FILED

Nancy Vehr (#6-3341) Senior Assistant Attorney General 123 Capital Building Cheyenne, WY 82002 Telephone: (307) 777-6946 Facsimile: (307) 777-3542 JUL 3 0 2010

Jim Ruby, Executive Secretary
Environmental Quality Council

Attorney for the State of Wyoming, Department of Environmental Quality

## BEFORE THE ENVIRONMENTAL QUALITY COUNCIL STATE OF WYOMING

In the Matter of: Basin Electric Power Cooperative Air Quality Permit No. MD-6047 BART Permit: Laramie River Station	) ) )	Docket No. 10-2802	
AFFIDAVIT OF DARLA POTTER IN RESPONSE TO BASIN ELECTRIC'S MOTION FOR SUMMARY JUDGMENT			
STATE OF WYOMING ) ) ss.			
County of Laramie )			
7 D 1 D 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1		

- I, Darla Potter, being first duly sworn, deposes and says as follows:
- 1. I am over the age of 21 and am competent to make this affidavit.
- 2. The facts and matters stated herein are within my personal knowledge, and are true and correct.
- 3. I have a Bachelor of Science degree in Civil Engineering, which I received from the South Dakota School of Mines and Technology in 1992. I have a Masters of Science degree in Civil Engineering, which I received from the South Dakota School of Mines and Technology in 1993.

- 4. In 1993 and 1994 I worked for the South Dakota Department of Transportation in Pierre, South Dakota and Stone & Webster Engineering Corporation in Englewood, CO performing a wide variety of work activities.
- 5. In 1994 and continuing into 1996, I worked for United Power Association at the Stanton Station, a coal-fired electrical generating station, in Stanton, North Dakota as an Environmental Engineer. My primary job responsibilities included implementing requirements of Title IV of the Clean Air Act which is also referred to as the Acid Rain Program and administering all aspects of the air quality program to ensure compliance.
- 6. In 1996, I began working for the Wyoming Department of Environmental Quality, Air Quality Division (DEQ/AQD) as an Environmental Senior Analyst. I was promoted to the position of Environmental Program Principal in 1998. My job responsibilities during that time period included reviewing and assessing visibility and air quality related value monitoring data; preparing reasonably attributable visibility long term strategy reports; coordinating with federal agencies on National Environmental Policy Act (NEPA) planning and project specific actions; and conducting technical analyses for air quality permit applications. I also reviewed visibility analyses for major (Prevention of Significant Deterioration (PSD)) emitting facilities under the direction of the New Source Review (NSR) Program Manager.
- 7. In 2005, I was promoted to the position of Environmental Program Supervisor. I held that position until 2007. My job responsibilities during that time period included day-to-day management of the NEPA and Policy Coordination section

for the DEQ/AQD; directing the operational, personnel and planning functions of the section; coordinating and communicating with federal agencies on NEPA resource management and energy development project actions; monitoring and delegating work related to reviewing NEPA documents for technical accuracy resulting in preparing comments; supervise and train staff; and provide day-to-day staff assistance regarding technical issues and regulatory interpretations. My job responsibilities also included representing the DEQ/AQD in the Western Regional Air Partnership addressing fire effects on air quality and visibility to respond to the requirements of the Regional Haze Rule.

8. In 2007, I was promoted to the position of Natural Resources Program Supervisor. I held that position until June, 2010. My job responsibilities during that time period included day-to-day management of the PSD and minor source construction and modification permitting programs which is also referred to as New Source Review (NSR); assisting the program manager in directing the operational, personnel and planning functions of the NSR program; reviewing permit analyses for technical accuracy and ensuring that all applicable requirements, rules and regulations have been addressed; monitoring and delegating work related to processing applications within the regulatory time frame; meeting with applicants to discuss DEQ/AQD's interpretation of applicable regulations, policy and guidance; supervise and train staff; and provide day-to-day staff assistance regarding technical issues and regulatory interpretations. My job responsibilities also included conducting review of all PSD and Best Available Retrofit

Technology (BART) permit applications, technical analyses, public comments, decision documents and permit, correspondence and other documents; and making recommendations to or conferring with the NSR Program Manager.

- 9. On July 1, 2010, I was promoted to the position I currently have of Natural Resources Program Manager for the Air Quality Resource Management (AQRM) program, which includes the ambient and emission monitoring, air resource planning, and emission inventory/regional haze sections of the DEQ/AQD. My current job responsibilities include overall management of the AQRM program; directing the operational, personnel and planning functions of the AQRM program; regulation development activities; policy development activities; managing a staff of about 18; air quality assessment activities; emissions inventory and ambient monitoring information tracking activities; and making recommendations to the DEQ/AQD Administrator.
- 10. As part of my former job responsibilities as NSR Program Supervisor, I routinely reviewed PSD and BART permit applications, technical analyses, public comments, decision documents and permit, correspondence and other documents. In April 2007 and continuing through June 2010, I reviewed ten (10) PSD permits applications and associated documents and eight (8) BART permit applications and associated documents.
- 11. I participated in numerous meetings and telephone conferences, internal to DEQ/AQD and with the applicant, regarding Basin Electric's BART Permit Application AP-6047 for the Laramie River Station. I also reviewed Basin Electric's BART Permit

Application; the technical analysis initially completed by Cole Anderson and Josh Nall, for technical accuracy and ensuring that all applicable requirements had been addressed; public comments; the DEQ/AQD decision documents and permit; correspondence and other documents before I concurred with Chad Schlichtemeier to proceed forward toward permit issuance.

12. On September 8, 2008, the DEQ/AQD met with Basin Electric to discuss the DEQ/AQD preliminary BART determinations. Basin Electric corporate staff, including Lyle Witham, and Laramie River Station staff represented Basin Electric at this meeting. In preparation for the meeting, the Division had developed a comparison of the cost to install NOx control equipment as BART versus recent BACT determinations and charts showing the visibility improvement for BART control technologies based on information provided in the BART application. The comparison showed the average cost effectiveness (\$/ton) and incremental cost effectiveness (\$/ton) for installing low NOx burners (LNB), over-fire air (OFA) and selective catalytic reduction (SCR) on the Basin Electric BART eligible sources and recent BACT determinations, which required LNB/OFA/SCR as BACT, for new electric generating units (EGU). The Division also put together charts showing the visibility improvement on the affected Class I areas due to the installation of NOx controls. It should be noted that Basin Electric represented in their application LNB/OFA for all BART eligible units to meet the presumptive level of 0.23 lb/MMBtu as BART for NOx. I recall DEQ/AQD distributing the comparison and charts and reviewing the DEQ/AQD's preliminary analysis of the information Basin

Electric's BART analysis. True and correct copies of the charts distributed at the meeting are attached hereto as Ex. 8 and EPA's comments as Ex. 6.

13. During the September 8, 2008 meeting, the Division informed Basin Electric that the preliminary BART determination for the Basin Electric Laramie River Station units was LNB/OFA/SCR for all units. The DEQ/AQD's preliminary determination was established, on a case-by-case basis, taking into consideration (1) the costs of compliance, (2) the energy and non-air quality environmental impacts of compliance, (3) any pollution equipment in use or in existence at the source, (4) the remaining useful life of the source, and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology as required by 40 CFR 51 Appendix Y.

14. During this September 8, 2008 meeting, I recall Basin Electric discussing why it was not possible for them to install LNB/OFA/SCR during the BART period (5 years after EPA approval of SIP). The primary reasons given were their reliance on meeting the presumptive level of 0.23 lb/MMBtu as BART for NOx for approval given their power cooperative structure. Additional reasons given were costs, engineering constraints and not enough time to get cooperative approval for and install controls during the BART period. Given these issues and one of the factors in determining BART is cost of compliance, the Division discussed with Basin Electric the possibility of not

requiring SCR as BART at Laramie River Station Units 1-3 if Basin Electric would commit to install SCR as part the long term strategy (LTS).

15. In a subsequent meeting, the DEQ/AQD met with Basin Electric. I recall Basin Electric presenting a PowerPoint presentation on the Basin Electric power cooperative structure and the relation of the structure to Laramie River Station. I recall the presentation also focusing on a PowerSpan project at the Basin Electric Antelope

Valley Station in North Dakota and concerns that Basin Electric had in specifying an add-

on NOx control technology in light of potential greenhouse gas regulation.

16. I recall several meetings and telephone calls between September 2008 and May 2009 that focused on the DEQ/AQD discussing with Basin Electric BART and LTS. I specifically recall the DEQ/AQD discussing at length engineering options and constraints for LNB/OFA to meet a NOx emission rate lower than the presumptive level for BART in combination with LTS add-on NOx controls. I also recall the DEQ/AQD being willing to consider the timeframe for LTS add-on NOx controls in relation to the regional haze planning periods as well as discussions regarding the DEQ/AQD being

willing to specify the control level in lieu of the specific control technology for LTS add-

on NOx control.

17. I recall the DEQ/AQD and Basin Electric had several meetings and telephone calls discussing BART and LTS. From the first meeting, the Division always took the position that BART and LTS NOx controls were a package. Meaning, the Division accepted LNB/OFA for the Laramie River Station Units as representing BART

based on the fact that further time was necessary for NOx controls to be installed on two of the three units as part of LTS. It should also be noted that LTS for the third Laramie River Station unit was not included in the BART permit because the installation dates fell outside the second regional haze planning period (2023). This unit will be addressed in

future regional haze planning periods.

As discussions progressed between DEQ/AQD and Basin Electric, my 18. recollection was that Basin Electric agreed to New LNB/OFA at a NOx lb/hr emission rate lower than the lb/hr rate equivalent to the presumptive lb/MMBtu rate in combination with installation of LTS add-on NOx controls on two of three units by the end of the first and second regional haze planning periods. During some discussions, I recall Basin Electric expressing concern about being able to meet the 0.07 lb/MMBtu NOx emission level in the future with add-on NOx control. I do not recall Basin Electric ever expressing that they refused or would refuse to fold the 0.07 lb/MMBtu NOx emission level into the BART permit. In fact, my recollection is that Basin Electric agreed to the proposed BART and LTS package of first installing New LNB/OFA as BART and then installing add-on NOx controls for two of the three units as part of LTS by the last years of the first and second regional haze planning periods, 2018 and 2023 respectively. DEQ/AQD worked with Basin Electric very closely through this permitting process to develop a control strategy that meets the requirements of 40 CFR 51 Appendix Y and meets Basin Electric's objectives. I believe this control strategy was mutually agreed upon.

19. Condition 16 was developed without mandating a specific NOx control technology based on the installation dates for one unit in 2018 and a second unit 2023. New control technologies or regulations may dictate the type of controls that will be installed on these units. DEQ/AQD's understanding was that engineering would start approximately five (5) to six (6) years in advance of the compliance date. Therefore, Condition 16 was proposed to allow for the control technology to be determined during the permitting process, which was proposed to occur six (6) years prior to the compliance dates. Basin Electric submitted comments during the public comment period regarding Condition 16. The DEQ/AQD's decision noted that it would make Basin Electric's requested change to revise Condition 16 to change the time for submitting a permit application for additional add-on NO<sub>x</sub> control from six (6) years to two (2) years prior to installation. In developing the control level, the Division takes the position that if controls are installed they should be operated as designed. Meaning, if a control technology is designed to meet 90 percent control efficiency, the Division expects the control equipment to be operated and maintained to meet that level. The 0.07 lb/MMBtu was submitted by Basin Electric as the control level for LNB/OFA/SCR. This is also consistent with New Mexico's BART determination for Public Service Company of New Mexico San Juan Generating Station, Units 1-4, which SCR plus sorbent injection and an emission rate between 0.03 and 0.07 lb/MMbtu. State of Oregon DAO BART Report for the Boardman Power Plant recommended a NOx emission rate of 0.07 lb/MMBtu 30-day average for the 2017 SCR installation. The maximum emission rate of 0.07 lb/MMBtu was added to the condition reflecting the capabilities of SCR today. The condition also requires evaluation of the lowest viable NOx emission rate considering the LTS four (4) statutory factors plus visibility impacts. The Division worked closely with Basin Electric in developing Condition 16. I believe Condition 16 was mutually agreed upon. True and correct copies of Basin Electric's comments are attached hereto as Ex. 17 and the DEQ's Application Analysis as Ex. 13.

DATED this 27day of July, 2010.

Darla Potter

AQRM Program Manager – DEQ/AQD

State of Wyoming ) ss County of Laramie )

Subscribed and sworn before me by Darla Potter on this Tay day of July, 2010. Witness my hand and official seal.



Notary Public

My commission expires on: April 55, 2012