



August 22, 2011

BY ELECTRONIC MAIL

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Re: Docket ID No. EPA-R09-OAR-2011-0130, Proposed Approval of Nevada Clean Air Act Regional Haze State Implementation Plan

Dear Mr. Webb:

WildEarth Guardians submits the following comments in response to the Environmental Protection Agency's ("EPA's") proposed approval of Nevada's State Implementation Plan ("SIP") implementing the Clean Air Act's regional haze program. *See* 76 Fed. Reg. 36450-36468 (June 22, 2011). We object to the proposed approval for the following reasons:

1. The BART Determination for Reid Gardner is Inconsistent with the Clean Air Act

We are concerned over the best available retrofit technology ("BART") determination for boilers 1-3 at the Reid Gardner coal-fired power plant. According to the proposed rule, BART for the boilers would be a sulfur dioxide ("SO₂") emission limit of 0.15 lb/mmBtu for all three boilers based on a 24-hour averaging period, a nitrogen oxide ("NO_x") emission limit of 0.20 lb/mmBtu for boilers 1 and 2 and 0.28 lb/mmBtu for boiler 3 based on a 12-month averaging period, and a particulate matter ("PM") limit of 0.015 lb/mmBtu based on a 3-hour averaging period. *See* 76 Fed. Reg. 36463. These limits are not supported by BART requirements under the Clean Air Act and EPA regulations implementing the regional haze program and further appear to be unenforceable as a practical matter. The EPA there cannot approve Nevada's proposed regional haze SIP.

To begin with, the SO₂ limits do not appear to represent the "degree of reduction achievable through the application of the best system of continuous emission reduction," taking into account various factors, including cost of compliance and energy, nonair quality impacts, and other factors. *See* 40 C.F.R. § 51.301 (setting forth definition of "best available retrofit

technology”). Notably, although the EPA has proposed to approve the proposed BART limit of 0.15 lb/mmbtu, it appears that Reid Gardner is already meeting emission limits that are less than half of this proposed limit. Indeed, according to Clean Air Markets data from the EPA, units 1-3 are meeting annual sulfur dioxide emission rates of between 0.054 and 0.064 lb/mmbtu and have for at least the last two years. *See* Exhibits 1 and 2, 2010 and 2009 Clean Air Markets Data for Reid Gardner Units; *see also* Table below. Furthermore, even Nevada recognizes that SO₂ emissions increases will occur as a result of its proposed BART. The State’s SIP submission indicates that SO₂ emissions will increase by 115 tons/year at unit 1, 390 tons/year at unit 2, and 333 tons/year at unit 3. Given that the power plant is already meeting SO₂ emission rates far below the proposed 0.15 lb/mmbtu limit, the EPA cannot reasonably conclude that an emission rate of 0.15 lb/mmbtu represents BART under the Clean Air Act. Fundamentally, BART must achieve emission reductions. Although the EPA is allowed to take into account various factors in determining BART, the Agency cannot use these factors to allow increases in emissions.

2009 Sulfur Dioxide Emissions from Reid Gardner Units 1-3

Unit	SO₂ Emissions (pounds/year)	Heat Input (mmbtu)	SO₂ Emission Rate (lb/mmbtu)
1	344,400	6,374,908	0.054
2	307,400	5,590,251	0.055
3	442,600	7,549,004	0.058

2010 Sulfur Dioxide Emissions from Reid Gardner Units 1-3

Unit	SO₂ Emissions (pounds/year)	Heat Input (mmbtu)	SO₂ Emission Rate (lb/mmbtu)
1	401,000	6,339,957	0.063
2	438,200	6,967,468	0.063
3	486,200	8,080,157	0.060

We are especially concerned because the Clean Air Markets data indicates that, on average over an entire year, units 1-3 are capable of meeting emission rates far below the proposed 0.15 lb/mmbtu. Although Nevada has proposed an emission rate based on a 24-hour rolling average, in effect this allows Reid Gardner to emit much more than what it is currently emitting.

Nevada seems to assert that SO₂ will be reduced on a cumulative basis, and therefore any increases at Reid Gardner will be acceptable. However, Nevada has not opted to propose a BART alternative in accordance with 40 C.F.R. § 51.308(e) and furthermore has provided no analysis showing that any claimed BART alternative will achieve greater reasonable progress toward natural visibility conditions in Class I areas. The Clean Air Act is clear that if an alternative to BART is adopted, that the alternative “must achieve greater reasonable progress than would be achieved through the installation and operation of BART.” 40 C.F.R. § 51.308(e)(2). Neither Nevada nor the EPA has provided any information indicating that Nevada’s BART alternative satisfies the requirements of 40 C.F.R. § 51.308.

We are also concerned that the proposed NO_x limits also do not represent BART. EPA has recently found that selective catalytic reduction (“SCR”) constituted BART for the San Juan Generating Station in New Mexico, a much larger coal-fired power plant, even taking into account the cost of compliance and nonair quality and energy impacts. *See* EPA, Approval and Promulgation of Implementation Plans; New Mexico; Federal Implementation Plan for Interstate Transport of Pollution Affecting Visibility and Best Available Retrofit Technology Determination, Final Rule, 76 Fed. Reg. 52388-52440 (Aug. 22, 2011). The Agency proposed a BART NO_x limit of 0.05 lb/mmBtu, far stronger than what Nevada has proposed and EPA has proposed to approve.

In this case, it does not appear as if EPA objectively assessed Nevada’s claims that SCR would be too costly or pose inordinate energy or nonair quality impacts. In fact, although EPA cites Nevada’s claims that there would be nonair quality impacts associated with the use of SCR, the Agency never actually undertakes any effort to verify these claims. Of significant concern is that although EPA cites Nevada’s claims of nonair quality impacts, there is no effort to weigh these impacts against the attendant air quality and visibility improvements that would result from the use of SCR. There is simply no evidence provided that any nonair quality impacts would outweigh the benefits of installing SCR in order to reduce haze forming pollution. It is noteworthy that EPA recently found that the energy and nonair quality impacts of SCR “do not present sufficient reason” to disqualify the technology from consideration as BART. 76 Fed. Reg. 501

Furthermore, with regards to cost-effectiveness, Nevada’s assessment of cost-effectiveness is grossly contrary to the Clean Air Act. In fact, it appears that Nevada simply chose the cheapest air pollution control scheme as BART, completely overlooking the fact that SCR achieved greater emission reductions and therefore achieved greater public health and welfare benefits. The Clean Air Act did not contemplate that a consideration of cost impacts lead to the adoption of the lowest common denominator. In this case, however, it appears that Nevada did just that. Instead of determining the best system of continuous emission reductions, the State simply adopted the cheapest way out. The EPA cannot approve such a BART determination as it fundamentally is at odds with the intent and plain language of the Clean Air Act’s BART requirements.

We are particularly concerned that Nevada assessed the cost-effectiveness of SCR based on an assumed limit of 0.07 lb/mmBtu. However, EPA recently finalized a BART determination for the San Juan Generating Station in New Mexico that established a limit of 0.05 lb/mmBtu based on the use of SCR. *See* 76 Fed. Reg. 52388. In proposing that rule, the EPA explicitly noted that the cost-effectiveness of meeting an emission rate of 0.05 lb/mmBtu was greater than meeting an emission rate of 0.07 lb/mmBtu. *See id.* at 502. EPA has not similarly undertaken any effort to assure that Nevada assessed the cost-effectiveness of SCR based on the actual technological capabilities of the control.

We are also concerned that Nevada’s cost-effectiveness analysis for SCR assumes that the cost of utilizing low NO_x burners with over-air fire will be a new expense. According to EPA’s Clean Air Markets data, however, the Reid Gardner power plant is already operating with low NO_x burners and over air fire. *See* Exhibit 3, EPA, Clean Air Markets Data for Reid

Gardner with Information on Air Pollution Controls. Even Nevada Energy touts Reid Gardner as having “special burners and an over-fire air system to reduce oxides of nitrogen emissions.” *See* Exhibit 4, Nevada Energy, Reid Gardner Fact Sheet. Thus, the cost of installing low NOx burners with over-air fire adds no cost to the current operation of the power plant. Accordingly, EPA cannot approve Nevada’s cost analysis as accurate or indicative of the actual cost of installing and operating SCR.

However, even assuming that Nevada’s cost assumptions regarding SCR are valid, it appears that there is no basis to conclude that such costs are not cost-effective. Indeed, in EPA’s recent adoption of BART limits for New Mexico’s San Juan Generating Station, the Agency found that the incremental cost-effectiveness of SCR ranged between \$1,691 and \$3,815/ton of NOx reduced, and that such costs were acceptable. *See* 76 Fed. Reg. 500-501. In this case, it appears that the incremental cost-effectiveness of SCR for Reid Gardner unit 1 is \$3,688/ton of NOx reduced, which falls within EPA’s acceptable range that was established through the San Juan Generating Station BART determination. However, given that the cost-effectiveness of SCR is likely much higher given that Nevada did not base its analysis on the actual capabilities of SCR, or on the actual costs of installing SCR in light of the fact that units 1-3 already have low NOx burners and over-air fire, it is likely that the cost of SCR for units 1 and 2 also fall within the EPA’s range of cost-effectiveness.

For the PM limits, we are concerned that the proposed BART determination is unenforceable because there are no monitoring, recordkeeping, or reporting requirements proposed that would actually ensure compliance with the 24-limits. There are simply no monitoring requirements proposed that would actually ensure that the PM limit is met on a continuous basis. This is contrary to the Clean Air Act, which defines BART based on continuous emission reductions.

We are also concerned with the timing for implementation of the proposed BART emission limits for Reid Gardner. According to the proposed rule, implementation would be required “...by January 1, 2015, or no later than five years after approval of Nevada’s RH SIP, whichever comes sooner.” 76 Fed. Reg. 36462. The Clean Air Act requires that BART be implemented “as expeditiously as practicable,” but “in no event later than five years after the date of approval of a plan revision[.]” 42 U.S.C. § 7491(g)(4). In this case, the EPA has not demonstrated that “by January 1, 2015” is as expeditiously as practical for complying with BART at Reid Gardner, nor shown that it is reasonable to allow the facility the full five years to come into compliance with BART. In fact, there is no assessment in the proposed rule as to how the EPA determined that the proposed compliance timeframe is consistent with the Clean Air Act. The EPA cannot blindly approve Nevada’s proposed compliance timeframe without assessing whether it is consistent with the Clean Air Act. In this case, there is no justification for the proposed five year compliance or 2015 compliance timeframe.

2. The Reasonable Progress Goals are not Supported by an Adequate Assessment under the Clean Air Act

We are concerned that the reasonable progress goals in the proposed SIP approval are not actually based on standards set forth by the Clean Air Act. As the EPA notes, states are required

to consider the “costs of compliance,” “the time necessary for compliance,” “the energy and non-air quality impacts of compliance,” and “the remaining useful life of any potentially affected sources” in assessing reasonable progress goals. 76 Fed. Reg. 36453. Unfortunately, in this case, it appears that EPA simply concluded that since Nevada demonstrated that it would meet the uniform rate of progress by 2018 in addressing visibility degradation in Class I areas (or at least the Jarbidge Wilderness Area), that reasonable progress goals would be met. The Agency then concluded that no additional controls were necessary.

However, this approach is fundamentally at odds with the Clean Air Act. Although the law certainly requires that the states and EPA at a minimum ensure that a uniform rate of progress in reducing haze be met, the law is clear that reasonable progress goals are based first and foremost on “costs of compliance,” “the time necessary for compliance,” “the energy and non-air quality impacts of compliance,” and “the remaining useful life of any potentially affected sources.” *See* 42 U.S.C. § 7491(g)(1). Thus, if based on these factors, the states or EPA determine that greater progress than the uniform rate of progress can be met, the Clean Air Act requires that such progress be met. It is important to point out that although the Clean Air Act establishes a goal of meeting natural background visibility conditions, nothing precludes more expeditious attainment of this goal. To this end, the Clean Air Act requires the EPA to base reasonable progress goals based on the factors set forth under Section 169A(g), not to base them on the bare minimum that is required to meet the uniform rate of progress.

We are particularly concerned that EPA has overlooked opportunities to further reduce haze forming pollution from sources in Nevada. In particular, based on the “costs of compliance,” “the time necessary for compliance,” “the energy and non-air quality impacts of compliance,” and “the remaining useful life of any potentially affected sources,” it is likely that EPA would identify additional opportunities to further reduce haze. One notable source may be Reid Gardner unit 4. Although this source is not subject-to-BART, given the “costs of compliance,” “the time necessary for compliance,” “the energy and non-air quality impacts of compliance,” and “the remaining useful life of any potentially affected sources,” it may be appropriate to require additional controls on this unit in order to meet reasonable progress goals under the Clean Air Act. Unfortunately, neither Nevada nor the EPA undertook such an assessment and therefore have no basis to conclude that the proposed reasonable progress goals are reasonable or in compliance with the Clean Air Act.

Given that Nevada’s reasonable progress goals are not based on the factors set forth under the Clean Air Act, the EPA cannot approve the proposed SIP. Unless and until the Agency assesses reasonable progress goals based on the factors set forth under the Clean Air Act, the Agency must disapprove Nevada’s submittal.

3. The Errors in the WRAP Modeling Indicate that Nevada’s URP and RP Goals are not Adequate Under the Clean Air Act

Adding to our concerns over the adequacy of the proposed reasonable progress goals, and in turn the uniform rate of progress goals, is that EPA discloses that the Western Regional Air Partnership (“WRAP”) modeling relied upon in support of its proposed approval of Nevada’s regional haze SIP is erroneous. *See* 76 Fed. Reg. 36464. The EPA states that as a result of the

error, “the projected visibility at Jarbidge in 2019 is 11.8 dv instead of 11.1 dv (rounded up from 11.05 dv).” *Id.* This seems to indicate that the baseline upon which Nevada and EPA assessed whether the proposed regional haze SIP would attain sufficient progress is erroneous. In reality, it appears that the progress claimed by Nevada will not be sufficient even to meet the uniform rate of progress. In fact, it appears that the uniform rate of progress may be wholly inaccurate.

EPA asserts that this error in the modeling is inconsequential. However, this does not seem to be the case. EPA also asserts that a revision to the proposed SIP is also not appropriate because of “the significant resources needed to model projected visibility impacts and the time needed for Nevada to repeat the SIP review and approval process[.]” 76 Fed. Reg. 36464. However, upon reading the Clean Air Act, we can find no authority that allows the Agency to avoid addressing significant concerns over the adequacy of a proposed SIP for these reasons. In fact, given that the EPA in 2009 found that Nevada had failed to submit a regional haze SIP in accordance with the Clean Air Act (*see* 74 Fed. Reg. 2392 (Jan. 15, 2009)), it would appear that in light of such an error, that the EPA has an affirmative duty to address such a deficiency through the promulgation of a federal implementation plan (“FIP”). The Agency cannot simply pawn off such errors and assert that Nevada lacks resources. In this case, the EPA is obligated by the Clean Air Act to promulgate either a full or partial FIP to address the modeling discrepancies and ensure that the Nevada regional haze plan is fully compliant with the Clean Air Act. If the EPA approves the proposed SIP even with the modeling discrepancies, the Agency will have abrogated its duty to ensure a legally adequate regional haze plan under the Clean Air Act.

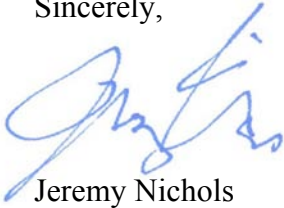
4. The EPA has not Shown that the Proposed SIP Revision Will not Interfere with Attainment and Maintenance of the NAAQS

The EPA is duty-bound to ensure the proposed SIP does not interfere with attainment and maintenance of the NAAQS, in accordance with section 110(l) of the Clean Air Act. Thus, the EPA must ensure that the proposed SIP adequately limits air pollution in order to safeguard public health.

In this case, we are concerned that in proposing to approve Nevada’s proposed regional haze plan that the EPA has not demonstrated that the proposal adequately safeguards the 2008 8-hour ozone National Ambient Air Quality Standards (“NAAQS”), the newly promulgated 1-hour nitrogen dioxide (“NO₂”) NAAQS, the 2006 PM_{2.5} NAAQS, the newly promulgated 24-hour PM_{2.5} increments for Class I areas, and the newly promulgated 1-hour SO₂ NAAQS. We are also concerned that any final rule will not sufficiently protect any revised ozone NAAQS that may be finalized by the EPA in the coming weeks. These revised NAAQS were initially proposed in early 2010. *See* 75 Fed. Reg. 2938-3052 (Jan. 19, 2010). We are particularly concerned with this oversight in regards to the proposed Reid Gardner BART determination, which will actually allow increased SO₂ emissions and only nominally reduce NO_x emissions.

Thank you for the opportunity to comment.

Sincerely,



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