NMED’s responses to the comments received on May 13, 2011 from the U.S. EPA, Region 6, are presented below. The numbered paragraphs from EPA’s letter are appended below, followed by NMED’s response in italics.

1. It is imperative that states opting to submit a Regional Haze SIP under 40 CFR 51.309 have Western Backstop Sulfur Dioxide (SO₂) Trading Program rules that are consistent with each other in order to allow the regional SO₂ Backstop Trading Program to function effectively if it were to be triggered. The Special Penalty Provisions for the 2018 Milestone, which are found at 20.2.81.110 NMAC, are part of New Mexico’s Western Backstop SO₂ Trading Program rules. In paragraph (2) of subsection C of 20.2.81.110 NMAC, New Mexico’s rules provide for the allowance transfer deadline for each emissions year after the 2018 emissions year. In order to provide consistency with the rules of other Section 309 States, New Mexico needs to revise the language in paragraph (2) of subsection C of 20.2.81.110 NMAC to specify that "The allowance transfer deadline for the 2019 emissions year shall be midnight Pacific Standard Time on May 31, 2021 (or if this date is not a business day, midnight of the first business day thereafter); and for each control period after 2018 that the special penalty provisions are assessed, the May 31, 2021 allowance transfer deadline for the 2019 control period will be adjusted forward by one year." EPA does not believe it will be able to approve the backstop trading program unless it is fully consistent with the rules in other participating states and Albuquerque.

Paragraph 2 of Subsection C of 20.2.81.110 NMAC has been revised to reflect this language.

2. Pursuant to 40 CFR 51.308(e)(I)(i), New Mexico should list all best available retrofit technology (BART) eligible sources within the State. We understand this information is available in Appendix C and additional documents prepared by the Western Regional Air Partnership (WRAP) which we have drawn upon in the past as part of the development of our recent proposal (see 76 FR 491 (January 5, 2011)). A list of the eleven (11) BART
eligible sources mentioned should be included in section 10.3 in New Mexico's Regional Haze SIP, as well as a summary of supporting data from BART screening modeling, including New Mexico's analysis of BART eligible sources and conclusions from the BART screening modeling, and what sources were determined to be subject to BART.

The names of the 11 sources were added to Section 10.3.1. A summary of the supporting data is included in Section 10.3.1 as follows: "Of the 11 source complexes analyzed, only one source complex's visibility impacts at any Class I area due to combined SO2, NOx, and PM emissions exceeded the 0.5 dv threshold (PNM San Juan Generating Station Boilers #1-4). Of the 10 other source complexes, none exceed a 0.33 dv impact. See Appendix C. Consequently, only the PNM San Juan Boilers #1-4 were subjected to a BART determination."

3. By reference from 40 CFR 51.309(g), 40 CFR 51.308(d)(l)(ii) requires that "[f]or the period of the implementation plan, if the State establishes a reasonable progress goal that provides for a slower rate of improvement in visibility than the rate that would be needed to attain natural conditions by 2064, the State must demonstrate, based on the factors in paragraph (d)(l)(i)(A) of this section, that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable; and that the progress goal adopted by the State is reasonable; ... The State must provide to the public for review, as part of its implementation plan, an assessment of the number of years it would take to attain natural conditions if visibility improvement continues at the rate of progress selected by the State as reasonable." The proposed SIP does not include an assessment of the number of years it would take to reach natural conditions at the rate of progress selected by the State for each Class I site. This information must be included in New Mexico's Regional Haze SIP.

Table 6-6 was added in NMED Exhibit 11, filed with NMED's NOI on May 2, 2011.

4. Table 6-4 of the proposed New Mexico Regional Haze SIP summarizes the best and worst 20% days for the baseline, the Uniform Rate of Progress (URP) target for 2018, and the modeled Reasonable Progress Goal (RPG) for each Class I area in New Mexico. By reference from 40 CFR 51.309(g), 40 CFR 51.308(d)(l) requires that "[f]or each mandatory Class I Federal area located within the State, the State must establish goals ... that provide for reasonable progress towards achieving natural visibility conditions. The reasonable progress goals must provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period." Modeling results for Carlsbad Caverns indicate degradation of visibility on the 20% best days. The proposed New Mexico Regional Haze SIP states that "over-prediction for area sources is likely responsible for this modeled projection of worsening visibility on the best days" (New Mexico Regional Haze SIP under 309(g); page 31). However, no further details or analysis of what pollutant, source category, or source region is responsible for the
predicted degradation is given. Additional technical analysis and examination of modeling results, source apportionment, and emission inventories are necessary to support the conclusion that modeled degradation is due to area sources that are being over predicted. EPA believes there may be other causes of visibility degradation at this site on the 20% best days. For example, examination of modeling results and differences between the PRP18a and PRP18b emission inventories can provide insight into the impact of projected future-year emissions from Mexico, BART determinations, and updated permit limits in the region and these should also be investigated. New Mexico must either demonstrate that the degradation is due to international emissions or demonstrate that incorrect emission projections are responsible for the predicted degradation in visibility. Unless these issues can be appropriately addressed, EPA will not be able to propose approval of New Mexico's reasonable progress demonstration.

Section 11.3.3 describes emissions from Mexico, and requests that EPA address international emissions. Section 9.4.3 shows that emissions from Mexico increase in potential to impair visibility over the planning period for all pollutants at Carlsbad Caverns. Section 11.3.3 has been revised to show the results of the increased emissions from Mexico in 2018 in the PRP18b modeling run resulted in degrading visibility at Carlsbad Caverns.

5. The description of the PRP18b emission inventory given on page 53 of the New Mexico Regional Haze SIP states that the "Mexico emissions are from 1999 and were held constant for 2018." However, the WRAP Regional Modeling Simulation Specification for PRP18b provides the description of the PRP18b emissions inventory and explains that the PRP18b inventory does include projections of Mexico emissions for 2018 (see http://pah.cert.ucr.edu/qa/308/spec_sheets/SpecSheet_PRP18b_Aug0099final.doc). Section 9.1 should be revised to include an accurate description of the emission inventories used in the CMAQ visibility modeling as well as the emissions utilized in the CAMx source apportionment modeling.

Section 9.1 has been revised to reflect that emissions from Mexico are increasing in 2018 in PRP18b.

6. As a follow-on to comments 3, 4 and 5, we remind the NMED that under the Regional Haze rule (64 FR 35714,35747 (July 1, 1999)), "[i]f the State finds that international emissions sources are responsible for a substantial increase in emissions affecting visibility conditions in any Class I area or causing a deficiency in plan implementation, the State must submit a technical demonstration to EPA in support of its finding. If EPA agrees with the State's finding, EPA will take appropriate action to address the international emissions through available mechanisms." Although we do not expect States to restrict emissions from domestic sources to offset the impacts of international transport of pollution, States should evaluate the impacts of current and projected emissions from international sources in their regional haze programs, particularly in cases where it has already been well documented that such sources are important. The determination that international emission sources are responsible for degradation in
visibility for the least impaired days or substantially impact the State's ability to reach the
2018 URP goal must be supported by a technical demonstration of a quality sufficient to
enable us to confidently determine the impact of these international emissions on
projected visibility conditions in the affected Class I areas.

Section 11.3.3 documents the degradation of visibility on the 20% best days
at Carlsbad Caverns National Park due to projected increases in emissions
in Mexico. Section 11.3.3 also requests EPA assistance in dealing with the
impacts of international emissions on visibility impairment.

7. Section 8 of the proposed New Mexico Regional Haze SIP under 309(g) presents the
emission inventory for New Mexico. The emissions presented in this section do not
reflect the values contained in the WRAP Technical Support System (TSS) for New
Mexico. The emission inventories presented here appear to exclude emissions from
Bernalillo County. If source apportionment results reflect contributions from all of New
Mexico emission sources, including Bernalillo County emissions, the emissions
discussed in the source apportionment analysis section of the New Mexico Regional Haze
SIP would therefore be inconsistent with those emissions presented in Section 8. For
example, area source emissions of SOx presented in the New Mexico Regional Haze SIP
(Table 8-1) are 2,383 tpy (Plan02d) and 3,983 tpy (Prp18b), but the WRAP TSS emission
inventory lists these emissions as 5,433 tpy (Plan02d) and 16,285 tpy (Prp18b). In order
to analyze the WRAP source apportionment results to examine the impact of growth or
"over-prediction" of area source emissions in New Mexico it is necessary to identify what
emissions are included under New Mexico sources. NMED should therefore explain why
emissions from Bernalillo County were excluded in the presented emission inventory
data, as well as present the emission data utilized in the source apportionment modeling
to predict New Mexico's contributions to visibility impairment at Class I areas.

Tables 8-1 through 8-8 have been revised to include emissions from
Bernalillo County, and to show emissions from New Mexico excluding
Bernalillo County. Emissions from all of New Mexico were used to predict
impacts to visibility at Class I areas. Bernalillo County has developed a
regional haze state implementation plan that was submitted to EPA
separately from the New Mexico plan.

8. Section 12.2 discusses the long-term strategy to address the impacts of New Mexico
emissions on visibility at Class I areas outside of the state, and presents contributions to
extinction at other states. There are a number of Class I areas in close proximity to New
Mexico's border that may be affected by its emissions. It is not clear if the contributions
to neighboring states presented in the figures and tables in this section are the maximum
contribution to any Class I area in that state or an average contribution for all Class I
areas in the state. The discussion should be expanded to examine New Mexico's
contributions to visibility impairment at individual sites close enough to New Mexico to
reasonably be affected by these emissions. In order to satisfy the requirements of 40 CFR
51.308(d)(3) (referenced from 40 CFR 51.309(g)(2)(i)), the NMED must submit 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 which may be affected by emissions from the State. The proposed New
Mexico Regional Haze SIP does not identify at which specific Class I areas and to what
degree visibility conditions are impacted by New Mexico emissions. The proposed long
term strategy does not specifically address any emission reduction strategies that would
reduce the impact of New Mexico emissions at any Class I area outside of the state, or
provide sufficient analysis to support a conclusion that future emissions from New
Mexico will not significantly impact visibility at these sites.

Section 12.2 has been revised to reflect New Mexico's impact on visibility at
specific Class I areas where New Mexico's impact is greater than 5 percent
of the monitored impairment.

9. New Mexico's BART evaluation required under 40 CFR 51.309(d)(4) and/or 51.308(e) is
discussed in section 10 of the proposed New Mexico Regional Haze SIP. New Mexico
has proposed a NOx BART emission limit of 0.23 pounds per million British Thermal
Units (lbs/MMBtu) for the four units at the San Juan Generating Station (SJGS),
achievable with Selective Non-Catalytic Reduction (SNCR) technology. EPA published a
proposed Federal Register notice (see 76 FR 491 (January 5, 2011)) that, among other
things, proposed a NOx BART emission limit of 0.05 lbs/MMBtu for the four units at the
SJGS, achievable with Selective Catalytic Reduction (SCR). New Mexico's revised
Regional Haze SIP proposal includes new information for SNCR, but does not include
any new significant information regarding SCR.

New Mexico proposes that the cost effectiveness of SNCR would be less than $3,700 per
ton of NOx removed. In our January proposal, we proposed that the cost effectiveness of
SCR would be less than $2,000 per ton of NOx removed.

In its Regional Haze SIP proposal, New Mexico predicts that using SNCR, approximately
4,900 tons NOx would be removed per year (Table 10, Appendix D). This reduction is
less than what using SCR would achieve. NMED predicted in its 2010 Regional Haze
SIP proposal that using SCR would remove approximately 16,100 tpy of NOx. In EPA's
proposal, EPA predicts that using SCR, approximately 17,501 tons of NOx would be
removed per year.

Using NMED's modeling evaluation in its proposed Regional Haze SIP, of its
determinations for SNCR (0.23 lbs/MMBTU) and SCR (0.07 lbs/MMBTU), SCR yields
significant additional visibility improvements at the 16 Class I areas impacted compared
to SNCR (12 vs. 3 delta-deciviews). Using EPA's modeling evaluation in our proposed
Federal Register notice, our proposed determination of SCR (0.05 lbs/MMBTU), which
is approximately 30% lower than NMED's SCR level of 0.07 lbs/MMBTU, yields even
more significant visibility improvements at the 16 Class I areas impacted compared to
SNCR.
The fact that EPA’s cost and removal efficiency estimates are different from NMED’s is not relevant to or determinative of NMED’s BART determination. NMED conducted its BART determination in accordance with the BART Guidelines (Appendix Y of 40 CFR Part 51) and within the discretion provided by the guidelines and the Clean Air Act. NMED scrutinized cost projections submitted by PNM for various control options evaluated in the BART determination. When NMED proposed a BART determination for hearing in June 2010, NMED agreed with PNM’s cost per ton of NOx removal for SCR as submitted to the Department. Based on NMED’s technical analysis of costs, the Department continues to accept the cost per ton of NOx removal submitted by PNM to the Department for the SCR control technology. However, additional cost information was received by the Department from PNM in February 2011 that demonstrates the SCR technology will significantly impact ratepayers in the state, particularly the portion of ratepayers in New Mexico that receive low income assistance to pay their utility bills. This ratepayer analysis information demonstrates that SCR technology would place an unacceptable cost burden on the citizens of the state of New Mexico. Although the SCR technology reduces more haze-forming pollution and results in more visibility improvement than SNCR, the costs to the state’s citizens makes SCR an unacceptable control technology. NMED explicitly included consideration of these ratepayer costs in making its BART determination. See Appendix D to the 309(g) SIP at page 36, paragraphs (5) and (6).