

Appendix O-3: Public Participation Response to Comment Document

During the hearing and comment period, several comments were received on the proposed State Implementation Plan (SIP) revision. The following is a summary of those comments, and the State's responses to those comments. After each comment is the name of the commenter(s) and their affiliation(s) in bold.

- 1) **Comment:** One commenter stated that the information provided in section 6 does not meet the need for completed BART determinations. Additional statements made on pages 6-3 and 6-4 indicated that BART would be met by other control agreements. The refineries and the EGU that are subject to BART would be required to perform a top-down analysis of their affected emission units. The top-down analysis should have already been performed and the conclusions presented in the SIP with respect to the BART determinations. There is no provision in the BART Guidelines that allows the SIP to contain commitments for future BART determinations. In some cases, administrative consent orders and consent decrees were referenced in the SIP as being in place to address emissions for sources that are also major haze contributing sources. Although these agreements may meet the goals for other State/Clean Air Act programs, the Regional Haze Rule has specific requirements, including that the SIP document demonstrate how such controls required for other programs also meet Best Available Retrofit Technology (BART) and reasonable progress. New Jersey should indicate when the supporting analysis would be made available. **(Lyle Laverty, United States Fish and Wildlife Service)**
- 2) **Comment:** The commenter stated that the SIP should describe how the emission controls selected for the BART-eligible sources are the maximum amount of control available for the source, or, if the maximum feasible control level is not selected, how the five-factor analysis process results in the level of control selected for each eligible emission point. The SIP also needs to show that the controls on New Jersey's BART sources will match or exceed the amount of emission reductions included from New Jersey's BART sources in the MANE-VU reasonable progress analysis **(Richard Ruvo, United States Environmental Protection Agency, Region 2)**

Response to Comments 1 and 2: *Best Available Retrofit Technology (BART)* – New Jersey understands the importance of a BART analysis as a regional haze requirement. The administrative consent orders and consent decrees referenced in the SIP were not intended to replace the required BART analysis. New Jersey's five identified BART-eligible facilities are PSEG – Hudson, Amerada Hess, Chevron, ConocoPhillips, and Sunoco Eagle Point. Given the State's adopted rules as part of the 8-hour ozone and PM_{2.5} SIPs, and the consent decree agreements which apply to the BART-eligible facilities, the State does not expect that the BART analyses will identify significant additional BART emission reductions. Three of these facilities, PSEG, Sunoco and ConocoPhillips, are subject to New Source Review (NSR) enforcement actions and/or consent decrees that will significantly reduce NO_x, SO₂, PM and VOC emissions. Amerada Hess is in the process of discussions with USEPA and NJDEP to resolve issues as part of the federal refinery initiative. New Jersey sent letters to the five BART-eligible facilities on March 3, 2009, requesting that they perform the required BART analysis and respond by July 2009. New Jersey plans to complete its BART determinations in 2010, and submit them to the

USEPA as single source SIP revisions. Additional BART emission reduction measures, if any, will be implemented with significant modifications of operating permits. New Jersey also commits to discuss the status of BART implementation in the mid course review. New Jersey's preliminary BART evaluation for four of the BART-eligible facilities (PSEG-Hudson, Amerada Hess, ConocoPhillips, and Sunoco Eagle Point) has been included in the SIP at Section 6.3 (Determination of BART Requirements for Identified BART-Eligible Sources and Analysis of the Best System of Control for Each Source).

The maximum feasible control available may not be a retrofit technology, and as a result is not considered BART. New Jersey will work to implement BART in its BART-eligible facilities.

- 3) **Comment:** One commenter stated that a concern of major significance was in regard to commitment statements to perform work or implement rules that support final emission controls. The commenter stated that a SIP must include not only commitments, but descriptions as to how the commitments will be implemented. The commenter stated that the New Jersey draft SIP included commitment statements that lack implementation strategies, and as such, in the commenter's opinion, the SIP is incomplete. The commenter stated that there was a significant amount of ongoing work to which New Jersey had committed with no apparent completion dates. The commenter stated that specific information on the timeline of such efforts was a requirement of the Regional Haze Rule and was missing from the New Jersey SIP. The commenter stated that New Jersey made commitments for BART, the New Jersey multi pollutant preventative standard, 167 stacks "Ask", and heating oil sulfur content, wood burning strategies. The commenter stated that New Jersey should provide more detail on when these commitments will be realized. The commenter stated that because of the significant number of time-line commitments, it would be helpful to consolidate these issues into a single section and utilize that list as the primary checklist for the 2013 mid-term review. The commenter stated that New Jersey should include a robust section on the 2013 mid-term review. **(Lyle Laverty, United States Fish and Wildlife Service)**
- 4) **Comment:** One commenter stated they support NJDEP in considering the worthwhile emissions controls that may be sufficient to meet the 2018 Reasonable Progress Goal. The commenter stated that the USEPA recognizes that many of these controls have not yet been adopted. The commenter stated that the measures that are part of meeting the 2018 Reasonable Progress Goal must be implemented by 2018, but as soon as reasonably possible. The commenter stated that in the final SIP revision submitted to the USEPA, that NJDEP should indicate (a) which emission controls needed for the 2018 Reasonable Progress Goal have been adopted through regulation, and (b) for those controls not yet adopted but needed for the 2018 Reasonable Progress Goals, include a discussion of how soon it is reasonable to adopt and implement these measures. The commenter also stated that the final Regional Haze SIP revision should describe what NJDEP plans to do for the periodic report due in five years and commit to implementing it. **(Richard Ruvo, United States Environmental Protection Agency, Region 2)**

Response to Comments 3 and 4: The controls and programs discussed in the SIP include both the controls that New Jersey needs to meet the 2018 Reasonable Progress Goal and additional controls that New Jersey is either implementing or evaluating to reduce emissions. Many of these controls are being implemented to meet other air quality objectives and will help improve

visibility as well. In response to comments, the tables in Chapter 10 have been revised to make the commitments more clear and consolidated. New Jersey's commitments to make reasonable progress by 2018, have been included in the final SIP in Chapter 10 (Commitments), Table 10.1, along with anticipated completion dates. These dates are estimates and may change based on comments made during the rulemaking and comment processes. The NJDEP has adopted several additional control measures as part of the efforts to reduce ozone and PM_{2.5}, which will also help achieve the regional haze goals. These additional control measures for PM_{2.5}, NO_x or SO₂ are included in Table 10.2. Additional potential future state control measures or programs that would support the regional haze goals have been included in Table 10.3. In addition, Section 10.3 (Commitments for Mid-Course Review) was added as a new sub-section in Section 10 (Commitments), to outline control measures that would be included in the mid course progress report.

Additional detail regarding each rule commitment is or will be included in the rulemaking process which is also a public process. As shown in Table 10.1, there are two outstanding New Jersey commitments, not yet completed for New Jersey's Regional Haze Goal. These are the BART determinations and the low sulfur fuel oil rule. The status of the reasonable progress rule commitments are discussed below, with the exception of BART, which is discussed in the response to comments 1 and 2.

EGU Strategy – As stated in the proposed SIP in Section 9.2 (EGU Strategy), the three largest coal-burning power generating facilities are under Consent Decrees to reduce emissions to RACT levels. The decrees require more than a 90 percent (%) SO₂ emission reduction by 12/15/2012, in addition to about 90% reduction of NO_x and PM. The stated emission reduction exceed what is required from New Jersey by the “Ask” from the other states in the MANE-VU region, and thereby will further contribute to attaining the Reasonable Progress Goal (RPG) in Brigantine and the Class I area New Jersey contributes to. New Jersey provided timelines for its EGU strategy for both the 167 EGU stacks and EGU boilers in Section 9.2 (EGU Strategy).

New Jersey's revised rules for coal-fired boilers serving EGUs were adopted on March 20, 2009. The rules require the following limits for coal-fired boilers serving EGUs by 12/15/2012 (12/15/2013, if the Department grants a one year extension due to a demonstrated need):

- 0.0150 lb/MMBtu PM limit for new or reconstructed particulate control, and 0.030 lb/MMBTU for existing PM control,
- 0.150 lb/MMBtu SO₂ limit on 30-day rolling average and 0.250 lb/MMBtu on 24-hour daily basis, and
- 1.50 lb/MWh NO_x limit on 24-hour daily basis.

These are all BART for coal-fired EGUs.

Low-Sulfur Fuel Oil Strategy – New Jersey is currently finalizing a rule proposal for its Low-Sulfur Fuel Oil Strategy. New Jersey anticipates proposal of this rule in mid 2009, and adoption in early 2010. The effective date of strategy S-1 (500 ppm) is expected to be July 1, 2014 and the effective date of strategy S-2 (15 ppm) is expected to be July 1, 2016. The effective date of

strategy (S-1) was revised from 2012¹ to 2014. The MANE_VU board will be evaluating the current plan at their June meeting. These dates, as well as other aspects of the rulemaking, are subject to comments received as a part of the rulemaking process. As stated in Section 9.3 (Low-Sulfur Fuel Oil Strategy), parts of the State already meet the #6 fuel oil sulfur levels. NJDEP commits to report on the progress of this strategy in its mid course progress report.

- 5) **Comment:** The commenter stated that the U.S. Fish and Wildlife Service specifically requests that New Jersey afford the Federal Land Management agencies an adequate review period when the State drafts its BART determinations, and that the decisions also be vetted through the State's public notice procedures. **(Lyle Laverty, United States Fish and Wildlife Service)**

Response: New Jersey will provide copies of all applications submitted to NJDEP for BART determinations and will share its decisions on the draft BART determinations with the FLMs. The BART determinations will additionally follow the State's public process for single source SIP revisions, which provides for public comment from any interested party. Also, should any additional BART emission reduction measures be required in the single source SIP revision, those requirements will be added to major facilities' operating permits through the significant modification process which will also be included in the public process.

- 6) **Comment:** One commenter stated that the Clean Air Interstate Rule (CAIR) vacatur left BART and MANE-VU 167 stack "Asks" as the primary method for controlling sulfur dioxide (SO₂) in the region. The commenter stated that New Jersey made a commitment to reinstate the NO_x budget allowance allocation rule (due to the CAIR vacatur) and requested the status of this commitment. **(Lyle Laverty, United States Fish and Wildlife Service)**

Response: The MANE-VU 167 stack "Ask" focused controls at the top 167 EGU stacks in the MANE-VU region. As explained in Section 8.6 (CAIR Vacatur), CAIR is still in place until the USEPA replaces it with a program that addresses the deficiencies identified by the Court. Since the Court did not vacate CAIR, it remains in full effect, therefore the anticipated (at the time of the SIP proposal) vacatur does not impact this SIP revision.

New Jersey proposed to reinstate the NO_x budget allowance allocation rule on November 18, 2009, but is not planning to adopt the rule unless it becomes necessary for reasons such as CAIR vacatur. Since CAIR remains in place, there is no need to finalize the rule. New Jersey expects the USEPA to address the court's concern regarding CAIR in a manner that will provide additional emission reduction in Phase II.

New Jersey's adopted NO_x, SO₂, and PM performance standards for its coal-fired EGUs address the EGU "Ask" and meets New Jersey's obligations under this "Ask". The status of CAIR is not an issue for New Jersey sources for the regional haze goal.

¹ The timeline included in the *Statement of the Mid-Atlantic/Northeast Visibility Union (MANE-VU) Concerning a Course of Action Within MANE-VU Toward Assuring Reasonable Progress*, which was included in the proposed SIP in Appendix D-1

- 7) **Comment:** One commenter stated that on page ix of the SIP, a reference was made to Appendix H-1, where Brigantine is listed as “Brigantine National Park.” The commenter stated that Brigantine is a National Wilderness Area, within the Edwin B. Forsythe National Wildlife Refuge and is not a national park. (Lyle Laverty, United States Fish and Wildlife Service)

Response: In response to this comment, on page ix (List of Appendices), “Appendix H-1: Attachment 2: Appendix A - Brigantine Supplement: Trajectory Analysis Results at Brigantine National Park” was changed to “Appendix H-1: Attachment 2: Appendix A - Brigantine Supplement: Trajectory Analysis Results at Brigantine”

- 8) **Comment:** One commenter stated that New Jersey should provide references on $1/d^2$ impact relationship on page 7-2. (Lyle Laverty, United States Fish and Wildlife Service)

Response: See Appendix H (MANE-VU Contribution Assessment), Section 4.2.1 on pages 4-12 and 4-13 of Contributions to Regional Haze in the Northeast Mid-Atlantic States (NESCAUM, August 2006) (Aka MANE-VU Contribution Assessment Report).

Based on discussions with NESCAUM, $1/d^2$ is a general relationship between downwind concentrations as a function of distance from the source, assuming average neutral stability conditions, where d is the distance. The relationship, $1/d^2$, is based on gaussian dispersion theory, which predicts downwind concentration to be related to $1/d^2$.

- 9) **Comment:** One commenter stated that the tables on pages 7-3 and 7-5 indicated that several States attribute to visibility impacts at the Brigantine Wilderness Area at a greater level than New Jersey itself does. The commenter stated that New Jersey should include more information detailing the responses it received from these higher-impacting States that followed NJDEP’s letter indicating attribution of visibility impairment. (Lyle Laverty, United States Fish and Wildlife Service)

Response: In response to this comment, the following text was added to sub-section 7.7 (Notification) in Section 7 (Contribution Assessment of States Causing or Contributing to Visibility Impairment in the Brigantine Wilderness Area):

“New Jersey received responses from the majority of the states that were contacted expressing their willingness to consult and work together with New Jersey to address regional haze. The states also provided a contact person for their regional haze efforts. However, some states (Georgia, North Carolina, South Carolina, and West Virginia) in the Visibility Improvement – State and Tribal Association of the Southeast (VISTAS) regional planning organization (RPO) concluded that based on VISTAS’ assessment, they do not reasonably contribute to the visibility impairment at Brigantine. The differences between the MANE-VU and VISTAS assessments were discussed during consultation (See section 8.3.2)”

- 10) **Comment:** One commenter stated that on page 7-11, New Jersey identified itself as a contributor to visibility impacts at Class I areas located in Maine, New Hampshire, and Vermont. The commenter stated that no follow-up discussion was provided in this section on how existing or future controls in New Jersey account for the State’s

“reasonable” contribution to improving visibility and addressing existing impairment in these out-of-State areas. **(Lyle Lavery, United States Fish and Wildlife Service)**

Response: Based on MANE-VU’s assessment on contributions to visibility impairment, New Jersey’s contribution to visibility impairment in Maine, New Hampshire, and Vermont is relatively small. New Jersey believes that based on its control measure commitments, it is contributing its fair share to improve visibility in these states, and will continue to work to meet the “Asks” from the MANE-VU states before 2018.

In response to this comment, the following statement was added to Sub-section 7.8 (New Jersey’s Contribution to Other Class I Areas) in Section 7 (Contribution Assessment of States Causing or Contributing to Visibility Impairment in the Brigantine Wilderness Area):

“New Jersey’s contribution to visibility impairment in these states is relatively small. New Jersey believes that it is contributing its fair share to improve visibility in these states, based on its control measure commitments discussed in Chapter 10 (Commitments).”

11) Comment: One commenter stated that a statement on page xv indicated that the projection of reasonable progress goals will meet EPA’s default 2018 goal for Brigantine. The commenter stated that this statement was not substantiated and appears contradictory given the loss of controls anticipated from CAIR, the non-timely evaluation of BART controls, and the apparent lack of acceptance of the MANE-VU “Ask” (167 stacks and sulfur content in heating oil). The commenter stated that the model runs include CAIR and “Asks” that are not likely to occur. The commenter stated that New Jersey did not specifically identify the inconsistency of using the MANE-VU-based Reasonable Progress Goal (RPG) calculations. The commenter stated that achieving the Reasonable Progress Goals, per the modeling analyses used to support the draft New Jersey SIP, would involve other MANE-VU States implementing the control measures included in the “Ask.” The commenter stated that no discussion was presented on how many of these efforts have been realized or committed to outside of New Jersey. The commenter stated that these controls are presently not realized, nor are there commitments with implementation plans specified to accomplish these controls in the SIP. The commenter stated that New Jersey should provide more information to supplement the document that fully describes the uncertainty and whether the State or the Regional Planning Organization (RPO) has any efforts planned (or in progress) to minimize these uncertainties. The commenter stated that specifically addressing these future estimates with more specific projections in the State’s 2013 mid-term review was imperative. **(Lyle Lavery, United States Fish and Wildlife Service)**

Response: New Jersey anticipates that it will meet its reasonable progress goal based on the implementation of the reasonable measures in the ‘Ask’. The MANE-VU states agreed to pursue the adoption and implementation of the reasonable measures in the MANE-VU ‘Ask’. New Jersey expects that states will include in their SIPs their implementation strategies for the MANE-VU ‘Ask’. New Jersey depends on the contributing states taking action to achieve the 2018 Reasonable Progress Goal; therefore, New Jersey expects that the USEPA and the Federal Land Managers (FLMs) will require the emission reductions necessary to achieve this goal. The status of emission reductions outside of New Jersey will be discussed in the mid-course review, and meet obligations under 110(a)(2)(D)(i)(II).

As discussed in the response to comment 6, the CAIR vacatur no longer applies and CAIR remains in effect. The status of BART, is discussed in the response to comments 1 and 2.

12) Comment: One commenter stated that Page 5-1 offered a minimal discussion on emission inventory levels used by MANE-VU. “On-the-Way,” “On-the-Books,” and “Beyond On-the-Way” levels were offered. The commenter stated that on page 5-2, another inventory with MANE-VU’s latest control expectations was introduced. The commenter stated that although the components were presented, little to no information indicated whether the information is accurate. The commenter stated that many of the listed control programs are neither implemented by MANE-VU States nor included as a form of commitment by New Jersey. The commenter stated that New Jersey should discuss these uncertainties. **(Lyle Laverty, United States Fish and Wildlife Service)**

Response: The New Jersey portion of the MARAMA regional modeling inventory was based on the New Jersey 2002 base year inventory. New Jersey submitted this 2002 Base Year inventory to the USEPA’s National Emission Inventory (NEI)² database as required by the Consolidated Emission Reporting Rule (CERR). The New Jersey 2002 inventory was also included in the “Attainment and Maintenance of the 8-Hour Carbon Monoxide National Ambient Air Quality Standard, 1-Hour Ozone National Ambient Air Quality Standard, and Fine Particulate Matter National Ambient Air Quality Standard SIP and the 2002 Periodic Emission Inventory” which can be found on the Department’s website at:

<http://www.state.nj.us/dep/baqp/sip/siprevs.htm> and went through the public review process in March 2006. The USEPA approved the 2002 Emission inventory for New Jersey on July 10, 2006. In addition, this 2002 inventory served as the baseline inventory for New Jersey’s 8-Hour Ozone Attainment Demonstration State Implementation Plan (SIP), completed in October 2007, and the PM_{2.5} Attainment Demonstration SIP, proposed on June 16, 2008 and final in March 2009. The MARAMA technical support documentation for the 2002 base year inventory, dated November 20, 2006, is presented in Appendix F-1. Emission inventory data files are available on the MARAMA website at: http://www.marama.org/visibility/EI_Projects/index.html.

This Regional Haze SIP also includes a regional inventory for projected emissions for 2018. The MARAMA technical support documentation for the 2018 (OTB/OTW), and 2018 BOTW inventories, dated February, 2007, is presented in Appendix F-2. The OTC technical support documentation for the BOTW control measures included in the modeling, dated February 28, 2007, is included in Appendix F-3. Descriptions of the 2002 and 2018 inventories are also included on pages 1-10 through 1-20 of the report on MANE-VU Modeling for Reasonable Progress Goal (NESCAUM 2008) in Appendix N-2. The control measures used in the OTB/OTW and BOTW modeling inventories were the same as those used in the modeling in New Jersey’s 8-Hour Ozone Attainment Demonstration SIP, October 2007, and the PM_{2.5} Attainment Demonstration SIP, proposed on June 16, 2008 and final in March 2009. A summary of all the controls used in the OTB/OTW and BOTW modeling and of the control measure status can be found in the PM_{2.5} SIP in Tables 4.5, 9.1 and 9.2, which can be found on the Department’s website at : <http://www.state.nj.us/dep/baqp/sip/siprevs.htm> and in Chapter 10 of this SIP. In addition, a summary of the Departments rule adoptions can be found at: <http://www.nj.gov/dep/aqm/1997adop.htm>.

² 65 Fed. Reg. 33268-80 (May 23, 2000) and http://www.epa.gov/ttn/chief/cerr/CERR_FR.pdf.

The additional control measure commitments added to the modeling for the regional haze runs, in addition to the OTB/OTW and BOTW inventories are shown in Tables 8.2 and 8.3 of this SIP. As discussed in the response to comments 3 and 4, New Jersey's commitments to make reasonable progress by 2018, have been included in this SIP in Chapter 10 (Commitments), Table 10.1, along with anticipated completion dates. All of the New Jersey control measures commitments in each of these three SIPs referenced above (ozone, PM_{2.5} and Regional Haze) have been adopted with the exception of the low sulfur fuel oil rule and the BART determinations. As shown in Tables 10.2 and 10.3, additional rules may be proposed or are being evaluated, which will help support the regional haze goals.

For additional modeling inventory discussion, see the response to comments 26 through 39. Chapter 5 of the SIP was revised to include the discussion in this response.

13) Comment: One commenter stated the NJDEP should indicate in the final Regional Haze SIP that if the list of control measures sufficient to meet the 2018 Reasonable Progress Goal changes in the future, that the NJDEP will identify additional emission reductions to replace any missing control measure. **(Richard Ruvo, United States Environmental Protection Agency, Region 2)**

Response: In response to this comment, the following text was added to Sub-section 10.1 (Control Measure Commitments) in Section 10 (Commitments):

'New Jersey will evaluate progress in implementing these measures and the reasonableness of additional measures necessary to meet the Reasonable Progress Goal as part of the mid course review.'

14) Comment: One commenter stated that the final Regional Haze SIP should discuss how NJDEP will analyze the impact of new sources to determine if any increase in emissions will affect reaching the Reasonable Progress Goal. **(Richard Ruvo, United States Environmental Protection Agency, Region 2)**

Response: New Jersey evaluates the impact of new sources on visibility through its Prevention of Significant Deterioration (PSD) program (Section 10.2.1). In response to this comment, the following text was added to Sub-section 10.2.1 in Section 10 (Commitments):

'The PSD program includes a requirement that evaluates the new source's visibility impact on any nearby Class I areas (Brigantine in New Jersey's case). In some cases, the Federal Land Manager may exempt smaller, more distant PSD sources from having to do the visibility analysis, but the larger sources with the greatest chance of adversely impacting visibility at Brigantine will have to address the issue.'

'The Federal Land Manager is expected to have an official guidance for determining whether a PSD source addresses visibility impacts in about a year. This will be part of a new guidance document known as Federal Land Managers' Air Quality Related Values Work Group 2 (FLAG 2). There will be an equation that adds the total NO_x, SO₂, sulfuric acid mist, and PM₁₀ emissions in tons per year, and then divides by the distance to the Class I area in kilometers (km). If the

result is greater than 10, a visibility analysis must be done. The non-PSD sources will be reviewed on a case by case basis depending on the emissions and the distance.’

- 15) Comment:** One commenter stated that to fully address the consultation requirement of the Regional Haze SIP, NJDEP should provide additional discussion regarding the consultation process. The commenter stated that the main body of the Regional Haze SIP should include an outline of the requests made by NJDEP to other states which impact the Class 1 area and information on the responses from the other states as a result of the consultation process with each of the other states and each Regional Planning Organization. The commenter stated that NJDEP should also provide additional discussion on how NJDEP is responding to the Federal Land Managers’ comments. The commenter stated that the discussions of the consultation process will enable the USEPA to be in a better position to ensure states consulted with NJDEP, and are consistent in their commitments for addressing Regional Haze. The commenter stated that any further details could then be included in an Appendix to the main body of the SIP. **(Richard Ruvo, United States Environmental Protection Agency, Region 2)**

Response: In response to this comment, the following text was added to Sub-section 8.3.2 (Consultation) in Section 8 (Reasonable Progress Goals and Long Term Strategy):

‘New Jersey received responses from the majority of the states that were contacted expressing their willingness to consult and work together with New Jersey to address regional haze. The states also provided a contact person for their regional haze efforts. However, some states (Georgia, North Carolina, South Carolina, and West Virginia) in the Visibility Improvement – State and Tribal Association of the Southeast (VISTAS) regional planning organization (RPO) concluded that based on VISTAS’ assessment, they do not reasonably contribute to the visibility impairment at Brigantine.’

‘Some issues that were raised during consultation include the Midwest RPO’s concern regarding substituting reductions from the EGU sector for reductions that may not be obtainable from the non-EGU sector and West Virginia’s concern regarding MANE-VU’s requested 28 percent (%) reduction from the non-EGU sector (See Sub-section 8.4.2 (Areas Outside MANE-VU)). West Virginia, Reliant Energy, VISTAS and Utility Air Regulatory Group (UARG) also expressed concern on MANE-VU’s final modeling (See Sub-section 8.5 (Reasonable progress Goal for Brigantine Wilderness Area)).’

The Federal Land Manager comments are addressed in this document, and will be included in Appendix O of the final New Jersey Regional Haze SIP.

- 16) Comment:** One commenter stated that General Chemical (Plant ID – 07369) located in Newark was listed as “subject to BART” in the Proposed New Jersey Department of Environmental Protection (NJDEP) Reasonably Available Control Technology (RACT) SIP, but it was noted that it may close by December 2006. The commenter stated that this facility was not listed as being subject to BART in the draft New Jersey Regional Haze SIP. The commenter stated that New Jersey should clarify the status of General

Chemical – Was it closed? If not, is it subject to BART? If it is subject to BART, then New Jersey should provide a full BART determination. **(Lyle Lavery, United States Fish and Wildlife Service)**

Response: General Chemical’s potential to emit is less than 250 tons/year of a visibility impairing pollutant, therefore it is no longer BART eligible. The BART eligible equipment was shutdown, and their 2007 Emission Statement reports less than 1 ton of total emissions.

17) Comment: One commenter stated that the Northeast States for Coordinated Air Use Management (NESCAUM) listed Chevron Products Company as subject to BART, but nothing in the New Jersey SIP acknowledges Chevron Products Company. Is this facility subject to BART? If not, New Jersey should discuss why it is not subject to BART and supporting data and information should be included in the New Jersey SIP. If it is subject to BART then a full BART determination should be provided. **(Lyle Lavery, United States Fish and Wildlife Service)**

Response: As discussed by the commenter, Chevron was listed as subject to BART in the NESCAUM June 2007 report which was included in Appendix G-1 of the SIP. The Department inadvertently left Chevron off the list of BART-eligible facilities within Section six (6) of the SIP. This oversight was corrected in the SIP and Chevron has been added back on the list. New Jersey sent a letter to the five BART-eligible facilities (including Chevron) on March 3, 2009, requesting that they perform the required BART analysis by July 2009. Chevron’s responses to the NJDEP are included in Appendix G-8.

18) Comment: One commenter stated that it would be helpful if New Jersey explained in the SIP why there are only four BART sources in the State, especially considering that there were no exemptions given in the MANE-VU States. For example, Pennsylvania had 32 BART sources, but very few exceeded 0.5 deciviews. The commenter stated that one would expect a similar situation in New Jersey. **(Lyle Lavery, United States Fish and Wildlife Service)**

19) Comment: One commenter stated that as part of the final Regional Haze SIP revision submitted to the USEPA, NJDEP should provide an explanation for the changes over time to the list of BART-eligible sources in New Jersey. The commenter stated that based on the earlier MANE-VU analysis and in a September 8, 2005 letter to the USEPA, NJDEP indicated there were as many as eleven BART-eligible sources in New Jersey. The commenter stated that the proposed Regional Haze SIP indicated that there are now only four BART-eligible sources. **(Richard Ruvo, United States Environmental Protection Agency, Region 2)**

Response to Comments # 18 and 19: In response to comments, the information below has been added to the SIP at Section 6.2:

“Five facilities were determined to be BART-eligible and subject to BART based on the discussion in section 6.1. The five facilities, also listed in Table 6.1, are: PSEG-Hudson, Amerada Hess, Chevron, ConocoPhillips, and Sunoco Eagle Point .” “Other facilities which were under one of the 26 source categories, but were determined to have total potential emissions of <250 tons/year of a visibility

impairing pollutant are: General Chemical LLC, Kinder Morgan, Shell – Seward Terminal, Bayway Chemical Plant, Colorite and Griffin Pipe Products. Therefore, these facilities are not BART eligible.”

- 20) Comment:** One commenter stated that Amerada Hess Corporation’s Port Reading Refinery is listed in the New Jersey SIP as being subject to BART, but nothing in the SIP or the BART appendices made any reference to it. Is this facility subject to BART? If not, New Jersey should drop it from the list, but should justify why it was not included. If it is subject to BART then a full BART determination should be provided. **(Lyle Laverty, United States Fish and Wildlife Service)**

Response: On Table 6.1 (BART-Eligible Facilities in the State of New Jersey), Amerada Hess is listed as BART-Eligible. Amerada Hess is the same as Amerada Hess Corporation’s Port Reading Refinery. It is located in Middlesex County, New Jersey. New Jersey has sent a letter to this facility on March 3, 2009, requesting that they perform the required BART analysis by July 2009. New Jersey expects to complete its BART analysis in 2010.

- 21) Comment:** One commenter stated that NJDEP was coordinating BART with the Reasonably Achievable Control Technology (RACT) requirements under its Ozone SIP, but has not yet reached BART conclusions. **(Lyle Laverty, United States Fish and Wildlife Service)**

Response: The BART analysis is now being conducted independent of the RACT process.

- 22) Comment: PSEG Hudson Generating Station Unit #2** – One commenter stated that the most stringent NO_x control available is considered to be combustion controls in addition to Selective Catalytic Reduction (SCR). The commenter stated that PSEG proposed SCR for the Hudson Unit #2, but did not include the addition of various combustion controls. The commenter stated that the New Jersey SIP should include cost and visibility impairment information for the addition of various combustion controls (e.g., low NO_x burners, over-fire air). The commenter stated that PSEG has proposed Flue Gas Desulfurization (FGD) that meets the “presumptive” emission limit of 0.15 lb/MMBtu for SO₂ control, and that the NJDEP should consider additional reducing agents or catalyst levels that can reach emission rates of 0.09 lb/MMBtu or below.

The commenter stated that Section 6.3 of the draft New Jersey Regional Haze SIP states, “...air pollution controls being installed on the Unit 2 coal-fired boiler at PSEG – Hudson Generating Station, pursuant to a consent decree (CD), will satisfy BART requirements.” The commenter recommended that NJDEP reconsider this statement, if it is an official conclusion, given the above discussion. The commenter would like to know if Selective Non Catalytic Reduction (SNCR) and Fly Ash Conditioning System were installed by 1/1/2007, and if Ultra Low Sulfur Coal was initiated by 5/1/2007 **(Lyle Laverty, United States Fish and Wildlife Service)**

Response: The BART determination for PSE&G has not been officially completed. The Status of BART has been discussed in the response to comment # 1. The State does not expect that the BART analyses will identify significant additional emission reductions not already regulated by the consent decree and existing rules. If additional controls are necessary they will be addressed

in the PSE&G BART determination. It should be noted, however, that PSE&G-Hudson generating station had already installed low-NO_x burners on their coal-fired boiler during 2006/2007. These are in addition to the Selective Catalytic Reduction (SCR) requirements of the consent decree.

Selective Non Catalytic Reduction (SNCR) and Fly Ash Conditioning System were installed by 1/1/2007, and Ultra Low Sulfur Coal was initiated by 5/1/2007 at the PSEG Hudson Generating Station Unit #2.

- 23) Comment: Sunoco Eagle Point Refinery** – One commenter stated that by April 30, 2008, the Consent Decree required Sunoco to install NO_x control equipment on the Fluid Catalytic Cracking Unit (FCCU) to meet an emission limit of 20 parts per million volumetric-dry ppmvd (365-day rolling average) or accept that limit. The commenter stated that the New Jersey SIP should confirm whether Sunoco has met this requirement of the consent decree. The commenter also stated that the New Jersey SIP should describe the equipment that was installed and demonstrate that the installation meets BART. The commenter stated that the FLM agencies would appreciate access to the NO_x operating data that was due by October 31, 2003, and the NO_x control alternative study that was due by March 31, 2004. The commenter stated that this information would assist the FLMs in evaluating the degree to which the BART requirements were met by the Consent Decree (i.e., converting 20 ppmvd (365-day rolling average) into lb/MMBtu on a 30-day rolling average). The commenter stated that similar questions are relevant for:
- SO₂ controls of 25 ppmvd (365-day rolling average) at the FCCU;
 - PM emissions from the FCCU;
 - NO_x, SO₂ and PM emissions from the heaters and boilers; and
 - NO_x and SO₂ emissions from the sulfur recovery plant.
- (Lyle Laverty, United States Fish and Wildlife Service)**

- 24) Comment: ConocoPhillips Bayway Refinery** – One commenter stated that by December 31, 2006, the Consent Decree required ConocoPhillips to install enhanced SNCR with optimization studies and a demonstration covering a period out to May 31, 2009. The commenter stated that these studies were intended to lead to an emission limit of 20 ppmvd (365-day rolling average). The commenter would like to know if ConocoPhillips met that requirement. The commenter stated that NJDEP should demonstrate in the Regional Haze SIP how compliance with the above Consent Decree requirement meets BART. The commenter stated that a control alternative analysis for NO_x control should have been presented. The commenter stated that the FLMs would appreciate access to the NO_x operating data that has been generated to date to assist in the evaluation of the degree to which the BART requirements have been met. The commenter stated that similar questions are relevant for:
- Continued operation of wet gas scrubber at 25 ppmvd (365-day rolling average);
 - Installation of SCR on the Crude Pipestill Heater by December 31, 2010;
 - NSPS applicability to heaters and boilers;
 - NSPS applicability to three sulfur recovery plants by April 11, 2005; and
 - Optimization studies of Claus train by June 30, 2005.
- (Lyle Laverty, United States Fish and Wildlife Service)**

Response to Comments # 23 and 24: New Jersey will provide the information requested regarding the status on the consent decrees and the operating data if available to the FLMs. Regarding the relation to BART, the BART analyses will be conducted later as a revision or multiple revisions to this SIP through the official SIP process.

25) Comment: One commenter stated that as part of the final Regional Haze SIP submitted to the USEPA, that NJDEP should include its regulations that enable NJDEP to require Best Available Retrofit Technology (BART) emission controls for applicable sources. The commenter stated that to date, these regulations have not been proposed or adopted. The commenter stated that the final SIP must also include the appropriate adopted control measures that are necessary to meet the BART requirement for these sources. **(Richard Ruvo, United States Environmental Protection Agency, Region 2)**

Response: If additional controls are determined to be necessary in accordance with the requirements in the Federal Regional Haze regulations, the new emission limitations will be incorporated into the facilities Title V operating permit in accordance with the Federal regulations and the Clean Air Act.

26) Comment: One commenter stated that there has been relatively little collaboration between stakeholders and NJDEP on the development of this SIP. The commenter stated that they believe a better SIP document would have resulted had the NJDEP allowed facilities to review and correct emission data used in the modeling. The commenter stated that they were not able to verify if the correct emission data was used for Bayway Refinery. The commenter also stated that they would like the opportunity to verify the data used for ConocoPhillips. The commenter stated that the 2002 Emission Inventory was not made public for industry review and comment. **(Douglas LaFayette, ConocoPhillips)**

Response: MANE-VU held many public meetings with stakeholders during the regional haze SIP planning process. The inventories used for this SIP are the same as those used for New Jersey's 8-hour Ozone SIP proposed on June 15, 2007 and Annual Fine Particulate Matter SIP proposed on June 16, 2008, and Final in March 2009, which were both vetted through New Jersey's public process. The development of the regional inventories are described in the MARAMA November 2006 report (See Appendix F-1) and the February 2007 Technical Support Document (See Appendix F-2 of this plan) for the future year inventories. NJDEP's Bureau of Air Quality Planning distributed the modeling inventory for review through its listserv during the development process. ConocoPhillips reviewed the inventory and commented during the MARAMA refinery model rule process. The New Jersey portion of the MARAMA modeling inventory was based on the New Jersey 2002 inventory. New Jersey's 2002 inventory was submitted by New Jersey to the USEPA. New Jersey submitted to the USEPA the same information that was submitted to the NJDEP through the Emissions Statement program. The New Jersey 2002 inventory was included in the "Attainment and Maintenance of the 8-Hour Carbon Monoxide National Ambient Air Quality Standard, 1-Hour Ozone National Ambient Air Quality Standard, and Fine Particulate Matter National Ambient Air Quality Standard SIP and the 2002 Periodic Emission Inventory", which can be found on the Department's website at <http://www.state.nj.us/dep/baqp/sip/siprevs.htm> and went through public review process in March 2006.

27) Comment: One commenter stated that incorrect emission data from data entry errors or incorrect interpretation has been used in the past. The commenter also stated that NJDEP should have consulted with at least the four BART facilities in New Jersey regarding emission projections out to 2018 and the effect of “on-the-books”, “on-the-way” and “beyond-on-the-way” regulations on the emissions from these facilities. The commenter believes that significant errors in emission projections and the effects of OTB/OTW/BOTW for the four BART facilities might raise concerns about the effects of these issues on region wide emissions. The commenter stated that this is important because an emission inventory prepared for a separate rulemaking (NJ Refinery RACT model rules) by MARAMA used emission data that subsequently had to be corrected. The commenter stated that it was never made clear whether the underlying data was corrected (in the NEI database) or whether the correct data was input to the database used for the model rules project. The commenter is prepared to assist NJDEP in verifying emissions, evaluating emissions projections and quantifying the effect of OTB/OTW/BOTW rules. **(Douglas LaFayette, ConocoPhillips)**

28) Comment: One commenter stated that in the MARAMA Development of Emission Projections for 2009, 2012 and 2018 for Non-EGU Point, Area and Nonroad Source in the MANE-VU Region, Final Report. February 2007, at 2.3.7, the statement is made that the USEPA anticipates ancillary reductions in PM and SO₂ as a result of the Industrial Boiler/Process Heater MACT standard. The commenter stated that Industrial Heater and Boiler MACT (40 CFR 63 Subpart DDDDD) was vacated June 8, 2007. The commenter stated that while the USEPA is collecting data for development of a new rule, there is no way to know when the new rule will be promulgated or what form it will take. The commenter stated that they believe it is improper to use the reductions proposed in Section 2.3.7. **(Douglas LaFayette, ConocoPhillips)**

29) Comment: One commenter stated that in the same section of the MARAMA report mentioned in comment # 28, the following paragraph is found:

“For SO₂ emissions from boilers/heaters, the control requirements generally require the elimination of burning solid/liquid fuels. We identified all boilers and heaters at the eight affected refineries that burn solid or liquid fuels. For these units, we set the SO₂ emissions to zero in the future year inventories.”

The commenter would like to know the basis/justification for setting the SO₂ emissions to zero. **(Douglas LaFayette, ConocoPhillips)**

30) Comment: One commenter stated that the Bayway Consent Decree that resulted from the Refinery Enforcement Initiative (REI) contains a requirement that all heaters at the refinery must comply with NSPS Subpart J by Dec. 31, 2010. The commenter stated that this SO₂ emission reduction does not appear to have been identified by MARAMA or accounted for in their emission reductions. **(Douglas LaFayette, ConocoPhillips)**

31) Comment: One commenter stated that the MARAMA report indicates that flare emission reductions are not quantified,

“These emission reductions were not quantified as they are expected to produce less significant changes in the MANE-VU inventory because of the magnitude and uncertainty associated with the emissions from these units in the 2002 MANE-VU inventory.”

The commenter stated that reported flare emissions from the refineries account for less than 1% of the approximately 90,000 tpy of SO₂ emissions in the entire state. The commenter stated that it would strengthen NJDEP’s argument to include this data in this report.

(Douglas LaFayette, ConocoPhillips)

32) Comment: One commenter stated that MARAMA and NJDEP appear to have ignored any emission reductions occurring since the 2002 baseline year that resulted from projects outside of the Refinery Enforcement Initiative (REI), for example, the Clean Fuels Projects. The commenter stated that it is not mentioned in the SIP that a permit review was conducted as part of the emission projection process. **(Douglas LaFayette, ConocoPhillips)**

33) Comment: One commenter stated that in reviewing the SIP proposal, the effects of PSD/NSR regulations and NJ Subchapter 18 are completely ignored. The commenter realizes that it is difficult to project when major new projects will occur and the degree to which the PSD/NSR will reduce emissions. However, the commenter states that the tone of the SIP proposal is that unless new regulations are proposed then emissions will increase. The commenter feels that it is a false premise that has no basis in fact. The commenter stated that emissions continue to decrease with the existing rules that are in place. The commenter believes that the rules currently in place for the refining industry will continue to force emissions to decrease until 2018 and beyond. **(Douglas LaFayette, ConocoPhillips)**

34) Comment: The commenter stated that the effects of RGGI and GHG rules including cap and trade are not even mentioned much less quantified. The commenter stated that while greenhouse gases do not directly contribute to regional haze, the efficiency improvements driven by required GHG reductions will reduce combustion emissions across the board. **(Douglas LaFayette, ConocoPhillips)**

Response to Comments 27 through 34: SIP and modeling inventories are developed using best available data, based on USEPA requirements and guidelines. Emissions from several sources in the State are estimated during the inventory process. It is not feasible to do a detailed survey for every emission source in the State. The point source inventory is data that is obtained from the facilities through the Emission Statement program. In estimating projected emissions, again, best available data is used, based on the USEPA requirements and guidelines to project emissions into the future, using indicators such as Department of Energy fuel usage projections, population projections and employment projections. In addition, the USEPA recommends using the regional photochemical model estimates in a “relative” rather than “absolute” sense, due to the uncertainties and biases in the modeling system. Uncertainties associated with emission inventories, meteorological data, and the representation of photochemistry in the model can result in over or under predictions in design values, which is why the USEPA states in its modeling guidance for the attainment demonstration that supplemental analyses should be conducted.

When actual state specific rules are developed, a more detailed source specific analysis is conducted of the source proposed for regulation. During the regional refinery Technical Support Document (TSD) and model rule process, MARAMA used emission inventory data submitted by refineries in developing the refinery TSD and in estimating reductions. They also quantified additional reductions that may not have been captured in the modeling, including some of those discussed by the commenter, such as flare emission reductions. Flare emission reductions are quantified in the MARAMA January 2007 refinery report (Assessment of Control Technology Options for Petroleum Refineries in the Mid-Atlantic Region, Final Report, January 2007). The public process during rule development is very important and provides industry the opportunity to comment on the details of the rulemaking, the estimated emissions and estimated emission reductions.

The effects of RGGI rules were not included in the projections because they did not exist at the time the projections were calculated. The RGGI and GHG rules will provide additional benefits which will favor New Jersey's Reasonable Progress Goal. Several New Jersey specific anticipated rules were not included in the regional modeling, but are still a part of New Jersey's SIPs and are used to support attainment, as Federally required contingency measures and to attain the Regional Haze goals. New Jersey will look forward with working with the commenter on future efforts.

35) Comment: One commenter stated that in the MARAMA report mentioned in comment 28, a discussion regarding anticipated NO_x emission reductions from controls mandated by the Refinery Enforcement Initiative (REI) correctly asserted that the NO_x reductions contained in the consent decrees are difficult to quantify due to differing compliance dates and the fact that reductions to be achieved are for an entire corporation comprising many sites. However, certain other emission reductions are quantifiable, namely a required 500 tpy reduction anticipated from SCR on two heaters at Bayway refinery required by the REI. **(Douglas LaFayette, ConocoPhillips)**

Response: The Technical Support Document states that the NO_x emissions were difficult to quantify, however, it did not say that they were not quantified. The emission reductions from the consent decrees were estimated, as shown in the MARAMA January 2007 refinery report, and were included in the modeling.

36) Comment: One commenter stated that the MARAMA report does not appear to have accounted for the thousands of tons of VOC emission reductions projected by the NJDEP as a result of recently proposed VOC RACT regulations intended to meet the 8-hour ozone SIP. The commenter stated that NO_x reductions anticipated from the NO_x RACT provisions of the 8-hour ozone SIP are likewise not counted. **(Douglas LaFayette, ConocoPhillips)**

Response: Many of the RACT rules are New Jersey specific rules, and were not included in the regional modeling or the regional reports. The rules discussed in the February 2007 Technical Support Document are the ones included in the modeling. The New Jersey-specific RACT rules have been included in the Ozone RACT SIP dated August 1, 2007, the 8-hour ozone attainment demonstration dated October 29, 2007 and annual fine particulate SIP dated in various other forms such as: the attainment demonstration outside modeling, the RACT analysis, to support

attainment and for Federally required contingency measure purposes. They will also be used to support attainment of the new 75 ppb 8-hour ozone standard and the new daily 24-hour fine particulate standard.

- 37) Comment:** One commenter stated that they could not find the effects on refinery emissions of the Refinery RACT rules that NJDEP has been preparing quantified in the SIP proposal. The commenter stated that ignoring these effects in the “on-the-way” category will overstate projected emissions growth and make it appear that more future reductions are required than are actually necessary. **(Douglas LaFayette, ConocoPhillips)**

Response: The estimates of the anticipated refinery rule reductions are shown in the MARAMA “Assessment of Control Technology Options For Petroleum Refineries in the Mid-Atlantic Region”, January 2007, with and without the consent decrees. This report is referenced in the MARAMA February 2007 Inventory report included in Appendix F-2 of the SIP. The estimated quantification of the anticipated refinery rule will also be included in the rule proposal, which will provide industry opportunity to review and comment.

- 38) Comment:** One commenter stated that the projected future emissions for non-EGU point sources appear to be far greater than history would predict or current Clean Air Act regulations would allow. The commenter reviewed projected future emissions from the MARAMA website at:

<http://www.marama.org/visibility/Inventory%20Summary/2002EI-Ver3Sum.html>

The commenter stated that the MARAMA report describes the non-EGU Point Source category as containing primarily Title V facilities, and therefore based on the GHG inventory are refineries. The commenter believes that such a large increase in emissions does not seem possible for the GHG inventory.

The commenter believes that MARAMA, NJDEP, MANE-VU and NESCAUM meant well in developing methods to project future emissions but missed the mark terribly for this source category and probably for others as well. The commenter stated that Federal and State environmental rules does not allow for the emission increases projected by the models. The commenter urges the NJDEP to review projected emission increases closely, consult with industry and other states and develop a more realistic growth model. **(Douglas LaFayette, ConocoPhillips)**

- 39) Comment:** One commenter stated that they were unable to access the MARAMA Emission inventory database from the link provided in the proposal (http://www.marama.org/visibility/EI_Projects/index.html) The commenter believes the correct database is accessible directly from the MARAMA website. **(Douglas LaFayette, ConocoPhillips)**

Response to Comment #s 38 and 39: The Greenhouse Gas inventory is structured and calculated differently than the criteria pollutant inventories. The ozone and PM inventories are divided into four man-made sectors, Point, Area, On-road and Non-road. In New Jersey, point sources are not defined by Title V permits; they consist of anything that is included in the Emission Statement program. Approximately half of the facilities in the Emission Statement

program are not Title V permit facilities. Many other sources are included in the point source inventory other than refineries and EGUs, as shown in the Department's inventory at <http://www.state.nj.us/dep/baqp/sip/siprevs.htm> in the Attainment and Maintenance of the 8-Hour Carbon Monoxide National Ambient Air Quality Standard, 1-Hour Ozone National Ambient Air Quality Standard, and Fine Particulate Matter National Ambient Air Quality Standard SIP and the 2002 Periodic Emission Inventory dated May 2006. Examples of other facilities in the point source inventory include pharmaceutical plants, consumer product manufacturers, paint manufacturers, chemical manufacturers, printing facilities, adhesive facilities, plastic products manufacturing, industrial coating facilities, landfills, waste treatment plants, airports, petroleum storage other than refineries, hospitals, schools, colleges, research facilities, military bases, etc.

A review of Bayway emissions in the modeling inventory shows that emissions from 2002 to 2018 were estimated to increase by 12 percent (%) for SO₂, decrease by 49 percent (%) for NO_x, decrease by 26 percent (%) for VOC, increase by 20 percent (%) for CO, increase by 12 percent (%) for PM₁₀ and increase by 12 percent (%) for PM_{2.5}. Therefore, the increases reviewed by the commenter for the entire point source inventory are not reflective of the increases estimated for Bayway. These emissions can be found on the MARAMA website at http://www.marama.org/visibility/EI_Projects/index.html.

If these are not the emissions that Bayway submitted to MARAMA during the refinery model rule process, than as stated in the response to comments 27 through 34, inventories are developed with the best available data and more detailed information evaluated in the rule development process.

A response to how emissions are projected is also discussed in the response to comments 27 through 34.

Department-initiated Changes

In addition to non-substantive minor and/or stylistic edits (i.e., correcting typos, adjusting spacing, ensuring consistency, etc.), the NJDEP made the following department-initiated changes when finalizing the document and its appendices for submittal to the USEPA. Those changes are described here.

The Executive summary was updated to incorporate the December 23, 2008 CAIR remand.

In Section 10 (Commitments), Table 10.1 was revised and split into three tables to more clearly describe New Jersey's commitments for regional haze and other anticipated measures which will support the reasonable progress by 2018. The tables in Chapter 10 also provide an anticipated schedule for the commitments.