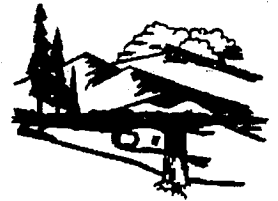


# **EXHIBIT 4**



# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

October 15, 2007

Mr. Jerry Menge  
Air Quality Program Coordinator  
Basin Electric Power Cooperative  
1717 East Interstate Avenue  
Bismarck, ND 58501

Permit No. CT-4631

Dear Mr. Menge:

The Division of Air Quality of the Wyoming Department of Environmental Quality has completed final review of Basin Electric Power Cooperative's application to construct a coal fired electric power generating station to be known as Dry Fork Station. The generating station will consist of one pulverized coal (PC) boiler rated at 385 MW (net) with associated material handling and auxiliary equipment and be located adjacent to the Dry Fork Mine on Highway 59, approximately 7 miles north northeast of Gillette, Campbell County, Wyoming.

Following this agency's proposed approval of the request as published February 26, 2007 and in accordance with Chapter 6, Section 2(m) of the Wyoming Air Quality Standards and Regulations, the public was afforded a 30 day period in which to submit comments concerning the proposed new source, and an opportunity for a public hearing. Public comments have been received and a public hearing on the proposal was held on June 28, 2007. On the basis of the information provided to us in the application and comments received during the public notice period and the public hearing, approval to construct Dry Fork Station as described in the application is hereby granted pursuant to Chapter 6, Section 2, Section 4, and Section 6 of the regulations with the following conditions:

1. Authorized representatives of the Division of Air Quality be given permission to enter and inspect any property, premise or place on or at which an air pollution source is located or is being constructed or installed for the purpose of investigating actual or potential sources of air pollution, and for determining compliance or non-compliance with any rules, regulations, standards, permits or orders.
2. All substantive commitments and descriptions set forth in the application for this permit, unless superseded by a specific condition of this permit, are incorporated herein by this reference and are enforceable as conditions of this permit.
3. As a major source, defined by Chapter 6, Section 3 (b)(xvii) of the WAQSR, Basin Electric shall file a complete application to obtain an operating permit within 12 months after commencing operations.
4. All notifications, reports and correspondence required by this permit shall be submitted to the Stationary Source Compliance Program Manager, Air Quality Division, 122 West 25th Street, Cheyenne, WY 82002 and a copy shall be submitted to the District Engineer, Air Quality Division, 1866 South Sheridan Avenue, Sheridan, WY 82801.



5. Owner or operator shall furnish the Administrator written notification of: (i) the anticipated date of initial startup not more than 60 days or less than 30 days prior to such date, and; (ii) the actual date of initial start-up within 15 days after such date in accordance with Chapter 6, Section 2(i) of the WAQSR.
6. The date of commencement of construction shall be reported to the Administrator within 30 days of such date. The permit shall become invalid if construction or modification is not commenced within 24 months of the date of permit issuance or if construction is discontinued for a period of 24 months or more in accordance with Chapter 6, Section 2(h) of the WAQSR. The Administrator may extend such time period(s) upon a satisfactory showing that an extension is justified.
7. Performance tests shall be conducted within 30 days of achieving maximum design rate but not later than 90 days following initial start-up in accordance with Chapter 6, Section 2(j) of the WAQSR. If maximum design production rate is not achieved within 90 days of start-up, the Administrator may require testing at the rate achieved and again when maximum rate is achieved.
8. Prior to any performance testing or monitor certification testing required by this permit, a test protocol shall be submitted to the Division for approval, at least 30 days prior to testing. Notification of the test date shall be provided to the Division fifteen (15) days prior to testing. Results of the tests shall be submitted to this office within 45 days of completing.
9. Emission rates shall not exceed levels in the following tables. The lb/MMBtu, lb/hr and tpy emission limits apply at all times including periods of startup and shutdown.

**PC Boiler (ES1-01) Allowable Emissions**

Pollutant	lb/MMBtu	lb/MW-hr	lb/hr	tpy
NO <sub>x</sub>	0.05 (12 month rolling)	1.0 (30-day rolling) <sup>1</sup>	190.1 (30-day rolling)	832.4
SO <sub>2</sub>	0.070 (12 month rolling)	1.4 (30-day rolling) <sup>1</sup>	380.1 (3-hr block) 285.1 (30-day rolling)	1165.4
PM/PM <sub>10</sub>	0.012 <sup>2</sup>	—	45.6	199.8
CO	0.15	—	570.2 (30-day rolling)	2497
Hg	—	97×10 <sup>-6</sup> (12 month rolling) <sup>1</sup>	—	0.16
H <sub>2</sub> SO <sub>4</sub>	0.0025	—	9.5	41.6
HF	—	—	2.62	11.5
VOC	0.0037	—	14.1	61.6
NH <sub>3</sub>	—	—	10 ppm <sub>v</sub> <sup>3</sup> , 19.6 lb/hr	85.8

<sup>1</sup> NSPS Subpart Da Limit

<sup>2</sup> Filterable PM/PM<sub>10</sub>

<sup>3</sup> Dry Basis, 3% O<sub>2</sub>

**Auxiliary Boiler and Inlet Gas Heater Allowable Emissions**

Unit No.	Emission Unit	NO <sub>x</sub> (lb/MMBtu)	NO <sub>x</sub> (lb/hr)	NO <sub>x</sub> (tpy)	CO (lb/MMBtu)	CO (lb/hr)	CO (tpy)
ES1-02	134 MMBtu/hr Auxiliary Boiler <sup>1</sup>	0.04	5.4	5.4	0.08	10.7	10.7
ES1-06	8.36 MMBtu/hr Inlet Gas Heater <sup>2</sup>	0.1	0.8	1.0	0.08	0.7	0.8

<sup>1</sup> Annual emissions based on 2,000 hours.

<sup>2</sup> Annual emissions based on 2,500 hours.

**Material Handling PM/PM<sub>10</sub> Allowable Emissions**

Unit No.	Emission Unit	gr/dscf	lb/hr	tpy
ES1-07	Coal Storage Silo 1 Dust Collector (13,704 dscfm)	0.005	0.6	2.6
ES1-08	Coal Storage Silo 2 Dust Collector (13,704 dscfm)	0.005	0.6	2.6
ES1-09	Coal Storage Silo 3 Dust Collector (8,849 dscfm)	0.005	0.4	1.7
ES1-10	Coal Crusher House Dust Collector (25,216 dscfm)	0.005	1.1	4.7
ES1-11	Plant Coal Silo Transfer Bay Dust Collector (27,408 dscfm)	0.005	1.2	5.1
ES1-12	Pebble Lime Receiving Silo Bin Vent Filter (728 dscfm)	0.005	0.03	0.1
ES1-13	Pebble Lime Day Silo Bin Vent Filter (1,001 dscfm)	0.005	0.04	0.2
ES1-14	Lime Hydrator Mixer Dust Collector No. 1 (4,698 dscfm)	0.005	0.2	0.9
ES1-15	Lime Hydrator Mixer Dust Collector No. 2 (4,698 dscfm)	0.005	0.2	0.9
ES1-16	Hydrated Lime Dust Collector No. 1 (16,380 dscfm)	0.005	0.7	3.1
ES1-17	Hydrated Lime Dust Collector No. 2 (16,380 dscfm)	0.005	0.7	3.1
ES1-18	Hydrated Lime Silo 1 Bin Vent Filter (1,729 dscfm)	0.005	0.07	0.3
ES1-19	Hydrated Lime Silo 1 Bin Vent Filter (1,729 dscfm)	0.005	0.07	0.3
ES1-20	Activated Carbon Silo Bin Vent Filter (728 dscfm)	0.005	0.03	0.1
ES1-22	Fly Ash/FGD Waste Silo Separator/Filter Exhaust (1,092 dscfm)	0.005	0.05	0.2
ES1-22	Fly Ash/FGD Waste Silo Bin Vent Filter (1,138 dscfm)	0.005	0.05	0.2

10. Mercury emissions from the PC Boiler shall be addressed as follows:

- A) A one year mercury optimization study shall be performed at this facility with a target emission rate of no more than  $20 \times 10^{-6}$  lb/MW-hr, 12 month rolling average. A protocol for the study shall be submitted the Division for review and approval prior to commencement of the study. The protocol shall include a description of control technique(s) to be employed including type of sorbent, if applicable, and proposed operational parameters (e.g. carbon injection rate), test methods, and procedures. The optimization study shall commence no later than 90 days after initial startup. The results of the study shall be submitted to the Division within 30 days of completion of the study.
- B) A mercury control system shall be installed and operated at this facility within 90 days of initial startup. This permit will be reopened to revise the mercury limit in condition 9 and/or add operational parameters to this condition based on the results of the mercury optimization study.

11. Opacity shall be limited as follows:
- A) Visible emissions from the PC boiler (ES1-01) shall be limited to 20% opacity (6-minute average) except for one 6-minute period per hour of not more than 27 percent opacity in accordance with NSPS, Subpart Da, 40 CFR 60.42Da(b).
  - B) Coal conveyors shall be operated and maintained such that the conveyor enclosures and transfer points exhibit no visible emissions in accordance with 40 CFR part 60, Appendix A, Method 22.
  - C) Opacity shall be limited to less than 20% from all coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems in accordance with NSPS, Subpart Y, 40 CFR 60.252(c) as determined by 40 CFR Part 60, Appendix A, Method 9.
  - D) Opacity from any other source of emissions at this facility shall be limited to 20% opacity in accordance with WAQSR, Chapter 3, Section 2(a) as determined by 40 CFR Part 60, Appendix A, Method 9.
12. Initial performance tests, required by Condition 7 of this permit, shall consist of the following:

PC Boiler (ES1-01):

- A) NO<sub>x</sub> - 30 day rolling average - Initial testing and compliance determination shall follow 40 CFR 60.48Da, 60.49Da, and 60.50Da.
- B) SO<sub>2</sub> - EPA Method 6C or equivalent EPA Reference Methods shall be used to determine initial compliance with the SO<sub>2</sub> 3 hour emission limit. Tests shall consist of 3 runs of 3 hours each.
- C) SO<sub>2</sub> - 30 day rolling average/Percent Reduction Requirements - Initial testing and compliance determination shall follow 40 CFR 60.48Da, 60.49Da, and 60.50Da.
- D) PM/PM<sub>10</sub> - Testing shall follow 40 CFR 60.50Da to determine initial compliance with the lb/MMBtu limit established in this permit.
- E) Opacity - EPA Method 9 and the procedures in WAQSR, Chapter 5, Section 2(i) shall be used to determine initial compliance with opacity limits in this permit.
- F) CO - 30 day rolling average using certified CEM
- G) PC Boiler exhaust shall be tested at the PC Boiler Stack to determine total fluoride emissions following EPA Method 13A, 13B, or equivalent EPA Reference Methods. Results of the tests shall be reported in units of lb/hr.
- H) PC Boiler stack shall be tested to determine sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) emissions following EPA Method 8 or equivalent EPA Reference Methods. Results of the tests

shall be reported in units of lb/hr. Sulfur dioxide (SO<sub>2</sub>) emission rates shall be determined during the H<sub>2</sub>SO<sub>4</sub> tests and reported.

Auxiliary Boiler (ES1-02) and Inlet Gas Heater (ES1-06):

- A) NO<sub>x</sub> - Three 1-hour tests following EPA Reference Methods shall be employed to determine initial compliance with the lb/MMBtu and lb/hr NO<sub>x</sub> emission limits established by this permit.
- B) CO - Three 1 hour tests following EPA Reference Methods shall be employed to determine initial compliance with the lb/MMBtu and lb/hr CO emission limits established by this permit.

Material Handling:

- A) PM/PM<sub>10</sub> - Three 1 hour tests following EPA Methods 1-5, front half only, shall be employed to determine initial compliance with the particulate emission limits established by this permit.
- B) Opacity - Testing for emission units not subject to 40 CFR 60, Subpart Y shall be conducted in accordance with WAQSR Chapter 6, Section 2(j) and shall consist of three (3) 6-minute averages of the opacity as determined by Method 9 of 40 CFR 60, Appendix A.

Testing for emission units subject to Subpart Y shall follow the requirements of Chapter 5, Section 2(i) of the WAQSR.

13. The following testing shall be performed in accordance with Conditions 7 and 8:

- A) PC Boiler Stack shall be tested to determine NH<sub>3</sub> emissions following EPA Conditional Test Method 27 (CTM-027) or equivalent methods. Results of the tests shall be reported in units of lb/hr and ppm<sub>v</sub> on a dry basis corrected to 3 percent O<sub>2</sub>.
- B) PC Boiler exhaust shall be tested at the PC Boiler Stack to determine hydrogen chloride emissions following EPA Method 26 or equivalent methods. Results of the tests shall be reported in units of lb/hr.
- C) PC Boiler exhaust shall be tested at the PC Boiler Stack to determine emissions of metals (antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, nickel, and selenium) using EPA Method 29 or equivalent methods. Results of the tests shall be reported in units of lb/hr.
- D) PC Boiler exhaust shall be tested at the PC Boiler Stack to determine condensable particulate matter emissions with three 1 hour tests following EPA Reference Method 202. Results of the tests shall be reported in units of lb/hr.

14. Within 90 days of initial startup, the following in-stack continuous emission monitoring (CEM) equipment shall be used on the PC Boiler stack to demonstrate continuous compliance with the emission limits set forth in this permit:
- A) Basin Electric shall install, calibrate, operate, and maintain a monitoring system, and record the output, for measuring NO<sub>x</sub> emissions discharged to the atmosphere in units of lb/MW-hr, lb/MMBtu and lb/hr. The NO<sub>x</sub> monitoring system shall consist of the following:
    - i) A continuous emission NO<sub>x</sub> monitor located in the PC boiler stack.
    - ii) A continuous flow monitoring system for measuring the flow of exhaust gases discharged into the atmosphere.
    - iii) A watt meter to measure gross electrical output in megawatt-hours on a continuous basis.
    - iv) An in-stack oxygen or carbon dioxide monitor for measuring oxygen or carbon dioxide content of the flue gas at the location NO<sub>x</sub> emissions are monitored.
  - B) Basin Electric shall install, calibrate, operate, and maintain a SO<sub>2</sub> monitoring system, and record the output, for measuring emissions discharged to the atmosphere in units of lb/MMBtu and lb/hr. The SO<sub>2</sub> monitoring system shall consist of the following:
    - i) A continuous emission SO<sub>2</sub> monitor located in the PC boiler stack.
    - ii) A continuous flow monitoring system for measuring the flow of exhaust gases discharged into the atmosphere.
    - iii) An in-stack oxygen or carbon dioxide monitor for measuring oxygen or carbon dioxide content of the flue gas at the location SO<sub>2</sub> emissions are monitored.
  - C) Basin Electric shall install, calibrate, operate, and maintain a CO monitoring system, and record the output, for measuring emissions discharged to the atmosphere in units of lb/hr. The CO monitoring system shall consist of the following:
    - i) A continuous emission CO monitor located in the PC boiler stack.
    - ii) A continuous flow monitoring system for measuring the flow of exhaust gases discharged into the atmosphere.
    - iii) An in-stack oxygen or carbon dioxide monitor for measuring oxygen or carbon dioxide content of the flue gas at the location CO emissions are monitored.
  - D) Basin Electric shall install, calibrate, operate, and maintain a mercury CEM in accordance with 40 CFR 60 Subpart Da, and record the output, for measuring emissions discharged to the atmosphere in units of lb/MW-hr and lb/hr. As an alternative, Basin Electric may

use a sorbent trap monitoring in accordance with 40 CFR 60 Subpart Da and record emissions discharged to the atmosphere in units of lb/MW-hr and lb/hr.

- E) Basin Electric shall install, calibrate, operate, and maintain a monitoring system, and record the output, for measuring the opacity of the emissions discharged to the atmosphere.
- F) Each continuous monitor system listed in this condition shall comply with the following:
  - i) NSPS Subpart Da, Standards of Performance for Electric Utility Steam Generating Units (40 CFR 60.49Da).
  - ii) Monitoring requirements of WAQSR, Chapter 5, Section 2(j) including the following:
    - a) 40 CFR 60, Appendix B, Performance Specification 1 for opacity, Performance Specification 2 for NO<sub>x</sub> and SO<sub>2</sub>, Performance Specification 3 for O<sub>2</sub> or CO<sub>2</sub>, Performance Specification 4 for CO and Performance Specification 12 for mercury. The monitoring systems must demonstrate linearity in accordance with Division requirements and be certified in both concentration (ppm<sub>v</sub>) and units of the standard (lb/MMBtu, lb/MW-hr and lb/hr).
    - b) Quality Assurance requirements of 40 CFR 60, Appendix F.
    - c) Basin Electric shall develop and submit for the Division's approval a Quality Assurance plan for the monitoring systems listed in this condition within 90 days of initial startup.

15. Following the initial performance tests, compliance with the NO<sub>x</sub>, SO<sub>2</sub>, CO (lb/hr), Hg, and opacity limits for the PC Boiler set forth in this permit shall be determined with data from the continuous monitoring systems required by Condition 14 of this permit as follows:

- A) Exceedances of the limits shall be defined as follows:
  - i) Any 12 month rolling average which exceeds the lb/MMBtu NO<sub>x</sub> or SO<sub>2</sub> limits as calculated using the following formula:

$$E_{avg} = \frac{\sum_{h=1}^n (C)_h}{n}$$

Where:

C = 1-hour average emission rate (lb/MMBtu) for hour "h" calculated using valid data from the CEM equipment required in Condition 14 and the procedures in 40 CFR 60, Appendix A, Method 19. Valid data shall meet the requirements of WAQSR, Chapter 5, Section 2(j).



$E_{avg}$  = Weighted 12 month rolling average emission rate (lb/MMBtu)  
 $n$  = The number of unit operating hours in the 12 month period with valid emissions data meeting the requirements of WAQSR, Chapter 5, Section 2(j).

- ii) Any 30-day rolling average which exceeds the lb/MW-hr NO<sub>x</sub> or SO<sub>2</sub> limits calculated in accordance 40 CFR 60.48Da, 60.49Da, and 60.50Da.
  - iii) Any 30-day rolling average calculated using valid data (output concentration and average hourly volumetric flowrate) from the CEM equipment required in Condition 14 which exceeds the lb/hr NO<sub>x</sub>, SO<sub>2</sub>, or CO limits established in this permit. Valid data shall meet the requirements of WAQSR, Chapter 5, Section 2(j). The 30-day average emission rate shall be calculated at the end of each boiler operating day (as defined in 40 CFR 60.41Da) as the arithmetic average of hourly emissions with valid data during the previous 30-day period.
  - iv) Any 3-hour block average of SO<sub>2</sub> calculated using valid data (output concentration and average hourly volumetric flowrate) from the CEM equipment required in Condition 14 which exceeds the lb/hr limit established in this permit. Valid data shall meet the requirements of WAQSR, Chapter 5, Section 2(j). The 3-hour average emission rate shall be calculated at the end of each 3-hour operating block as the arithmetic average of hourly emissions with valid data during the previous three operating hours.
  - v) Any 12 month rolling average of mercury (Hg) emissions which exceeds the lb/MW-hr limit calculated in accordance 40 CFR Part 60, Subpart Da.
  - vi) Any 6-minute average opacity, except for one 6-minute period per hour of not more than 27 percent opacity, in excess of 20 percent in accordance with 40 CFR 60.42Da(b).
- B) Basin Electric shall comply with all reporting and record keeping requirements as specified in WAQSR Chapter 5, Section 2(g) and 40 CFR Part 60, Subpart Da. All excess emissions shall be reported using the procedures and reporting format specified in WAQSR Chapter 5, Section 2(g). In addition, reporting and record keeping requirements for the 30-day rolling lb/MW-hr NO<sub>x</sub> and SO<sub>2</sub> limits, the 12 month rolling Hg limit, and the opacity limit shall follow the requirements in 40 CFR 60.51Da and 60.52Da.
16. Basin Electric shall comply with the following maintenance and inspection requirements for the coal conveyors:
- A) Daily inspections shall be conducted at each of the coal conveyor enclosures and transfer points. Basin Electric shall utilize a daily check form to document daily inspections. A representative form shall be submitted to and approved by the Division prior to utilization. Upon approval, the form will be incorporated as part of the permit. The form may be revised without administratively amending the applicable permit, but revisions shall be approved by the Division prior to implementation.


- B) Basin Electric shall institute a monthly preventative maintenance plan for each of the coal conveyor enclosures. A representative plan shall be submitted to and approved by the Division prior to utilization. Upon approval, the plan will be incorporated as part of the permit. The monthly preventative maintenance plan may be revised without administratively amending the applicable permit, but revisions shall be approved by the Division prior to implementation.
17. Basin Electric shall comply with all applicable requirements of 40 CFR 60 Subpart Da for the PC Boiler.
18. Basin Electric shall comply with all applicable requirements of 40 CFR 60 Subpart Y for all coal processing and conveying equipment, coal storage systems, and coal transfer and loading systems.
19. Basin Electric shall comply with all applicable requirements of 40 CFR 63, Subpart ZZZZ for the 2377 hp diesel emergency generator.
20. Basin Electric shall comply with all applicable requirements of 40 CFR 63, Subpart DDDDD for the 8.36 MMBtu/hr Inlet Gas Heater and 134 MMBtu/hr Auxiliary Boiler.
21. The 2377 hp diesel emergency generator and 360 hp diesel fire pump shall comply with the following:
- A) The emergency generator and fire pump shall be certified to meet U.S. EPA Tier II emission standards. Records of the certification shall be maintained and made available to the Division upon request.
- B) The emergency generator and fire pump shall each be limited to 500 hours of operation per year. Records documenting the annual operating hours shall be maintained and made available to the Division upon request.
22. Basin Electric shall use a wet handling system for ash/FGD waste load-out. The moisture content of the ash/FGD waste shall be maintained at a high enough concentration to prevent visible emissions from the haul trucks transporting the ash/FGD waste to the landfill. Basin Electric shall record and maintain records of the quantity of water supplied to the wet handling system and the quantity of ash/FGD waste loaded each calendar month. At the end of each calendar month, Basin Electric shall calculate the moisture content of the ash/FGD waste by dividing the mass of water used by the mass of ash/FGD waste and water combined. Ash/FGD waste shall be entirely enclosed in the haul trucks whenever the wet handling system is not operating. Basin Electric shall maintain records of dates that the wet handling system is not operating and whether or not haul trucks are covered.
23. Unpaved haul roads will be treated with suitable chemical dust suppressants in addition to water to control fugitive dust emissions. All treated roads will be maintained on a continuous basis to the extent that the surface treatment remains viable as a control measure.

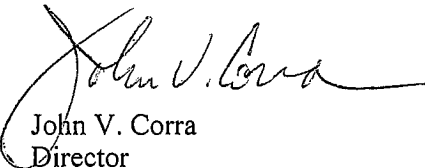
24. Basin Electric shall comply with acid rain program regulations in WAQSR, Chapter 11, Section 2.
25. Records required by any applicable regulation or permit condition shall be maintained for a minimum period of five (5) years and shall be readily accessible to Division representatives.

It must be noted that this approval does not relieve you of your obligation to comply with all applicable county, state, and federal standards, regulations or ordinances. Special attention must be given to Chapter 6, Section 2 of the Wyoming Air Quality Standards and Regulations, which details the requirements for compliance with conditions 3, 5, 6 and 7. Any appeal of this permit as a final action of the Department must be made to the Environmental Quality Council within sixty (60) days of permit issuance per Section 16, Chapter I, General Rules of Practice and Procedure, Department of Environmental Quality.

If we may be of further assistance to you, please feel free to contact this office.

Sincerely,

  
David A. Binley  
Administrator  
Air Quality Division

  
John V. Corra  
Director  
Dept. of Environmental Quality

cc: Mike Warren

# **EXHIBIT 5**

James S. Angell (WY Bar # 6-4086)  
Robin Cooley  
Andrea Zaccardi  
Earthjustice  
1400 Glenarm Place, #300  
Denver, CO 80202  
Phone: (303) 623-9466  
Fax: (303) 623-8083

Attorneys for Protestants

BEFORE THE ENVIRONMENTAL QUALITY COUNCIL  
OF THE STATE OF WYOMING

IN THE MATTER OF:	)	
BASIN ELECTRIC POWER COOPERATIVE,	)	PROTEST AND PETITION
DRY FORK STATION,	)	FOR HEARING
AIR PERMIT CT-4631	)	
_____	)	

Pursuant to the Department of Environmental Quality’s General Rules of Practice and Procedure, Chapter 1, Sections 3 and 16, Sierra Club, Powder River Basin Resource Council, and Wyoming Outdoor Council protest the Director’s approval of Basin Electric Power Cooperative’s Air Permit CT-4631 for the Dry Fork Station and request a hearing before the Environmental Quality Council (“Council”). Because Basin Electric has already begun surveying and constructing the Dry Fork Station, Protestants request an expedited hearing. This protest is timely filed within 60 days of the Director’s issuance of the permit pursuant to Section 16(a).

**PROTESTANTS**

Sierra Club  
45 E. Loucks, Suite 109  
Sheridan, WY 82801

Powder River Basin Resource Council  
934 North Main  
Sheridan, WY 82801

Wyoming Outdoor Council  
262 Lincoln St.  
Lander, WY 82520

## STATEMENT OF FACTS

### I. The Dry Fork Station

1. On October 15, 2007, the Director of the Wyoming Department of Environmental Quality (“WYDEQ”) and Administrator of the Air Quality Division approved Basin Electric Power Cooperative’s (“Basin Electric”) application to construct a coal-fired electric power generating station to be known as the Dry Fork Station by issuing Air Quality Permit CT-4631 (“Permit”).

2. The Dry Fork Station will consist of a 385 megawatt (MW) net subcritical pulverized coal (PC) furnace, boiler, turbine, and condenser; a coal unloading, storage, and handling system; air pollution control equipment; a solid waste disposal system; and a water supply, treatment and discharge system. It will be located adjacent to the Dry Fork Mine, approximately 7 miles north of Gillette, Wyoming.

3. According to the Draft Environmental Impact Statement (“DEIS”) prepared by the U.S. Department of Agriculture, Rural Utility Service (“RUS”), the Dry Fork Station has the potential to emit 3.7 million tons of carbon dioxide (CO<sub>2</sub>), 25.3 tons of methane, and 58.1 tons of nitrous oxide per year. These are all greenhouse gases that contribute to global warming.

4. WYDEQ’s Permit authorizes the Dry Fork Station to emit from the PC boiler more than 832 tons of nitrogen oxides (NO<sub>x</sub>), 1,165 tons of sulfur dioxide (SO<sub>2</sub>), 199 tons of particulate matter (PM/PM<sub>10</sub>), 2,497 tons of carbon monoxide (CO), 320 pounds of mercury (Hg), 41 tons of sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>), 11 tons of fluorides (HF), 61 tons of volatile organic compounds (“VOCs”), and 85 tons of ammonia per year.

## **II. Environmental Impacts from Dry Fork Station.**

5. Dry Fork Station will contribute millions of tons of greenhouse gases to the atmosphere each year, contributing to global warming. Reports from the Intergovernmental Panel on Climate Change (“IPCC”) and numerous other scientific studies “unequivocally” confirm that global warming is occurring and humans are contributing to global warming in a significant way. Coal-fired power plants are one of the largest sources of CO<sub>2</sub> emissions and therefore one of the primary contributors to global warming. Global warming will have serious environmental, health, economic and ecological impacts including increased drought and flooding, extreme weather events, spread of infectious disease and pests, and species extinctions.

6. Other emissions from the Dry Fork Station will contribute to increased health risk in the Gillette area, especially for the young, elderly, and those with asthma or heart or lung disease. For example, the Dry Fork Station will emit significant amounts of particulate matter (“PM”) and precursors to PM. Inhalation of PM<sub>10</sub> and PM<sub>2.5</sub> has been linked to aggravated asthma, chronic bronchitis, heart attacks, and premature death in people with heart or lung disease. Coal mining already contributes significant amounts of particulate matter to the Gillette region. PM<sub>10</sub> standards were exceeded in 2002, 2003, and 2005 at three different monitoring stations. The Dry Fork Station will further increase particulate matter emissions in this region.

7. The power plant will also emit pollutants such as SO<sub>2</sub> and NO<sub>x</sub> that lead to local air pollution and form acid rain and haze. Dry Fork emissions are expected to adversely impact visibility in Class I areas including the Northern Cheyenne Indian Reservation, Badlands National Park, and Wind Cave National Park.

8. Coal-fired power plants are the largest human-caused source of mercury in the United States. Dry Fork will contribute to mercury contamination on both a local and national

scale. Some of the mercury emitted from the plant will be deposited near the site, while some will join the global ambient mercury pool with long-range deposition impacts. Mercury that is washed or deposited into water can transform into methyl mercury, which is highly toxic and bioaccumulates in fish and other animals that eat fish. Mercury from Dry Fork will be deposited and washed into water bodies in the vicinity of the plant, including the Powder River, which feeds into the Yellowstone River in Montana. The Powder River, one of the last remaining remnants of a relatively undisturbed, large prairie river in the United States, supports a number of native fish but has recently come under much stress from energy development within its watershed. The conservation group American Rivers designated the Powder River as one of the top ten most endangered rivers in the country in 2001 and 2002.

## **II. Adverse Impacts to Sierra Club, Powder River Basin Resource Council, and Wyoming Outdoor Council.**

9. Increased pollution from the Dry Fork Station will adversely affect the interests of Sierra Club, Powder River Basin Resource Council, and Wyoming Outdoor Council and their members.

10. The Sierra Club is the nation's oldest grassroots environmental organization and has more than 750,000 members nationwide, including more than 1,000 in Wyoming. The Sierra Club is dedicated to protecting the earth's ecosystems and resources and educating the public about its mission. The Wyoming Chapter of the Sierra Club works to protect the air, public lands, and wildlife in the state for the citizens of Wyoming. Curbing global warming emissions is one of the Sierra Club's top priorities. The organization champions clean energy alternatives in the face of an unprecedented rush to build new coal-fired power plants throughout the country. As part of these efforts, the Sierra Club has taken the lead in fighting numerous proposed coal-



fired power plants in the U.S. that threaten to degrade air quality and contribute to global warming.

11. Powder River Basin Resource Council (“PRBRC”) is a nonprofit organization with approximately 1,000 members, most of whom live in eastern Wyoming. PRBRC is dedicated to the protection of Wyoming’s unique environmental resources and agricultural lands and lifestyle. PRBRC works to raise public awareness and to educate Wyoming citizens to understand and speak out for local conservation issues. PRBRC members live, ranch, farm, raise families, and enjoy outdoor activities in Wyoming.

12. The Wyoming Outdoor Council (“WOC”) is a nonprofit membership organization with around 1,000 members founded by Wyoming residents in 1967 to advocate for natural resources conservation and environmental protection. WOC works to safeguard the state’s national parks and protected areas, world-renowned wildlife and habitat, blue-ribbon fisheries, and air and water quality. To achieve its goals, WOC mobilizes grassroots campaigns, organizes and leads coalitions of conservation groups, advocates for progressive public policies, and pursues administrative and legal remedies to prevent or mitigate environmental harm.

13. With respect to the Dry Fork Station, the Protestants have led efforts to inform the public, elected officials, and WYDEQ about less polluting alternatives to building the proposed power plant. At every opportunity in the environmental review and permitting process, the Protestants have submitted comments and testimony urging responsible officials to deny the application as proposed, advocated clean energy alternatives, and urged reductions in emissions that threaten the public health and contribute to global warming. The Protestants submitted comments on both the draft air permit and the DEIS prepared by RUS. Their staff members and supporters also testified at the public hearing prior to WYDEQ’s final approval of the air permit.

14. The Protestants' members will be adversely impacted and irreparably harmed by the Dry Fork Station's emissions. Members of these organizations live, work, ranch, and farm in the Gillette region. These members include the elderly, asthmatics, and other individuals that are especially vulnerable to increased air pollution. Pollution authorized by the challenged air permit will degrade the quality of the air that these members breathe, and will put these individuals at increased risk of illness or even premature death. Other members regularly visit Class I areas that will be impacted by the Dry Fork Station, including the Northern Cheyenne Indian Reservation, Badlands National Park, and Wind Cave National Park. The Dry Fork Station will contribute to decreased visibility in these areas, which harms the members' interests in recreation and sightseeing. Other members fish in water bodies near Gillette and eat the fish. Mercury emissions from the Dry Fork Station will be deposited and washed into these water bodies, where some mercury will transform into methylmercury and bioaccumulate in the tissue of fish. Therefore, members who eat fish in the vicinity of the plant will face an increased risk of exposure to mercury.

15. Furthermore, the Dry Fork Station will contribute to global warming, which has been linked to drought, less snowfall, and earlier annual snowmelt runoff. Protestant members farm and irrigate their land, and drought, less snowfall, and earlier snowmelt runoff adversely affects their agricultural and economic interests.

#### **PREVENTION OF SIGNIFICANT DETERIORATION PERMITTING REQUIREMENTS**

16. In 1977, Congress added the Prevention of Significant Deterioration ("PSD") program to the Clean Air Act to maintain air quality in areas that were still unspoiled by air pollution. The program was intended "to protect public health and welfare from any actual or potential adverse effect which . . . may reasonably be anticipate[d] to occur from air pollution or

from exposures to pollutants . . . notwithstanding attainment and maintenance of all national ambient air quality standards.” 42 U.S.C. § 7470(1). Accordingly, the PSD program prevents polluters from driving air quality down to the level of the national ambient air quality standards (“NAAQS”), which set the minimum requirements for maintaining air quality under the Act.

17. A “major emitting facility” such as the Dry Fork Station is required to obtain a PSD permit. 42 U.S.C. § 7475. The facility must demonstrate that emissions from the facility will not cause or contribute air pollution in excess of either the NAAQS or allowable PSD increments. Id. § 7475(a)(3). It must also utilize the Best Available Control Technology (“BACT”) for each pollutant subject to regulation. Id. § 7475(a)(4).

18. Under the Clean Air Act’s framework of cooperative federalism, states may take responsibility for administering the Act if they have an EPA-approved State Implementation Plan (“SIP”). 42 U.S.C. §§ 7401(a)(3) & (4), 7410; 40 C.F.R. § 51.166. State requirements must be at least as stringent as any relevant federal requirements. 42 U.S.C. § 7416.

19. Wyoming has an EPA approved SIP that includes PSD regulations. 40 C.F.R. §§ 52.2620, 52.2630. Under state law, WYDEQ is authorized to promulgate air quality standards and emission control requirements pursuant to Wyo. Stat. § 35-11-202. This includes authority to promulgate PSD regulations. Id. § 35-11-202(b)(iii). The relevant air quality regulations are found at WYDEQ, Air Quality Division, Standards and Regulations (“WAQSR”), Chapter 6—Permitting Requirements. Chapter 6, Section 2 specifies the general permitting provisions; Chapter 6, Section 4 spells out the PSD requirements.

20. Under Wyoming regulations, any new facility that will cause an increase in air contaminants must obtain a construction permit from WYDEQ. 6 WAQSR § 2(a)(i). WYDEQ may not issue a construction permit unless the Administrator finds that the facility will (1) not

prevent attainment or maintenance of any ambient air quality standard for criteria pollutants, (2) not cause significant deterioration of existing ambient air quality in the Region, and (3) will utilize the Best Available Control Technology (“BACT”). Id. § 2(c)(ii), (iii), (v).

21. BACT is defined as

an emission limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Standards and Regulations or regulation under the Federal Clean Air Act, which would be emitted from or which results for any proposed major stationary source . . . which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source . . . through application of [f] production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

Id. § 4(a).

#### **ISSUES PRESENTED FOR REVIEW—VIOLATIONS OF THE PSD PERMITTING REQUIREMENTS**

22. In permitting the Dry Fork Station, WYDEQ failed to comply with Wyoming’s PSD requirements and the Clean Air Act.

##### **I. WYDEQ Failed to Consider Greenhouse Gas Emissions.**

23. Although the Dry Fork Station will emit millions of tons of greenhouse gases each year, WYDEQ ignored this important issue during the air permitting process.

24. Under the federal Clean Air Act, no new major emitting facility may be constructed in any area subject to PSD requirements unless “the proposed facility is subject to [BACT] for each pollutant subject to regulation under [the Clean Air Act].” 42 U.S.C. § 7475(a)(4) (emphasis added). This requirement is included in Wyoming’s regulations, which define BACT as “an emission limitation . . . based on the maximum degree of reduction of each pollutant subject to regulation under the Standards and Regulations or regulation under the Federal Clean Air Act.” 6 WAQSR § 4(a) (emphasis added).

25. WYDEQ cannot approve a permit unless the “proposed major stationary source . . . would meet an emission limit(s) or equipment standard(s) specified by the Administrator to represent the application of [BACT] for each pollutant regulated” under the Regulations or the federal Clean Air Act. Id. § 4(b)(ii). The regulations go on to define “regulated [new source review] pollutant” to include “[a]ny pollutant that otherwise is subject to regulation under the Federal Clean Air Act.” Id. § 4(a) (emphasis added). Pollutants “subject to regulation” include those that the Clean Air Act already regulates, and those for which the Act requires regulation, but for which EPA or a State has not yet exercised its regulatory authority. For example, the EPA may regulate air pollutants from sources when the pollutants “may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. §§ 7411(b)(1)(A), 7521(a)(1).

26. As the U.S. Supreme Court has affirmed, CO<sub>2</sub> and other greenhouse gases are “pollutants” that are subject to regulation under the Clean Air Act. Massachusetts v. EPA, 127 S.Ct. 1438 (2007) (“[G]reenhouse gases fit well within the Clean Air Act’s capacious definition of ‘air pollutant.’”). The definition of pollutant is applicable to all Clean Air Act programs. 42 U.S.C. § 7602.

27. In fact, CO<sub>2</sub> has been subject to regulation under the Clean Air Act’s acid rain program for well over a decade. In 1990, Congress directed EPA to “promulgate regulations to require that all affected sources subject to Title [IV]<sup>1</sup> of the Clean Air Act shall also monitor carbon dioxide emissions.” Pub. L. 101-549, Title IV, § 821, 104 Stat. 2699 (Nov. 15, 1990) (notes for 42 U.S.C. § 7651k). EPA’s regulations, finalized on January 11, 1993, require CO<sub>2</sub> emissions monitoring. See, e.g., 40 C.F.R. §§ 75.1, 75.13, 75.57(e).

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<sup>1</sup> According to the Reporter’s notes, the references to Title V are meant to refer to Title IV, the acid rain program.

28. Because CO<sub>2</sub> and other greenhouse gases are “subject to regulation” under the CAA and Wyoming’s PSD regulations, WYDEQ should have required Basin Electric to conduct a BACT analysis and set an emissions limit that reflects the best available control technology for these gases.

29. Furthermore, as part of the BACT analysis, WYDEQ and Basin Electric must “take into account energy, environmental, and economic impacts” of the proposed plant. 6 WAQSR § 4(a). Under this section, even if the Council finds that greenhouse gases are not subject to regulation under the Clean Air Act and Wyoming law, WYDEQ must still consider the collateral environmental impacts of greenhouse gas emissions in setting BACT limits for other pollutants.

30. As part of the BACT analysis, WYDEQ and Basin Electric also failed to consider the collateral costs of future, imminent carbon regulation. Representatives of Basin Electric have conceded that future regulation of CO<sub>2</sub> is likely, but they failed to consider this future cost of operating a PC power plant.

31. Wyo. Stat. § 35-11-213 is inapplicable to PSD permitting of coal-fired power plants. Moreover, even if it were applicable, it is preempted by the Clean Air Act.

32. By failing to consider greenhouse gases, WYDEQ violated its own governing regulations and failed to provide interested parties with a meaningful opportunity to comment on alternatives and control technology requirements.

## **II. WYDEQ Failed to Consider a Supercritical or Ultra-supercritical Boiler as BACT.**

33. The air permit is flawed because WYDEQ failed to require Basin Electric to consider a supercritical or ultra-supercritical furnace, boiler, and steam turbine as BACT.

Instead, WYDEQ allowed Basin Electric to proceed with outdated and inefficient subcritical technology.

34. As part of a BACT analysis, WYDEQ must consider “production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of . . . pollutant[s].” 6 WAQSR § 4(a). Supercritical or ultra-supercritical boiler systems are a “production process” and “available method, system, or technique” for control of pollutants from coal-fired power plants.

35. Supercritical or ultra-supercritical boiler systems are more efficient than subcritical boilers, using less coal to produce the same amount of energy, thereby reducing emissions of greenhouse gases as well as criteria pollutants. Supercritical boiler systems are readily available and are standard equipment for many existing and proposed coal plants throughout the West. Accordingly, a supercritical or ultra-supercritical boiler system is BACT for the proposed facility.

36. WYDEQ did not require Basin Electric to include supercritical or ultra-supercritical boiler systems in its BACT evaluation, and Basin Electric never conducted this analysis. This failure violates Wyoming’s PSD regulations.

### **III. WYDEQ Failed to Consider IGCC as BACT.**

37. WYDEQ’s analysis is flawed because it failed to require Basin Electric to consider Integrated Gasification Combined Cycle (“IGCC”) as BACT.

38. As part of a BACT analysis, WYDEQ must consider “production processes and available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of . . . pollutant[s].” 6 WAQSR § 4(a). IGCC is a

“production process” and “available method, system, or technique” for control of pollutants from coal-fired power plants.

39. IGCC is an inherently cleaner process than pulverized coal technology for the generation of electricity from coal. IGCC results in lower emissions of criteria pollutants, mercury and other hazardous pollutants, and greenhouse gases. Additionally, IGCC uses less water and produces less waste. It is also the only coal-fueled electricity generation technology for which capture of CO<sub>2</sub> emissions for potential sequestration is currently available at a commercial scale.

40. IGCC is a proven and commercially available technology. There are currently at least 15 IGCC plants in operation worldwide, including at least 8 IGCC plants using solid fuel feedstock, such as coal. There are also numerous IGCC plants in the pre-construction evaluation and permitting stage in the United States.

41. Accordingly, WYDEQ violated its own regulations by failing to require consideration of IGCC in the BACT analysis for the Dry Fork Station. Although WYDEQ did not require it, Basin Electric conducted an “Equivalent BACT Analysis.” This analysis is outdated, inadequate, and rests on flawed assumptions. Furthermore, WYDEQ did not consider it in the agency’s analysis.

#### **IV. WYDEQ’s BACT limits for NO<sub>x</sub> and SO<sub>2</sub> are flawed.**

42. For each pollutant subject to regulation, WYDEQ must adopt “an emission limitation . . . based on the maximum degree of reduction . . . achievable for [the] source.” 6 WAQSR § 4(a).

43. The approved NO<sub>x</sub> and SO<sub>2</sub> BACT limits do not represent the maximum degree of reduction that can be achieved while generating electricity from coal.



44. Section 302(k) of the Clean Air Act defines the term “emissions limitation” as a limitation on emissions of air pollutants “on a continuous basis.” 42 U.S.C. § 7602.

Accordingly, BACT must continuously limit emissions of air pollutants. The proposed BACT limits for NO<sub>x</sub> of 0.05 lb/MMBtu (12 month rolling) and for SO<sub>2</sub> of 0.070 lb/MMBtu (12 month rolling) do not meet this standard.

45. Although WYDEQ added 30-day rolling limits for NO<sub>x</sub> and SO<sub>2</sub> in the permit (as well as a 3-hour rolling limit for SO<sub>2</sub>) in response to adverse comments by the Environmental Protection Agency and others, these lb/hr limits are not BACT. BACT requires that the boiler be controlled to the maximum extent at all times. In other words, efficiency for control equipment, such as low NO<sub>x</sub> burners and SCR or scrubbers, must be maintained at the highest levels at all times. Simply having a mass-based limit (such as the lb/hour limits) in the permit does not ensure that the controls will be operating at their maximum level at all times. WYDEQ must replace the mass-based limits either by control efficiency values or by lb/MMBtu values on a short term basis.

46. Additionally, wet scrubber technology can achieve greater control efficiency for SO<sub>2</sub> emissions than the circulating dry scrubber WYDEQ approved for Dry Fork. WYDEQ must consider wet scrubber technology as BACT.

47. Control of SO<sub>2</sub> emissions is particularly important in light of the potential for Dry Fork Station to increase haze in Class I areas, including the Northern Cheyenne Indian Reservation, Badlands National Park, and Wind Cave National Park.

**V. WYDEQ's Mercury BACT limit is flawed.**

48. Mercury is an extremely hazardous neurotoxin that is dangerous to humans at very low levels. It can also transform into methylmercury, which is harmful to wildlife and bioaccumulates in the food chain.

49. Wyoming's EPA-approved SIP requires BACT analysis for mercury, and WYDEQ included a BACT limit for mercury in the final air permit. However, this limit does not reflect the "maximum degree of reduction achievable" for a coal-fired power plant as required under Wyoming's PSD regulations. 6 WAQSR § 4(a).

50. WYDEQ has failed to set an enforceable and immediate BACT limit for mercury. Instead, WYDEQ relies on the fact that mercury emissions are limited by federal New Source Performance Standards to 0.000090 pounds per megawatt-hour. This standard does not impose any limitation on emissions from Dry Fork, and is not representative of BACT.

51. Rather than requiring emissions limitations from the commencement of emissions from the plant, WYDEQ is requiring Basin Electric to implement a one-year study with an unenforceable target emission of 0.000020 pounds per megawatt-hour.

52. WYDEQ offers no justification for this deviation from its "top-down" approach to BACT analysis. WYDEQ must follow this approach and set a continuous, enforceable limit for mercury that represents the maximum degree of mercury reduction that is achievable considering energy, economics, and environmental issues before the permit is issued.

53. For example, sorbent injection is an available and effective control measure for reducing mercury emissions. At a minimum, WYDEQ must require Basin Electric to consider sorbent injection. The permit should also include a percentage of removal requirement.

## **VI. WYDEQ's PM<sub>10</sub> BACT Limits are Flawed.**

54. "Particulate matter" (PM) includes both solid particles and liquid droplets found in air. These particles come in a wide range of sizes; those less than 10 micrometers in diameter are referred to as PM<sub>10</sub>. These particles pose a serious health concern because people can inhale them, and they can accumulate in the respiratory system. Exposure to PM<sub>10</sub> can lead to cardiopulmonary diseases, increased respiratory symptoms, and premature death.

55. PM<sub>10</sub> is one of seven "criteria" pollutants subject to NAAQS under the Clean Air Act. Accordingly, WYDEQ must require BACT for PM<sub>10</sub>. 6 WAQSR §§ 2(c)(v), 4(b)(ii).

56. Dry Fork Station particulate emissions will include both "filterable" and "condensable" PM in various size fractions, including PM<sub>10</sub>. Filterable PM<sub>10</sub> includes particles that can be captured on a filter, while condensable PM<sub>10</sub> forms only when the exhaust air has cooled sufficiently.

57. Since condensable PM<sub>10</sub> is part of the Dry Fork Station's PM emissions, WYDEQ must include a limit on condensable PM<sub>10</sub> and/or total PM<sub>10</sub>. By failing to do so, WYDEQ has underestimated the PM<sub>10</sub> impact.

58. WYDEQ's analysis is also flawed because it failed to require a continuous emissions monitoring system ("CEMS") for PM. CEMS are the preferred method for ensuring compliance with PM emission limits, and are the only proven method to continuously monitor PM emissions. See, e.g., 40 CFR §§ 60.42 et seq. The final permit must require continuous monitoring where feasible. See EPA, New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting (Oct. 1990), at H.10, I.3, and App. C, c.4 – c.5. Indeed, EPA recommended PM CEMS in its comments on the Permit.

59. These systems are demonstrated and commercially available. They have been widely used in the United States for many years. EPA has promulgated a final performance specification for PM CEMS, and several recent PSD permits have required PM CEMS.

60. In addition, Basin Electric must demonstrate that “the technological system of continuous emission reduction ... to be used will enable [their proposed plant] to comply with [new source performance standards].” 42 U.S.C. § 7410(j). In light of the deficiencies in the monitoring and enforcement conditions identified above, the Permit violates section 110(j), as it lacks an adequate demonstration that the pollution control systems proposed will enable the new source to meet permit limits on a continuous basis.

## **VII. WYDEQ Failed to Regulate PM<sub>2.5</sub> Emissions.**

61. PM<sub>2.5</sub> is comprised of tiny solids or liquid droplets less than 2.5 micrometers in diameter that can lodge deep into the lungs and cause serious health problems. It is one of the seven “criteria” pollutants.

62. Over the past ten years, nearly 1,000 peer-reviewed studies have documented the causal link between short-term inhalation of PM<sub>2.5</sub> and premature death, heart attacks, and respiratory diseases, including lung cancer and asthma. This extensive body of medical research convinced EPA to adopt more stringent regulations limiting PM<sub>2.5</sub> emissions. On October 17, 2006, EPA finalized a new NAAQS for PM<sub>2.5</sub>, revising the former 24-hour standard of 65 micrograms per cubic meter to 35 micrograms per cubic meter. 71 Fed. Reg. 61,144 (Oct. 17, 2006).

63. Before issuing a PSD permit, WYDEQ must ensure compliance with the NAAQS. 6 WAQSR § 2(c)(ii). WYDEQ must also evaluate BACT for all NAAQS pollutants. Id. §§ 2(c)(v), 4(b)(ii).

64. WYDEQ violated these requirements by not including PM<sub>2.5</sub> in its BACT analysis, failing to set an emissions limit for PM<sub>2.5</sub>, and failing to ensure the plant will not violate the PM<sub>2.5</sub> NAAQS. No provision in the Clean Air Act or the Wyoming Air Regulations provides any justification for exempting PM<sub>2.5</sub> from the requirements of the PSD program. On the contrary, given scientific consensus regarding the very grave risks posed by PM<sub>2.5</sub>, strict compliance is essential to safeguard the public health.

65. PM<sub>10</sub> is not an adequate surrogate for PM<sub>2.5</sub>. For example, using PM<sub>10</sub> as a surrogate does not account for secondary emissions that produce approximately half of PM<sub>2.5</sub> concentrations. Fine particles emitted directly into the air are considered “primary” PM<sub>2.5</sub> whereas particles formed by chemical reactions of gases in the atmosphere are considered “secondary” PM<sub>2.5</sub>. WYDEQ has ignored secondary PM<sub>2.5</sub>. In doing so, WYDEQ underestimates PM<sub>2.5</sub> concentrations by as much as 50%.

66. These failures violate Wyoming’s PSD Regulations.

### **VIII. WYDEQ’s SO<sub>2</sub> Increment Analysis is Flawed.**

67. Wyoming law authorizes the issuance of a PSD permit only if the source will not cause or contribute to an exceedance of the applicable SO<sub>2</sub> increment or otherwise interfere with the measures of the SIP designed to prevent significant deterioration of air quality.

68. WYDEQ erred by determining that the project will not cause or contribute to an exceedance of the applicable SO<sub>2</sub> increment or otherwise interfere with the measures of the SIP designed to prevent significant deterioration of air quality, including omitting certain major sources of cumulative SO<sub>2</sub> emissions from its analysis and relying on revised modeling supplied by the applicant.

69. WYDEQ also erred in determining that the project will not cause or contribute to an exceedance of the applicable SO<sub>2</sub> increment or otherwise interfere with the measures of the SIP designed to prevent significant deterioration of air quality by relying on unpromulgated "Significant Impact Levels" to define the contribution of the project to deterioration of air quality.

### **RESERVATION OF RIGHTS**

70. Protestants reserve the right to raise any issue set forth in their comments to WYDEQ on the Permit in this Protest and Petition for Hearing.

71. Protestants reserve the right to amend this Protest and Petition for Hearing to clarify, amend, or supplement the existing objections to the Permit or to add new objections.

72. Protestants reserve the right to later file a legal memorandum of points and authorities in support of their Protest and Petition for Hearing.

### **REQUEST FOR HEARING**

73. Pursuant to WYDEQ's General Rules of Practice and Procedure, Chapter 1, §§ 3 and 4, Protestants request that the Council hold a hearing in this matter in accordance with WYDEQ's Rules of Practice and Procedure Applicable to Hearings in Contested Cases, Chapter 2. Because Basin Electric has announced that it has commenced surveying and constructing the Dry Fork Station, Protestants request an expedited hearing.

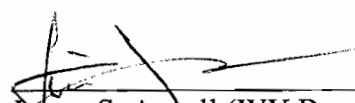
### **REQUESTED RELIEF**

Based on the foregoing legal violations, the Protestants request that the Environmental Quality Council:

1. Immediately stay WYDEQ's approval of the Permit for the Dry Fork Station pending the Council's final disposition of this matter;

2. Vacate and remand the Permit for the Dry Fork Station to WYDEQ pending compliance with all applicable laws and regulations; and
3. Provide any and all other relief the Council determines appropriate.

Respectfully submitted October 31, 2007,



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# **EXHIBIT 6**

[Print Page](#)

**THURSDAY FEBRUARY 7, 2008** :: Last modified: Saturday, October 20, 2007 2:01 AM MDT

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## Conservation group condemns Dry Fork pollution permit

By DUSTIN BLEIZEFFER  
Star-Tribune energy reporter

Despite his previous statements regarding global warming's harmful effects on the future, Gov. Dave Freudenthal defended the state's decision to permit a new pulverized coal-fired power plant.

It comes less than two weeks after Freudenthal publicly stated that he believes there's a special place reserved in purgatory for this generation if it does not take advantage of opportunities to cut carbon emissions.

Asked Friday if the state's approval of the Dry Fork Station pollution emissions permit undermines his message to federal regulators to fund clean coal technologies, Freudenthal said "no," and didn't elaborate.

Construction of the 385-megawatt Dry Fork Station power plant north of Gillette commenced immediately upon issuance of the permit this week, according to Basin Electric Power Cooperative officials.

The Powder River Basin Resource Council condemned the actions and noted that other states, such as Kansas, are more progressive toward curbing carbon emissions.

On Thursday, Kansas Department of Health and Environment denied an air quality permit for two 700-megawatt plants that would also use conventional, CO<sub>2</sub>-emitting technology.

"We're permitting outdated coal-fired power generation technology that even the utility industry's most reliable investors and lenders are beginning to question," Bob LeResche, Powder River Basin Resource Council chairman, said in a prepared statement on Friday.

"Regardless of the governor's progressive pontifications, Wyoming seems determined to stay in the Dark Ages," LeResche added.

Dry Fork Station is expected to pump 3 million tons of carbon dioxide into the atmosphere for the next 40 years. Man-caused carbon dioxide emissions are a significant contributor to global warming.

Basin Electric spokesman Floyd Robb said the co-op decided to withdraw its application for a \$750 million USDA loan for the power plant because it stipulates an environmental impact statement study. Robb said inflation of labor costs, manufacturing, steel and other materials could add \$175 million to the total cost of the project during the year-long EIS process.

Inflation has already increased the cost of the project from \$800 million a few years ago to \$1.3 billion today, according to Robb. Instead, Basin Electric will seek financial backing from Wall Street

investors.

"Because of Basin Electric's strong financial position and our strong credit ratings, we believe we will be able to obtain favorable financing terms and rates," Robb told the Star-Tribune.

At least seven Rural Utilities Service loan applications for conventional power plants are being challenged by environmental groups in federal court.

Dry Fork Station will not be constructed as "carbon capture-ready," according to Robb. That represents a huge risk for the company and its members, according to industry finance experts.

David Siever of Capital Technology Inc. spoke earlier this month at the University of Wyoming's "Finding the Balance: Energy and Climate" forum. He said investors see too much risk in building new pulverized coal-fired power plants because it is extremely expensive to retrofit them to meet pending carbon capture and sequestration regulation.

On the other hand, billions of investment dollars remain pent-up until such regulation is passed, Siever said at the forum.

Basin Electric officials insist the company is a leader in developing "new" technologies to reduce carbon emissions.

"We are sequestering over 3 million tons of carbon per year from our Great Plains Synfuels Plant near Beulah, N.D.," Robb told the Star-Tribune. "Since the start of that project, we have sequestered over 10 million tons of carbon."

Robb said Basin Electric has solicited proposals from engineers to demonstrate a carbon-capture pilot project at an existing coal-fired power plant in North Dakota.

"When regulations are put in place concerning the control of carbon, Basin Electric will comply with the law," Robb said.

Until federal regulations are in place, it remains uncertain how much it will cost to retrofit the Dry Fork Station plant, which will largely serve natural gas, coal and other industrial customers in northeast Wyoming.

"We are showing load-growth (among Basin's members) and we need the resource only by 2011 to meet it," Robb said.

He added that until the co-op knows what the regulations are, it's impossible to answer what the cost of retrofitting the plant will be.

Energy reporter Dustin Bleizeffer can be reached at (307) 577-6069 or [dustin.bleizeffer@casperstartribune.net](mailto:dustin.bleizeffer@casperstartribune.net).

# **EXHIBIT 7**

# gillettenewsrecord.com

## News

### Quick start-up for Dry Fork power plant

[Print Page](#)

By **PETER GARTRELL**, News-Record  
Writer

Published: Friday, October 19, 2007 1:43  
PM MDT

For the last few years, Curt Pearson has been one of the most public faces for Basin Electric as the North Dakota power cooperative worked to get its Dry Fork power plant to the point it was this week — under construction.

Now Pearson and the rest of his company, after years of planning, have swiftly moved into building mode after a series of quick boardroom moves in recent weeks allowed the plant to move forward Wednesday.



Paul Guajardo, a surveyor for Ames Construction, records positions for a power block that will accompany the new Dry Fork Station power plant. The 385-megawatt plant construction began Wednesday north of Gillette near the mouth of the Dry Fork mine. — News-Record photo by Nathan Payne

"We had a security guard on site at 6 a.m.," Pearson said Thursday.

Such are the details that will be worked out in the coming days and weeks after Basin Electric's board of directors gave CEO Ron Harper the decision-making power necessary to drop an application for \$750 million to help finance the plant being built off Highway 59 north of Gillette.

Initial work, such as surveying and installation of silt screens were under way Wednesday afternoon and Pearson said the coming months would see 60 to 70 workers coming to the site.

A groundbreaking ceremony that will include Gov. Dave Freudenthal is scheduled for Nov. 2.

As work on the ground began this week, work on the financial side of the plant is also ramping up toward what the company hopes will be a May 2011 start-up. Original plans had called for the plant to begin producing power in January of that year.

"We will issue bonds that will be bought by industrial sponsors," said Floyd Robb, vice president of communications and marketing support. "We have no question we'll be able to raise the money for the project."

The board decided that the additional cost of delaying the project as the company waited on a long-delayed federal environmental study was simply too high — \$175 million.

While projections from the Rural Utility Service were for a green light next spring, Robb said "our internal people were saying they would be fortunate to have it mid-year."

The agency, part of the U.S. Department of Agriculture, struggled to find a contractor for the study, required by federal law when the government undertakes actions that could have "major" impacts on a region's physical or cultural environment.

"We obviously laid out all of the decisions for the board, and the board gave our CEO Ron Harper to do what was in the best interest of the cooperative," he added.

Site preparation for the \$1.3 billion plant will continue through the winter, as workers drive 7,000 piles for the foundation, Robb said.

"There will be no seasonal shutdown for the project," Robb said.

The plant, in a word, is a go.

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# **EXHIBIT 8**

**News****Dry Fork Station work begins: Basin Electric gets air permit, pulls loan**[Print Page](#)**By The News-Record staff**

Published: Thursday, October 18, 2007 12:54 PM MDT

Dry Fork Station is under way.

After months of delays and the prospect of more to come, Basin Electric Power Cooperative pulled a federal loan application Wednesday, allowing it to move forward with construction of the coal-fired power plant after receiving a state air permit earlier in the week.

A company spokesman said workers already had begun moving dirt at the mine site on Garner Lake Road north of Gillette.

The decision to stop pursuit of a \$750 million loan from the Rural Utilities Service shed the company of what had become a burdensome environmental study the agency was conducting.

The agency said it had experienced problems with contractors hired to do the study, required by law for "major federal action." A draft of the study was opened for public comment in late August.

Further delays for the \$1.3 billion project, which was originally scheduled to start in the spring, would cost millions, said Floyd Robb, vice president of communications and marketing support in Bismarck, N.D.

"We came to the decision that burdening our membership with \$175 million for the project was just not appropriate," he said.

The 385-megawatt plant is expected to be completed in 2011, he added. When finished, the plant is expected to have about 75 permanent workers.

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# **EXHIBIT 9**

## Basin Electric Dry Fork Station

### Ceremony celebrates start of construction



On Nov. 2, more than 300 people were part of something that hasn't occurred at Basin Electric Power Cooperative for more than 25 years. It's the start of construction for a the Dry Fork Station. The last groundbreaking ceremony was held in July 1978 for the Cooperative's Antelope Valley Station near Beulah, N.D.

Wyoming Gov. Dave Freudenthal said the Dry Fork Station will be an important part of the state's future. "The growth of the American economy and the growth of the economy in this region is linked to reliable and available supplies of electricity," he said. "Wyoming has some of the strictest environmental rules in the country, and protection of the environment is a fundamental commitment; it's an integral part of who we are."

On Oct. 15, the Dry Fork Station received the last permit necessary to initiate construction. This was the air permit from the Wyoming Department of Environmental Quality. Construction started Oct. 17.

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1717 East Interstate Ave. Bismarck, ND 58503-0564 USA  
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# **EXHIBIT 10**

**BASIN ELECTRIC  
POWER COOPERATIVE**

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BISMARCK, NORTH DAKOTA 58503-0564  
PHONE 701-223-0441  
FAX: 701/224-5336



October 17, 2007

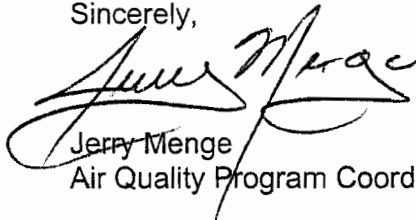
Mr. David A. Finley  
Wyoming Department of Environmental Quality  
Division of Air Quality  
122 West 25th Street  
Cheyenne, WY 82002

Dear Mr. Finley:

This letter is to inform the Wyoming Department of Environmental Quality that Basin Electric Power Cooperative has commenced construction of the Dry Fork Station as of today, October 17, 2007. The construction will be in accordance with the rules and regulations as stated in permit No. CT-4631.

If you have any questions please contact me.

Sincerely,



Jerry Menge  
Air Quality Program Coordinator

/gmj

cc: Mike Warren – WDEQ Sheridan  
Clyde Bush  
Bob Boettcher  
Bob Williams  
Deb Levchak