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BEFORE THE ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

In the Matter of the Appeal And Petition for Review of: BART Permit No. MD-6040 (Jim Bridger Power Plant); and BART Permit No. MD-6042 (Naughton Power Plant).	))))))	Docket No. 10-2801

AFFIDAVIT OF JAMES (JOSH) NALL IN RESPONSE TO PACIFICORP'S MOTION FOR PARTIAL SUMMARY JUDGMENT

STATE OF WYOMING)
) ss.
County of Laramie)

I, James (Josh) Nall, 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 Geophysics which I received from the University of Wyoming in 1984, and a Master of Science degree in Environmental Science which I received from the University of Colorado – Denver in 1999.

4. In 1986, I completed U.S. Air Force Officer Training School in San Antonio, Texas, and completed the Air Force's Basic Meteorology Program at Florida State University in the spring of 1987.

5. In 1987, I was assigned as a Weather Officer/Staff Meteorologist to the U.S. Air Force Weapons Laboratory (AFWL) at Kirtland Air Force Base in Albuquerque, New Mexico. My job responsibilities included sound propagation forecasting for the AFWL's testing of high-explosives, other technical support to the AFWL, and weather forecasting support and supervision at the base weather station.

6. In 1990 and continuing through October of 2006, I worked for environmental consulting firms, including positions with Applied Environmental Consultants in Arizona; and Ebasco, ENSR, Radian, and CH2M Hill in Colorado. My primary job responsibility in each position was conducting and directing dispersion modeling analyses, but also included the installation and maintenance of meteorological and ambient air quality monitoring stations, data processing, report writing, and project management.

7. In October 2006, I began work with the Wyoming Department of Environmental Quality, Air Quality Division (DEQ/AQD) with a job title of Environmental Scientist 1/Environmental Principal. My current job responsibilities include: organizing, directing, and reviewing air quality modeling analyses in support of the New Source Review (NSR) program, negotiating technical requirements necessary to protect air quality and to assure compliance with rules and regulations of the DEQ,

serving as project leader on projects requiring air dispersion modeling, including Best Available Retrofit Technology (BART) and Regional Haze modeling analyses; enhancing and maintaining the DEQ's databases and GIS capabilities; and updating permitting and modeling guidance.

8. In my experience, I have conducted or reviewed the dispersion modeling analyses for an estimated 50 Prevention of Significant Deterioration (PSD) permits. A PSD modeling analysis involves, in part, assessing and evaluating dispersion modeling results to determine the impact that a proposed project will have on existing air quality.

9. In my experience, I have reviewed or conducted the visibility modeling analyses for 15 BART Permits in Colorado and Wyoming. A BART visibility modeling analysis involves compiling the source emissions and stack parameters for each unit subject to BART for each BART control option and each visibility-impairing pollutant. Additionally, a three-dimensional windfield is developed to drive a long-range transport model (CALPUFF) for predictions of visibility impacts at Class I areas.

10. In my experience, I am familiar with air quality regulations governing PSD and BART modeling analyses, and EPA modeling guidance such as the Guideline on Air Quality Models.

11. In my experience, I am familiar with the CALPUFF modeling system, which is the current modeling system preferred by the U.S. EPA for conducting long-range transport modeling for Class I area and BART impacts. I have attended training courses sponsored by the CALPUFF system developer on two occasions. I have

reviewed or conducted CALPUFF modeling analyses for more than 25 PSD or BART permits.

12. My role in review of PacifiCorp's BART permit application for the Jim Bridger and Naughton power plants was to provide guidance to the applicant on methods acceptable to the EPA and the State for conducting Class I area visibility modeling, and then detailed review of the modeling files and documented results that were submitted by the applicant. I also documented my review of the modeling in the Division's permit application "analysis" (final report) and "decision document" (response to comments on draft permit). True and correct copies of the analysis and decision documents are attached hereto as Exs. 10 and 19.

13. I had involvement in early discussions with the Division (Ken Rairigh) on the modeling protocol for Wyoming's BART analyses while employed with CH2M Hill in the summer of 2006. My employment with the Division began in October of 2006, and my role as lead modeling reviewer commenced after the BART modeling protocol had been finalized.

14. My review of the BART modeling submitted by PacifiCorp included close examination of descriptions and summaries of PacifiCorp's analysis found in the permit application reports and close examination of submitted CALMET/CALPUFF files to determined if the modeling protocol had been followed, and that reported visibility modeling results were correct.

15. I attended several meetings with PacifiCorp and Division personnel regarding the BART submittals. I recall a meeting shortly after I made the transition to lead BART modeling reviewer at which errors in the CALPUFF post-processing were described to PacifiCorp, and revised reports were requested from PacifiCorp. I recall an internal meeting with Division personnel at which we discussed the need for modeling that isolated the effects of control on a single pollutant (especially SCR for NO_x). Initial submittals from PacifiCorp included modeling that was conducted for control scenarios that dealt with changes to controls on multiple pollutants. The Division requested that PacifiCorp conduct additional modeling that isolated the effects of SCR.

16. At a later meeting, summaries of modeling results (plots) that were to be incorporated into the Division's BART analyses were shown to PacifiCorp personnel. Little in the way of discussion of the BART modeling was held at most of the meetings with PacifiCorp because the modeling protocol had already been established and agreed upon and the results of the modeling did not seem to be in dispute.

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17. On or about January 2008, I received materials for PacifiCorp's BART modeling submittal, and started reviewing PacifiCorp's BART applications for the Jim Bridger and Naughton power plants.

DATED this 27th day of July, 2010.

James (Josh) Nall
Air Quality Meteorologist
Lead NSR Dispersion Modeler
DEQ/AQD

State of Wyoming)
) ss.
County of Laramie)

Subscribed and sworn before me by James (Josh) Nall on this 27th day of July, 2010.

Witness my hand and official seal.

KAYCEE K. McMULLIN - NOTARY PUBLIC
COUNTY OF LARAMIE STATE OF WYOMING
MY COMMISSION EXPIRES APR. 25, 2012

Notary Public

My commission expires on: April 25, 2012.