



United States Department of the Interior



FISH AND WILDLIFE SERVICE

National Wildlife Refuge System

Branch of Air Quality

7333 W. Jefferson Ave., Suite 375

Lakewood, CO 80235-2017

IN REPLY REFER TO:

FWS/ANWS-AR-AQ

December 14, 2007

Dr. Ronald Hammerschmidt
Director, Division of Environment
Kansas Department of Health and Environment
1000 SW Jackson, Suite 400
Topeka, Kansas 66612-1366

Dear Dr. Hammerschmidt:

On November 1, 2007, the State of Kansas submitted a draft implementation plan describing its proposal to improve air quality regional haze impacts at mandatory Class I areas across its region. 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 our goal of natural visibility conditions at all of our most pristine National Parks and Wilderness Areas for future generations.

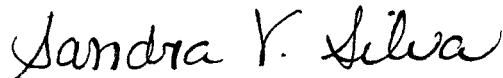
This letter acknowledges that the U.S. Department of the Interior, U.S. Fish and Wildlife Service, has received and conducted a substantive review of the State's proposed Regional Haze Rule implementation plan prepared in fulfillment of your requirements under the federal regulations 40 CFR 51.308(i)(2). Please note, however, that this correspondence does not make a determination regarding the document's completeness and, therefore, ability to receive federal approval from the Environmental Protection Agency.

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 Management agencies. The State of Kansas, in our opinion, has composed a document that is organized and well written, and most importantly is comprehensive in content. In addition, the document does an exemplary job of communicating and documenting the reasoning used to reach the various conclusions outlined in the state implementation plan, including the course of action the State of Kansas will take on the regional haze effort. In general, we are satisfied with the quality of the document, but we would like to offer a few comments specific to Best Available Retrofit Technology for you to consider. Please see the enclosed comments.

**TAKE PRIDE
IN AMERICA** 

Again, we appreciate the opportunity to work closely with the State of Kansas and compliment you and your staff on the hard work and dedication to significant improvement in our nation's air quality related values and visibility. For further information, please contact either me or Tim Allen at (303) 914-3801 and (303) 914-3802, respectively.

Sincerely,



Sandra V. Silva, Chief
Branch of Air Quality

Enclosure

cc:

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Enclosure

Comments of the US Fish & Wildlife Service (FWS) Regarding Kansas Best Available Retrofit Technology (BART) Submittals

The efforts on Best Available Retrofit Technology (BART) of the Kansas Department of Health and Environment (KDHE) and the companies involved are to be commended. The bottom-line results on visibility improvement due to deploying control technology are significant. Our comments are not meant in any way to minimize the significance of the reductions due to the agreed upon emission controls, but rather to suggest areas to maximize the benefits of the final products.

Six emission units in Kansas were determined to be subject to the BART requirements under the Regional Haze Rule. The emission units are as follows:

| Unit | Owned By |
|---|---|
| Jeffrey Energy Center Units 1 & 2 | Westar Energy (Westar) |
| Gordon Evans Energy Center Unit 2 | Westar Energy |
| La Cygne Generating Station Units 1 and 2 | Kansas City Power & Light (KCPL) |
| Nearman Unit 1 | Kansas City Board of Public Utilities (BPU) |

These three companies submitted BART determinations to the KDHE. The KDHE has developed a "Regional Haze Agreement" with each company that serves as a BART consent agreement. The BPU BART determination for the Nearman Unit 1 (Appendix 9.5) could not be located in the Kansas Regional Haze State Implementation Plan submittal. We understand from communications with the State that more information on this unit is forthcoming.

Our general observations are as follows:

1. The companies' BART determinations are generally well done, though they often lack detailed cost information.
2. The Regional Haze Agreements focus on emission limits that reflect the "presumptive" BART limits outlined in the EPA Guidelines for Best Available Retrofit Technology Determinations,¹ rather than the definitive technology chosen by the companies in their BART determinations that yield better than presumptive levels.

There are two issues relating to the second bullet above. First, KDHE states on page 45 of the Regional Haze State Implementation Plan (SIP) that, "In establishing BART, Kansas determined that technological and/or economic considerations may change sufficiently by the time controls are built and the imposition of an emission standard

¹ See 40 CFR Part 51, Appendix Y, Section IV.E.4. The U.S. Environmental Protection Agency finalized its BART Guidelines on June 15, 2005, and published the preamble and final rule text in the Federal Register on July 6, 2005. The rulemaking action added Appendix Y to Part 51, titled "Guidelines for BART Determinations Under the Regional Haze Rule." The section of the Appendix referenced above appeared in the Federal Register at 70 FR 39171, July 6, 2005.

based on a specific technology is infeasible.” Given that a source that is subject to BART has only five years after EPA approves the Regional Haze SIP to have BART controls operational,² it portends that specific controls be defined in the Regional Haze SIP and not at a later date. If there are extenuating circumstances such as having to concurrently comply with another SIP requirement (e.g., the Kansas City Ozone SIP), these contingencies should be discussed in detail. Reasonable Progress milestones in the Regional Haze SIP will likely be dependent on technologies that are actually deployed.

Second, use of “presumptive” emission limits in the Regional Haze Agreements does not bind the companies to deliver BART technology determined by a full statutory five-factor BART analysis.³ If the cost of control options that achieve adequate and responsible visibility improvement remains reasonable after presumptive BART is achieved, adequate and responsible visibility improvement should remain an active consideration before the BART analysis is concluded.

Specific comments on each of the BART determinations follow:

Westar Energy, Jeffrey Energy Center Units 1 and 2 (720MW Coal, 720MW Coal)

Westar’s BART determination commits to specific control technology that will meet the “presumptive” requirements of the BART guidelines; namely, low NO_x burner systems to control NO_x, rebuild of existing wet scrubbers to control SO₂ and an upgrade of the electrostatic precipitator to control PM₁₀. The KDHE “Regional Haze Agreement” with Westar references the presumptive limits established by 40 CFR 51 Appendix Y, but does not commit the company to follow through on deployment of the committed technologies. The Regional Haze Agreement references its own Appendix A, including specific “Proposed Controls”, but the Agreement still references only presumptive limits.

Westar assumed that the rebuild of the existing wet scrubbers for SO₂ control would generate a control efficiency of almost 83%, leading to a 0.15 lb/MMBtu emission rate, even though wet scrubbers have been shown to be up to 95% efficient. More definitive, authoritative information on control efficiency should be documented in the BART demonstration to show why higher control efficiencies cannot be realized. Demonstration of a higher efficiency could allow KDHE to use a lower emission limit to attain further reasonable progress in the Regional Haze SIP.

It would be desirable to have Westar’s BART determination include detailed cost information for the chosen control technologies, but it may not be necessary if the controls are the best available technologies as claimed. However, low NO_x burners alone are likely not the best available technology, so a cost analysis for the company’s NO_x BART determination is warranted.

² See 40 CFR Part 51, Appendix Y, Section I.E.3.

³ See 40 CFR Part 51, Appendix Y, Section I.E.2.

Westar Energy, Gordon Evans Energy Center Unit 2 (383 MW #6 Fuel Oil)

The initial choice of low NO_x burners (LNB) and 1% fuel oil as BART for NO_x control was abandoned when the fuel switching alternative of natural gas was selected. A cost analysis should be presented to show why LNB should not continue to be deployed along with the natural gas alternative.

Kansas City Power & Light, La Cygne Generating Station Units 1 and 2 (840 MW Cyclone Coal & 710 MW Opposed-Fired Coal)

The KCP&L BART determination does not select a specific technology for BART. It reserves for a later date selection of wet scrubbers or spray dryer absorbers (SDA) for SO₂ control; and SCR or combustion controls (to possibly accommodate the Kansas City Ozone SIP) for NO_x control. The KDHE Regional Haze Agreement with KCP&L references for SO₂ a 0.10 lb/MMBtu weighted average emission limit for Units 1 and 2 and for NO_x a 0.13 lb/MMBtu weighted average emission limit for Units 1 and 2. The FWS would prefer that specific controls be documented as BART as discussed above, but KDHE's use of better-than-presumptive emission limits is to be commended.

Kansas City Board of Public Utilities (BPU), Nearman Unit 1 (256 MW Coal)

As mentioned above, the BPU BART determination for the Nearman Unit 1 (Appendix 9.5) could not be located in the Kansas Regional Haze SIP submittal. The FWS would like the opportunity to review this document. Even though Nearman Unit 1 is not subject to presumptive BART control levels due to its 256 MW size, the KDHE Regional Haze Agreement with BPU sets emission limitations for SO₂ at 0.09 lb/MMBtu and for NO_x at 0.23 lb/MMBtu. This is an excellent commitment, but a specific technology commitment is still appropriate. The 0.09 lb/MMBtu SO₂ limit in the KDHE Regional Haze Agreement is based on the achievability of a semi-dry flue gas desulfurization technology, but Table 9.4 of the SIP allows a 0.15 lb/MMBtu SO₂ limit just because it is the "presumptive" level. These two numbers should be made consistent and both should be shown as 0.09 lb/MMBtu.