United States Department of the Interior

NATIONAL PARK SERVICE
Air Resources Division
P.O. Box 25287
Denver, CO 80225

IN REPLY REFER TO:

TAKE PRIDE IN AMERICA

March 6, 2009

N3615 (2350)

Mr. Michael Elges
Chief, Bureau of Air Quality Planning
Nevada Division of Environmental Protection
Suite 4001
901 S. Stewart St.
Carson City, Nevada 89501

Dear Mr. Elges:

On January 5, 2009, we received Nevada's draft implementation plan to address regional haze for review. We appreciate the opportunity to work closely with the State through the initial evaluation, development, and, now, subsequent review of this plan. Cooperative efforts such as these ensure that, together, we will continue to make progress toward the Clean Air Act's goal of natural visibility conditions at all of our most pristine National Parks and wilderness areas for future generations.

This letter acknowledges that the U.S. Department of the Interior, U.S. Fish and Wildlife Service (FWS), and National Park Service (NPS) have received and conducted a substantive review of your draft Regional Haze Rule implementation plan in fulfillment of your requirements under the federal regulations 40 CFR 51.308(i)(2). Please note, however, that only the U.S. Environmental Protection Agency (EPA) can make a final determination regarding the document's completeness and, therefore, ability to receive federal approval from EPA.

As outlined in a letter to each state dated August 1, 2006, our review focused on eight basic content areas. The content areas reflect priorities for the Federal Land Manager agencies, and we have enclosed comments associated with these priorities. Our major concerns with the plan are the assessment for reasonable progress at all Class I areas affected by emission from your State, and the determination of best available retrofit technology (BART) for the Reid Gardner facility. We look forward to your response, as per section 40 CFR 51.308(i)(3). For further information regarding our comments, please contact Bruce Polkowsky (NPS Air Resources Division) at (303) 987-6944, or Tim Allen of the FWS Branch of Air Quality at (303) 914-3802.

Again, we appreciate the opportunity to work closely with the State of Nevada and compliment you on your hard work and dedication to significant improvement in our nation's air quality values and visibility.

Sincerely,

Christine L. Shaver
Chief, Air Resources Division
National Park Service

Sincerely,

Sandra V. Silva
Chief, Branch of Air Quality
U.S. Fish & Wildlife Service

Enclosure

cc:
Adele Malone
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Bureau of Air Quality
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901 S. Stewart St.
Carson City, Nevada 89701

National Park Service and U.S. Fish and Wildlife Service Comments Regarding Nevada Draft Regional Haze Rule State Implementation Plan

On January 5, 2009, the State of Nevada submitted a draft Regional Haze Rule State implementation plan (SIP), pursuant to the requirements codified in federal rule at 40 CFR 51.308(i)(2), to the U.S. Department of the Interior, National Park Service (NPS) and the U.S. Fish and Wildlife Service (FWS). The NPS and FWS air programs have conducted a substantive review of the Nevada draft plan, and have provided the comments listed below. We are sending Appendices to these comments electronically. We look forward to the Nevada Department of Environmental Protection (NDEP) response as per section 40 CFR 51.308(i)(3). For further information regarding these comments, please contact Bruce Polkowsky (NPS) at (303) 987-6944 or Tim Allen (FWS) at (303) 914-3802.

OVERALL COMMENTS

We would like to commend the State of Nevada on a well-written draft SIP. In particular, Chapter One does an excellent job of setting the baseline conditions found a Jarbidge Wilderness Area as well as summarizing technical analyses conducted by the Western Regional Air Partnership (WRAP).

While not a Class I area managed by the Department of the Interior, we note that Nevada is establishing reasonable progress goals for Jarbidge Wilderness Area that meets the U.S. Environmental Protection Agency (EPA) target uniform rate of progress toward attaining natural conditions by 2064. This is commendable since most western Class I areas are not likely to have reasonable progress targets that attain the EPA uniform rate of progress.

Our general concerns with the plan, as elaborated below, center on documentation of a complete long-term strategy analysis based on, at a minimum, the four statutory factors, and a commitment to link the assessment of new and modified stationary sources to the protection of the twenty percent best visibility days at Jarbidge and Class I areas in other states that are likely impacted by these sources.

We are also providing comments on the best available retrofit technology (BART) for the Reid Gardner plant for consideration in your final action on that facility.

SPECIFIC COMMENTS

Remaining comments are organized according to the priorities that we presented in our August 1, 2006, letter, which outlined the Regional Haze concepts that are of importance to the NPS and FWS. Many of the following comments will also provide direction towards building the narrative of the draft SIP to address the documentation and content area comments noted above.

Baseline, Natural Condition, and Uniform Rate

We agree with methodologies NDEP used in establishing the baseline and natural conditions estimates as outlined in Chapter Two. Use of the Inter-Agency Monitoring of Protected Visual Environments (IMPROVE) monitoring network is appropriate for setting baseline conditions and tracking visibility. In addition, we concur with the adoption of EPA's guidance for setting the natural condition estimate. We understand there is uncertainty regarding dust impacts in many western Class I areas and will work with NDEP in assessing the need for any future adjustments to the natural conditions estimate for dust.

Emission Inventories

Chapter Three of the draft SIP provides a good overview of baseline and future emissions. We appreciate Table 3-6 (page 3-14) which provides a summary of emissions for both the base year (2002) and the target year (2018). We have encouraged all states to provide this basic information in summary form, since it is the basis for assuring reasonable progress.

We appreciate that the State included future energy development plans within the stationary source projections. As noted in Table 3-8 (page 3-19), point source and area source emissions of nitrogen oxides are predicted to increase over the planning period. The geographic location of these emissions increases may be important to protecting the best days in nearby Class I areas. We recognize that the emissions increase may only reflect the most recent WRAP 2018 projection and, therefore, not incorporate the controls NDEP is implementing under BART. If that is the case, an acknowledgement of BART reductions should be made in Chapter Three.

In addition, we understand that the 2018 projections are highly uncertain. We support the plan's specific identification of the uncertainty contained in Section 7.9.3.1 (page 7-16) and we request that the NDEP commit to updating that information in the mid-term reporting required by the Regional Haze Rule.

Area of Influence

Chapter Four is a good description of the sources that impact Jarbidge Wilderness and of the sources in Nevada that affect visibility at Class I areas other States. Tables 4-3 and 4-4 show the results of WRAP modeling using the Particulate Matter Source Attribution Tracking (PSAT) algorithm. We note that the contribution assigned to outside of the model domain in this work is highly uncertain, and likely to underestimate the contribution of regions within the model for sulfate and nitrate since it did not account for recirculation of pollutant nor natural sources assumptions outside of the domain.

Yet, as noted in the tables for various pollutants, we agree that Nevada is a minor contributor to current and projected visibility impairment for most Class I areas outside of the State. If current emissions projections and BART controls are implemented,

Nevada's contribution to extinction, particularly for sulfate and nitrate, should keep pace with, or exceed, expectations for attaining the uniform rate of reasonable progress in most Class I areas. Again, it is important that new source development be fully reviewed to assure that increases in emissions in clean areas still provide for Class I progress toward natural conditions.

Reasonable Progress Goals, and the Long-Term Strategy

The setting of reasonable progress goals is linked to the development of a long-term strategy in that a state must consider appropriate measures, developed using the four statutory factors plus other considerations the state deems appropriate, then set reasonable progress goals for its Class I area(s) based on the projected results from implementing those measures. In addition, a state SIP should discuss how its long-term strategy addresses its share of reasonable progress at Class I areas located in other states.

Chapter Six is focused on the setting of reasonable progress goal for Jarbidge Wilderness and out-of-State Class I areas. While BART is part of a long-term strategy, the SIP discusses BART emissions limits in Chapter 5. We address specific BART determination issues later in this document.

Section 6.7 (page 6-15) states the NDEP rationale for its conclusions that the reasonable progress goal for the worst visibility days is reasonable. Item 1 notes that Jarbidge Wilderness is projected to attain or exceed the uniform rate of progress assessment guide that EPA established. In addition, Item 3 in Section 6.7 notes that reductions in anthropogenic emissions is consistent with Nevada's share of emissions reductions to meet RPG's of Class I areas in other States. While these conditions are laudable and form key aspects of what is an appropriate long-term strategy, there needs to be a more rigorous assessment of what additional strategies, if any, are possible. Some reasonable number of control options must be evaluated and the State must decide whether to include them in the long-term strategy based on the statutory factors.

Given that Jarbidge is meeting the rate of progress in guidance from EPA, and that the assessment in Section 7.9.3.2 indicates that reductions in Nevada address its share of visibility impairment from key anthropogenic pollutants in most Class I areas, an examination focused on costs of some additional controls may be sufficient to complete the assessment four factor analysis. A comparison of costs of additional strategies on a dollar-per-ton basis with baseline emissions reduction programs would suffice if costs are extremely high for the amount of visibility improvement likely to occur.

Table 7-6 (page 7-18) summarizes Nevada's contribution to improvement in Class I areas outside of the State. We note that reductions in emissions from baseline to 2018 are given in State-wide totals. It would be more appropriate to assess regions of the State that are most contributing to the Class I area listed in the table. The column related to the weighted emission potential (WEP) reduction may address this issue but needs further elaboration in the text. Some of the WEP entries are negative implying that Nevada's contribution to those areas is moving in the wrong direction.

Given the uncertainties of future projections, especially the type and placement of future energy sources, we request the long-term strategy contain a statement that new source review and prevention of significant deterioration programs are key components of a regional haze plan designed to improve current visibility on the most impaired days and to protect visibility conditions at Class I areas.

Fire

Section 7.7 reviews the existing smoke management program which includes provisions that recognize Class I areas as sensitive receptors. We applaud the smoke management program's requirement for smoke minimization methods for larger prescribed fires near Class I areas, which parallels the WRAP Fire Emissions Forum recommendations for regional haze plans.

Regional Consistency

Unlike some areas of the country, the WRAP has not developed a regionally consistent policy approach to regional haze strategies outside of a sulfur dioxide reduction strategy implemented to address the Colorado Plateau Class I areas. The complexity of visibility impairment across the western U.S. does not lend itself to a simple control strategy. However the approach for assessing current conditions and examining future conditions has been coordinated by the WRAP and we concur with NDEP in its use of the WRAP Technical Support System (TSS) and the assessments supporting that database.

Verification and Contingencies

The draft SIP provides verification measures of Regional Haze planning through the commitment of continuing established monitoring programs. Section 8.3 notes that monitoring is currently implemented under the visibility Federal Implementation Plan (FIP) for the original visibility protection rules for "reasonably attributable" impairment implement by EPA in the 1980's. We encourage NDEP to develop comprehensive rules to replace the FIP and which could still link to the cooperative State-federal IMPROVE program to accomplish cost-effective long-term monitoring. In Section 8.6 (page 8-5), we would like to see a state commitment to work with Federal agencies as a team if economic challenges are faced by the IMPROVE monitoring program.

As already noted under the long-term strategy comments, there is uncertainty regarding future emissions projections from both existing and new sources, so the future review requirements are a crucial part of the long-term strategy and should recognize that modifications to the control strategies may be necessary. We view Sections 9.3, 9.4 and 9.5 (pages 9-5 to 9-6) as the state's commitment to tracking and correcting the long-term strategy as necessary.

Coordination and Consultation

We have worked with NDEP through the WRAP, as well as through direct communications, regarding the technical and policy development of the SIP and will continue both means of communication as the plan is implemented. We appreciate NDEP including Section 9.2.1 as an explicit coordination of SIP revisions.

BART

The core purpose of the BART program is to improve visibility in our Class I areas. BART is not necessarily the most cost-effective solution but instead, BART represents a broad consideration of technical, economic, energy, and environmental (including visibility improvement) factors. We believe that it is essential to consider both the degree of visibility improvement in a given Class I area as well as the cumulative effects of improving visibility across all of the Class I areas affected.

In general NDEP did a good job in assessing the control technology aspects of the sources subject to BART and subsequent BART determinations, and we applaud NDEP's decisions to go beyond company proposals. However, we do want to share two concerns.

In addition to performing an analysis of the cost for removing each ton of pollutant for the control strategies selected as feasible and for further evaluation, NDEP also evaluated those strategies on the basis of incremental cost. While that is certainly a valid and useful parameter, it must be used with caution and its results placed into the proper perspective. The basic premise underlying the incremental cost analysis is to identify those strategies that contribute relatively little environmental benefit in proportion to their cost. Because, in most cases, the cost of pollution control rises exponentially with control efficiency, the slope of the cost curve will also increase. For this reason, rigid use of incremental cost effectiveness will always result in the choice of the cheapest option if carried to its ultimate extent. (For example, if this approach were used to evaluate PM controls, it is likely that all controls more expensive than a multiple cyclone would be rejected.) According to the NSR Workshop manual, "As a precaution, the difference in incremental costs among dominant alternatives cannot be used by itself to argue one dominant alternative is preferred to another." Instead, it should be used to compare closely performing options.[1]

Our second overarching concern is that NDEP does not appear to have given much weight to the visibility benefits that could be realized from the control strategies evaluated. At least, it is not clear how NDEP applied this factor in developing its BART conclusions. As we shall discuss later, there appears to be great inconsistency among the

[1] 40 CFR Part 51 Appendix Y, "Guidelines for BART Determinations Under the Regional Haze Rule" Part IV(D)(4)(e): "You should consider the incremental cost effectiveness in combination with the average cost effectiveness when considering whether to eliminate a control option." And (IV)(D)(4)(g): "You should exercise caution not to misuse these [average and incremental cost effectiveness] techniques…[but consider them in situations where an option shows]…slightly greater emission reductions…"

costs and visibility benefits that would result from the various control strategies chosen by NDEP as representing BART.

We are focusing our comments on the BART determination for the Reid Gardner (RG) facility operated by NV Energy (NVE) since it has larger emissions than the other BART sources. We have conducted a preliminary review of the other BART sources and also have some initial questions and comments.

Comments on Reid Gardner BART Determination

Sulfur Dioxide (SO_2)

We are pleased that the proposed SO_2 limit has been reduced from 0.40 pounds per million Btu of heat input (lb/mmBtu) to 0.25 lb/mmBtu on a 24-hour average basis. However, in view of the extremely low (0.05 lb/mmBtu) actual annual SO_2 emissions presented in the US EPA Clean Air Markets (CAM) database, we note that the limit could better reflect the lower actual emissions.

We suggest a full review of the CAM data to determine the actual performance of the existing scrubbers and the variability in their emissions. Normally, maximum 24-hour average emissions are approximately 50 percent higher than the average emission rate calculated using annual emissions data. If that ratio holds true for the units at RG, the facility may be able to meet a 24-hour average emissions limit of 0.10 lb/mmBtu or lower.

It is our understanding that the proposed 24-hour limit would become the most stringent SO_2 limit applicable to this facility. As a consequence, there appears to be no other constraint on RG that would prevent it from operating continuously at that emission limit, and this could result in substantially higher annual emissions. However, a limit that reflects good utilization of the existing scrubbers would not require scrubber upgrades or incur additional costs, but would also prevent emissions from increasing. In addition to a more-stringent 24-hour limit, we also suggest that an annual limit (e.g., 0.06 lb/mmBtu) be included that reflects the normal clean operation of this facility

Particulate Matter (PM_{10})

While we agree that a fabric filter represents BART for filterable PM_{10}, no justification is presented for the proposed limit of 0.015 lb/mmBtu. We have seen stack results and permit limits at 0.010 lb/mmBtu and lower,[2] and believe that RG can achieve a lower limit on filterable PM_{10} than proposed by NDEP.

[2] We have seen actual stack test data from the East Kentucky Power-Spurlock Unit #3 which indicates that a much lower limit can be achieved. As a result, the East Kentucky Power-JK Smith Unit #1 & #2 project has proposed a limit on filterable PM_{10} of 0.009 lb/mmBtu and a total PM_{10} limit of 0.012 lb/mmBtu. Also, on June 30, 2008, the Virginia Department of Environmental Quality issued a permit to Dominion Power for its Southwest Virginia Hybrid Energy Center that limits filterable particulate emissions to 0.010 lb/mmBtu and total PM_{10} to 0.012 lb/mmBtu.

We also request an analysis of controls for condensable PM_{10} which can represent a substantial component of total PM_{10} emissions, and can thus affect visibility.

Nitrogen Oxides (NO_X)

We are pleased that, by proposing addition of Rotating Over-Fire Air (ROFA) with Rotamix, NDEP is moving beyond the combustion controls proposed by NVE. However, NDEP is proposing a higher NO_X limit for RG Unit #3 than for units #1 and #2, even though the CAM data show that RG Unit #3 has the lowest current emission rate among the units at the plant. We request a justification of why higher NO_X emissions, and therefore lower control efficiencies, are proposed for Unit #3.

In reviewing the effectiveness of combustion controls as a precursor to application of SCR, NVE and NDEP have assumed that combustion controls can achieve NO_x reductions in a range of 6 to 24 percent. Our data (provided in Appendix A) on BART sources and/or states proposing combustion controls indicates that typical NO_X reduction efficiencies range between 15 and 63 percent. We request that NDEP review the effectiveness assumptions in its BART determination and provide support for variations from engineering norms.

NDEP has assumed that control of NO_X through a combination of combustion controls and Selective Catalytic Reduction (SCR) technologies could reduce NO_X emissions to 0.085 lb/mmBtu, resulting in a 77 percent reduction of potential emissions. Our review (provided in Appendix B) of eastern coal-fired Electric Generating Units (EGUs) retrofitted with SCR indicates that those EGUs can achieve 0.06 lb/mmBtu on a 30-day rolling average basis while they are in operation. We note that Nevada Energy assumed that these controls could achieve an emission rate of 0.07 lb/mmBtu for its cost and air quality modeling analyses. We request that NDEP review its assumption regarding achievable emissions limits for a combination of combustion controls and SCR and provide support for any annual rate higher than 0.06 lb/mmBtu.

The capital costs noted for the combination of combustion control and SCR are $278 per kilowatt (kW) of energy output. Those costs are higher than any real-world costs found in available literature. (Please see the "PSNM Survey" page of Appendix C.) We did not find any facility-specific information in the SIP record that supports these costs, nor was there any indication that RG would experience any exceptional BART retrofit costs. As a result, the cost-effectiveness values noted in the NDEP BART analysis ranged from $2,386 to $2,600 per ton of NO_X removed. Nevertheless, those values are substantially lower than the $3,778 per ton estimated by the North Dakota Department of Health for its proposed BART controls for NO_X emissions from Great River Energy's Stanton facility that impacts only two Class I areas.

Using data found in the SIP documentation and the US EPA Control Cost Manual approach (recommended by the BART Guidelines), we estimate costs (in Appendix D) to achieve an emission rate of 0.06 lb/mmBtu, representing 83 to 86 percent control efficiency on an annual-average basis, would result in costs of $135 to $163 per kW and

a range of $1,568 to $1,752 per ton of NO_X removed. Our cost/kW is well within the range of real-world values cited above, and our cost per ton is similar to that accepted by NDEP for its proposed BART strategy, but with greater benefits to visibility.[3] Based on our calculations, we believe that NDEP's costs are overestimated and request that documentation of facility-specific conditions affecting costs be provided.

We are especially concerned that the NDEP BART analysis did not address improvements in visibility in a quantitative manner, for example, by comparing the various RG control alternatives to the costs and benefits inherent in BART proposals by other states and/or sources. In its BART analysis, NVE estimates that aggressive NO_X controls (ROFA+SCR or combustion controls+SCR) at RG result in about 0.7 deciview (dv) improvements at Grand Canyon National Park. As presented in NVE's BART analysis, that equates to approximately $7 million per dv of improvement. Even just considering the one Class I area for which benefits were estimated, and accepting the (likely overstated) costs and underestimated benefits presented by NVE, the costs per unit of visibility improvement for the ROFA/combustion control plus SCR scenario at RG are well within the range of what was selected or proposed for BART controls at EGUs in other states. Our ongoing analysis of BART proposals from around the US (provided in Appendix E)[4] are leading us to the conclusion that a cost per dv of $10 – $20 million represents a reasonable average cost-effectiveness for improving visibility at the most-impacted Class I area. (NDEP has determined that Low-NO_x Burners plus Flue Gas recirculation represent BART for Tracy Unit #3. NVE estimated, in its BART submittal, that this option would result in a cost-effectiveness value of $10 million per dv.) The NVE analysis suggests that, at $7 million per dv, RG could install the ROFA/combustion control plus SCR scenario at a much more favorable cost-per-dv effectiveness ratio than the typical state or EGU proposing BART. Furthermore, our estimates (on the Appendix D "Gardner (NPS)" page) of more visibility improvement from increased efficiency of the equipment and lower costs equate to a $3 million cost per dv of improvement at Grand Canyon National Park alone.

There are five Class I areas within 300 kilometers of RG. NVE presented baseline air quality modeling results showing that the facility causes or contributes to visibility impairment at three Class I areas,[5] but only calculated improvement based on impacts at Grand Canyon National Park. Neither NVE nor NDEP discussed visibility improvement in the context of the benefits to all of the impacted Class I areas.

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[3] Our cost estimates for SCR at RG are also lower than the BART strategies proposed by North Dakota for EGUs at the Leland Olds, Stanton, and MR Young facilities (provided in Appendix E to our comments).

[4] Appendix E to our comments contains proposals to reduce NOx, SO_2, and PM_{10}, either individually, or in combination. While it may be relevant to cite cost/ton of pollutant in terms of the specific pollutant removed, it is not necessary to categorize the cost per dv of improvement because that parameter is not pollutant-specific. A dv of improvement due to reducing NO_x is no different from a dv of improvement due to reducing SO_2 or PM_{10}.

[5] RG causes visibility impairment at Grand Canyon National Park, and contributes to visibility impairment at Zion and Joshua Tree national parks. Impacts at Bryce Canyon National Park and Sycamore Canyon Wilderness Area are below the threshold for contributing to visibility impairment.

It simply does not make sense to use the same metric to evaluate the effects of reducing emissions from a BART source that impacts only one Class I area as for a BART source that impacts multiple Class I areas. And, it does not make sense to evaluate impacts at one Class I area, while ignoring others that are similarly significantly impaired. If emissions from RG are reduced, the benefits will be spread well beyond only the most-impacted Class I area, and this must be accounted for. While NVE presented data describing improvements to visibility at Grand Canyon National Park that would result from the various control scenarios it investigated, neither NVE nor NDEP have explained how they incorporated this information on impacts upon all Class I areas into their BART decision. For example, the Oregon Department of Environmental Quality (ODEQ) has recently posted on its website[6] a proposal to require under the BART program that the Boardman power plant install a dry scrubber and SCR. As part of its BART determination, ODEQ evaluated the benefits of various control strategies on all 14 of the Class I areas within 300 km of the plant. The following is an excerpt from comments we sent to ODEQ in January 2009:

> The BART Guidelines represent an attempt to create a workable approach to estimating visibility impairment. As such, they require several assumptions, simplifications, and shortcuts about when visibility is impaired in a Class I area, and how much impairment is occurring. The Guidelines do not attempt to address the geographic extent of the impairment, but assume that all Class I areas are created equal, and that there is no difference between widespread impacts in a Class I area and isolated impacts in a Class I area. To address the problem of geographic extent, we have been looking at the cumulative impacts of a source on all Class I areas affected, as well as the cumulative benefits from reducing emissions. While there are certainly more sophisticated approaches to this problem, we believe that this is the most practical, especially when considering the modeling techniques and information available. In this case, we applied this cumulative approach to the Boardman analysis and found that the cumulative impact from the baseline condition on visibility in the 14 Class I areas is 29.7 dv, with a total of 2,367 "days" of impaired visibility across the 14 Class I areas.

We note that ODEQ used a similar approach in its analyses.

NDEP has effectively ignored the other Class I areas where RG is also causing or contributing to visibility impairment. The dollar cost per increment of visibility improvement would be substantially lower if full consideration is given to all affected Class I areas that would benefit from emission reductions at RG. We request that NVE present data showing the improvement that would result from application of the ROFA/combustion control plus SCR scenarios. We would be pleased to work with NDEP to further develop this approach.

<u>Comments on BART Determinations for Fort Churchill, Mohave, and Tracy EGUs</u>

In general, we are pleased that NDEP has chosen BART controls that are more stringent than those proposed by the sources. (Those BART determinations for NO_X are summarized in Appendix F.) However, as we evaluated those NDEP determinations, we observed that there were some apparent discrepancies between the levels of control that the sources said were achievable by a given control strategy and the level of control assumed by NDEP in its determination. For example, the table below presents the NOx

[6] http://www.deq.state.or.us/aq/haze/pge.htm

limits used by the sources as they evaluated the control technologies and fuels determined by NDEP to represent BART.

Comparisons between Source and NDEP NOx Limits

Source	Unit	BART Control Technology	Source Estimate	NDEP Limit
Ft. Churchill	Unit #1	LNB+FGR	0.14	0.20
Ft. Churchill	Unit #2	LNB+FGR	0.14	0.16
Reid Gardner	Unit #1	ROFA + Rotamix	0.16	0.20
Reid Gardner	Unit #2	ROFA + Rotamix	0.16	0.20
Reid Gardner	Unit #3	ROFA + Rotamix	0.20	0.28
Mohave	Unit #1	LNB+OFA	0.10	0.15
Mohave	Unit #2	LNB+OFA	0.10	0.15
Tracy	Unit #1	LNB+FGR	0.16	0.15
Tracy	Unit #2	LNB+FGR	0.16	0.12
Tracy	Unit #3	LNB+FGR	0.13	0.19

We suggest that NDEP include explanations as to how it arrived at its BART limits and why they differed from the emission rates used by the sources in evaluating those control strategies. (There also appear to be some discrepancies among the Tracy Unit #3 emission rates, control efficiencies, and visibility improvements presented by the source and discussed and adopted by NDEP.)

As we suggested above, we believe that greater emphasis should be placed upon the degree of visibility improvement that could be achieved in this program designed for that specific purpose. It follows that, if it is cost-effective to spend $10 million per dv to apply Low-NO_x Burners plus Flue Gas recirculation at Tracy Unit #3, then application of that same criterion to the other proposals would result in determinations that lower emission rates could be achieved. We also suggest that, if NDEP were to consider the cumulative benefits that cold be achieved at this $10 million/dv benchmark, the degree of emission reductions would be still greater.