



The Navajo Nation

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President

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Dr. Anita Lee (Air-3)
U.S. Environmental Protection Agency Region IX
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Re: *Advanced Notice of Proposed Rulemaking: Assessment of Anticipated Visibility Improvements at Surrounding Class I Areas and Cost Effectiveness of Best Available Retrofit Technology of Four Corners Power Plant and Navajo Generating Station, 74 FR 44313; Docket No. EPA-OAR-2009-0598*

Dear Dr. Lee:

The Navajo Nation takes this opportunity to comment on the above-referenced Advanced Notice of Proposed Rulemaking ("ANPR"). The ANPR is an initial step by the United States Environmental Protection Agency ("USEPA") in a rulemaking that will determine Best Available Retrofit Technology ("BART") to limit the emissions of oxides of nitrogen ("NO_x") and particulate matter ("PM") from two coal-fired electric power plants located on the Navajo Reservation – the Navajo Generating Station ("NGS") and the Four Corners Power Plant ("FCPP") (collectively "Plants")¹. For reasons set forth more fully below, the Nation supports a phased approach to emissions reductions for the Plants and has concluded that combustion controls - low No_x burners ("LNB") and separated over fire air technology ("SOFA"), and **not** selective catalytic reduction ("SCR"), are BART for both Plants at this time.

INTRODUCTION

No entity has a greater interest in NGS and FCPP than the Navajo Nation. Accordingly, before addressing the specific issues raised in the ANPR, the Nation believes it is important to lay out in broad strokes the interests of the Nation implicated by this rulemaking. NGS and FCPP are located on Navajo lands pursuant to lease agreements with the Navajo Nation. The Plants provide hundreds of skilled jobs on the Navajo Reservation, where unemployment

¹ For ease of reference these Comments will use FCPP and NGS to refer to both the Plants and their operators, Arizona Public Service and Salt River Project, respectively.

approaches fifty percent. The Nation's most valuable saleable natural resource is its coal reserves, and the Plants were located to take advantage of and provide a market for Navajo coal. The income these two Plants provide to the Nation, both directly and indirectly, contributes substantially to the Nation's economic viability and thus, ultimately, to its sustainability as an independent sovereign.

The Navajo Reservation, or Diné'tah, is the homeland of the Navajo people. It is a place of great scenic beauty and grand scenic vistas. The Nation's tribal parks and innumerable natural and archaeological treasures draw thousands of visitors each year. The Navajo people care deeply about their homeland and do not lightly accede to its degradation. In developing these comments, the Nation has balanced the environmental impacts of the Plants, the potential for improved visibility offered by the emission control alternatives, and the economic impacts that may result from the imposition of the different control technologies. The Regional Haze Rule requires that USEPA weigh all of these interests as well.

CAA/REGIONAL HAZE RULE REGULATORY FRAMEWORK

The Regional Haze Rule, and Section 169A of the Clean Air Act ("CAA") from which the Rule was derived, have as their goal the restoration of visibility in mandatory class I Federal areas ("Class I Areas"), including national parks and monuments, to pristine conditions by 2064.² This goal is to be accomplished in incremental steps, described in the CAA and the Rule as "reasonable progress."³ The Rule establishes a series of review periods in which reasonable progress is measured. The current rulemaking is the first review period for NGS and FCPP for NO_x and PM.

One of the ways in which USEPA proposes to accomplish reasonable progress is to reduce emissions from large stationary sources like NGS and FCPP through the requirement of BART. The Act establishes, and the Rule reiterates, a five factor test for determining BART for such sources:

[T]he State [or in this instance USEPA] shall take into consideration the costs of compliance, the energy and nonair quality environmental impacts of compliance, any existing pollution control technology in use at the source, the remaining useful life of

² 42 USC § 7491(a); 40 CFR § 51.308.

³ *Id.* at § 7491(a)(4); 40 CFR § 51.308(d)(1).

the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.⁴

USEPA has issued *Guidelines for BART Determinations Under the Regional Haze Rule*⁵ (“BART Guidelines”) to aid in construction of the Rule. The BART Guidelines, which are mandatory for coal-fired plants like NGS and FCPP, that generate more than 750 Mw of power, establish presumptive limits for emissions of NO_x. The preamble to the Federal Register Notice publishing the BART Guidelines explains that these limits, which apply to all three units at NGS and units 3, 4 and 5 at FCPP, “are based on current combustion control technology.”⁶ The preamble reflects USEPA’s rationale in selecting presumptive limits based on current combustion controls:

Based on our analysis of emissions from power plants, we believe that applying these highly cost-effective controls at the large power plants covered by the guidelines would result in significant improvements in visibility and help to ensure reasonable progress toward the national visibility goal.⁷

The ANPR focuses primarily on two control technologies that are “current combustion controls,” LNB and SOFA, and on SCR, a post-combustion control technology. The ANPR fails to adequately explain why USEPA is considering deviating from the presumptive limits and presumptive BART control technologies identified in the BART Guidelines.

While the Regional Haze Rule was created to protect scenic values in federal Class I Areas, it offers no comparable protections against visibility impacts of emissions on the Nation’s lands.⁸ To protect these and other environmental interests, the Nation has established its own environmental protection agency (“NNEPA”) to monitor and regulate activities affecting the environment on the Reservation, and NNEPA has been instrumental in the development of these comments. NNEPA is still in the process of developing its regulatory programs and capacities, however, and has not applied for “treatment as a state” or program approval for a visibility program.⁹ USEPA therefore is currently the sole regulatory authority determining

⁴ *Id.* at § 7491(g)(2); § 51.308(e)(1)(ii)(A).

⁵ 40 C.F.R. Part 51, Appendix Y (“BART Guidelines”); see 42 U.S.C. § 7491(b)(1).

⁶ 40 CFR Part 51: *Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations; Final Rule* (“FR Notice”), 70 FR 39104, 39134 (July 6, 2005).

⁷ *Id.*

⁸ The Nation could seek to protect its lands by petitioning USEPA to have the Navajo Nation designated as a class I area. 42 U.S.C. § 7474(a) and (c).

⁹ See 42 U.S.C. § 7601(d) (CAA “treatment as a state” provision), 40 C.F.R. §§ 49.3, 49.4(e).

BART for the Plants, pursuant to the CAA generally and the Tribal Authority Rule.¹⁰ In doing so, however, USEPA not only has its usual obligation to solicit comments on its proposed regulation, but also has a trust obligation, as a federal agency, to consult with the Nation as an affected Indian tribe. Under these circumstances, USEPA must do more than simply receive and respond to the Nation's comments; it must give substantial deference to the Nation's views regarding BART for stationary sources on the Nation's lands.

COMMENTS SOLICITED BY THE ANPR

The Nation is aware that the ANPR is less comprehensive than a proposed rule and does not propose the installation of any particular control technology as BART for the Plants. Instead, as the Nation understands the purpose of the ANPR, USEPA seeks comments on two of the five factors that make up the BART test so that it may be fully informed before it issues a proposed rule. The ANPR solicits comments on data relied upon by the Plants and reviewed, and in some instances modified, by USEPA on these two factors. The first factor is the cost of installing the various control options (Factor 1). The second factor is the degree of visibility improvement that can be anticipated with installation of the various emissions control options (Factor 5), and USEPA seeks comments on the models employed and the inputs used. In the ANPR, USEPA provides that comments may also be submitted on the remaining three factors of the BART analysis. Further, USEPA indicates that comments addressing the Agency's obligations under Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments* ("EO 13175")¹¹ are also welcome.

Because of the importance to the Nation of economic issues that may be considered under the BART Guidelines, and that are further implicated by EO 13175, which is one tangible manifestation of the federal government's trust relationship to Indian tribes, the Nation's comments begin with a discussion of the potential economic harm to the Nation should USEPA require the installation of control technologies that exceed the requirements of the Regional Haze Rule and that are excessively costly.

I. AFFORDABILITY OF CONTROLS, ENERGY IMPACTS (FACTOR 2) AND EO 13175

The Nation is aware of at least three authorities for considering the economic impacts of any proposed emission control technology. There are two distinct provisions in the BART

¹⁰ 40 C.F.R. § 49.11.

¹¹ 65 FR 67249 (Nov. 6, 2000).

Guidelines that address economic impacts. In addition, USEPA's federal trust responsibility to Indian tribes must inform any action taken by USEPA that has the potential for serious economic harm. Both Plants have raised the specter of Plant closure should USEPA require controls so costly that they cannot be reasonably amortized over the remaining life of the Plants. One need only look to the recent shut down of the Mohave Generating Station to realize that this is no idle threat. The Mohave closure had significant impacts on the Nation, even though that plant was not located on Navajo lands. Closure of Mohave was directly responsible for the shutdown of the Black Mesa Mine, which mined coal owned jointly by the Nation and the Hopi Tribe, and resulted in the loss of jobs for tribal members and royalty revenue for the Nation. The loss of one or both of the Plants as a consequence of this rulemaking would cause the Nation far greater harm.

The BART Guidelines anticipate the situation presented here, where requiring a particular control technology has the potential to affect not just the profitability, but indeed the continued viability, of NGS and FCPP. In Section IV(E)(3), the BART Guidelines address how economics are factored into the BART determination once each of the five legislatively mandated factors have been evaluated:

In selecting a "best" alternative, should I consider the affordability of controls?

1. Even if the control technology is cost effective, there may be cases where the installation of controls would affect the viability of continued plant operations.
2. There may be unusual circumstances that justify taking into consideration the conditions of the plant and the economic effects of requiring the use of a given control technology. These effects would include effects on product prices, the market share, and profitability of the source. Where there are such unusual circumstances that are judged to affect plant operations, you may take into consideration the conditions of the plant and the economic effects of requiring the use of a control technology. Where these effects are judged to have a severe impact on plant operations you may consider them in the selection process, but you may wish to provide an economic analysis that demonstrates, in sufficient detail for public review, the specific economic effects, parameters, and reasoning.

The Nation is not prepared to concede that SCR technology is "cost effective," and the cost analyses performed by the Plants support a contrary conclusion. We await further analysis by USEPA of the costs of compliance. However, should USEPA conclude that SCRs are cost effective, the provisions of the BART Guidelines quoted above clearly allow for consideration of economic concerns when an emission control technology option has the potential to have serious deleterious economic consequences.

A second provision in the BART Guidelines lays out the process for performing an energy cost assessment as part of the analysis of the energy and non-air quality environmental impacts factor (Factor 2). Section IV(D)(h)(5) provides that “the energy impacts analysis may consider whether there are relative differences between alternatives regarding the use of locally or regionally available coal, and *whether a given alternative would result in significant economic disruption or unemployment* (emphasis added).” As discussed below, loss of one or both of the Plants would likely result in the closure of the mine that supplies its coal.

Finally, as an agency of the federal government, USEPA has a responsibility to carry out the trust responsibility of the United States to Indian tribes. EO 13175 requires federal agencies to consult with Indian tribes on federal actions with tribal implications. “Policies that have tribal implications,” are defined to include the promulgation of regulations “that have substantial direct effects on one or more Indian tribes.”¹² USEPA is clearly required by EO 13175 to consult with the Nation and other affected tribes on the instant rulemaking to determine BART for NGS and FCPP. Section 5(a) of the EO, describes the consultation requirement: “[e]ach agency shall have an accountable process to ensure meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.” Section 5(d) continues: “each agency should explore and, where appropriate, use consensual mechanisms for developing regulations, including negotiated rulemaking.” USEPA’s obligation to solicit comments on any proposed action is distinct from but related to its trust obligation, as a federal agency, to consult with affected Indian tribes.¹³ It is the Nation’s position that USEPA, as part of this consultative process, must do more than simply listen and respond to the Nation’s comments. To the extent that the Nation recommends a particular action, in this instance, the selection of a particular control technology as BART for power plants located on the Nation’s lands, USEPA must give substantial weight to that recommendation as part of its decision-making process.

USEPA must consult with the Navajo Nation and must consider the potential economic impacts of its actions when making its BART determination. In reliance on the authorities cited above, the Nation presents as part of its comments on the ANPR a discussion of its economic interests at stake in this rulemaking.

¹² EO 13175, § 1(a).

¹³ *Id.* § 9(a).

ECONOMIC INTERESTS OF THE NAVAJO NATION

The *2005-2006 Comprehensive Economic Development Strategy of the Navajo Nation*¹⁴ (“Strategy Report”), summarizes Navajo Nation economic data including budget figures, primary sources of revenue, major employers, and employment figures. FCPP and NGS are listed among the largest employers within the Nation. During the period covered by the Strategy Report, FCPP employed 586 people, 72% of whom were members of the Nation, with an annual payroll of \$41 million.¹⁵ Employment at NGS included 512 permanent employees, 69% of whom were Native American. The Plant employed approximately 300 additional seasonal employees, with 93% being Native American. NGS had a total annual payroll of \$47 million.¹⁶

The Plants are linked inextricably with the coal mines that supply them and the economic benefits indirectly attributable to the Plants include mine employment, payroll and royalty revenue for the Nation. FCPP burns approximately 10 million tons of coal annually from the BHP Navajo Mine.¹⁷ Revenues to the Nation in the form of royalties and taxes paid by the Navajo Mine are approximately \$45.9 million.¹⁸ The Navajo Mine is also a major employer on the Navajo Nation, with 357 employees, 87% of whom are Navajo tribal members. Salary and benefits paid by the Navajo Mine exceeded \$41 million in 2004.¹⁹ The Peabody Kayenta Mine delivers approximately 8.3 million tons of coal to NGS.²⁰ The Kayenta Mine employs approximately 400 workers, a large percentage of whom are Native American, with a payroll of \$44.4 million.²¹

In an economy where unemployment has hovered just below 50% for years,²² the hundreds of skilled jobs provided by the Plants and the Mines are critical to the Nation’s fiscal well-being. Given that the number of people employed within the Nation has remained

¹⁴ Available at <http://www.navajobusiness.com/pdf/CEDS/CEDS%202005%20-%2006%20Final.pdf>

¹⁵ Strategy Report at 28.

¹⁶ *Id.*

¹⁷ *Id.* at 28.

¹⁸ BHB Billiton New Mexico Coal Operations: Calendar Year 2008, available at www.whitehouse.gov/omb.asset.aspx?AssetId=2072.

¹⁹ Strategy Report at 29.

²⁰ *Id.* at 31.

²¹ *Id.*

²² *Id.* at 14.

essentially constant at about 30,000,²³ together the permanent Plant and Mine employees make up about 6% percent of the total Navajo Nation workforce. In 2008, cumulative revenues from the Plants and the Mines that supply them totaled approximately \$93.9 million, accounting for about 55% of the Nation's General Funds Budget of \$172 million.²⁴

There is one additional concern unique to NGS. NGS is owned in part by the United States acting through the Bureau of Reclamation ("BOR"). Energy generated by NGS and attributed to BOR's ownership share is used in multiple ways to subsidize the Central Arizona Project ("CAP"), which delivers Colorado River water for domestic, municipal, industrial and agricultural uses throughout central and southern Arizona. Pursuant to the Arizona Water Settlements Act of 2004, P.L. 108-451, revenues generated by the sale of power exceeding that needed to deliver CAP water may be used to fund the costs of Indian water rights settlements in Arizona. The Nation is currently engaged in negotiations to settle its water rights claims in the Lower Colorado River Basin, and will look to these funds should it reach a settlement of these water rights claims in the state. Further, any settlement of the Nation's water rights claims in Arizona would likely also involve delivery of CAP water, and the Nation has an interest in keeping energy rates for delivery of CAP water at an economical level.²⁵ Requiring emissions controls more extensive, and more costly, than those required to comply with the Regional Haze Rule, has the potential to seriously undermine the financial stability of NGS, and threaten the BOR revenue stream upon which both existing and future Indian water rights settlement in Arizona depend.

The Strategy Report provides the following commentary on the impacts of the closure of the Mohave Generating Station on the Navajo Nation:

Because of EPA regulations, the Mohave Generating Station near Laughlin, Nevada, closed its operations. As the power plant was the sole buyer of coal from Black Mesa Mine, it had to close its operation on January 1, 2006. Closure of this mine will definitely have very adverse economic impact [*sic*] not only on the 160 or so people laid off from the mine, but also on the Navajo Nation coffers.

The Nation has already suffered the ripple effects of one USEPA rulemaking that, through the imposition of financially untenable emissions controls, resulted in the closure of

²³ *Id.*

²⁴ General Funds are those generated from sources internal to the Nation, as opposed to external sources, principally federal and state grants.

²⁵ The Nation's water rights settlement in New Mexico, ratified by Congress in P.L. 111-11, includes provisions for the delivery of CAP water through the Navajo Gallup Water Supply Project to the Nation's capitol in Window Rock.

the Mohave Generating Station, and as a consequence, the closure of the Black Mesa Mine. If either NGS or FCPP were to close as the result of the imposition of cost-prohibitive emission controls, the mine supplying coal to the Plant would also close. Revenue and job losses of that magnitude would be cataclysmic. The ripples would grow exponentially and their impact on the Nation would be more akin to a tsunami. USEPA must factor the economic impacts of any proposed action into its BART analysis.

II. BART FACTORS ADDRESSED BY THE ANPR

In response to the ANPR's request for comments, the Nation takes this opportunity to express its serious concerns about both the methods used by USEPA to challenge the cost estimates of the Plants and inputs proposed to be used by USEPA to determine the degree of visibility improvement associated with the emission control technologies under consideration.

FACTUAL BACKGROUND/REGULATORY CONTEXT

The Navajo Nation acknowledges that FCPP and NGS emit significant amounts of pollutants that the CAA seeks to control. Plants like NGS and FCPP are the focus of BART proceedings precisely because they are large and aging. EPA recites that FCPP is the largest emitter of NO_x and NGS the fourth largest in the United States. However, these rankings are based on gross emissions measured in tons per year. A more meaningful ranking is achieved when emissions are considered in the context of the size of the Plants and the energy produced, measured in pounds per MMBtu. Using the same database relied upon by USEPA,²⁶ but taking into account the size of the Plants, NGS, for example, ranks number 167 out of 1,199 coal and natural gas plants, and drops below the top 10% of polluters. When compared to only coal-fired power plants, it ranks number 156 out of 414, or in the 38th percentile.²⁷

Further, coal-fired power plants are relatively small contributors to regional haze in the surrounding Class I Areas. The Grand Canyon Visibility Transport Commission ("GCVTC") studied the numerous sources of regional haze, including both man-made (stationary sources, mobile sources, area sources, dust from dirt roads and prescribed forest burns) and naturally occurring sources (Rayleigh scattering, smoke from wildfires, wind-blown dust and volcano eruptions). The Western Regional Air Partnership ("WRAP"), successor to the GCVTC, concluded that visibility impairment caused by PM and attributable to **all stationary sources** is probably

²⁶ EPA "Clean Air Markets – Data and Maps", available at <http://camddataandmaps.epa.gov/gdm/>

²⁷ These calculations were performed by NGS at the Nation's request.

less than 2%, and that stationary source NO_x emissions probably cause between 2 and 5 percent of the visibility impairment on the Colorado Plateau.²⁸

Finally, it is important to note that western states, in implementing the Regional Haze Rule, have largely rejected SCR technology due to its cost. For example, the Colorado State Legislature banned the consideration of SCR technology as BART for the control of NO_x emissions, even when presumptive emission limits established in the BART Guidelines would not be met.²⁹

The Nation recites these facts in support of its position that the BART component of the CAA and Regional Haze Rule was meant to provide for a measured response to emissions from aging power plants. Requiring the most expensive controls is inconsistent with the law and regulations governing the BART process, especially when, as discussed below, the incremental improvement attributable to such controls has not been analyzed. Further, requiring two power plants over which USEPA has exclusive jurisdiction to bear a greater regulatory burden than similarly situated plants regulated by the states is contrary to the purposes of the Act, the Regional Haze Rule, and to the economic interests of the Navajo Nation.

COST OF COMPLIANCE (Factor 1)

The cost analysis for the emission control options being considered as BART for the Plants is the most critical of the five factors used to determine BART. Only with accurate cost projections can USEPA determine the cost effectiveness of any control technology. The disparity between the projected costs presented by the Plants and by USEPA, with the assistance of the National Park Service (“NPS”), demonstrates the mischief that can be accomplished if the cost numbers relied upon are not substantiated to the greatest possible extent. The Nation is not fully satisfied with the cost analysis performed by the Plants or USEPA. The Nation’s concerns regarding the cost estimates submitted by the Plants stem

²⁸ See *Stationary Source No_x and PM Emissions in the WRAP Region: An Initial Assessment of Emissions, Controls, and Air Quality Impacts, Final Report of the WRAP Market Trading Forum* (October 1, 2003), available at: www.wrapair.org/forums/mtf/nox-pm.html.

²⁹ 5 CCR 1001-5, Reg. 3, Part E § IV(B) (“Electric Generating Units and Fossil Fuel Boilers do not need to consider post combustion controls for NO_x purposes in the BART analysis and **the Division may not require post combustion controls for NO_x purposes for Electric Generating Units** and Fossil Fuel Boilers (emphasis added.); See also, WRAP BART Status (December 12, 2009), available at: http://www.wrapair.org/forums/ssjf/documents/bart/2009-12_BART_Status_Document.pdf. The state of Oregon is taking a phased approach to PGE’s Boardman Plant, a 600 Mw facility. Initially Boardman will be required to install LNB and SOFA technology. In a second phase, Boardman will be required to install SCR technology in 2017. *Id.*

primarily from the lack of transparency in the cost projections. While the Nation understands that the Plants' cost projections are premised in part on proprietary information, failure to fully document projected costs makes it difficult for the Nation to independently assess the cost analyses prepared by the Plants. The concerns that Nation has with USEPA's cost analysis are set forth below. The Nation urges USEPA to retain an independent industry expert to analyze the costs associated with the retrofit control technologies being considered as BART for NGS and FCPP.

USEPA and NPS rely heavily on the *EPA Air Pollution Control Cost Manual* (6th Ed. 2001)³⁰ ("Manual") in their cost analyses, consequently, the Nation's comments on the cost of compliance analysis begin with an examination of the Manual. The latest version of the Manual was released in 2001. As the Memorandum accompanying the release of the Manual acknowledges, the latest revision contains "updated pricing information to at least 1990."³¹ Section 4.2 of the Manual, setting forth a cost-estimating methodology for SCR systems is presented in "1998 dollars."³² In meetings between the Nation and representatives of NGS and FCPP, both Plant operators expressed dismay at the reliance on such a clearly outdated source. The Nation shares this concern. Further, the Nation is of the opinion that the experts used by the Plants to develop their cost estimates likely have access to information about the design of the Plants and costs associated with retrofitting the Plants that is unavailable to USEPA/NPS, and that more accurately portrays the real world costs to be incurred by the Plants to install emission controls.

A second concern is that USEPA/NPS are not applying the Manual in a manner consistent with the BART Guidelines, which provide:

The basis for equipment cost estimates also should be documented either with data supplied by an equipment vendor (*i.e.* budget estimates or bids) or by a referenced source (such as the [Manual]). In order to maintain and improve consistency, cost estimates should be based on the [Manual], where possible. The [Manual] addresses most control technologies in sufficient detail for a BART analysis. The cost analysis should also take into account any site-specific design or other conditions identified above that affect the cost of a particular BART technology option.³³

³⁰ Formerly the OAQPS [EPA Office of Air Quality Planning and Standards] Control Cost Manual.

³¹ See Memorandum from Daniel Mussatti (Nov. 1, 2001) available at: <http://epa.gov/ttn/catc/products.html>.

³² Manual, Section 4.2, NO_x Post-Combustion at 2-40. Further, the Manual explains that the "costs and estimating methodology in this Manual are directed toward the 'study' estimate with a nominal accuracy of ± 30% percent." *Id.* at 2-3.

³³ BART Guidelines at Section IV(D)(4)(a)(5).

Clearly, the BART Guidelines anticipate both that sources other than the Manual may be used to establish costs, and that factors not fully addressed in the Manual, such as site-specific features, may be included in a cost of compliance analysis. In fact, USEPA confirmed this interpretation of the Manual in the preamble to the Federal Register notice published with the Guidelines:

We believe that the Control Cost Manual provides a good reference tool for cost calculations, but if there are elements or sources that are not addressed by the Control Cost Manual or there are additional cost methods that could be used, we believe that these could serve as useful supplemental information.³⁴

USEPA disallowed, and NPS excluded, costs that appear to fall within the purview of this provision of the Guidelines.

The Nation has the following specific concerns about the revisions to the Plants' cost analyses:

- 1) USEPA should accept the annual to capital cost ratios employed by each Plant. The ANPR does not offer adequate justification for USEPA's decision to use a cost ratio derived from other entities in neighboring states. After meeting with representatives of the Plants, the Nation is satisfied that the different ratios adopted by NGS and FCPP reflect differences in the Plants' business structures and should be retained unless USEPA provides additional support for its decision.
- 2) Similarly, USEPA does not offer adequate justification for the proposal to install a half SCR on NGS Unit 2. Without further technical review, the Nation is not convinced that a half SCR is a realistic option for NGS.
- 3) Finally, the Regional Haze Rule requires not only a determination of cost effectiveness, but also a consideration of incremental cost-effectiveness between the control technologies considered.³⁵ Given the great differences in costs projected by the Plants between combustion controls and SCRs, an incremental cost analysis should be performed. The preamble in the Federal Register notice publishing the revised Regional Haze Rule and BART Guidelines make this clear:

³⁴ FR Notice at 39127.

³⁵ BART Guidelines, Section IV(D)(4)(b) and (e).

[T]he guidelines continue to include both average and incremental costs. We continue to believe that both average and incremental costs provide information useful for making control determinations. However, we believe that these techniques should not be misused. For example, a source may be faced with a choice between two available control devices, control A and control B, where control B achieves slightly greater emission reductions. The average cost (total annual cost/total annual emission reductions) for each may be deemed to be reasonable. However the incremental cost (total annual cost_{A-B}/total annual emission reductions_{A-B}) of the additional emission reductions to be achieved by control B may be very great. In such an instance, it may be inappropriate to choose control B, based on its high incremental costs, even though its average cost may be considered reasonable.³⁶

The failure to include an incremental cost analysis in the ANPR may have been a result of the limited scope of the ANPR, and may not reflect a decision that an incremental analysis is not required. The Nation includes a discussion of incremental costs because of the importance an incremental cost effectiveness analysis is likely to have in the final BART determination.

VISIBILITY IMPROVEMENT (FACTOR 5)

The BART Guidelines provide that a source/state would be well served to seek approval from USEPA prior to engaging in modeling to determine visibility improvement.³⁷ The Nation has been informed that the operators of both NGS and FCPP not only sought, but secured USEPA approval, for their modeling protocols. Nevertheless, in the ANPR, USEPA/NPS have recalculated projected visibility improvement after changing important inputs to the models. The Nation has concerns both about the process used by USEPA in the rulemaking to date and about the following changes to inputs USEPA proposes for use in the CALPUFF visibility impact model:

1. Ammonia Background Levels. Ammonia is a precursor to particulate ammonium sulfate and ammonium nitrate, particles that degrade visibility and are referred to as secondary PM. There is very little available data on ammonia background levels at

³⁶FR Notice at 39127.

³⁷ "In developing your modeling protocol, you may want to consult with EPA and your regional planning organization (RPO). Upfront consultation will ensure that key technical issues are addressed before you conduct your modeling." BART Guidelines, Section III(A)(3).

- Four Corners Class I Areas, the exception being Mesa Verde. In conducting visibility improvement analyses, the Plants relied on ammonia background levels previously accepted by USEPA for the Four Corners region. USEPA proposes to substitute inputs in the CALPUFF model with inputs derived by back-calculating background ammonia from concentrations measured by the Interagency Monitoring of Protected Visual Environments (“IMPROVE”) monitoring network covering Class I Areas. USEPA does not adequately justify the use of this back-calculation method for deriving background ammonia levels. NGS proposed to install, and now has installed, monitors capable of recording background ammonia levels. While USEPA discouraged NGS from monitoring for background ammonia, the Nation supports the use of recorded data where possible and urges USEPA to make use of such data as it becomes available.
2. HCl and HF Emissions. The Plants both assumed that H₂SO₄ was the only contributor to condensable organic PM. NPS proposed that HCl and HF be added to this category of pollutants. USEPA took a different route, and included HCl and HF as modeling inputs to determine PM fine. The ANPR does not adequately justify the addition of these compounds as modeling inputs.
 3. SO₄ condensable inorganic PM (H₂SO₄). EPA and both the Plants relied on the H₂SO₄ calculation methodology provided by the Electric Power Research Institute (EPRI, 2008). However, there is a large discrepancy in the penetration factor USEPA and the Plants each assumed. Both Plants argue that the penetration factor used by USEPA is recommended for utilities burning low-sulfur eastern bituminous coal, and the penetration factor the Plants relied on is appropriate for the coal burned and conditions existing at the Plants. In March of 2009, USEPA requested NGS to perform H₂SO₄ emissions testing. Again, the Nation encourages USEPA to use recorded data where available. The inputs should be reviewed and the modeling results revised as necessary.

CONCLUSION

The Nation is of the opinion that a phased approach to emissions controls at the Plants, beginning with combustion controls, is fully consistent with both the CAA and the Regional Haze Rule. Comments submitted to USEPA to date express considerable disagreement about the interpretation of the data relied upon by both the Plants and USEPA. Many questions about the projected degree of visibility improvement turn on the models used and the inputs chosen

to reach these projections. Installing LNB and SOFA as a first step in a phased approach to BART for the Plants would:

- 1) Be consistent with the presumptive BART limits established in the BART Guidelines;
- 2) Result in a more clearly fact driven process, by allowing all interested parties to review *recorded*, not simply modeled, results at the next review phase.
- 3) Aid in the resolution of disputes over the costs to install the emission control options under consideration by providing the opportunity to review the actual costs incurred by the Plants to install LNB and SOFA, which NGS is already in the process of installing;
- 4) Provide a reasonable timeframe in which to resolve outstanding lease and right of way issues that affect the productive life of the Plants (Factor 4).

The Nation faces conflicting concerns as it considers the question of what level of emissions controls should be determined to be BART for the Plants. The Nation reached the position expressed in these comments only after carefully weighing these interests. While the Regional Haze Rule also entails a balancing of interests, the ANPR fails to consider the significant economic interests it implicates. We recognize that the ANPR is but a first step in this rulemaking process and that USEPA will offer its view of what constitutes BART for the Plants when the Proposed Rule is published. However, USEPA must consider the array of economic impacts any proposed regulatory action may have, not only on the Navajo Nation but on other tribes as well, and the weighing of those interests must be clearly reflected in the Proposed Rule.

The Nation appreciates the efforts that USEPA has taken thus far to comply with its trust obligation to consult with the Nation on matters that have the potential to affect the Nation's resources, including informing the Nation in advance of the publication of the ANPR. We look forward to a continued dialogue as USEPA moves forward with this rulemaking process.

THE NAVAJO NATION

/s/ signed on original

Joe Shirley, Jr.
President