so involves subject-matter experts with different areas of expertise all working together to analyze a potential project and potential project alternatives. The following steps are required for developing an accurate cost estimate: [1] The project lead submits a request for an estimate. [2] Kinder Morgan organizes an internal kick-off meeting with all involved departments (e.g., Operations, Project Management, Environmental, Land, etc.) to discuss and establish project scope. During this meeting, each department is assigned one or more areas of responsibility for obtaining cost estimates. For example, the Engineering department is tasked with obtaining vendor quotes . . . [3] Each department completes its cost assignment. This process usually takes about two to three weeks. [4] Each department submits the results of its assignment to the estimating group, which compiles and synthesizes all of the inputs, and adds in certain standard costs (e.g., Company labor). [5] The estimating group then

submits the estimate to the project manager. [6] The project manager reviews the estimate, and once satisfied with it, submits the estimate to the director of project management. The director of project management then reviews, and subsequently submits the estimate to the vice president of project management. [7] Once approved by the vice president of project management, the estimate is considered final. The compilation, review, and approval process takes about two to three weeks, which means that the whole estimating process takes approximately four to six weeks." [Id. at 13-14]. EPNG claims to have done this type of analysis but did not submit it to the Board for consideration. [EPNG Ex. 13 at 14].

250. EPNG has failed to establish that replacement is infeasible or technically impracticable. The Board finds that EPNG did not provide substantial evidence to support its claim that replacement Units A11 and A13 at the Blanco A facility are infeasible or technically impracticable.

251. The Board further finds that replacement is a technically practicable and economically reasonable method of reducing or eliminating air contaminants that contribute to regional haze in Class I areas from Units A11 and A13 at EPNG's Blanco A facility.

I. THE DEPARTMENT'S ANALYSIS OF CONTROL MEASURES IS REASONABLE AND IN ACCORDANCE WITH THE LAW AND EPA GUIDANCE

252. The Department's general decision making approach: In establishing their long-term strategies for regional haze, states are required – after

considering the four factors listed in 42 U.S.C. § 7491(g)(1) – to determine the emission reduction measures that are necessary to make reasonable progress toward meeting the national visibility goal specified in 42 U.S.C. § 7491(a)(1). 40 C.F.R. § 51.308(f)(2)(i). [NMED Ex. 19, Bates 9609]. Pursuant to the 2019 EPA Guidance, when making decisions on what control measures are necessary to make reasonable progress, states have flexibility to "develop a cohesive strategy that demonstrates reasonable progress over time." [Id.; NMED Exhibit 13 at 9525].

253. This flexibility provides states broad discretion to select a set of sources for an analysis of control measures, determine which control measures to evaluate, decide how to characterize the required factors, and decide how to weigh those factors and what metrics and decision thresholds to apply when making control decisions. Importantly, when it comes to regional haze SIP development, "there is no specified outcome or amount of emission reduction or visibility improvement that is directed as the reasonable amount of progress for any Class I area." [NMED Ex. 19, Bates 9609; NMED Ex. 13 at 9493].

254. States just have to engage in reasoned decision-making and document the technical basis, including modeling, monitoring, cost, engineering, and emissions information, on which they rely to determine the control measures that are necessary to make reasonable progress. 40 C.F.R § 51.308(f)(2)(iii). [NMED Ex. 19 at 9609-9610].

255. In determining what control measures are necessary to make reasonable progress, states are required to consider the cost of compliance, time necessary for compliance, energy and non-air quality environmental impacts of compliance, and the remaining useful life of the source. 42 U.S.C. § 7491(g)(1). [NMED Ex. 19 at 9610]. It is up to states to decide how to weigh these factors when selecting controls, and the Department chose to base its decisions primarily on the cost of compliance, expressed in terms of a cost per ton of emissions reduction (aka "cost effectiveness") metric. [Id.]. The three remaining factors were either subsumed into the cost of compliance or entered the decision-making process in a different way. [Id.]. For example, the remaining useful life of the source was used to calculate annualized costs, which in turn were used to calculate cost effectiveness, and thus was fully subsumed into the cost of compliance. [Id.]. Energy and non-air quality impacts were also largely subsumed into the cost of compliance by accounting for such things as increased energy costs (due to a control's higher electricity demand) or catalyst disposal costs in NMED's estimates of annual operations and maintenance costs. [Id.]. Time necessary for compliance, on the other hand, is more important at the next step in the process, i.e., determining reasonable deadlines for installing selected controls. [Id.]. Therefore, it was not a major consideration in NMED's determination whether a given control measure is necessary to make reasonable progress in the first instance. [Id.].

256. The Department's decision to base its control decisions primarily on the cost of compliance is consistent with how EPA predicted states would weigh the four statutory factors when making their control decisions. [NMED Ex. 19 at 9613]. The 2019 EPA Guidance states, "For a state that is not considering visibility benefits, we . . . anticipate that the outcome of the state's decision-making processes will most often depend on the cost of compliance, with the other three statutory factors either being subsumed into the cost of compliance or not being major considerations." [Id.; NMED Exhibit 13 at 9526].

257. The 2019 EPA Guidance also provides recommendations regarding how states should consider the other three factors that are consistent with NMED's approach. On remaining useful life of the source, EPA "recommends that states consider remaining useful life by using it to calculate emission reductions, annualized compliance costs, and cost/ton values." [NMED Ex. 19 at 9610; NMED Ex. 13 at 9531]. On energy and non-air quality impacts, EPA "recommends that states consider energy impacts by accounting for any increase or decrease in energy use at the source as part of the costs of compliance," and also "recommends that states consider relevant non-air quality environmental impacts, such as water usage or waste disposal of spent catalyst or reagent, by accounting for them as part of the costs of compliance." [NMED Ex. 19 at 9610; NMED Ex. 13 at 9530-9531]. Finally, on time necessary for compliance, EPA "recommend[s] that states consider the

time necessary for compliance as part of their determination of what compliance deadlines for selected control measures are reasonable, rather than as part of their determination whether to adopt the control measures in the first instance." [NMED Ex. 19 at 9610; NMED Ex. 13 at 9530]. NMED's decision-making approach comports with these recommendations and is based on the assumption that substantial reductions in emissions of NOX and SO2 will, in the aggregate, translate into perceptible visibility benefits that provide for reasonable progress. [NMED Ex. 19 at 9610-9611].

258. The Department's analysis of control measures is not prescriptive, and the Department is not requiring any regulated entities to use a particular control measure. [NMED Ex. 5, Bates 6253]. Instead of mandating the installation of specific controls, the Department is imposing new emissions limitations in the second implementation period commensurate with controls deemed necessary for reasonable progress and leaving it up to facilities to determine how to comply. [Id. at 6283]. This approach is intended to give facilities the flexibility to consider factors beyond the four statutory factors considered by the Department when deciding how to comply with Regional Haze requirements. [Id.]. Emissions limitations for reasonable progress controls generally correspond to vendor-quoted, guaranteed post-control emission rates or, in the case of replacement, to the emission limits for new natural gas-fired spark ignition engines in 20.2.50 NMAC. [Id. at 6287]. Emissions limitations for selective catalytic reduction ("SCR") are based on

current actual emissions and the assumed control efficiency (80% or 90%, depending on the unit). [Id.].

259. The Department first identified all commercially available NO_X and/or SO_2 controls for the various types of units selected for analysis via the two-tiered screening process described in Chapter 6 of the SIPr. [Id. at 6248, 6237-6247]. These types of units include two-stroke lean-burn (less fuel compared to air) engines (2SLB RICE), four-stroke lean-burn engines (4SLB RICE), four-stroke rich burn engines (4SRB RICE), combustion turbines (CT), industrial and utility boilers, and amine treatment systems (ATS). [Id. at 6248]. The Department then determined which of the commercially available controls are technically feasible, as a four-factor analysis is only required for technically feasible controls. [Id.]. Based on the information available, the Department determined that the following controls are technically feasible for the units selected for analysis:[16]

a. 2SLB RICE: Low-Emission Combustion (LEC), replacement and electrification.

b. 4SLB RICE: LEC, Selective Catalytic Reduction (SCR), replacement, and electrification.

[16] Good combustion practices (GCP) and retirement were also identified as technically feasible controls for all types of units selected for analysis. However, all screened facilities utilize GCP already based on their compliance with various provisions of their Title V permits, and with just a few exceptions, all facilities indicated that they do not plan to permanently retire any of the units selected for analysis. Therefore, NMED generally excluded these control options from its analyses. [NMED Ex. 5, Bates 6248, fn. 159; 6430].

c. 4SRB RICE: LEC, Non-Selective Catalytic Reduction (NSCR), replacement and electrification.

d. CT: Dry Low NO_X Combustion (DLN), SCR, replacement, and electrification. For certain turbine models, water or steam injection (WSI) is also technically feasible.

e. Boilers: Low NO_X Burners (LNB), Flue Gas Recirculation (FGR), SCR, and replacement.

f. ATS: Flaring, sulfur recovery unit (SRU), thermal oxidizer (TO), and acid gas injection (AGI) well. [NMED Ex. 5 at 6248].

260. The Department received feedback from some of the facilities selected for analysis in the second planning period suggesting that replacement and electrification are outside the scope of the Regional Haze program and that states are limited to considering new add-on controls (i.e., retrofits) and upgrades to existing controls under the program. [Id. at 6249]. NMED discussed this issue with EPA Region 6 staff, and they indicated that replacement and electrification are not outside the scope of the program given the prodigious flexibility afforded to states by the Regional Haze Rule. [Id.]. In addition, The Department's Office of General Counsel performed its own analysis and determined that the Department has the legal authority under the Regional Haze program to require replacement and electrification. [Id.]. Therefore, the Department evaluated the cost effectiveness of these options for those sources for which they are technically feasible, along with

that of retrofits and upgrades to existing controls. [Id.]. After determining which controls are technically feasible, The Department performed a four-factor analysis of all technically feasible controls for all units that met the tier two screening criteria and determined a $10,000/ton cost effectiveness threshold value ("CETV").

261. Cost Effectiveness Threshold Value ("CETV"): Cost effectiveness was the predominant factor in NMED's decision-making regarding necessary control measures with the remaining factors either being subsumed into the cost of compliance or not being major considerations. [NMED Ex. 19 at 9613-9614; NMED Ex. 5 at 6251]. For example, remaining useful life was used to calculate annualized costs, which in turn were used to calculate cost effectiveness, and thus was fully subsumed into the cost of compliance, whereas compliance time, which is more important at the next step, i.e., determining reasonable deadlines for installing selected controls, was not a major consideration in selecting which controls are necessary to make reasonable progress in the first instance. [Id.].

262. The Department identified $10,000/ton as the threshold value above which further incremental reductions in NO_X emissions are insufficient to justify more expensive controls. With one notable exception, for emissions units with only one NO_X control below the $10,000/ton cost effectiveness threshold, NMED determined that that control is necessary to make

reasonable progress.[17] [NMED Ex. 19 at 9613-9614; NMED Ex. 5 at 6252]. For emissions units with multiple NO_X controls below the $10,000/ton cost effectiveness threshold, NMED determined that the most stringent control (i.e., the one providing the greatest estimated NO_X reductions) is necessary to make reasonable progress. [Id.].

263. NMED determined its cost effectiveness threshold value by cataloging all technically feasible controls evaluated, identifying the most effective control (i.e., the one providing the greatest emission reductions) available for each unit at potential cost effectiveness threshold values ranging from $1,000/ton to $20,000/ton, and then determining the estimated total and incremental NO_X reductions provided by the most effective controls at each potential cost effectiveness threshold value. [NMED Ex. 19 at 9614]. NMED then binned the estimated incremental NO_X reductions and performed a segmented linear regression on a plot of the estimated total NO_X reductions with breakpoints at the bin edges. [Id.]. The binning and associated regression analysis showed that estimated incremental NO_X reductions were significant up to $10,000/ton and then decreased by approximately 50%, with an even larger decrease occurring at $14,000/ton, as shown in Figures 1 and 2 in NMED Exhibit 19. [NMED Ex. 19 at 9614-9616].

[17] The sole exception to NMED's baseline decision-making approach involves electrification, which entails replacing a natural gas-fired compressor driver (reciprocating engine or combustion turbine) with a zero-emitting electric motor drive (EMD), making it one of the most effective controls available. Due to a number of uncertainties detailed in Section 7.4.2 the SIPr, the Department determined that electrification, despite its obvious benefits, should be categorically excluded from selection as the reasonable progress control as there are simply too many unknowns to reliably estimate the costs involved and/or determine whether it is truly feasible. [NMED Ex. 5, Bates 6252].

264. On the basis of this analysis, NMED identified $10,000/ton as a reasonable cost effectiveness threshold value to use in its selection of controls. [Id. at 9617]. It represents the cost effectiveness value above which further incremental reductions in NO_X emissions are insufficient to justify less cost-effective controls (i.e., those costing more per ton of emissions reduced). [Id.]. A subsequent reanalysis using an updated catalog of controls[18] and revised cost effectiveness values, which were the product of ongoing quality assurance efforts and changes made in response to comments from stakeholders, provided nearly identical results, reconfirming $10,000/ton as a reasonable cost effectiveness threshold value. [Id.]. Furthermore, a limited survey of other states' proposed regional haze SIP revisions for the second implementation period found that at least two other western states – Colorado and Oregon – utilized a cost effectiveness threshold value of $10,000/ton, demonstrating that New Mexico is not an outlier with respect to its chosen cost effectiveness threshold value. [Id.].

265. Selecting Control Measures: After identifying a reasonable cost effectiveness threshold value, The Department's process for selecting the control measures that are necessary to make reasonable progress during the second implementation period was straightforward and only involved two steps. [Id.]. First, the Department compared the cost effectiveness of all

[18] After completing its initial analysis, the Department decided to categorically exclude electrification from consideration based on concerns about feasibility and the reliability of its cost estimates. [NMED Ex. 19 at 9617].

technically feasible controls for a given unit to its $10,000/ton cost effectiveness threshold value and eliminated all controls whose cost effectiveness exceeded the threshold. [Id.]. Second, the Department selected the control necessary to make reasonable progress from the remaining controls (if any) based on the following decision rules:

a. If no controls remained after eliminating all controls whose cost effectiveness exceeded the cost effectiveness threshold value, NMED determined that no controls are necessary to make reasonable progress.

b. If one control remained after eliminating all controls whose cost effectiveness exceeded the cost effectiveness threshold value, NMED determined that that control is necessary to make reasonable progress.

c. If two or more controls remained after eliminating all controls whose cost effectiveness exceeded the cost effectiveness threshold value, NMED determined that the most stringent of the remaining controls, i.e., the one providing the greatest estimated emission reductions, is necessary to make reasonable progress. NMED's decision tree for selecting the control measures that are necessary to make reasonable progress is shown in Figure 3 of NMED Exhibit 19. [Id. at 9617-9619].

266. The Department made one notable exception when selecting the control measures that are necessary to make reasonable progress. [Id. at 9619]. The

Department categorically excluded electrification, which involves replacing a natural gas-fired unit (e.g., a reciprocating engine or combustion turbine) with a zero-emitting electric motor drive, due to significant concerns about the reliability of its cost estimates and its ability to ascertain whether electrification is, in fact, technically feasible for many of the units it evaluated. [Id.]. Therefore, electrification was eliminated at the outset of the control selection process, prior to screening out controls based on the cost effectiveness threshold value. [Id. at 9619-9620].

267. Although the Department identified specific controls as being necessary to make reasonable progress, these determinations are not prescriptive. [Id. at 9620]. The Department expressed an understanding of the importance of flexibility when it comes to compliance with regulatory mandates and is more interested in realizing the emission reductions associated with the selected controls than it is in how those reductions are achieved. [Id.]. Therefore, the proposed Rule does not mandate the installation of any specific controls. [Id.]. It only imposes emission limitations commensurate with the controls deemed necessary for reasonable progress, giving companies discretion in deciding how to comply. [Id.]. This means a facility could elect to install a different control than the one the Department determined is necessary for reasonable progress, as long as the alternative is capable of meeting the applicable emission limitation. This approach is intended to give facilities the flexibility to consider factors beyond the four statutory factors considered by

NMED when deciding how to comply with regional haze requirements. [Id.]. The Department stated that if it wanted to mandate the installation of specific controls, it would have done so through the Proposed Rule, which it did not. [Id. at fn. 3].

268. Selective Catalytic Reduction ("SCR"): Selective Catalytic Reduction (SCR) is a pollution control measure that uses a catalyst and a reagent to convert NOX into molecular nitrogen and water vapor. Ammonia (NH3), usually diluted with air or steam, is injected into the exhaust upstream of a catalyst bed. [Id. at 6431]. At the catalyst surface, NH3 reacts with NOX to form molecular nitrogen and water with the following basic reaction pathways: 4 NH3 + 4NO + O2 -> 4N2 +6H2O and 4 NH3 + 2NO2 + O2 -> 3N2 + 6H2O. [Id.].

269. Typical SCR catalysts include metal oxides (titanium oxide and vanadium pentoxide), noble metals (combinations of platinum and rhodium), zeolites, and ceramics. [Id.]. The catalyst serves to lower the activation energy of these reactions, which allows them to occur at a lower temperature than the exhaust gas. [Id.]. While operating temperatures can range from 350°F to 1,100°F, most SCR systems are designed to operate at temperatures between 600°F and 750°F for conventional (vanadium- or titanium-based) catalysts, and between 470°F and 510°F for platinum-based catalysts. [Id.].

270. Design and operation of SCR systems can be challenging as several factors can affect SCR performance and corresponding NOX reduction efficiency. [Id.]. Residence time, space velocity and the degree of mixing are critical as

the reactants must be sufficiently mixed to ensure contact. [Id.]. Ammonia/NOX ratios must be closely maintained to prevent unreacted ammonia from passing directly through the system ("ammonia slip"), resulting in increased emissions of PM10. If the catalyst bed temperature is too low, the NOX reduction reactions will not proceed. If the catalyst bed temperature is too high, ammonia will be oxidized to NO and greater NOX will be emitted than if no controls were present. [Id.]. If excessive temperatures occur for prolonged periods, thermal degradation of the catalyst can occur, resulting in loss of catalyst activity. [Id.]. Catalyst deactivation or "poisoning" can occur when certain elements – such as sulfur, iron, nickel, chrome, calcium, and sodium – present in the exhaust stream react with a platinum catalyst to form compounds which are not catalytically active. [Id.].

271. A well designed and operated SCR system can (in general) reduce NOX emissions by more than 90 percent. [Id. at 6435]. However, for units that operate intermittently, such as natural gas compressor drivers, NOX removal efficiency may be lower when the system is below the optimum temperature following cold starts. [Id.]. Depending on such a unit's annual operating profile, the average NOX removal efficiency of SCR could reasonably vary from approximately 75 to 85 percent. [Id.].

272. Because SCR reactors can be fairly large, physical space limitations at existing facilities can necessitate significant modifications to a building's structure to accommodate SCR. [Id.]. The addition of SCR can also require

considerable modifications to existing ductwork. [Id.]. Any such modifications are expected to appreciably increase the capital costs of implementing SCR. [Id.]. The Department believes a reasonable compliance time for SCR is 3-4 years. [Id.]. This estimate is based on the following timeframes for project development: 1-2 years for project approval, budgeting, and design; up to 1 year for equipment procurement; and up to 1 year for installation, commissioning, and start-up. [Id.]. This does not account for any facility-specific challenges that would prolong implementation. [Id.].

273. The Department made the following determinations regarding the technical feasibility of SCR for the types of units selected for analysis via the two-tiered screening process described in Chapter 6 of the SIPr:

274. SCR is not technically feasible for Two-Stroke Lean Burn Engines (2SLB RICE): Based on a review of various information provided by RICE manufacturers and licensed service entities, FFAs completed by other air quality agencies, and discussions with industry representatives, the Department determined that SCR is not a technically feasible control option for 2SLB RICE due to a relatively high amount of lubricating oil leakage (i.e., carryover) into the exhaust, where the quickly adheres to and poisons the SCR catalyst. [Id.].

275. SCR is technically feasible for Four-Stroke Lean Burn Engines (4SLB RICE): Based on a review of various information provided by RICE manufacturers and licensed service entities, FFAs completed by other air quality agencies,

and discussions with industry representatives, the Department determined that, by virtue of its design, lubricating oil does not leak into the exhaust of a 4SLB RICE. [Id. at 6435]. Therefore, SCR is a technically feasible control option for reducing NOX emissions from 4SLB RICE. [Id.]. Operation of SCR on a 4SLB RICE would likely result in a small increase in fuel consumption as additional power would be needed to force exhaust through the catalyst bed. [Id.]. Additionally, electricity is needed to operate SCR. [Id.].

276. SCR is not technically feasible for Four-Stroke Rich Burn Engines (4SRB RICE): Based on a review of various information provided by RICE manufacturers and licensed service entities, FFAs completed by other air quality agencies, and discussions with industry representatives, the Department determined that SCR is not a technically feasible control option for 4SRB RICE because SCR's NOX conversion reactions will not occur in an environment with excess oxygen. [Id. at 6438].

277. SCR is technically feasible for combustion turbines (CT): Based on a review of various information provided by CT manufacturers and SCR vendors, FFAs completed by other air quality agencies, and discussions with industry representatives, the Department determined that SCR is a technically feasible control option for reducing NOX emissions from CTs. [Id. at 6443]. Operation of SCR on a CT would likely result in a small increase in fuel consumption, as additional power would be needed to force exhaust through the catalyst bed, and electricity is needed to operate SCR. [Id.].

278. SCR is technically feasible for boilers: Based on a review of various information provided by boiler manufacturers and SCR vendors, FFAs completed by other air quality agencies, and discussions with industry representatives, the Department determined that SCR is a technically feasible control option for reducing NOX emissions from boilers. [Id. at 6447]. Operation of SCR on a boiler would likely result in a small increase in fuel consumption, as additional power would be needed to force exhaust through the catalyst bed, and electricity is needed to operate SCR. [Id.].

279. The Board finds that the record contains substantial evidence that the Department's analysis of control measures is reasonable, thorough and in accordance the EPA's 2019 Guidance. The Board finds the Department's testimony regarding its analysis of control measures extensive and credible and gives it great weight.

280. The Board finds that Proposed 20.2.68 NMAC does not mandate the installation of specific control measures. The Board finds that the method for compliance with the emission limits in 20.2.68 NMAC is left to the discretion of the owners and operators of the facilities subject to 20.2.68 NMAC.

281. The Board concludes that the Department's analysis of control measures meets all the requirements of 42 U.S.C. Section 7491 and 40 C.F.R Section 51.308(f)(2)(i) and (iii).

J. ENTERPRISE AND EPNG ON THE DISBENEFITS OF SCR

282. Enterprise objects that the Department failed to consider four disbenefits to the implementation of SCR. First, Enterprise alleges that the Department failed to consider that "[o]ne of the most significant disbenefits of SCR is ammonia (or 'NH3') emissions." [Ent. Ex. 2 at 7]. Enterprise argues that "based on approximate exhaust rates for the 8 Enterprise turbines . . . Enterprise estimated the annual tons of additional ammonia emissions that would result from the use of SCR as approaching 200 tons per year." [Id.]. Second, Enterprise complains that "the SCR system will involve the use of hazardous materials . . . either aqueous or anhydrous ammonia for the reduction reaction," and that these materials may require special permits, and additional procedures for transportation, handling and storage." [Id.]. Third, Enterprise states that SCR requires power and it is "unclear if existing electrical power is sufficient or if upgrading or adding electrical infrastructure would be required" for SCR. Finally, Enterprise contends that "operation of SCR would likely impact engine performance by creating additional working load on the engine," raising the question of whether this might impact the Enterprise facilities' ability to meet commercial throughput requirements. [Id. at 7-8]. EPNG raised substantially similar concerns about ammonia emissions and ammonia transportation, handling and storage. [EPNG Ex. 18 at 10-12].

283. Mr. Sidner testified that Enterprise's and EPNG's concerns regarding power consumption, ammonia use and ammonia slip "exaggerate" the

disbenefits of SCR. [NMED Reb. Ex. 2 at 1]. "SCR is a well-established and widely used form of NOX control for reciprocating engines and combustion turbines. Countless facilities have installed and operated SCR systems, and thus successfully addressed ammonia handling and storage, electrical demands, marginal power loss, and ammonia slip." [Id. at 2.].

284. In response to concerns regarding ammonia slip, Mr. Sidner testified that Enterprise "grossly overestimates ammonia slip emissions by using maximum operating hours and 10 ppm slip as a basis." [Id.]. The Department's FFA evaluations are based on "projected actual, and not maximum, operation," and that according to EPA, "permitted ammonia slip levels are typically 2 to 10 ppm." [Id.]. Additionally, Enterprise's estimate of 196 tons of aggregate ammonia emissions is "inflated" because it is for all three of Enterprise's facilities and "ignores the fact that NMED revised its control determinations for [Chaco Gas Plant and South Carlsbad Compressor Station] in response to stakeholder comments, and its revised proposed SIP no longer identifies SCR as the basis of reasonable progress control for any unit at either of these facilities." [Id.].

285. Enterprise has failed to establish that space constraints prohibit SCR: Enterprise alleges that the Department did not adequately justify its determination that the affected Enterprise facilities (Blanco C & D, Chaco, and South Carlsbad) had sufficient space for the implementation of SCR. [Ent. Ex. 2 at 8]. Enterprise argues that the Department determination was

"conclusory" because the Department did not fully analyze "things like: the exhaust flow path, pressures, and rates; safety considerations for proximity of the SCR and other process equipment; and additional electrical and other equipment that might be needed and how it would be routed." [Id. at 8-9]. In support of these contentions, Enterprise offered two satellite images and an unsupported anecdote regarding an SCR vendors estimation that 40' x 20' would be required for a unit. [Ent. Ex. 3 at 23]. Enterprise reviewed the unscaled satellite images and decided that there was not enough space. [Id.]. It was incumbent on Enterprise to offer evidence showing how power loss and electricity demand due to the installation of SCR would impact their units and affect the cost effectiveness of SCR. Enterprise failed to do so.

286. In support of its arguments regarding space constraints, Enterprise provided a truncated quote from an outdated proposed rule published in 2001, but failed to provide a complete quote from the final rule of 2005. [Jacobsen Reb. At 3]. The final rule, Environmental Protection Agency: Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations ("BART Guidance") supports of the Department's determination that SCR is technically feasible for all applicable facilities in this proceeding, including Enterprise's.

287. EPA's BART Guidance offers the following guidelines for states in determining whether control measures are technically feasible:

STEP 2: How do I determine whether the options identified in Step 1 are technically feasible? In Step 2, you evaluate the technical feasibility of the control options you identified in Step 1. You should document a demonstration of technical infeasibility and should explain, based on physical, chemical, or engineering principles, why technical difficulties would preclude the successful use of the control option on the emissions unit under review. You may then eliminate such technically infeasible control options from further consideration in the BART analysis.

In general, what do we mean by technical feasibility?

Control technologies are technically feasible if either (1) they have been installed and operated successfully for the type of source under review under similar conditions, or (2) the technology could be applied to the source under review. Two key concepts are important in determining whether a technology could be applied: ''availability'' and ''applicability.'' As explained in more detail below, a technology is considered ''available'' if the source owner may obtain it through commercial channels, or it is otherwise available within the common sense meaning of the term. An available technology is ''applicable'' if it can reasonably be installed and operated on the source type under consideration. A technology that is available and applicable is technically feasible . . .

Alternatively, a demonstration of technical infeasibility may involve a showing that there are unresolvable technical difficulties with applying the control to

the source (e.g., size of the unit, location of the proposed site, operating problems related to specific circumstances of the source, space constraints, reliability, and adverse side effects on the rest of the facility). Where the resolution of technical difficulties is merely a matter of increased cost, you should consider the technology to be technically feasible. 70 Fed. Reg. 39,104, 39,165 (July 6, 2005).

288. The final BART guidelines emphasize availability and applicability in determinations of feasibility – something the Department fully documented in Appendix C of the SIPr. [NMED Ex. 5 at 6427-6602]. In this proceeding, in order for the Board to determine that SCR is infeasible for applicable units belonging to Enterprise or any other party, the Board would need to find that the party made a showing of "unresolvable technical difficulties with applying the control to the source (e.g., size of the unit, location of the proposed site, operating problems related to specific circumstances of the source, space constraints, reliability, and adverse side effects on the rest of the facility." Id. Enterprise provided no engineering elevations, accurate scale drawings or anything else that could make a concrete showing of unresolvable technical difficulties. In the absence of such a showing, the Department is entitled to deference regarding its determination that SCR is technically feasible for all applicable units under the Proposed Rule. See El Paso Elec. Co. v. N.M. Pub. Reg. Comm'n, 2025-NMSC-009, ¶ 14 (restating that tribunals "confer a heightened degree of deference to . . . special agency expertise or the

determination of fundamental policies within the scope of the agency's statutory function").

289. Mr. Sidner affirmed that the "physical space requirement of SCR certainly plays a factor in its design and implementation," but added that requirements could be met "by building outward and upward." [4-28-25 1 Tr. 38:7-12]. Mr. Sidner testified that the Department initially took Enterprise's claims regarding space constraints at "face value," but "after careful consideration of feedback from various parties, [the Department] decided to evaluate SCR at the described facilities." [NMED Reb. Ex. 2 at 3]. Mr. Sanchez testified that the Department received comments from the NPS expressing the concern that Enterprise did not submit sufficient evidence to support their claim of insufficient space. [4-28-25 1 Tr. 205:1-9; NMED Ex. 5 at 9386-9412]. According to Mr. Sanchez, the NPS suggested to the Department that "the potential need to procure additional space to install SCR could be accounted for by adjusting the SCR tool's retrofit factor value where appropriate." [Id. at 10-20]. In response to the NPS's suggestion, the Department "made adjustments to the retrofit factor value where appropriate and performed an SCR evaluation on the units that the NPS mentioned in their formal comments." [Id.]. The Department then updated the cost evaluations, the SIPr, and Proposed Rule before public release. [Id.].

290. Mr. Miller testified that the evidence Enterprise submitted to the Department regarding space constraints "was sort of premised on the idea

that you would have to go outside of the existing building . . . [but there] was no information whatsoever, to my recollection, provided regarding other options such as using space within the existing buildings." [Id. at 248:2-10]. In Mr. Miller's view, "[t]he limited evidence that was provided [by Enterprise] regarding the space for SCR . . . didn't address that kind of question . . . which is could it have been done another way by building within the existing structures, either by building up, you know, like more complicated ducting or whatever might be required to make that happen? We just simply don't know because no information was provided in that regard." [Id. at 248:17-249:4].

291. Mr. Sidner explained that the Department made this decision because "while physical space limitations are a material factor in evaluation of SCR, those limitations affect its economic (not technical) feasibility. The respective images provided by Enterprise indicate that the requisite space could be accommodated with building modifications." [NMED Reb. Ex. 3 at 3] (emphasis added). According to Mr. Sidner, the Department "did assume that the building modifications would be covered by a 10% additional cost factor – consistent with EPA methodology – because Enterprise did not provide a cost estimate. [Id.]. To this end, the Department "adjusted the SCR Tool's 'retrofit factor' to help account for additional costs associated with building modifications and other costs which can be accounted for using this variable." [Id. at 3:13-17]. Mr. Sanchez testified that Enterprise had opportunities to

submit additional information after the Department made these changes to its SCR evaluations for the Enterprise facilities. [Id. at 278:20-25].

292. The Board finds that Enterprise's claims regarding the amount of ammonia emissions resulting from the implementation of SCR lack credibility because (1) they are based on maximum operating hours and not on the actual emissions data used by the Department, and (2) because the claims are based on an earlier version of the SIP, and not the SIPr, in which the Department revised its control determinations and no longer identifies SCR as the basis of reasonable progress control for the Chaco Gas Plant nor the South Carlsbad Compressor Station.

293. The Board finds that Enterprise did not provide sufficient evidence to support its claim that space constraints render the use of SCR infeasible at any of its facilities.

294. The Board finds that the Department's rebuttal testimony regarding the claimed disbenefits of SCR to be credible. The Board finds that the record contains substantial evidence supporting the Department's determination that SCR is a well-established and widely used form of NOX control for reciprocating engines and combustion turbines, and that ammonia handling and storage, electrical demands, marginal power loss, and ammonia slip do not render the use of SCR technically impracticable nor economically unreasonable.

295. EPNG's valuation of SCR is unverifiable: EPNG takes issue with the Department's valuation of SCR for Pecos River Units A-02 and A-03, a combined total of $13,255,602 for both turbines. [EPNG Ex. 13 at 20]. EPNG argues that the Department did not take into consideration the "total capital costs" of $21,523,270 that includes "primary construction;" a "construction contingency" of 5%; a cost for "gas throughput loss" during construction; and capitalized overhead. [Id. at 20-21]. The costs are based on a purported vendor quote from an unidentified company in which the project manager's and salesperson's names are redacted (among many other redactions), to which EPNG added significant unsubstantiated and unverifiable costs that increased total estimated costs roughly twofold. [Id., EPNG Ex. 11, EPNG Ex. 17 at 1-20]. The vendor quoted a cost of $8,240,000 for the SCR systems, commissioning, and training. [EPNG Ex 11 at 5]. With the addition of optional hardware and services at a cost of $1,251,000, the quote totals $9,586,000. [Id. at 6]. This does not approximate EPNG's claim that SCR would cost $21,523,270. There is no way for the Board to assess the credibility of EPNG's inflated estimate because the cost estimate provided by EPNG is so Byzantine that it is likely only internal EPNG employees can interpret it. [EPNG Ex. 17 at 1-20]. EPNG provided no testimony that would guide the Board through the estimate, nor did EPNG provide supporting documentation for their nearly doubled added costs.

296. The redactions, lack of substantiation and timing of submission made it impossible for the Department to verify the vendor and EPNG cost information. [EPNG Ex. 11 at 1; EPNG Ex. 17 at 1]. The Department's calculation of $13,255,603 for both turbines was based on the SCR Tool and the FFA provided by EPNG itself in November 2019. [NMED Ex. 5 at 6887, 6909].

297. EPNG's concerns regarding the installation of SCR on the turbines at its Pecos River facility are rooted in cost, not technical feasibility. [EPNG Ex. 13 at 16]. EPNG acknowledged that an SCR vendor confirmed that SCR on the turbines can achieve 80% NOX removal efficiency, "when the SCR system is upsized and the system is re-designed." EPNG expressed concerns that the annualized operating and maintenance costs for the two units amount to $296,577, and an estimated $206,011 in ammonia consumption. [Id. at 23]. EPNG provided no legal authority or guidance to support the proposition that a finding of technical infeasibility rest on cost. See Tafoya v. Morrison, 2017-NMCA-025, ¶ 46 (restating the principle that "[w]here a party does not cite authority that supports an argument, [a tribunal] may assume no such authority exists . . . [and] not consider propositions that are unsupported by citation to authority").

298. The vendor quote that EPNG did provide not only shows that SCR is technically feasible, but the vendor expressed the goal of "providing everything necessary for a successful and near-turnkey installation." [EPNG

Ex. 11 at 3]. The vendor also informed EPNG that "to ensure compliance," an SCR installation comes with an array of post-installation services "through extensive operator training, spare parts, and on-site maintenance." [Id.].

299. Regarding EPNG's concerns that SCR cannot achieve 80% reduction due to the claimed exhaust gas temperature (500-580 ºF) of its regenerator-equipped Pecos River Frame 3 turbines,[19] Mr. Sidner testified that these concerns are "outdated and inconsistent with commercially available technology, state and federal regulatory requirements, and vendor information." [NMED Reb. Ex. 2 at 4]. Mr. Sidner stated that "[a]s recently as October 2024, representatives of leading SCR manufacturers explained that the 'traditional' optimum operating temperature for SCR is between ~450 and 775 degrees F. 'Low temperature' SCR, which requires unconventional catalysts, has an effective operating temperature as low as 350 degrees F." [Id.].

300. The Board finds that EPNG did not provide sufficient nor substantial evidence to support its claim that the implementation of SCR at its Pecos River Units A-02 and A-03 would have total capital costs of $21,523,270.

301. The Board finds that the record contains substantial evidence that the Department's calculation of $13,255,603 for both turbines was based on the SCR Tool and the FFA that EPNG provided to the Department in November

[19] EPNG claims that at this exhaust gas temperature, NO_X removal efficiency would only be between 63% and 73%. [EPNG Exhibit 13 at 15]

2019. The Board finds the Department's calculations reasonable, and its testimony and documentary evidence credible on this point.

302. The Board finds that EPNG's claims that SCR cannot achieve 80% reduction due to the claimed exhaust gas temperature of its regenerator-equipped Pecos River Frame 3 turbines lacks credibility and lends it little weight.

303. The Board finds the Department rebuttal testimony regarding 80% reductions is credible and lends it great weight.

304. The benefits of NOX reduction outweigh the negligible effect of ammonia emissions: EPNG raises the "possibility" that if SCR were installed on the Pecos River turbines, then up to 4.98 tons per year of ammonia would be emitted to the atmosphere, and that could cause the Board to "promulgate a rule that would actually make any potential visibility matter worse." [EPNG Ex. 18 at 10-11]. SCR technologies have improved in recent years to reduce these impacts, and the widespread deployment of SCR on combustion turbines of all sizes, at least in the power sector the last 5 years, indicates that States and permitting authorities have found these impacts sufficiently manageable that SCR has been mandated for NOX reductions in spite of modest effects on other pollutants and associated energy requirements.

305. Mr. Sidner explained that technological advancements allow for optimized SCR control efficiency over a longer period of unit operation while minimizing ammonia slip. Examples include catalysts that operate at relatively lower temperatures . . . enhanced reagent monitoring equipment,

and advanced computational fluid dynamics modeling. The cumulative effect of these advancements have been recognized at the federal and state regulatory level. State air permits have been issued that require SCR for turbines that serve natural gas pipeline compressors. Some examples include a 2018 permit in Kentucky, and two separate 2023 permits in Virginia. [NMED Reb. Ex. 2 at 4].

306. Ammonia emissions from SCR are "minimized by the proper design and optimization of SCR through the appropriate selection of catalysts, and with adequate temperature monitoring." [4-28-25 1 Tr. 139:1-5]. Mr. Sidner spoke with SCR vendors who "explained and asserted that SCR will achieve over 90% NOX reductions with very minimal [ammonia emissions] as long as the exhaust temperature is high enough and the operating conditions are properly monitored." [Id. at 139:6-14].

307. The Board finds that there is insufficient evidence to support EPNG's claims regarding the possibility that installation of SCR on its Pecos River turbines could emit 4.98 tons-per-year of ammonia. The Board finds that EPNG's claims are largely speculative and gives them little weight.

308. The Board finds that the record contains substantial evidence supporting the Department's rebuttal testimony regarding the technological advances in SCR efficiency and minimizing ammonia emissions. The Board finds the Department's testimony on this issue credible and gives it great weight.

309. The Department's cost estimates for SCR are reasonable: Enterprise and EPNG object to the Department's use of the EPA's SCR Tool, arguing that the Department's cost estimation is too low. EPNG focuses on the Department's cost estimation of Units A-01 and A-02 at the Pecos River Facility. [EPNG Ex. 1 at 28-29]. Both Enterprise and EPNG argue that the Department erred in using the SCR Tool because the EPA's Control Cost Manual states that "[t]he procedures for estimating costs presented in this report are based on cost data for SCR retrofits on existing coal-, oil-, and gas-fired boilers," and is therefore "problematic." EPA, Control Cost Manual, Section 4, Chapter 2 at 6 (June 2019) (https://www.epa.gov/sites/default/files/2017-12/documents/scrcostmanualchapter7thedition_2016revisions2017.pdf). [Id.; Ent. Ex. 3 at 27].

310. The Department does not dispute how its SCR cost estimates were derived, but Section 4, Chapter 2 of the Control Cost Manual ("Chapter 2") covers the application of SCR to gas-fired turbines quite extensively. Chapter 2 dedicates an entire section to SCR configurations on turbines, stating, "[n]atural gas–fired turbine applications frequently use SCR technology for post combustion NOX control." Id. At 36. Furthermore, in response to industry comments suggesting that Chapter 2 should have been renamed or otherwise revised to indicate that its cost estimation procedures were meant only for boilers greater than 25 MW, the EPA disagreed, stating, "The SCR chapter includes general information regarding the design and operation of

SCRs that is of general applicability to SCRs applied to any type and size of combustion and process unit. We included information for other types of units such as gas turbines . . . because SCRs are used to control NO_X emissions from these units."[20]

311. EPA's SCR Tool "is used by air quality authorities, consultants, environmental groups and other stakeholders to estimate SCR costs for various types of emissions units (including engines and turbines)." [NMED Reb. Ex. 2 at 4]. Mr. Sidner noted that "nearly every facility that eventually evaluated SCR . . . used the SCR Tool." [Id.]. This includes EPNG, which used the tool to estimate SCR costs for Units A-01 and A-02 at the Pecos River facility in the four-factor analysis it submitted to the Department in November 2019. [NMED Ex. 5 at 6930-6933, 6935-6938]. Mr. Sidner explained that the Department would have been willing to accept vendor quotes during the development of the FFAs, but "none of the affected facilities provided . . . vendor-developed SCR cost estimates . . . Therefore, [the Department] used the most reliable information available to it in the development of its FFAs." [Id. at 5].

312. The Department "fully recognizes the potential value of vendor quotes in FFA cost evaluations, but only when they are sufficiently substantiated." [Id.]. Mr. Sidner stated that the Department incorporated vendor quotes into its

[20] EPA, *Public Comments on the Proposed Revisions to Section 4.2 Chapter 2 (SCR) of the Cost Control Manual* at 5-6 (n.d.) (https://www.epa.gov/sites/default/files/2020-07/documents/scr_costmanual_7thed_rtc.pdf).

calculations when the quotes were "reliable [and] properly documented." [Id.]. The Department is aware that "a vendor quote (and a cost estimate on which it is based) can be inappropriately inflated in numerous ways, i.e., covers an excessive scope, uses superfluous higher-cost materials, includes excessive insurance and fees, etc." [Id.].

313. Mr. Sidner pointed to EPNG's testimony which includes "at least three such examples of inflated (and inconsistent) cost estimates, related to SCR, 'based' on vendor quotes." [Id.]: "This first pertains to the cost of ammonia, where EPNG's February 2025 SCR cost estimate indicates a price of $3.05/gallon for a load of 7,000 gallons. [EPNG Ex. 17 at 4]. This is different from a November 2024 vendor quote for aqueous ammonia EPNG submitted concurrently with its February 2025 SCR estimate showing a cost of $1.33/gallon based on 5,000-gallon shipments. [EPNG Ex. 10]. And this is also different from a vendor quote EPNG provided to [the Department] in its September 2024 email/comment letter, which included a price quote for $1.80/gallon based on 6,000-gallon shipments. [NMED Ex. 5 at 8861–8863]. Conversely, [the Department] obtained aqueous ammonia pricing from the National Park Service in July 2024, which it confirmed using the January 2024 USGS Minerals Commodity Summary[21] . . . That shows a 2023 ammonia price of $480/ton, which converts as follows for aqueous ammonia: $480/ton x 1 ton/2000 lb x 2.17 lb/gal =

[21] https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-nitrogen.pdf

$0.522/gallon. (Note: 2.17 lb/gal is the density of a 29% aqueous ammonia solution.)"

314. Second: Ms. Daly and Mr. Trent assert that the costs of installation for SCR on Pecos River Units A-02 and A-03 would "actually cost $21,523,170" [EPNG Ex. 1 at 28-29; EPNG Ex. 13 at 20] and proceed to explain the corresponding cost components. The underlying vendor quote (dated 12/19/24), however, clearly indicates it includes costs for OPTIONAL equipment.

315. Third: EPNG also included $563,413 as an allowance for funds used during construction (AFUDC). [EPNG Ex. 17 at 3]. NMED believes it is inappropriate to include AFUDC and thus did not account for it in any of its FFA cost evaluations. [NMED Reb. Ex. 2 at 5-6].

316. Mr. Sidner concluded by affirming that the Department used the most reasonably accurate information available to it. If a reliable, site-specific vendor quote was not available, NMED attempted to use vendor cost estimates for a similar unit at another facility as a surrogate (and noted as such in its documentation). NMED considered various factors and characteristics in the selection of surrogate cost estimates, including a unit's size, design, age, model, and operation. This surrogate approach has been a foundation of regulatory development by EPA for decades as it established control technology requirements for entire industries. A particularly relevant example is 40 C.F.R. Part 63, Subpart ZZZZ for natural gas-fired reciprocating engines. Within the

corresponding Regulatory Impact Assessment, EPA explains how its surrogate APC cost estimates (for any unit subject to the rule) are based on costs provided by industry groups, vendors and manufacturers. [Id. at 6-7].

317. The Department's cost estimates for SCR retrofits are reasonable and in accordance with all applicable guidance, and the Department is entitled to a deferential analysis of its work. See El Paso Elec. Co. v. N.M. Pub. Regul. Comm'n, 2025-NMSC-009, ¶ 14 (restating that tribunals "confer a heightened degree of deference to . . . special agency expertise or the determination of fundamental policies within the scope of the agency's statutory function") (internal citations omitted).

318. The Board finds that Enterprise's and EPNG's arguments that the Department erred in using the SCR Tool are based on a misreading of the EPA's Control Cost Manual. The Board further finds that EPNG's SCR-related costs estimates are inflated and not credible. The Board finds Enterprise's and EPNG's testimony lacks credibility and lend both little weight.

319. The Board finds that the record contains substantial evidence that the Department used the most reasonably accurate information available to it and that the Department's cost estimates for SCR retrofits are reasonable and in accordance with all applicable guidance

320. The Department's estimates of operating and maintenance costs are reasonable: EPNG also objects that the Department's O&M Costs are too

low, specifically focusing on the Department's use of $0.529 per gallon for ammonia, which EPNG wrongly claims has no basis. [EPNG Ex. 1 at 31]. EPNG misstates Chapter 2 of the Cost Control Manual to make it seem as if the Department erred by not obtaining vendor quotes for ammonia. [Id.]. In fact, the Cost Control Manual states that "when estimating direct annual operating costs, the current price of these commodities reflecting the year in which the cost estimate is made should be used." EPA, Control Cost Manual, Section 4, Chapter 2 at 90, fn. 33. As such, EPA's SCR Tool uses a default ammonia price of $0.293 per gallon based on the U.S. Geological Survey's January 2017 Mineral Commodities Summary, and prompts the user to "enter actual value, if known." The Department's price of $0.529 per gallon was supplied by the National Park Service, which stated it was "based on 2023 commodity values." [NMED Ex. 5 at 9398]. The Department confirmed this using the U.S. Geological Survey's January 2024 Mineral Commodities Summary, the most recent summary available at the time of its analysis. [NMED Ex. 62 at 10538]. EPNG's O&M costs on this item are inflated. EPNG provided no legal authority or guidance requiring the Department to use EPNG's vendor quote, in which, similar to its SCR quote, the company's and salesperson's names are redacted, making it impossible for the Department to verify, instead of current commodity prices.. See Tafoya v. Morrison, 2017-NMCA-025, ¶ 46 (restating the principle that "[w]here a party does not cite authority that supports an argument, [a tribunal] may assume no such authority exists . . .

[and] not consider propositions that are unsupported by citation to authority").

321. The Board finds that EPNG's contention that the Department's operating and maintenance costs are too low, specifically the Department's use of $0.529 per gallon for ammonia is not supported by the record. The Board finds EPNG's testimony lacking credibility and lends it little weight.

322. The Board finds that the record contains substantial evidence that the Department's use of current commodity prices to determine operating and maintenance costs associated with the use of SCR was the most reasonably accurate information available to it, is reasonable, and in accordance with all applicable guidance.

VII. THE DEPARTMENT'S $10,000/TON CETV IS REASONABLE AND IN ACCORDANCE WITH LAW AND GUIDANCE

323. Opposing Parties' claims: Targa objects to the Department's cost-effectiveness threshold value ("CETV") of $10,000/ton, claiming that it is "substantially higher than the threshold in other states with other EPA-approved implementation plans. For example, the cost-effectiveness threshold in Arizona is $6,500/ton for point sources." [Targa Ex. A at 13] (internal citations omitted). Targa pointed to Texas ($2,700/ton) and Nebraska ($5,000 incremental cost per ton), arguing that the Department did not explain why New Mexico's CETV was different than various other states. [Id. at 14]. Targa then opined that a "more reasonable cost-effectiveness

threshold is $6,500/ton." [Id.]. Targa provides no statutory, regulatory, or guidance-based authority to support its claims, nor does Targa provide data to support its claim that $6,500/ton is more reasonable than $10,000/ton.

324. Enterprise offers similar claims, listing a number of other states' and their respective CETV's, but supplies no legal authority, EPA or WRAP guidance, nor data to support its argument. [Jewell Direct at 30-31]. EPNG is asking the Board to "adopt a lower cost threshold of no more than $8,000/ton" so that EPNG's Blanco A unit A13 and Pecos River unit A-03 would be exempt from the Proposed Rule. [EPNG Ex. 1 at 36-37]. EPNG concurs with Enterprise and argues that the support the Department offered for its $10,000/ton threshold "must be rejected as insufficient to provide substantial evidence or as arbitrarily and capriciously counter to the method NMED claims to apply." [Id.]. EPNG provides no legal authority, EPA or WRAP guidance, nor any data to support its argument. The Board declines to consider claims unsupported by legal authority, guidance, or relevant data. See Romero v. Laidlaw Transit Servs., 2015-NMCA-107, ¶ 16; and Griffin v. Guadalupe Medical Ctr., Inc., 1997-NMCA-12, ¶ 6, 123 N.M. 60.

325. EPNG also claims that the Department's "process for determining where to identify a threshold is so opaque and described in such minimal detail that assessing whether NMED's approach makes sense is impossible." [EPNG Ex. 1 at 38]. The Department's process was described in great detail, and the Board rejects this characterization.

326. The Department's responses: Mr. Miller testified that the CETV's provided by Targa, Enterprise, and EPNG "don't say anything about the reasonableness of NMED's $10,000/ton cost threshold" because they are cherry-picked. [NMED Reb. Ex. 3 at 15]. Mr. Miller pointed out that "[s]omewhat disingenuously, [Enterprise] and [Targa] also provide examples of cost thresholds used by other states in their regional haze SIPs for the first implementation period." [Id. at fn. 12]. Similarly, EPNG based its opposition to New Mexico's $10,000/ton threshold, in part, by comparing it to Texas' $2,700/ton threshold from the first implementation period. [Id. at fn. 14]. Mr. Miller stated that "New Mexico is not the extreme outlier" on CETV's, contrary to EPNG's, Targa's, and Enterprise's claims. [Id. at 16]. Mr. Miller pointed to Oregon, Colorado, and Nevada as western states who "also used $10,000/ton" thresholds for the second implementation period. [Id.]. As Mr. Miller testified, the opposing parties do not explain "the basis for any of the lower cost thresholds they cite, much less why it would be appropriate for [the Department] to use them in New Mexico's SIP . . . Just pointing out that state A used a higher (or lower) threshold than [New Mexico] says nothing about whether either state's threshold is reasonable, or whether it would be appropriate for state A to use [New Mexico's] threshold or vice-versa." [Id.]. Mr. Miller concluded that "[g]iven the broad discretion states have in developing their regional haze SIPs and the myriad of differences from state to state in terms of the sources impacting visibility and the cost and

emissions reduction potential of available controls, one would expect states' cost thresholds – and the bases for them – to vary considerably." [Id.].

327. In addressing EPNG's claims that the Department's use of segmented linear regressions was inappropriate and not cited to any EPA guidance, Mr. Miller explained that the "EPA has not provided any guidance on establishing cost thresholds," and "only says that states must explain the basis for any thresholds and, in the case of cost thresholds specifically, why the selected threshold is appropriate for evaluating control measures and consistent with the requirement to make reasonable progress." [Id. at 17-18]. In Section 7.3 of the SIPr, the Department explains both "the basis for its $10,000/ton cost threshold" and "an explanation for why this cost threshold is appropriate for evaluating control measures." [Id. at 18; NMED Ex. 5, Bates 6279-6251].

328. Enterprise's and EPNG's objections regarding the propriety of breakpoints in the Department's cost-effectiveness graph were moot because the Department had "updated its cost threshold analysis three times since completing the original analysis in early 2024." [NMED Reb. Ex. 3 at 19]. The analysis was first updated after the Department consulted with the EPA and federal land managers, then updated in response to stakeholders – including Enterprise and EPNG, then finally in response to comments from the parties in this proceeding. [Id. at 19-20, NMED Exhibit 5, Bates 06251]. Mr. Miller concluded that the reason why Enterprise and EPNG placed their breakpoint at $8,000/ton is because they used the previous (second) updated analysis.

[Id.]. In the current analysis in the SIPr (NMED Ex. 5), Mr. Miller confirmed that "Breakpoint 2 in NMED's final updated cost threshold analysis is squarely at $10,000/ton." [Id.].

329. The Board finds that the record does not contain sufficient evidence to support Targa's contention that a cost-effectiveness threshold value of $6,500/ton is more reasonable than $10,000/ton as determined by the Department. The Board finds Targa's testimony lacking in credibility and lends it little weight.

330. The Board finds that the record does not contain sufficient evidence to support EPNG's contention that a cost-effectiveness threshold value of no more than $8,000/ton is more reasonable than $10,000/ton as determined by the Department. The Board finds EPNG's testimony lacking in credibility and lends it little weight.

331. The Board finds that the record contains substantial evidence that the cost-effectiveness threshold value of $10,000/ton as determined by the Department is reasonable and in accordance with all applicable guidance.

VIII. THE DEPARTMENT'S DECISION NOT TO CONSIDER VISIBILITY BENEFITS IN DETERMINING CONTROL MEASURES IS IN ACCORDANCE WITH THE LAW AND RHR REQUIREMENTS

332. Enterprise argues that the Department's failure to evaluate visibility is "inconsistent" with the CAA and actions taken by the EPA and other states. [Ent. Ex. 3 at 3]. Enterprise provides no statute, regulation, or EPA guidance to

support this position. Enterprise provides examples for states that had considered visibility in various ways in making their respective control determinations or in developing their SIPs more generally. [Id.].

333. Mr. Miller explained that the Department "chose not to consider visibility benefits in determining the control measures that are necessary to make reasonable progress," which is optional, for two reasons. [NMED Ex. 19 at 4]. First, the Department did not have the resources to perform the "sophisticated photochemical modeling" required for the nearly 100 units it evaluated for controls in the second implementation period. [Id. at 4-5]. In responding to Enterprise's list of states that did use visibility modeling when making control determinations, Mr. Miller said, "[i]t is not clear what these cherry-picked examples demonstrate when one can just as easily point to Arizona, Colorado, Nevada, and Washington as examples of states that – like New Mexico – did not consider visibility benefits when making their control determinations." [NMED Reb. Ex. 3 at 5].

334. Second, Mr. Miller testified that haze is caused by pollutants emitted from numerous anthropogenic sources located over a wide geographic area, including motor vehicles, electric generating units, fuel burning industrial equipment, and manufacturing operations. [NMED Ex. 19 at 9612]. "With such a broad and widely dispersed array of sources contributing to haze, the individual impact of all but the largest sources is going to be relatively small, and in many cases imperceptible. This in turn means that the visibility

benefits of a particular control on a particular source are likely to be imperceptible too, when considered in isolation. Therefore, rejecting controls based on the magnitude of their visibility benefit is certain to exempt many sources that contribute to regional haze from any control requirements whatsoever, thereby preventing or impeding reasonable progress." [Id.].

335. In response to a public comment recommending that the Regional Haze Rule explicitly require no controls when the visibility improvements associated with a source are below threshold levels and therefore imperceptible to the human eye, EPA stated that it "does not agree with the recommendation. Regional haze is typically caused by contributions from many sources, some of which may not be individually perceptible to the human eye but in the aggregate are perceptible. If each source could be exempted from control based on its individual impact not being perceptible, the aggregate impact of the exempted sources could be very perceptible and prevent reasonable progress towards natural visibility conditions." [NMED Exhibit 21 at 9835].

336. The Department's "decision to base its control decisions primarily on the cost of compliance is consistent with how EPA predicted states would weigh the four statutory factors when making their control decisions." [Id. at 9613]. The 2019 EPA Guidance states, "For a state that is not considering visibility benefits, we . . . anticipate that the outcome of the state's decision-making processes will most often depend on the cost of compliance, with the other

three statutory factors either being subsumed into the cost of compliance or not being major considerations." [NMED Ex. 13 at 9526].

337. The 2019 EPA Guidance also provides recommendations regarding how states should consider the other three factors that are consistent with the Department's approach. On remaining useful life of the source, EPA "recommends that states consider remaining useful life by using it to calculate emission reductions, annualized compliance costs, and cost/ton values." [Id. at 9531]. On energy and non-air quality impacts, EPA "recommends that states consider energy impacts by accounting for any increase or decrease in energy use at the source as part of the costs of compliance," and also "recommends that states consider relevant non-air quality environmental impacts, such as water usage or waste disposal of spent catalyst or reagent, by accounting for them as part of the costs of compliance." [Id. at 9530-9531].

338. Finally, on time necessary for compliance, the EPA "recommend[s] that states consider the time necessary for compliance as part of their determination of what compliance deadlines for selected control measures are reasonable, rather than as part of their determination whether to adopt the control measures in the first instance." [Id. at 9530]. Mr. Miller affirmed that "[the Department's] decision-making approach comports with these recommendations and is based on the assumption that substantial reductions in emissions of nitrogen oxides . . . and sulfur dioxide will, in the aggregate,

translate into perceptible visibility benefits that provide for reasonable progress."

339. Mr. Miller further testified that "[the] EPA has made clear in . . . actions on other states' regional haze SIPs for the second implementation period that rejecting controls found to be reasonable and cost effective based on the four statutory factors because they would not produce perceptible visibility improvements is inconsistent with both the [CAA] and the [RHR], and has disapproved or proposed to disapprove several second period SIPs partly on that basis." See 89 Fed. Reg. 56,693, 56,706 (July 10, 2024) (partially disapproving North Dakota's second period SIP, in part, because North Dakota "unreasonably relied on visibility modeling to reject controls at Coyote Station and Antelope Valley"); and 89 Fed. Reg. 83,338, 83,365-66 (November 1, 2024) (partially disapproving Texas' SIP, in part, stating that "consideration of visibility benefits cannot outweigh the results of the analysis based on the four factors explicitly prescribed in statute'). [NMED Reb. Ex. 3 at 5-6]. Because the Department "determined there are reasonable and cost-effective controls for many of the units it evaluated, it is not clear what would be gained by considering the visibility benefits of those controls if rejecting them because they might not produce perceptible visibility improvements would cause EPA to disapprove New Mexico's SIP." [Id. at 6].

340. The Board finds the Department's approach is consistent with RHR requirements. In the EPA's Responses to Comments on Protection of

Visibility: Amendments to Requirements for State Plans; Proposed Rule (81 FR 26942, May 4, 2016) (December 2016), EPA emphasized that the RHR "neither requires nor prohibits states from considering visibility when making reasonable progress determinations." [NMED Ex. 21 at 9831]. EPA further stated that, although it had considered visibility benefits in some of its own actions regarding the RHR's reasonable progress requirement, "We . . . recognize that the quantification and consideration of visibility benefits for many sources would be complicated and resource-consuming, and that states may thus choose not to consider visibility benefits in their reasonable progress analyses." [Id.].

341. With regard to the consideration of visibility benefits, the EPA's 2019 Guidance points out that "Section 169A(g)(1) of the CAA lists four factors that must be taken into consideration in determining reasonable progress and states are required to consider those four factors (i.e., cost of compliance, time necessary for compliance, energy and non-air environmental impacts, and remaining useful life of the source) in the control analysis step. The visibility benefit of an emission reduction measure is not listed as a required factor." [NMED Ex. 13 at 9517] (emphasis added). It also points out that "Section 51.308(f)(2)(i) of the Regional Haze Rule requires consideration of the four factors listed in CAA section 169A(g)(1) and does not mention visibility benefits." [Id. at 9525] (emphasis added). The guidance provides recommendations for "a state choosing to consider visibility benefits," but

also describes how "a state that chooses not to consider visibility benefits" would decide whether a particular measure is necessary for reasonable progress. [Id. at 9523, 9526]. Clearly, both approaches are permissible and consistent with RHR requirements.

342. The Department did consider visibility in developing the SIPr and the Proposed Rule: Mr. Miller testified, "[i]t would not be possible to develop a periodic regional haze SIP revision that meets the requirements of the regional haze rule without considering visibility at all." [NMED Reb. Ex. 3 at 2].

343. Under 40 C.F.R. § 51.308(f), in order to meet the "core requirements for regional haze," New Mexico's SIPr must contain "the following plan elements and supporting documentation for all required analyses:

a. Baseline visibility conditions for the most impaired and clearest days

b. Natural visibility conditions for the most impaired and clearest days

c. Current visibility conditions for the most impaired and clearest days

d. Progress to date for the most impaired and clearest days . . . and

e. Differences between current visibility condition and natural visibility condition."

344. Under 40 C.F.R. § 51.308(f)(1)(vi), New Mexico's SIPr must also establish the "uniform rate of progress," which Mr. Miller explained, "necessarily involves consideration of visibility." [NMED Reb. Ex. 3 at 3]. In calculating the uniform rate of progress, the Department was required to "compare the baseline visibility condition for the most impaired days to the natural visibility

condition for the most impaired days in the mandatory Class I Federal area and determine the uniform rate of visibility improvement (measured in deciviews of improvement per year) that would need to be maintained during each implementation period in order to attain natural visibility conditions by the end of 2064." 40 C.F.R. § 51.308(f)(1)(vi)(A).

345. Mr. Miller testified that the Department "utilized historical data from representative monitor sites to determine baseline, current, and natural visibility conditions, progress to date, and the difference between current and natural visibility conditions for the most impaired and clearest days for each of New Mexico's nine class I areas." [NMED Reb. Ex. 3 at 3-4; NMED Exhibit 5 at 6187-6188 (Tables 3-2 and 3-3)]. The Department "determined the uniform rate of progress for each of New Mexico's nine class I areas, with and without adjustments to account for impacts from anthropogenic sources outside the United States and wildland prescribed fires." [NMED Exhibit 5 at 6201-6208 (Figures 3-10 through 3-17)].

346. The Department "also considered visibility in ways not required by the regional haze rule . . . For example, [the Department] quantified the contributors to light extinction on the most impaired and clearest days to help it determine which pollutants to target when selecting sources for an analysis of potential control measures." [NMED Reb. Ex. 3 at 4; NMED Exhibit 5 at 6191-6198 (Figures 3-2 through 3-9)]. Mr. Miller also described how the Department "used emissions divided by distance (Q/d), which is a surrogate

for source visibility impacts, when selecting sources for analysis during the second implementation period." [NMED Reb. Ex. 3 at 4; NMED Exhibit 5 at 6237-6239 (Section 6.2)]. Mr. Miller concluded that, "the [RHR] requires determination of visibility conditions as well as the uniform rate of progress for all of New Mexico's class I areas. For this reason, and because it is the only scientifically valid approach, NMED considered visibility in various ways when developing New Mexico's proposed SIP." [NMED Reb. Ex. 3 at 4].

347. The Board finds that there is not sufficient evidence to support Enterprise's and EPNG's contentions that the Department's decision not to evaluate visibility is inconsistent with the CAA and actions taken by the EPA. Neither Enterprise nor EPNG's provided any statute, regulation, or EPA guidance to support this position. The Board finds Enterprise's and EPNG's testimony on this point lacking in credibility and lends it little weight.

348. The Board finds that the record contains substantial evidence that the Department's decision to not consider visibility benefits in determining control measures is reasonable and in accordance with 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f) and EPA's 2019 Guidance.

349. The Board further finds that the record contains substantial evidence that the Department did consider visibility in the development of the SIPr in accordance with 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f) and the EPA's 2019 Guidance.

350. Emissions reductions at Enterprise's facilities are necessary for reasonable progress and will contribute to visibility improvements at Class I areas: The Uniform Rate of Progress is not a safe harbor. Enterprise argues that "emission reductions from the Enterprise facilities would not materially affect visibility in any Class I area and that New Mexico's Class I areas are already on track to meet their visibility goals without additional emission reductions." [Ent. Ex. 3 at 5]. Enterprise contends that controls are not necessary at the Blanco C & D, Chaco, and South Carlsbad facilities to fulfill regional haze requirements because the closest class I areas are already projected to be below the uniform rate of progress at the end of the second implementation period without additional emissions reductions. [Id. at 5-10].

351. Mr. Miller concedes that Enterprise "is correct that visibility at Mesa Verde National Park (the closest class I area to Blanco and Chaco) and Carlsbad Caverns National Park (the closest class I area to South Carlsbad) is projected to be below the uniform rate of progress at the end of the second implementation period without additional emissions reductions." [NMED Reb. Ex. 3 at 7]. "This is not, as [Enterprise] suggests, 'strong support for concluding that additional emission reductions and controls at the Enterprise facilities in particular are not necessary to fulfill regional haze requirements at this time.' To conclude that new controls are not needed regardless of the outcome of NMED's four-factor analyses for the Enterprise facilities (or any other facility NMED conducted a four-factor analysis for) because visibility at

the closest class I area is projected to be below the uniform rate of progress without additional emissions reductions would be to use the uniform rate of progress as a 'safe harbor,' which EPA has consistently stated does not comport with the regional haze rule. " [Id. at 7-8 (quoting Ent. Ex. 3 at 9)]. See 82 Fed. Reg. 3,078, 3,099 (January 10, 2017) (stating that "[t]reating the URP as a safe harbor would be inconsistent with the statutory requirement that states assess the potential to make further reasonable progress towards natural visibility goal in every implementation period. Even if a state is currently on or below the URP, there may be sources contributing to visibility impairment for which it would be reasonable to apply additional control measures in light of the four factors").

352. EPA's 2019 Guidance clarifies that even "[i]f the 2028 [reasonable progress goal] for the 20 percent most impaired days is below the [uniform rate of progress] glidepath, that does not exempt states from any of the requirements of the CAA or the [RHR], in particular the requirement to include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress as determined by taking into consideration the four statutory factors." [NMED Ex. 13 at 9539].

353. EPA's 2021 Clarifications Memo expanded on this, stating "EPA has reviewed several draft second planning period regional haze SIPs that conclude that additional controls, including potentially cost-effective and

otherwise reasonable controls, are not needed because all of the Class I areas in the state (and those out-of-state areas affected by emissions from the state) are below their uniform rates of progress (URPs). The 2017 RHR preamble and the August 2019 Guidance clearly state that it is not appropriate to use the URP in this way, i.e., as a "safe harbor." The URP is a planning metric used to gauge the amount of progress made thus far and the amount left to make. It is not based on consideration of the four statutory factors and, therefore, cannot answer the question of whether the amount of progress made in any particular implementation period is "reasonable progress" . . . Therefore, states must select a reasonable number sources and evaluate and determine emission reduction measures that are necessary to make reasonable progress by considering the four statutory factors." [NMED Ex. 14 at 9584-9585].

354. Mr. Miller concluded that, "[b]ecause it is not appropriate to use the uniform rate of progress in this way, i.e., as a safe harbor, the Department could not ignore the results of its four-factor analyses for the Enterprise facilities simply because the closest class I areas to those facilities are projected to be below the uniform rate of progress at the end of the second implementation period without additional emissions reductions." [NMED Reb. Ex. 3 at 8]. Therefore, the Department "determined the emission reduction measures that are necessary to make reasonable progress by

considering the four statutory factors, not based on projected visibility relative to the uniform rate of progress." [Id.].

355. On July 7, 2025 (effective August 6, 2025), EPA affirmed a change in policy with respect to the uniform rate of progress in its approval of West Virginia's regional haze SIP for the second implementation period. It is now the Agency's policy that, "where visibility conditions for a Class I Federal area impacted by a State are below the URP and the State has considered the four statutory factors, the State will have presumptively demonstrated reasonable progress for the second planning period for that area." 90 Fed. Reg. 29737, 29738. However, EPA emphasized that "[i]mportantly, the EPA's new policy does not make the URP a safe harbor. The new policy merely creates a presumption that the State's second planning period SIP is making reasonable progress for a Class I Federal Area if the State has taken into consideration the four statutory factors of 169A(g)(1) and that area is below the URP." Id. at 29739. EPA further clarified that, "EPA still reviews a State's determination of whether additional control measures are necessary for reasonable progress . . . and whether the measures are consistent with other provisions in the CAA." Id. As such, requiring controls when a Class I area is projected to be below the uniform rate of progress is still permissible under the new policy. At this time it is not known how the EPA will act on state SIPs that require controls in such circumstances.

356. The Board finds that Enterprise's argument that its Blanco C & D, Chaco, and South Carlsbad facilities should be removed from the Proposed Rule because New Mexico's Class I areas are already on track to meet their visibility goals without additional emission reductions does not outweigh the benefits for New Mexico in achieving reasonable progress toward the goal of natural visibility in Class I areas under 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f).

357. The Board finds that the record contains substantial evidence that the Department's inclusion into the Proposed Rule of Enterprise's Blanco C & D, Chaco, and South Carlsbad facilities is reasonable and necessary to implement the emission reduction measures that are necessary to make reasonable progress by considering the four statutory factors under 42 U.S.C. Section 7491.

358. Windroses are useful tools but do not fully account for the complexities of haze-causing particle formation and transport in the atmosphere: Enterprise contends that "[the Department's] assumption that the SIP will result in visibility improvements runs counter to the evidence provided by the wind roses." [Ent. Ex. 3 at 12]. Enterprise argues that "[t]he wind roses for each facility show that the wind will blow in the direction of the nearest Class I area only between 1.4 and 2.4 percent of the time. Accordingly, the vast majority of emissions from the Enterprise facilities do not travel in the direction of the nearest Class I areas." [Id. at 13]. Based on this, Enterprise

concludes that “these facts provide a basis for concluding that emission controls at the Enterprise facilities will have minimal impacts in Class I areas.” [Id.].

359. In support of this argument, Enterprise provides a windrose for Bloomfield, New Mexico, showing that the wind there only blows in the direction of the class I area closest to Blanco and Chaco (Mesa Verde National Park in Colorado) 2.4 percent of the time, and another for Carlsbad, New Mexico, showing that the wind there only blows in the direction of the class I area closest to South Carlsbad (Carlsbad Caverns National Park) 1.4 percent of the time. Windroses are graphical charts that characterize the speed and direction of winds at a location. Presented in a circular format, the length of each "spoke" around the circle indicates the amount of time that the wind blows from a particular direction. Colors along the spokes indicate categories of wind speed. [NMED Reb. Ex. 3 at 9, fn. 8].

360. The windroses provided by Enterprise for Bloomfield and Carlsbad are 10 and 8 years old, respectively, and Enterprise did not explain why they should still be considered representative of current conditions. In addition, the meteorological stations on which they are based are not identified, making them impossible for the Department to verify. [Ent. Ex. 3 at 11-12 (Figures 1 and 1.A)]. [Id. at 11-12 (Figures 1 and 1.A)].

361. Regarding the windroses in Enterprise’s Figure 1 and Figure 1.A, Mr. Miller explained that “while a windrose can provide insight into whether a facility

impacts visibility in a particular class I area, the relationship between emissions in one location and haze in another is much more complicated than [Enterprise] implies." [NMED Reb. Ex. 3 at 9]. Mr. Miller stated that Enterprise's assertion that the vast majority of emissions from its facilities do not travel in the direction of the nearest Class I areas ignores a key issue. As Mr. Miller further explained, "Combustion units do not emit particulate ammonium nitrate, which contributes to visibility impairment, directly. Instead, they emit nitrogen oxides, which are converted to particulate ammonium nitrate via complex atmospheric reactions. Because these reactions take time, and wind direction and speed can vary considerably over relatively short distances and times, the trajectories of the resultant haze-forming particles do not always correlate with the most frequent wind direction at the location of the underlying source." [Id. at 10].

362. Mr. Miller further observed that "although the lengths of some of the [windrose] spokes creates the appearance of a significant disparity vis-à-vis the frequency with which the wind blows from different directions, a closer look at the scaling of the windroses reveals that there is not a strong directionality to the wind at either location." [Id.]. Describing his analysis of the windroses, Mr. Miller points out that "[a]t Bloomfield, the frequency with which the wind blows from all but a few directions is in the 2 to 4 percent range . . . at Carlsbad, the frequency with which the wind blows from most directions is 3 percent or less. And in both locations, the frequency with

which the wind blows from the highest frequency direction is only about 6 percent." [Id.]. In Mr. Miller's opinion, "even if one could reasonably draw the kind of conclusion that Mr. Jewell does from a windrose alone, the ones he provides would not support it in this instance." [Id.].

363. Mr. Miller described the residence time plots prepared by the WRAP to assist with regional haze planning in the western U.S. showing that a relatively high percentage of air parcels arriving at Mesa Verde and Carlsbad Caverns on the most impaired days travel from areas that encompass Blanco C & D, Chaco, and South Carlsbad. [Id.]. Mr. Miller explained that the residence time plots "are based on HYSPLIT-modeled back trajectories that, unlike a windrose, determine the origin of air masses arriving at a specified location, making them better tools for establishing source-receptor relationships than windroses." [Id. at 10-11; NMED Exhibit 5 at 6210-6211 (Figures 4-1 and 4-2)].

364. The Board finds that Enterprise's contention that windrose data renders the SIPr emission reductions measures for Enterprise facilities unnecessary is not persuasive.

365. The Board finds the Department's rebuttal testimony regarding windroses credible and gives it great weight.

366. NOx reductions are necessary to address visibility: Enterprise argues that the estimated emissions reductions from required controls at Blanco C & D, Chaco, and South Carlsbad are very small compared to the emissions

reductions that have been found to be necessary to address regional haze in the past and are unlikely to be meaningful for improving visibility. [Ent. Ex. 3 at 13-15].

367. Mr. Miller responded that "[t]his argument is premised on requirements for regional haze SIP revisions for the second implementation period being the same or substantially similar to the requirements for first period regional haze SIPs. But as [Enterprise] surely knows, the requirements for periodic regional haze SIP revisions. . . are quite different." [NMED Reb. Ex. 3 at 11]. Mr. Miller then reviewed the requirements for the first implementation period: "First period regional haze SIPs were required to address Best Available Retrofit Technology ("BART") requirements for eligible sources. These represented the largest stationary sources of air pollutants and included fossil steam plants and large industrial facilities such as cement plants, pulp mills, refineries, and smelters. Given the scale of their emissions, these sources – many of which had not previously been subject to control requirements for visibility-impairing pollutants – offered the most "bang for the buck" in terms of reducing haze. Therefore, the regional haze rule required that these sources be addressed first, with the understanding that this would leave smaller, more numerous, more dispersed sources of air pollutants to be addressed in subsequent rounds of regional haze planning." [Id. at 11-12].

368. Mr. Miller pointed out that in the first implementation period, the only BART-eligible source in New Mexico was the San Juan Generating Station ("SJGS"), a four-unit coal-fired steam electric generating plant in San Juan County. [Id. at 12]. The required BART determination for the SJGS resulted in the retirement of two of the four units and installation of SCR on the other two. [This history is described briefly in Section 1.2 of the SIPr. [NMED Ex. 5 at 6152-6153].Id.]. These changes were estimated to reduce the plant's NOX emissions by 12,989 tons-per-year, as shown in the EPA table provided in Mr. Jewell's testimony. [Ent. Ex. 3 at 13-14] The NOX control scenario determined to represent BART for SJGS is identified as the "State Alternative" in the EPA table, which is captioned "New Mexico's Analysis of the Impacts and Cost-Effectiveness of the Three NOX Control Scenarios." Mr. Miller noted that the Department does not dispute Enterprise's assertion that the expected NOX emissions reductions from the control requirements for Blanco, Chaco, and South Carlsbad in the Department's second period SIPr are considerably less: 866.1 tons per year for Blanco, 118.3 tons per year for Chaco, and 135.7 tons per year for South Carlsbad. [NMED Reb. Ex. 3 at 12]. Mr. Miller testified that the Department does dispute Enterprise's conclusion that "[t]he NOX emission reductions obtainable from the Enterprise facilities are so small that they are unlikely to be meaningful for improving visibility and would rightly have been ignored" during the first implementation period. [Ent. Ex. 3 at 15].

369. Mr. Miller stated that Enterprise's conclusion is "misleading for several reasons." [NMED Reb. Ex. 3 at 13]. First, the "12,989 tons per year of NOX reductions were not 'needed to justify regional haze controls in the past.' The regional haze rule does not specify any level of emissions reductions as being necessary for reasonable progress . . . 12,989 tons per year was simply the estimated NOX reductions at SJGS resulting from emission limitations representing BART, which first period regional haze SIPs were required to include [per] 40 C.F.R. § 51.308(e)." [Id].

370. Secondly, Mr. Miller took issue with Enterprise's statement that "the proposed NOX emissions reductions in the Draft SIP are two orders of magnitude less than the emissions reductions called for in the first regional haze planning period." [Ent. Ex. 3 at 15]. Enterprise "is comparing the estimated second period reductions at Blanco, Chaco, and South Carlsbad individually to the first period reductions at SJGS. However, this is not a relevant comparison because . . . after large, BART-eligible sources were addressed in the first round of regional haze planning, only smaller, more numerous, more dispersed sources of air pollutants were left to be addressed in subsequent rounds." [NMED Reb. Ex. 3 at 13]. Because of this, "one would expect reductions at individual facilities to be considerably less in the second implementation period than in the first." [Id.].

371. Table 7-1 of the Department's SIPr for the second implementation period summarizes the estimated NOX reductions at individual facilities as well as

the total estimated reductions from all facilities combined. [NMED Ex. 5 at 6282]. As Mr. Miller explained, "[i]t shows that the estimated total reductions from required controls at all facilities is 17,964 tons per year, roughly 40 percent more than the estimated reductions from required controls at SJGS during the first implementation period." [NMED Reb. Ex. 3 at 14]. Mr. Miller explained that "8,271 tons of these reductions come from sources in San Juan County, where SJGS was located As a result, New Mexico's SIPr for the second implementation period is estimated to provide 67% of the total reductions provided by its first period SIP in San Juan County alone, with the balance coming from sources primarily in the Permian Basin, where New Mexico's first period SIP required no reductions whatsoever." [Id.].

372. The Board is not persuaded by Enterprise's contention that the estimated emissions reductions from required controls at Blanco C & D, Chaco, and South Carlsbad are small compared to the emissions reductions that have been found to be necessary to address regional haze in the past and are therefore unlikely to be meaningful for improving visibility. Enterprise's arguments on this point lack credibility and the Board gives it little weight.

373. The Board finds that the record contains substantial evidence that the Department's determination that NOX reductions at Enterprise's facilities are necessary to address visibility is reasonable and in accordance with the requirements of 42 U.S.C. Section 7491 and 40 C.F.R. 51.308(f) and the EPA's 2019 Guidance.

IX. THE DEPARTMENT'S LONG-TERM STRATEGY ADDRESSING REGIONAL HAZE VISIBILITY IMPAIRMENT

374. Reasonable Progress Goals: The Regional Haze Rule requires periodic comprehensive revisions of state implementation plans for regional haze to contain certain core elements. Among these is "a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within the State and for each mandatory Class I Federal area located outside the State that may be affected by emissions from the State." 40 C.F.R. § 51.308(f)(2). [NMED Ex. 19 at 9626]. The long-term strategy is a compilation of measures intended to improve visibility and "must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress, as determined pursuant to [40 C.F.R. § 51.308] (f)(2)(i) through (iv)." [Id.].

375. The Department's long-term strategy addressing regional haze visibility impairment comprises the following measures:

a. Emission limitations correlative of new controls on 50 units with corresponding compliance deadlines;

b. Emission limitations correlative of in-place controls on eight units with corresponding compliance deadlines;

c. Restrictions on reauthorizing 34 retired units in any future construction permit modification issued by NMED; and

d. Other measures to ensure the continued use of in-place controls on four amine treatment systems. [Id.].

376. As a member of WRAP, New Mexico received substantial technical resources from WRAP in preparing the SIPr. [Id.]. Among these resources was regional-scale photochemical modeling of visibility conditions in Class I areas in member states at the beginning and end of the second period to allow them to satisfy various requirements of the Regional Haze Rule. [Id.]. Every WRAP member state in the contiguous United States utilized WRAP's modeling of visibility conditions at the end of the period to establish their reasonable progress goals ("RPGs"), with most – including New Mexico – basing them on WRAP's modeling of the 2028 On the Books ("2028OTBa2") emissions scenario. [Id.]. This scenario represents projected emissions after the implementation by 2028 of all applicable federal and state requirements for U.S. anthropogenic emissions that were in place or reasonably foreseeable at the time of the modeling. [Id. at 9626-9627].

377. The inventory for the 2028OTBa2 scenario was finalized in September 2020, when many WRAP member states were still making control decisions and developing their long-term strategies. [Id.]. Therefore, it does not reflect emissions reductions due to measures member states later determined are necessary to make reasonable progress. [Id.]. It only reflects emissions reductions due to measures they had already determined are necessary for reasonable progress, or were reasonably confident they would determine are

necessary for reasonable progress based on preliminary analyses. [Id.]. This is an inevitable consequence of states developing their regional haze SIPs on widely disparate schedules, about which the 2019 EPA Guidance states, "EPA recognizes that for practical reasons involving schedules and resources, it may not be possible for [the entity performing the modeling] . . . to include in its final air quality model run all of the control measures that 40 CFR 51.308(f)(3) and this guidance indicate should be included." [Id.; NMED Ex. 13 at 46 at 9535] The guidance goes on to say that the Regional Haze Rule "does not preclude later adjustments to the modeling outputs to account for the excluded measures," but does not state or imply that this is required. [Id.].

378. A couple of WRAP member states that based their RPGs on the 2028OTBa2 scenario made adjustments to the WRAP modeling output to account for control measures they determined are necessary to make reasonable progress after the 2028OTBa2 inventory was finalized. [Id.]. However, these adjustments proved to be negligible (between 0 and 0.01 deciviews) so New Mexico – like most other member states that based their RPGs on the 2028OTBa2 scenario – chose not to make post-modeling adjustments to its RPGs. [Id.]. The unadjusted RPGs still provide for improvement in visibility on the most impaired days and no degradation on the clearest days as the Regional Haze Rule requires, and the additional emissions reductions resulting from measures in New Mexico's long-term

strategy not reflected in the 2028OTBa2 inventory can only add to that improvement. [Id. at 9627-9628].

379. Visibility Checks: After states establish their RPGs, the Regional Haze Rule requires a comparison to baseline period visibility conditions to demonstrate that they "provide for an improvement in visibility for the most impaired days since the baseline period and ensure no degradation in visibility for the clearest days since the baseline period." 40 C.F.R. 51.308(f)(3)(i). [Id. at 9628]. In reference to these visibility checks, the 2019 EPA Guidance states, "The 2028 RPG for the 20 percent most anthropogenically impaired days is to be compared to the 2000-2004 baseline period visibility condition for the same set of days and must provide for visibility improvement since the baseline period." [NMED Ex. 13 at 9537]. The guidance further states, "The 2028 RPG for the 20 percent clearest days is to be compared to the 2000-2004 baseline period visibility condition for the 20 percent clearest days and must ensure that no visibility degradation from the baseline period is projected." [Id.].

380. The Department's RPGs for the most impaired days are shown in Figures 9-1 through 9-8 of the SIPr. [NMED Ex. 19 at 9628; NMED Ex. 5 at 6300-6307]. These figures also show visibility conditions on the most impaired days during the baseline period (2000-2004) and demonstrate that the RPGs for all Class I areas in New Mexico are below baseline visibility conditions and thus provide for visibility improvement since the baseline period on the most impaired days. [Id.]. By way of example, Figure 4 in NMED Exhibit 19 shows the RPG

(the orange circle identified as 2028 Most Impaired Days) and baseline visibility conditions on the most impaired days for Bandelier Wilderness Area. The RPG (7.9 deciviews) is less than baseline conditions (9.7 deciviews) demonstrating that the RPG provides for visibility improvement since the baseline period. [NMED Ex. 19 at 9628-9629].

381. Similarly, the Department's RPGs for the clearest days are shown in Figures 9-9 through 9-16 of the SIPr. [Id.; NMED Ex. 5 at 6308-6315]. These figures also show visibility conditions on the clearest days during the baseline period and demonstrate that the RPGs for all Class I areas in New Mexico are below baseline visibility conditions and thus ensure no visibility degradation from the baseline period on the clearest days. [NMED Ex. 19 at 96-29-9630]. By way of example, Figure 5 in NMED Exhibit 19 shows the RPG (the orange square identified as 2028 Clearest Days) and baseline visibility conditions (the horizontal blue line identified as No Degradation Limit – Clearest Days) on the clearest days for Bandelier Wilderness Area. [Id.]. The RPG (2.7 deciviews) is less than baseline visibility conditions (5 deciviews) demonstrating that the RPG ensures no degradation in visibility since the baseline period. [Id.].

382. Glidepath Checks: The Regional Haze Rule also requires states to compare their RPGs for the most impaired days to the URP glidepath to determine if a so-called robust demonstration is necessary for any Class I area. 40 C.F.R. 51.308(f)(3)(ii)(A). [NMNED Ex. 19 at 9630]. The URP is "the uniform rate of visibility improvement . . . that would need to be maintained

during each implementation period in order to attain natural visibility conditions by the end of 2064." 40 C.F.R. § 51.308(f)(1)(vi)(A). The glidepath is a visual representation of the URP constructed by drawing a straight line between baseline visibility conditions on the most impaired days and natural visibility conditions (also on the most impaired days) in 2064. [Id.].

383. As allowed by the Regional Haze Rule, the Department adjusted the URP glidepath for all of New Mexico's Class I areas to account for impacts from anthropogenic sources outside the United States and wildland prescribed fires. [Id. at 9631]. These adjustments are shown in Figures 3-10 1through 3-17 of New Mexico's SIPr. [Id.; NMED Ex. 5 at 6201-6208]. Figures 9-1 through 9-8 of the SIPr show the Department's RPGs for the most impaired days and the adjusted URP glidepaths the Department compared them to. [NMED Ex. 19 at 9630; NMED Ex. 5 at 6300-6307]. These figures demonstrate that the RPGs for all Class I areas in New Mexico are below their respective URP glidepaths except the RPG for Salt Creek Wilderness Area, which is above the glidepath. This is shown in Figure 6 of NMED Ex. 19. [NMED Ex. 19 at 9630].

384. Salt Creek Robust Demonstration: If the RPG for a Class I area is above the URP glidepath, the Regional Haze Rule requires the state to "demonstrate . . . that there are no additional emission reduction measures for anthropogenic sources or groups of sources in the State that may reasonably be anticipated to contribute to visibility impairment in the Class I area that would be reasonable to include in the long-term strategy. [Id. at 9632]. The

State must provide a robust demonstration, including documenting the criteria used to determine which sources or groups or sources were evaluated and how the four factors required by [40 C.F.R. 51.308(f)(2)(i)] were taken into consideration in selecting the measures for inclusion in its long-term strategy." 40 C.F.R. § 51.308(f)(3)(ii)(A). [Id. at 9632-9633].

385. Because its RPG is above the URP glidepath, the Department provided a robust demonstration for Salt Creek Wilderness Area ("Salt Creek") in New Mexico's SIPr. [Id. at 9632; NMED Ex. 5 at 6316-6323]. The demonstration follows the approach, described in the 2019 EPA Guidance, of explaining how The Department "already conducted the source selection and control measures analyses in such a manner that addresses the requirements of [40 C.F.R. Section] 51.308(f)(3)(ii)." [NMED Ex. 19 at 9632; NMED Ex. 13 at 9539]. To this end, it explains that the majority of facilities the Department selected for analysis are located in the Permian Basin, which borders Salt Creek, and that the majority of new control requirements in New Mexico's long-term strategy apply to units at these facilities. [Id.]. It further explains that the Permian Basin constitutes a large percentage of the area of influence for Salt Creek and that the oil and gas sector – to which the overwhelming majority of facilities the Department evaluated belong – is New Mexico's largest contributor to visibility impairment at Salt Creek. [Id.]. Put another way, the Department's long-term strategy includes a robust set of measures applicable

to the right set of sources in the right location to ensure continued improvement in visibility conditions at Salt Creek. [Id.].

386. The Board finds substantial evidence that the Department's long-term strategy is reasonable and adequate to address regional haze visibility impairment for each mandatory Class I Federal area within the State and for each mandatory Class I Federal area located outside the State that may be affected by emissions from the State. The Board further finds that the record contains substantial evidence that the Department's long-term strategy includes enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress.

387. The Board finds that the record contains substantial evidence that the Department's long-term strategy and the reasonable progress goals provide for an improvement in visibility for the most impaired days since the baseline period and ensure no degradation in visibility for the clearest days since the baseline period.

388. The Board finds substantial evidence that the Department's reasonable progress goals reflect the visibility conditions that are projected to be achieved by the end of the second implementation period as a result of the enforceable emissions limitations, compliance schedules, and other measures required under 40 C.F.R. Section 51.308(f)(2) that can be fully implemented by the end of the second implementation period.

389. The Board concludes that the Department's long-term strategy meets all of the requirements of 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f)(2).

390. The Board concludes that the Department's reasonable progress goals meet all of the requirements of 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f)(3).

X. EMBEDDED PROGRESS REPORT

391. The Regional Haze Rule requires a progress report be submitted every 5 years, which addresses the time period since the last progress report. The last progress report was due in 2013 and addressed the first half of the first planning period, from 2009 until 2013. As such, this SIPr includes a progress report addressing the years 2014 – 2018, which represents the second half of the first planning period. In accordance with 40 CFR § 51.308(f)(5), this progress report provides information specified in 40 CFR §51.308(g)(1) to (7).[NMED Ex. 24 at 10308].

392. Under Section 51.308(f)(5) the Progress report is required to provide the following information:

a. A description of the status of implementation of all measures included in the implementation plan for achieving reasonable progress goals for mandatory Class I Federal areas both within and outside the State.

b. A summary of the emissions reductions achieved throughout the state through implementation of the measures described in 40 C.F.R. Section 51.308(g)(1).

c. For each mandatory Class I Federal area within the state, the state must assess the following visibility conditions and changes, with values for most impaired, least impaired and/or clearest days as applicable expressed in terms of 5-year averages of these annual values. The period for calculating current visibility conditions is the most recent 5-year period preceding the required date of the progress report for which data are available as of a date 6 months preceding the required date of the progress report.

d. The current visibility conditions for the most impaired and least impaired days.

e. The difference between current visibility conditions for the most impaired and least impaired days and baseline visibility conditions.

f. The change in visibility impairment for the most impaired and least impaired days over the period since the period addressed in the most recent plan required under 40 C.F.R. Section 51.308(f).

g. An analysis tracking the change over the period since the period addressed in the most recent plan required under 40 C.F.R. Section 51.308(f) in emissions of pollutants contributing to visibility impairment from all sources and activities within the state.

h. An assessment of any significant changes in anthropogenic emissions within or outside the State that have occurred since the period addressed in the most recent plan required under Section 51.308(f) including whether or not these changes in anthropogenic emissions were anticipated in that most recent plan and whether they have limited or impeded progress in reducing pollutant emissions and improving visibility.

i. An assessment of whether the current implementation plan elements and strategies are sufficient to enable the state, or other states with mandatory Class I Federal areas affected by emissions from the state, to meet all established reasonable progress goals for the period covered by the SIPr.

j. For progress reports for the first implementation period only, a review of the state's visibility monitoring strategy and any modifications to the strategy as necessary.

k. For a state with a long-term strategy that includes a smoke management program for prescribed fires on wildland that conducts a periodic program assessment, a summary of the most recent periodic assessment of the smoke management program including conclusions if any that were reached in the assessment as to whether the program is meeting its goals regarding improving ecosystem health and

reducing the damaging effects of catastrophic wildfires. [NMED Ex 5. at 6212-6213].

393. The Department's SIPr contains a very detailed 35-page Progress Report the covers each element under 40 C.F.R. Sections 51.308(f)(5) and (g).

394. The Board finds that the record contains substantial evidence that the Department's Progress report is detailed, accurate, and sufficient.

395. The Board concludes that the Department's Progress report meets all the requirements of 40 C.F.R. Sections 51.308(f)(5) and (g).

XI. COMPLIANCE FLEXIBILITIES

396. Enterprise argues that the Board should require the SIPr to incorporate "compliance flexibilities" to improve the feasibility of the SIPr. [Jacobson Direct at 10]. Specifically, Enterprise wants the Department to revise the unit-by-unit emission rate limits in the SIPr "to allow for facility-wide averaging." [Id.]. The Department is not required by law to do this, and Enterprise has offered no legal authority to support this contention.

397. Enterprise notes that in its comments on the revised draft SIP, it requested that the emission rate limits applicable to the Blanco units be revised "to provide for a facility-wide emission rate limit of 50.58 lbs/hr, which is derived from summing the unit-by-unit rates contained in the Revised Draft SIP." [Id. at 10-11; See NMED Ex. 5 at 9094]. Additionally, Enterprise notes that "for South Carlsbad, Enterprise requested a facility-wide weighted average rate of 15 ppmvd @ 15% oxygen (the rate that would

be applicable to both South Carlsbad units individually)." [Id. at 11]. Enterprise argues that incorporating these flexibilities "would not affect the overall stringency of any final regulatory requirements. Nor . . . result in fewer emission reductions or altered impacts on visibility conditions." [Id. at 11] Enterprise incorporated these facility-wide limits in their alternative modifications of the Proposed Rule at 20.2.68.102(A) (Table A). [Ent. Notice of Intent at pdf 15-16].

398. Mr. Miller stated that the Department "is certainly not opposed to offering compliance flexibilities to companies where doing so will not undermine its regulatory objectives." [NMED Reb. Ex. 3 at 21]. Mr. Miller highlighted that under Section 7.4.3 of the SIPr, the Department "is not mandating the installation of specific controls for purposes of regional haze. Instead, it is imposing new emission limitations commensurate with the controls deemed necessary for reasonable progress and leaving it up to facilities to determine how to comply, to give them flexibility to consider factors beyond the four statutory factors considered by NMED when doing so." [NMED Reb. Ex. 3 at 21-22; NMED Ex. 3 at 2698; NMED Ex. 5, at 6253]. Mr. Miller affirmed that the Department "understands the importance of flexibility when it comes to compliance with regulatory mandates and is more interested in realizing the emission reductions associated with the selected controls than it is in how those reductions are achieved." [Id. at 22].

399. Mr. Miller pointed out that Enterprise did not present any evidence that would establish that the requested facility-wide emission rate limits would not affect the overall stringency of the Department's proposed regional haze requirements or result in fewer emission reductions. [Id.]. Mr. Miller explained that "[i]n theory, one could develop facility-wide limits that are as stringent as unit-by-unit limits, but the opposite is also true. For example, if a facility has multiple units subject to regional haze, and their emission rates and operating hours vary sufficiently, it might be possible to install inferior controls, or even no controls at all, on one or more of the units and still comply with facility-wide limits through careful load management. However, if the same facility were subject to unit-by-unit limits, it would most likely need to install better controls, and would certainly need controls on every unit, in order to comply. The result, most likely, would be lower overall emissions of haze-forming pollutants from the facility. Therefore, NMED is skeptical of [Enterprise's] claim that the requested facility-wide limits would not result in fewer emission reductions, and worries that they would, in fact, affect the overall stringency of NMED's proposed regional haze requirements, thereby undermining reasonable progress." [Id.].

400. Mr. Miller further indicated that "Enterprise has also failed to consider, much less propose, other changes to [the Proposed Rule] that would be necessary to ensure that its proffered facility-wide emission rate limits are practicably enforceable." [Id.]. Mr. Miller explained that "the requirements of

[Section 104 of the Proposed Rule] that apply to subject units at the Enterprise facilities are designed to demonstrate compliance with unit-by-unit limits and are not suitable for demonstrating compliance with facility-wide limits. Therefore, changes would be necessary to Section 104 if the current unit-by-unit limits in Section 102 were replaced with facility-wide limits. These changes would likely have knock-on effects requiring changes to Section 105 (Recordkeeping Requirements) and Section 106 (Reporting Requirements) as well. However, the "alternative modifications to the proposed regulatory text" provided in Enterprise Ex. 1, which includes Enterprise's requested facility-wide limits for Blanco and Chaco, does not include any of the requisite changes described above. Therefore, it is not a complete, viable alternative to [the Proposed Rule] that the Board could simply adopt in its place if it were so inclined." [Id. at 22-23].

XII. THE PROPOSED RULE: 20.2.68 NMAC

401. A state's long-term strategy for regional haze "must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress, as determined pursuant to [40 C.F.R. § 51.308(f)(2)(i) through (iv)]." 40 C.F.R. § 51.308(f)(2). [NMED Ex. 19 at 9633]. Enforceable, in this context, means federally enforceable, i.e., "enforceable by the [EPA Administrator] under the Clean Air Act." 40 C.F.R. § 51.301. [Id. at 9632-9633]. Therefore, EPA approval of New Mexico's regional haze SIP revision for the second implementation period is contingent on EPA

being able to enforce the emission limitations and other measures in New Mexico's long-term strategy. [Id.].

402. There are, in general, three ways for a state to make the measures in its long-term strategy federally enforceable:

a. Adopt the measures via a state regulatory requirement (e.g., a general or source-specific rule) and incorporate the rule into its SIP;

b. Require the measures via permit(s) issued under a SIP-approved minor or major source air quality permitting program and incorporate the relevant provisions of the permit(s) into its SIP; or

c. Require the measures via administrative order(s) and incorporate the order(s) into its SIP. [Id. at 9634].

403. Basis for the Proposed Rule: The Department's air quality permitting rules allow it to impose conditions upon a permit "in order to meet new requirements, if any, under any federally required and approved State Implementation Plan revision." 20.2.72.210(C) NMAC (emphasis added). [Id. at 9634]. Hence, the Department could make the emission limitations and other measures in its long-term strategy federally enforceable by imposing them via conditions in the affected facilities' permits, but only after EPA approves New Mexico's SIPr. [Id.].

404. EPA will not approve the SIPr until facilities' permits are modified to include the necessary conditions. [Id.]. Because of this chicken and egg problem, the Department ruled out this mechanism for making the measures

in its long-term strategy federally enforceable. [Id.]. The Department also ruled out making them federally enforceable via administrative orders due to concerns about companies' willingness to agree – even on a contingent basis – to new regional haze requirements before the Board adopts, and EPA approves, New Mexico's SIPr, as well as the time that would be required to negotiate agreements with such a large number of companies (the long-term strategy includes emission limitations for 58 units at 16 facilities owned by 10 different companies). [Id. at 9634-9635].

405. Having ruled out the other two options, the Department chose to make the emission limitations and other measures in its long-term strategy federally enforceable by promulgating a general state rule. [Id. at 9635]. The Proposed Rule, 20.2.68 NMAC, contains the emission limitations correlative of new and in-place controls and corresponding compliance deadlines. [Id.]. It also includes the restrictions on reauthorizing retired units that the Department forewent a full four-factor analysis for. [Id.].

VI. Proposed 20.2.68 NMAC SUBSTANTIVE PROVISIONS

406. 20.2.68.1 – Issuing Agency. This section identifies the Board as the issuing agency pursuant to the AQCA. [NMED Att. 2 at 1; NMED Ex. 19 at 9635].

407. 20.2.68.2 – Scope. This section specifies the areas of the state that are subject to the rule. Part 68 covers all geographic areas within the jurisdiction of the Board, which extends to all areas of the state except the City of Albuquerque and Bernalillo County, which have assumed jurisdiction as a

local authority pursuant to the AQCA, and sovereign tribal lands. [NMED Att. 2 at 1; NMED Ex. 19 at 9635].

408. 20.2.68.3 – Statutory Authority. This section explains the Board's authority to adopt the rule. The Board is authorized to adopt the Proposed Rule pursuant to the New Mexico Environmental Improvement Act, NMSA 1978, Sections 74-1-1 to -22, including specifically Paragraph (4) of Subsection A of Section 74-1-8, and the AQCA, NMSA 1978, Sections 74-2-1 to -17, including specifically Paragraph (1) of Subsection D of Section 74-2-5. [NMED Att. 2 at 1; NMED Ex. 19 at 9635-9636].

409. 20.2.68.4 – Duration. This section specifies how long the rule remains in effect. The Proposed Rule will be permanently in effect from the effective date provided in the rule. [NMED Att. 2 at 1; NMED Ex. 19 at 9636].

410. 20.2.68.5 – Effective Date. This section establishes the date on which the rule becomes effective. Pursuant to the State Rules Act, a rule becomes effective on the date it is published in the New Mexico Register unless a later date is otherwise provided by law or in the rule. § 14-4-5(D). [NMED Att. 2 at 1; NMED Ex. 19 at 9636].

411. 20.2.68.6 – Objective. This section identifies the purpose of the Proposed Rule. The stated objective of the Rule is to establish enforceable emission limitations, compliance schedules, and other measures that are necessary to make reasonable progress during the second regional haze implementation period, and provisions to make these measures practicably enforceable,

including averaging times, monitoring requirements, and recordkeeping and reporting requirements. [NMED Att. 2 at 1; NMED Ex. 19 at 9636].

412. 20.2.68.7 – Definitions. This section provides definitions that, in addition to the definitions provided in 20.2.2.7 NMAC – Definitions, which apply to all New Mexico air quality regulations, apply to terms used in the Proposed Rule:

a. Subsection A defines "agency interest number" or "AI #" as the unique identification number assigned to every facility that is regulated by the department. This definition was developed for the Proposed Rule by the Department's technical staff.

b. Subsection B defines "calendar year" as a year beginning January 1 and ending December 31. This definition was derived from the commonly accepted usage of the term in the context of air quality regulation.

c. Subsection C defines "CFR" as the Code of Federal Regulations. This definition was derived from the commonly accepted usage of the initialism in the context of air quality regulation.

d. Subsection D defines "continuous emission monitoring system" or "CEMS" as all of the equipment required to sample, condition (if applicable), analyze, and provide a record of emissions on a continuous basis. This definition was derived from 20.2.74.7 NMAC.

e. Subsection E defines “Environmental Protection Agency” or “EPA” as the United States Environmental Protection Agency. This definition was derived from the commonly accepted usage of the term in the context of air quality regulation.

f. Subsection F defines “g/bhp-hr” as grams per brake horsepower-hour. This definition was derived from the commonly accepted usage of the abbreviation in the context of air quality regulation.

g. Subsection G defines “lb/hr” as pounds per hour. This definition was derived from the commonly accepted usage of the abbreviation in the context of air quality regulation.

h. Subsection H defines “operator” as the person or persons responsible for the overall operation of a stationary source. This definition was derived from 20.2.50.7 NMAC.

i. Subsection I defines “owner” as the person or persons who own a stationary source or part of a stationary source. This definition was derived from 20.2.50.7 NMAC.

j. Subsection J defines “ppmvd” as parts per million by volume, dry. This definition was derived from the commonly accepted usage of the abbreviation in the context of air quality regulation.

k. Subsection K defines “reasonable progress unit” or “RP unit” as an emissions unit selected for an analysis of emission control measures during the second regional haze implementation period for which the

department has determined an emission limitation or other measures are necessary to make reasonable progress. This definition was derived in part from Colorado Regulation 23, Section II.U.

l. Subsection L defines "rolling average" as the weighted average of all data, meeting quality assurance and quality control requirements, collected during the applicable averaging period. For reasonable progress units equipped with CEMS, a 30-operating-day rolling average is calculated by adding the hourly mass emissions over the previous 30 operating days and dividing that sum by the total operating hours during the same period. This definition was derived in part from 20.2.101.7 NMAC.

m. Subsection M defines "rolling sum" as the sum of all data, meeting quality assurance and quality control requirements, collected during the applicable summation period. For reasonable progress units not equipped with CEMS and subject to a multi-unit emission limitation, a 12-month rolling sum is calculated by multiplying each individual unit's hourly mass emission rate by its total operating hours over the previous 12 months and summing the results for all units subject to the multi-unit limit. This definition was adapted from the definition of rolling average in Subsection L. [NMED Att. 2 at 1; NMED Ex. 19 at 9636].

413. 20.2.68.101 – Applicability. This section identifies the sources of air pollutants that are subject to the rule. The Proposed Rule applies to reasonable progress units as defined in Proposed 20.2.68.7 NMAC. [NMED Att. 2 at 2; NMED Ex. 19 at 9639].

414. 20.2.68.102 – Emission Limitations and Compliance Deadlines. This section requires certain reasonable progress units to meet new emission limitations for NOX as expeditiously as practicable but no later than the specified compliance deadlines. Subsection A lists the new emission limitations, which are identical to those correlative of new and in-place controls in New Mexico's regional haze long-term strategy, and corresponding compliance deadlines, which are also identical to those in the long-term strategy. Subsection B specifies that the compliance deadlines in Subsection A are expressed in years after approval of New Mexico's SIPr revision for the second implementation period by EPA. Subsection C clarifies that certain emission limitations in Subsection A are multi-unit limits applicable to more than one reasonable progress unit, and that these limits apply to all replacement units regardless of their number if compliance is achieved by replacing the subject units. Lastly, Subsection D requires a reasonable progress unit that complies with an emission limitation in Subsection A using an emission control technology that uses ammonia or urea as a reagent (e.g., selective catalytic reduction) to ensure that the exhaust ammonia slip is limited to 10 ppmvd or less, corrected to 15 percent oxygen. Ammonia slip is

the emitting of unreacted ammonia in the treated exhaust, which can combine with sulfur dioxide and nitrogen oxides in the atmosphere to form ammonium sulfate and ammonium nitrate, two key haze-forming pollutants. The basis for the 10 ppmvd limit is 20.2.50.113 NMAC. Table 1 has five columns identifying, left to right, the selected sources, each source's AI#, each source's RP Unit(s), each RP Unit's emissions limitation, and each RP Unit's compliance deadline, respectively. Information in Table 1 was derived from the Department's Four-Factor Analyses and Control Measures Determinations, located in Appendix C of the SIPr. [NMED Att. 2 at 2-4; NMED Ex. 19 at 9639; NMED Ex. 5 at 6427-6602].

415. 20.2.68.103 – Other Measures. This section prohibits the Department from reauthorizing certain reasonable progress units in any future construction permit modification issued by the Department without a full four-factor analysis, a determination of the control measures that are necessary to make reasonable progress, and an EPA-approved regional haze SIP revision. The prohibition applies to retired units the Department deemed "effectively controlled" by virtue of their retirement, and for which it included identical restrictions in New Mexico's regional haze long-term strategy. Table 2 has four columns identifying, left to right, the selected sources, each source's AI#, each source's RP Unit(s), and the date each RP Unit was either removed from a permit or the date its permit was closed, respectively. The

basis for these requirements is discussed in Section 8.2.2 of the SIPr. [NMED Att. 2 at 4; NMED Ex. 19 at 9640; NMED Ex. 5 at 6287-6289].

416. 20.2.68.104-106 – Monitoring, Recordkeeping, and Reporting Requirements. The 2019 EPA Guidance states that, in addition to requiring "enforceable emissions limitations . . . and other measures that are necessary to make reasonable progress," Section 11 51.308(f)(2) of the Regional Haze Rule requires regional haze SIPs to include "provisions to make the measures practicably enforceable, including averaging times, monitoring requirements, and record keeping and reporting requirements." [NMED Ex. 13 at 9531-9532]. It is a fundamental principle for SIPs that control measures be enforceable in practice, and EPA has stated that "a regulatory limit is not enforceable if . . . it is impractical to determine compliance with the published limit." 57 Fed. Reg. 13497 (April 16, 1992). Therefore, Sections 104-106 of the Proposed Rule include monitoring, recordkeeping, and reporting requirements for all reasonable progress units subject to new emission limitations under the Rule. [NMED Att. 2 at 4; NMED Ex. 19 at 9640].

417. 20.2.68.104 - Monitoring Requirements. Section 104 of the Proposed Rule specifies the monitoring requirements for reasonable progress units subject to new NOX emission limitations pursuant to Proposed 20.2.68.102 NMAC. Subsection A requires the two reasonable progress units at Cunningham Station Power Plant to demonstrate compliance using data from a NOX continuous emission monitoring system. This is consistent with how these

units – which are the only reasonable progress units equipped with CEMS – demonstrate compliance with existing limits (e.g., permit limits). Subsections B and C require all other reasonable progress units to demonstrate compliance by conducting annual emissions tests using a portable analyzer or EPA reference methods. This is also generally consistent with how these units demonstrate compliance with existing limits, since they are not equipped with CEMS. Lastly, Subsection D provides specific requirements for the annual emissions testing required under Subsections B and C. These requirements comport with the general testing requirements found in The Department's New Source Review ("NSR") and Title V permit general conditions, specifically the periodic monitoring and portable analyzer requirements for the determination of nitrogen oxides, carbon monoxide, and oxygen concentrations in emissions from reciprocating engines, combustion turbines, boilers, and process heaters described in general condition B111.C. [NMED Att. 2 at 5-6; NMED Ex. 19 at 9640-9641; NMED Ex. 22 at B13, Bates 10255; NMED Ex. 23 at B15-B16, Bates 10279-10280].

418. 20.2.68.105 - Recordkeeping Requirements. Section 105 of the Proposed Rule specifies recordkeeping requirements that owners and operators of reasonable progress units subject to new NOX emission limitations pursuant to Proposed 20.2.68.102 NMAC must comply with. [NMED Att. 2 at 5-6; NMED Ex. 19 at 9641-9642]. Subsection A requires the owner or operator of the two reasonable progress units at Cunningham Station Power Plant to

maintain records of all NOX CEMS data used to demonstrate compliance, along with records of periods that the CEMS are inoperative and of all CEMS performance test measurements, performance evaluations, calibration checks, adjustments, and maintenance. [Id.]. Subsection B requires the owners or operators of all other reasonable progress units to maintain records of all annual emissions tests and operating data used to determine compliance and specifies what these records must include. [Id.]. These requirements comport with the general recordkeeping requirements found in the Department's NSR and Title V permit general conditions, specifically the records required for testing and sampling described in condition B109.A(1). [Id.; NMED Ex. 22 at B7-B8, 10249-10250; NMED Ex. 23 at B9, 10273] Lastly, Subsection C requires that all records required to be maintained pursuant to Subsections A and B be kept for at least five years. This is consistent with condition B109.B of the Department's NSR and Title V permit general conditions. [NMED Att. 2 at 5-6; NMED Ex. 19 at 964-9642; NMED Ex. 22 at B8, 10250; NMED Ex. 23 at B10, 10274].

419. 20.2.68.106 - Reporting Requirements. Section 106 of the Proposed Rule specifies reporting requirements that owners and operators of reasonable progress units subject to new NOX emission limitations pursuant to Proposed 20.2.68.102 NMAC must comply with. [NMED Att. 2 at 6; NMED Ex. 19 at 9642]. Subsection A requires owners and operators to submit reports for all annual emissions tests performed pursuant to Subsections B and C of

20.2.68.104 NMAC to the Department within 30 days after completion of the test. [Id.]. This is consistent with condition B111.E(3) of the Department's NSR and Title V permit general conditions. [Id.; NMED Ex. 22 at B14, 10256; NMED Ex. 23 at B17, 10281]. Subsection B requires owners and operators to submit reports of excess emissions pursuant to 20.2.7.110 NMAC if CEMS data or the results of an annual emissions test performed pursuant to Subsections B and C of Proposed 20.2.68.104 NMAC reveals NOX emissions in excess of the applicable limitations in Proposed 20.2.68.102 NMAC. [NMED Att. 2 at 6; NMED Ex. 19 at 9642]. This is consistent with condition B110.E of the Department's NSR permit general conditions and condition B110.D of the Department's Title V general permit conditions. [Id.; NMED Ex. 22 at B10, 10252; NMED Ex. 23 at B12, 10276]. Lastly, Subsection C requires owners and operators to respond to requests for information by the Department within three business days. [NMED Att. 2 at 6; NMED Ex. 19 at 9642].

420. Enterprise's and EPNG's proposed modifications to the Proposed Rule: Enterprise offered two alternate versions of the Proposed Rule: Recommended Modifications to the Proposed Regulatory Text ("Recommended Text") and Alternate Modifications to the Proposed Regulatory Text ("Alternate Text"). [Ent. Exs. 1 and 2]. The Recommended Text removes the following facilities from the requirements of Proposed 20.2.68.102 NMAC: Blanco C & D Compressor Station, Chaco Gas Plant, and South Carlsbad Compressor Station. [Ent. Ex. 1 at 2-3].

421. Enterprise's Alternate Text removes Chaco Gas Plant from the requirements of Proposed 20.2.68.102 NMAC and replaces the Department's unit-based emissions limitations with facility wide limitations for the Blanco C & D and Carlsbad compressor stations. [Enterprise Ex. 2 at 2-3]. Enterprise does not challenge the non-substantive provisions, 20.2.68.1 through 20.2.68100 NMAC, nor does Enterprise challenge 20.2.68.101 NMAC, nor 20.2.68.103 through 20.2.68.106 NMAC.

422. EPNG also offered an alternative version of the Proposed Rule that removed Blanco Compressor Station A and Pecos Compression Station from the requirements of Proposed 20.2.68.102 NMAC. [EPNG. Ex. 2 at 2-3]. EPNG does not challenge the non-substantive provisions, 20.2.68.1 through 20.2.68.100 NMAC, nor does EPNG challenge 20.2.68.101 NMAC, nor 20.2.68.103 through 20.2.68.106 NMAC.

423. Targa did not propose any changes to the Proposed Rule but expressed a general opposition to the SIPr and Proposed Rule. [Targa NOI at 2].

424. Enterprise's contentions and alternative rules: The Board finds that Enterprise did not provide substantial evidence to support its contention that the sources selected by the Department do not interfere with visibility in Class I areas. § 74-2-5(F)(1).

425. The Board finds that Enterprise did not provide substantial evidence to support its contention that it is not in the public interest to adopt the SIPr

and Proposed rule in order to meet the federal national goal of natural visibility conditions in Class I areas. § 74-2-5(F)(2).

426. The Board finds that Enterprise did not provide substantial evidence to support its contention that the social and economic value of the selected sources will be diminished or harmed under the SIPr and Proposed Rule. § 74-2-5(F)(2).

427. The Board finds that Enterprise did not provide substantial evidence to support its contention that any provision or analysis of the SIPr and Proposed Rule are infeasible, technically impracticable, nor economically reasonable approaches to controlling haze-causing pollutants. § 74-2-5(F)(3).

428. The Board further finds that Enterprise's proposal for facility-wide emissions limitations is inadequate to fulfill the purposes of federal regional haze requirements. By providing the Board with an alternative version of the Proposed Rule, Enterprise is asking the Board to adopt regulations. Therefore, Enterprise is required by Section 74-2-6 of AQCA and 20.1.1.302 NMAC to – at the very least – provide some technical evidence that supports the claim that facility-wide emission limits under Section 104 of the Proposed Rule would meet all federal and state requirements, not just for regional haze, but also all federal and state air quality statutes and regulations. The Board concludes that Enterprise has not met its evidentiary burden on this point, and the Board will not supply the evidentiary support that Enterprise has failed to provide. See Romenesco v. Barber, 1968-NMSC-066, ¶11, 79

N.M. 83 (stating that tribunals will not speculate on issues where facts must be assumed).

429. Additionally, the Board finds that Enterprise did not provide any technical evidence to demonstrate that facility-wide emissions limitations would not interfere with the federal core requirements "necessary to make reasonable progress, as determined pursuant to [40 C.F.R. Section 51.308](f)(2)(i) through (iv)" towards the federally mandated goal of natural visibility under 42 U.S.C. 7491. 40 C.F.R. § 51.308(f)(2).

430. Furthermore, the Board finds that Enterprise did not provide substantial evidence to support its contention that removal of the Chaco Gas Plant from the Proposed Rule would not interfere with the federal core requirements "necessary to make reasonable progress, as determined pursuant to [40 C.F.R. Section 51.308](f)(2)(i) through (iv)" towards the federally mandated goal of natural visibility under 42 U.S.C. 7491. 40 C.F.R. § 51.308(f)(2).

431. EPNG's contentions and alternative rules: The Board finds that EPNG did not provide substantial evidence to support its contention that that the sources selected by the Department do not interfere with visibility in Class I areas. § 74-2-5(F)(1).

432. The Board finds that EPNG did not provide substantial evidence to support its contention that it is not in the public interest to adopt the SIPr and Proposed rule in order to meet the federal national goal of natural visibility conditions in Class I areas. § 74-2-5(F)(2).

433. The Board finds that EPNG did not provide substantial evidence to support its contention that the social and economic value of the selected sources will be diminished or harmed under the SIPr and Proposed Rule. § 74-2-5(F)(2).

434. The Board finds that EPNG did not provide substantial evidence to support its contention that any provision or analysis of the SIPr and Proposed Rule are infeasible, technically impracticable, nor economically reasonable approaches to controlling haze-causing pollutants. § 74-2-5(F)(3).

435. Furthermore, the Board finds that EPNG did not provide substantial evidence to support its contention that removal of the Blanco A and Pecos River compressor stations from the Proposed Rule would not interfere with the federal core requirements "necessary to make reasonable progress, as determined pursuant to [40 C.F.R. Section 51.308](f)(2)(i) through (iv)" towards the federally mandated goal of natural visibility under 42 U.S.C. 7491. 40 C.F.R. § 51.308(f)(2).

436. Targa's contentions: The Board finds that Targa did not provide substantial evidence to support its contention that the sources selected by the Department do not interfere with visibility in Class I areas. § 74-2-5(F)(1).

437. The Board finds that Targa did not provide substantial evidence to support its contention that it is not in the public interest to adopt the SIPr and Proposed rule in order to meet the federal national goal of natural visibility conditions in Class I areas. § 74-2-5(F)(2).

438. The Board finds that Targa did not provide substantial evidence to support its contention that the social and economic value of the selected sources will be diminished or harmed under the SIPr and Proposed Rule. § 74-2-5(F)(2).

439. The Board finds that Targa did not provide substantial evidence to support its contention that any provision or analysis of SIPr and Proposed Rule are infeasible, technically impracticable, nor economically reasonable approaches to controlling haze-causing pollutants. § 74-2-5(F)(3).

440. The Department's SIPr and Proposed Rule: The Board concludes that the Department has primary authority to submit SIPs on behalf of New Mexico and has regulatory jurisdiction over the sources subject to the SIPr and Proposed Rule. See New Mexico Environmental Improv. Div. v. Thomas, 789 F.2d 825, 828 (10th Cir. 1986) (holding that states have primary authority to submit SIPs) (internal citations omitted).

441. The Board finds the Sections 20.2.68.8 through 20.2.68.100 NMAC are non-substantive and were not challenged by any party. The Board further finds that these provisions are necessary to bring Proposed 20.2.68 NMAC into conformity with the entirety of the New Mexico Administrative Code. 1.24.10 NMAC.

442. The Board finds the Department's testimony and exhibits are credible and provide substantial evidence that the sources selected by the Department interfere with visibility in Class I areas. § 74-2-5(F)(2).

443. The Board finds the Department's testimony and exhibits are credible and provide substantial evidence that it is in the public interest to adopt the SIPr and Proposed rule in order to meet the federal national goal of natural visibility conditions in Class I areas. § 74-2-5(F)(2).

444. The Board finds the Department's testimony and exhibits are credible and provide substantial evidence that the social and economic value of the selected sources will not be diminished or harmed under the SIPr and Proposed Rule. § 74-2-5(F)(2).

445. The Board finds the Department's testimony and exhibits are credible and provide substantial evidence that the SIPr and Proposed Rule provide for a feasible, technically practicable, and economically reasonable approach to controlling haze-causing pollutants. § 74-2-5(F)(3).

446. The Board finds that the record contains substantial evidence that the compliance deadlines in the Proposed Rule are reasonable.

447. The Board finds that the SIPr and Proposed Rule as stringent as 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f). § 74-2-5(E).

448. The Board finds that the record contains substantial evidence that the SIPr and Proposed Rule are necessary to meet the federal requirement under 51.308(d)(3) that New Mexico develop and document a long-term strategy for reducing regional haze that includes enforceable emissions limitations as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal Areas.

449. The Board finds that the record contains substantial evidence that the SIPr and Proposed Rule are necessary to meet the federal requirements under 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f).

450. The Board finds pursuant to 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f), good cause exists to adopt the SIPr and Proposed Rule.

451. The Board concludes that the Department's SIPr and Proposed Rule meet all the requirements of 42 U.S.C. Section 7491 and 40 C.F.R. Section 51.308(f) and (g).

The Rule is adopted as attached to this Statement of Reasons and the Department shall submit it to the State Records Center in a format suitable for publication in the New Mexico Register.

Signed this 26th day of January, 2026.

Phoebe K. Suina

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Date: 2026.01.26 16:29:13 -07'00'

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PHOEBE K. SUINA, BOARD CHAIR

Certificate of Service

I hereby certify that on January 29, 2026 a copy of the foregoing was sent via electronic mail to the persons listed below. A hard copy will be mailed upon request.

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