### DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION HATHAWAY BUILDING CHEYENNE, WYOMING 82002

IN THE MATTER OF ORDER ) SSUED TO: ) BLACK HILLS POWER AND LIGHT) GILLETTE, WYOMING 82716 )

DOCKET NO. 462-78

This ORDER is issued this date pursuant to Section 113(d) of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. ("the Act") and pursuant to the Wyoming Environmental Quality Act, W.S. §35-11-101 (1977), et seq. This ORDER contains a schedule for compliance, interim requirements, and monitoring and reporting requirements. Public notice and an opportunity for a public hearing have been provided.

#### FINDINGS

Black Hills Power and Light Company ("Black Hills") operates four boiler units to produce steam for the electric power generators at the old Wyodak Station east of Gillette, Wyoming. Black Hills had originally planned to shut down three of the units (1, 3, & 4) when the new power plant at the site began operation in May of 1978. The other old unit, No. 5, is to remain in operation and has been equipped with appropriate pollution control equipment.

It is the position of the Wyoming Department of Environmental Quality ("DEQ") that, based on data submitted by Black Hills, emissions from the existing boiler units (1, 3, & 4) are not in compliance with Sections 14.b and 14.h of the Wyoming Air Quality Standards and Regulations.

Black Hills has therefore requested that it be permitted to operate units 1, 3, & 4 as necessary until July 1, 1979.

Such operation is needed as follows:

Unit No. 1 - This unit is involved in an experimental program for a new type of dry cooling device. Due to problems, the program was not completed prior to May 1978. Black Hills will operate the unit only when a test run is needed for the research project.

Units No. 3 & 4 - As with all large power plants, the new 330 megawatt unit at the Wyodak site requires external steam and power during start-up and for periods of down time. Wyodak has planned to use the old No. 5 unit to provide for such needs. However, Black Hills feels that they should provide for a second contingency source of the needed steam if the No. 5 unit were to be forced out of service at the same time that the new unit is down. Therefore, Black Hills' request is for permission to operate the No. 3 and 4 units only as needed until July 1, 1979. Black Hills will evaluate their needs beyond July 1979 and provide control equipment for these units if they are to be operated after such date.

#### ORDER

After a thorough investigation of all relevant facts, including public comment, it is determined that the schedule for compliance set forth in this ORDER is as expeditious as practicable and that the terms of this ORDER comply with Section 113(d) of the Act. Therefore, it is hereby ORDERED:

- I. That emissions from Black Hills' boiler units 1, 3, & 4 at the old Wyodak Station east of Gillette, Wyoming will comply with the Wyoming State Implementation Plan ("SIP") regulations in accordance with the following schedule on or before the dates specified therein:
  - A. Compliance must be achieved by July 1, 1979.
  - B. Operation of any of the units (1, 3, & 4) be limited to the extent practicable during the time prior to July 1, 1979, and that the Division be advised of such operation within 72 hours after start of such operation.
  - C. If Black Hills operates these three sources in non-compliance after July 1, 1979, it may be required to pay a non-compliance penalty effective July 1, 1979, as provided under Section 120 of the Clean Air Act as amended August 1977.

- II. That Black Hills' boiler units 1, 3, & 4 are not relieved by this ORDER from compliance with any requirements imposed by the Wyoming SIP, DEQ, EPA, the Rules and Regulations adopted pursuant thereto and/or the courts pursuant to Section 303 of the Act during any period of imminent and substantial endangerment to the health of persons.
- III. Nothing herein shall affect the responsibility of Black Hills to operate boiler units 1, 3, and 4 east of Gillette, Wyoming in compliance with other Federal, State, or local laws or regulations.
- IV. Black Hills is hereby notified that failure to achieve final compliance by July 1, 1979, may result in a requirement to pay a noncompliance penalty under Section 120 of the Act. In the event of such failure, Black Hills will be formally notified, pursuant to Section 120(b)(3).
- V. This ORDER shall be terminated in accordance with Section 113(d)(8) of the Act if the Administrator of the Air Quality Division, DEQ, determines on the record, after notice and hearings, that an inability to comply with Sections 14.b and 14.h of the Wyoming Air Quality Standards and Regulations no longer exists.
- VI. Violation of any requirement of this ORDER shall result in one or more of the following actions:
  - A. Enforcement of such requirement pursuant to Section 35-11-901 (1977) of the Wyoming Environmental Quality Act, including possible judicial action for an injunction and/or penalties and, in appropriate cases, criminal prosecution.
  - B. Revocation of this ORDER, after notice and opportunity for a public hearing, and subsequent enforcement of Sections 14.b and 14.h of the Wyoming Air Quality Standards and Regulations in accordance with the preceding paragraph.
  - C. If such violation occurs on or after July 1, 1979, notice of noncompliance and subsequent action pursuant to Section 120 of the Act.
  - D. Any combination of the above.
- VII. This ORDER is effective upon the determination by the Administrator of EPA, or his delegatee, that it has been issued in accordance with the requirements of the Act or upon 90 days from receipt of this ORDER by EPA, whichever is earlier.

Date: Nov. 14, 1978

Director, Wyoming Department of Environmental Quality

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Administrator, Division of Air Quality Wyoming Department of Environmental Quality

Date of Approval:

Administrator (or his delegatee), U.S. Environmental Protection Agency

### DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION HATHAWAY BUILDING CHEYENNE, WYOMING 82002

IN THE MATTER OF ORDER ISSUED TO: FMC CORPORATION INDUSTRIAL CHEMICAL GROUP PLANT) KEMMERER, WYOMING 83101 )

DOCKET NO. 463-78

This ORDER is issued this date pursuant to Section 113(d) of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. ("the Act") and pursuant to the Wyoming Environmental Quality Act, W.S. §35-11-101 (1977), et seq. This ORDER contains a schedule for compliance, interim requirements, and monitoring and reporting requirements. Public notice and an opportunity for a public hearing have been provided.

#### FINDINGS

FMC Corporation's ("FMC") Industrial Chemical Group Plant at Kemmerer, Wyoming has commenced the construction of a replacement unit for the existing Number One Afterburner (front end incinerator). This replacement unit will produce less emissions of particulate matter and less visible emissions (opacity) than the existing unit. It is the position of the Wyoming Department of Environmental Quality ("DEQ") that, based on data submitted by FMC, emissions from the existing Number One Afterburner are not in compliance with Sections 14.b and 14.g. and Table I and II as appropriate under Section 14.g. of the Wyoming Air Quality Standards and Regulations. It is the position of FMC that emissions from the existing Number One Afterburner are in compliance with Sections 14.b. and 14.g. and Table I and II as appropriate under Section 14.g. of the Wyoming Air Quality Standards and Regulations and that the data submitted by FMC to DEQ, even using the interpretation most unfavorable to FMC, is inconclusive on the issue of such compliance. In light of this disparity of positions and to avoid the necessity of a time-consuming and costly technical evaluation by both FMC and the Wyoming DEQ, FMC and the Wyoming DEQ have agreed to the entry of the present ORDER.

#### ORDER

After a thorough investigation of all relevant facts, including public comment, it is determined that the schedule for compliance set forth in this ORDER is as expeditious as practicable, and that the terms of this ORDER comply with Section 113(d) of the Act. Therefore, it is hereby ORDERED:

- I. That emissions of particulate matter from FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming will comply with the Wyoming State Implementation Plan ("SIP") Regulations in accordance with the following schedule on or before the dates specified therein.
  - A. Number One Afterburner
    - 1. 4/31/78 Commence construction of replacement unit.
    - 2. 7/31/78 Submit report on status.
    - 3. 10/30/78 Submit report on status.

    - 12/31/78 Finish construction.
      3/31/79 Achieve and demonstrate final compliance with Sections 14.b. and 14.g. and Table I and II as appropriate under Section 14.g. of the Wyoming Air Quality Standards and Regulations.
- II. That FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming shall comply with the following interim requirements, which are determined to be the best reasonable and practicable interim system of emission reduction (taking into account the requirement for which compliance is ordered in Section I, above), to assure compliance with Sections 14.b. and 14.g. and Table I and II as appropriate under Section 14.g. of the Wyoming Air Quality Standards and Regulations insofar as FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming is able to comply during the period this ORDER is in effect:
  - During construction of the replacement unit, the existing front end afterburner shall be operated and maintained so as to meet the applicable particulate emission limitations.
  - 2. Visible emissions (opacity) from the existing Number One Afterburner shall be evaluated weekly by a person certified

to evaluate visible emissions. If visible emissions in excess of Wyoming regulations are detected, the cause(s) for such emissions shall be promptly investigated, reported to the DEQ and corrected. Records of the weekly visible emission evaluations, of any additional evaluations, and of the efforts to correct any excessive emissions shall be filed with the DEQ and maintained at the plant in Kemmerer, Wyoming.

- III. That FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming is not relieved by this ORDER from compliance with any requirements imposed by the Wyoming SIP, DEQ, EPA, the Rules and Regulations adopted pursuant thereto and/or the courts pursuant to Section 303 of the Act during any period of imminent and substantial endangerment to the health of persons.
- IV. That FMC's Industrial Chemical Group Plant at Kemmerer shall comply with the following emission monitoring and reporting requirements on or before the dates specified below:
  - A. Emissions monitoring.

During the period of construction of the replacement front end afterburner, and until final compliance has been achieved for emissions of particulate matter in accordance with the schedule set forth in Part I.A. above, visible emissions (opacity) from the existing Number One Afterburner shall be evaluated weekly by a person certified to evaluate visible emissions. Records of the weekly visible emissions evaluations and of any additional such evaluations shall be maintained at FMC's plant at Kemmerer, Wyoming for inspection by DEQ personnel.

- B. Reporting requirements.
  - 1. No later than five days after any date for achievement of an incremental step or final compliance, specified in this ORDER, FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming shall notify DEQ in writing of its compliance, or noncompliance and reasons therefor, with the requirement. If delay is anticipated meeting any requirement of this ORDER, FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming shall immediately notify DEQ in writing of the anticipated delay and reasons therefor. Notification to DEQ of any anticipated delay does not excuse the delay.
  - 2. All submittals and notification to DEQ pursuant to this ORDER shall be made to the Administrator of the Air Quality Division, DEQ.
- V. Nothing herein shall affect the responsibility of FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming to comply with other Federal, State, or local laws or regulations.
- VI. FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming is hereby notified that failure to achieve final compliance by July 1, 1979, may result in a requirement to pay a noncompliance penalty under Section 120 of the Act. In the event of such failure, FMC's Industrial Chemical Group Plant at Kemmerer, Wyoming will be formally notified, pursuant to Section 120(b)(3) and any regulations promulgated thereunder, of its noncompliance.
- VII. This ORDER shall be terminated in accordance with Section 113(d)(8) of the Act if the Administrator of the Air Quality Division, DEQ, determines on the record, after notice and hearings, that an inability to comply with Sections 14.b. and 14.g. and Table I and II as appropriate under Section 14.g. of the Wyoming Air Quality Standards and Regulations no longer exists.
- VIII. Violation of any requirement of this ORDER shall result in one or more of the following actions:
  - A. Enforcement of such requirement pursuant to Section 35-11-901 (1977) of the Wyoming Environmental Quality Act, including possible judicial action for an injunction and/or penalties and, in appropriate cases, criminal prosecution.
  - B. Revocation of this ORDER, after notice and opportunity for a public hearing, and subsequent enforcement of Sections 14.b. and 14.g. and

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Table I and II as appropriate under Section 14.g. of the Wyoming Air Quality Standards and Regulations in accordance with the preceding paragraph.

- C. If such violation occurs on or after July 1, 1979, notice of noncompliance and subsequent action pursuant to Section 120 of the Act.
- D. Any combination of the above.
- IX. This ORDER is effective upon the determination by the Administrator of EPA, or his delegatee, that it has been issued in accordance with the requirements of the Act or upon 90 days from receipt of this ORDER by EPA, whichever is earlier.

Nov. 14, 1978 Date:

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Director, Wyoming Department of Environmental Quality

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Administrator, Division of Air Quality Wyoming Department of Environmental Quality

Date of Approval:

Administrator (or his delegatee), U.S. Environmental Protection Agency



Matthew H. Mead, Governor

# **Department of Environmental Quality**

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



**Todd Parfitt, Director** 

DEQ

March 7, 2017

Mr. Bill Lawson Director, Environmental Services Pacificorp 1407 W. North Temple, Suite 330 Salt Lake City, UT 84116

Permit No. P0021110

Dear Mr. Lawson:

The Division of Air Quality of the Wyoming Department of Environmental Quality has completed final review of Pacificorp's (CMP000574) application to modify monitoring, recordkeeping, and reporting (MRR) conditions that apply to Unit 3 at the Naughton Power Plant (F000647) for best available retrofit technology (BART). PacifiCorp also requested that the Division revise the dates for the end of coal firing and the start of natural gas firing for Unit 3 to align with the requirements of the Wyoming Regional Haze State Implementation Plan (SIP).

Following this agency's proposed approval of the request as published on December 15, 2016, 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 permitting action, and an opportunity for a public hearing. The Division received three (3) comment letters during the public comment period, all in support of the proposed permitting action. Therefore, on the basis of the information provided to us, approval of the permitting action for the Naughton Plant as described in the application is hereby granted pursuant to Chapter 6, Section 2 of the regulations with the following conditions:

- 1. That 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, standards, permits or orders.
- 2. That 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. PacifiCorp shall contact the Title V Operating Permit Program to supplement the operating permit application for this facility to include applicable requirements from this permit, in accordance with Chapter 6, Section 3(c)(iii) of the WAQSR.
- 4. Notifications, reports, and correspondence associated with this permit shall be submitted to the Stationary Source Compliance Program Manager. Submissions may be done electronically through <a href="https://airimpact.wyo.gov">https://airimpact.wyo.gov</a> to satisfy requirements of this permit.

PacifiCorp Air Quality Permit P0021110 Page 2

- 5. This condition shall supersede the requirements for initial performance testing for Unit 3 NO<sub>x</sub> and particulate matter after conversion to natural gas firing within Condition 11 of Air Quality Permit MD-14506 and Condition 6 of Air Quality Permit MD-15946. Testing of Unit 3 for NO<sub>x</sub> and particulate matter after conversion to natural gas firing shall be conducted in accordance with the conditions of this permit.
- 6. That PacifiCorp shall provide written notification of the commencement of construction to convert Unit 3 to natural gas firing within thirty (30) days of commencement. Beginning the first semi-annual period after construction is commenced, PacifiCorp shall submit semi-annual progress reports on the construction to convert Unit 3 to natural gas firing within sixty (60) days of the end of each semi-annual period.
- 7. Effective upon permit issuance, this condition shall supersede Condition 13.iii of Air Quality Permit MD-14506 relative to the 30-day rolling average of NO<sub>x</sub> emissions from Unit 3, and the lb/MMBtu limits from Condition 5 of Air Quality Permit MD-15946 and Air Quality Permit P0021918. Effective upon conversion of Naughton Unit 3 to natural gas firing, emissions from Naughton Unit 3 shall not exceed the levels below. The limits shall apply at all times, including startups, shutdowns, emergencies, and malfunctions.

Unit	Pollutant	lb/MMBtu	
3	NOx	0.12 (30-day rolling)	
3 PM/PM <sub>10</sub> <sup>(a)</sup>		0.008 <sup>(b)</sup>	

(a) Total PM/PM10.

- 8. Effective upon permit issuance, this condition shall supersede Condition 7 of Air Quality Permit MD-15946. This condition shall also supersede Condition 11 of Air Quality Permit MD-14506 relative to the 30-day rolling average for NO<sub>x</sub> emissions from Unit 3. Upon the conversion of Naughton Unit 3 to natural gas firing, PacifiCorp shall maintain, calibrate, and operate a continuous emission monitoring system (CEMS), in full compliance with the requirements found at 40 CFR part 75, to accurately measure NO<sub>x</sub>, diluent, and stack gas volumetric flow and/or the natural gas flow rate from Unit 3.
- 9. The CEMS required by Condition 8 of this permit shall be used to calculate the hourly average NO<sub>x</sub> emission rate in lb/MMBtu for any hour in which natural gas is combusted in Unit 3. At the end of each operating day, PacifiCorp shall calculate and record a new 30-day rolling average emission rate in lb/MMBtu from the arithmetic average of all valid hourly emission rates from the CEMS for the current operating day and the previous 29 successive operating days to demonstrate compliance 30-day rolling average emission limits for NO<sub>x</sub> in Condition 7. An hourly average NO<sub>x</sub> emission rate in lb/MMBtu is valid only if the minimum number of data points, as specified in 40 CFR part 75, is acquired by both the pollutant concentration monitor (NO<sub>x</sub>) and the diluent monitor (O<sub>2</sub> or CO<sub>2</sub>). Data reported to meet this permit condition shall not include data substituted using the missing data substitution procedures of subpart D of 40 CFR part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR part 75.

PacifiCorp Air Quality Permit P0021110 Page 3

- 10. Effective upon permit issuance, the requirements of this condition shall supersede the portions of Conditions 6, 18, and 21 of Air Quality Permit MD-14506 and Condition 11 of Air Quality Permit MD-15946 that pertain to particulate matter testing for Unit 3 after conversion to natural gas firing. Within sixty (60) days of the conversion of Naughton Unit 3 to natural gas firing, and on an annual basis thereafter, PacifiCorp shall conduct stack testing to demonstrate compliance with the Unit 3 particulate matter limits in Condition 7. The testing shall measure particulate emissions using EPA Method 5, 5B, 5D, 17, and 202, as appropriate, in 40 CFR part 60, Appendix A. A test shall consist of three (3) runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of sixty (60) dry standard cubic feet. Results shall be reported in lb/MMBtu.
- Prior to any testing required by this permit, a test protocol shall be submitted to the Division for approval, at least thirty (30) days prior to testing. Notification should be provided to the Division at least fifteen (15) days prior to any testing. Results of the tests shall be submitted to this office within forty-five (45) days of completing the tests.
- 12. Following the conversion of Naughton Unit 3 to natural gas firing, PacifiCorp shall submit quarterly excess emissions reports for Unit 3 NO<sub>x</sub> emissions no later than the 30<sup>th</sup> day following the end of each calendar quarter. Excess emissions are defined as emissions that exceed the emissions limits specified in Condition 7. The reports shall include the magnitude, date(s), and duration of each period of excess emissions, specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the unit, the nature and cause of any malfunction (if known), and the corrective action taken or preventive measures adopted. When no excess emissions have occurred, such information shall be stated in the quarterly reports.
- 13. Following the conversion of Naughton Unit 3 to natural gas firing, PacifiCorp shall submit quarterly CEMS performance reports, to include dates and duration of each period during which the CEMS was inoperative (except for zero and span adjustments and calibration checks), reasons(s) why the CEMS was inoperative and steps taken to prevent recurrence, and any CEMS repairs or adjustments. PacifiCorp shall also submit results of any CEMS performance tests required by CFR part 75. When the CEMS has not been inoperative, repaired, or adjusted during the reporting period, such information shall be stated in the quarterly reports.
- 14. PacifiCorp shall submit results of any particulate matter stack tests conducted for demonstrating compliance with the particulate matter limits in Condition 7 within sixty (60) calendar days after completion of the test.
- 15. Effective upon permit issuance, this condition shall supersede Condition 7 of Air Quality Permit MD-14506. Opacity shall be limited as follows:
  - i. Units 1-2:
    - No greater than forty percent (40%) opacity of visible emissions.
      a. Limit shall apply during all operating periods.

Unit 3:

- 1. No greater than twenty percent (20%) opacity for visible emissions.
  - a. Limit shall apply during all operating periods.

- 16. Effective upon permit issuance, this condition shall supersede Condition 8 of Air Quality Permit MD-14506.
  - i. Authorization for SO<sub>3</sub> injection on Unit 3 shall remain in effect until start-up of Unit 3 after natural gas conversion.
- 17. PacifiCorp shall maintain the following records relative to Unit 3 for at least five (5) years following the Unit 3 gas conversion, and shall be made available to the Division upon request:
  - i. All CEMS data, including the date, place, and time of sampling or measurement; parameters sampled or measured; and results.
  - ii. Records of quality assurance and quality control activities for emissions measuring systems including, but not limited to, any records required by 40 CFR part 75.
  - iii. Records of all major maintenance activities conducted on emission units, air pollution control equipment, and CEMS.
  - iv. Any other CEMS records required by 40 CFR part 75.
  - v. Records of all particulate stack test results.
- 18. Effective upon permit issuance, this condition shall supersede Condition 15 of Air Quality Permit MD-14506. Effective January 30, 2019, Naughton Unit 3's heat input shall be limited to 12,964,800 MMBtu based on 12-month rolling average of hourly heat input values. Compliance with the heat input limited will be determined using a 40 CFR Part 75 certified CEMS and the procedures for determining heat input per 40 CFR Part 75.
- Effective upon permit issuance, this condition shall supersede Condition 20 of Air Quality Permit MD-14506. PacifiCorp Energy shall remove the coal pulverizers on Unit 3 from service no later than January 30, 2019. PacifiCorp Energy shall provide written notification to the Division of the actual date of pulverizer removal within thirty (30) days of such date.
- 20. Effective upon permit issuance, this condition shall supersede Condition 21 of Air Quality Permit MD-14506. PacifiCorp Energy shall complete the conversion of Naughton Unit 3 to natural gas no later than June 30, 2019.
- 21. At all times, PacifiCorp shall maintain Unit 3, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
- 22. Nothing in the conditions of this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with requirements of these conditions if the appropriate performance or compliance test procedures or method had been performed.
- 23. All conditions from previously issued Air Quality Permits MD-14506 and MD-15946 shall remain in effect unless specifically superseded by a condition of this permit.
- 24. All conditions from previously issued Air Quality Permits MD-14506 and MD-15946 shall remain in effect and conditions of this permit shall become invalid if, at any time, the Federal Implementation Plan for regional haze for Wyoming (Fed. Reg. Vol. 79, No. 20, January 30, 2014) is found to be invalid.

PacifiCorp Air Quality Permit P0021110 Page 5

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. 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,

Nancy E/Vehr Administrator Air Quality Division

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Todd Parfitt Director Dept. of Environmental Quality



# Department of Environmental Quality

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



Todd Parfitt, Director

June 20, 2014

Mr. William K. Lawson Director, Environmental Services PacifiCorp Energy 1407 W. North Temple, Suite 330 Salt Lake City, UT 84116

Permit No. MD-15946

Dear Mr. Lawson;

The Division of Air Quality of the Wyoming Department of Environmental Quality has completed final review of PacifiCorp Energy's application to modify the Naughton Power Plant by converting Unit 3 from a coal-fired electric generating unit to a natural gas-fired unit. Unit 3 will cease to burn coal on or before January 1, 2018, and the conversion to natural gas will be completed by June 30, 2018. Converting the unit to fire solely on natural gas will reduce emissions of nitrogen oxides, particulate matter, and sulfur dioxide more than retrofitting the unit with selective catalytic reduction and installing a new fabric filter. The Division will accept conversion of Unit 3 to natural gas as an alternative to installing and operating controls determined to be best available retrofit technology (BART) under Chapter 6, Section 9 of the Wyoming Air Quality Standards and Regulations. The Naughton Power Plant is located in sections 32 and 33, T21N, R116W, approximately four (4) miles southwest of Kemmerer, in Lincoln County, Wyoming.

Following this agency's proposed approval of the request as published May 15, 2014 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 modification, and an opportunity for a public hearing. No comments have been received. Therefore, on the basis of the information provided to us, approval to modify the Naughton Power Plant as described in the application is hereby granted pursuant to Chapter 6, Sections 2 and 9 of the regulations with the following conditions:

- 1. That 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, standards, permits or orders.
- 2. That 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. That PacifiCorp shall modify their Operating Permit in accordance with Chapter 6, Section 9(e)(vi) and Chapter 6, Section 3 of the WAQSR.
- 4. All notifications, reports and correspondence associated with 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, 510 Meadowview Drive, Lander, WY 82520.



## PacifiCorp Energy Air Quality Permit MD-15946 Page 2

5. Effective upon permit issuance, this condition shall supersede portions of Condition 7 of Air Quality Permit MD-6042A2 as it pertains to Naughton Unit 3. Effective upon completion of the initial performance tests to verify the emission levels below, as required by Condition 6 of this permit, emissions from Naughton Unit 3 shall not exceed the levels below. The NO<sub>x</sub> and PM/PM<sub>10</sub> limits shall apply during all operating periods.

Unit	Pollutant	lb/MMBtu	lb/hr	tpy
3	NO <sub>x</sub>	0.08 (30-day rolling)		519.0
3	PM/PM <sub>10</sub> <sup>(a)</sup>	<del>0.008</del> (b)	30.0 <sup>(b)</sup>	52.0

<sup>(a)</sup> Total PM/PM<sub>10</sub>.

(b) Averaging period is 1 hour as determined by 40 CFR 60.46 and an applicable Reference Method Test.

- 6. That initial performance tests be conducted, in accordance with Chapter 6, Section 2(j) of the WAQSR, within 30 days of achieving a maximum design rate but not later than 90 days following initial start-up of Naughton Unit 3 after conversion to natural gas and a written report of the results be submitted. If a maximum design rate is not achieved within 90 days of start-up, the Administrator may require testing be done at the rate achieved and again when a maximum rate is achieved.
- 7. Effective upon permit issuance, this condition shall supersede portions of Condition 9 of Air Quality Permit MD-6042A2 as it pertains to Naughton Unit 3. Performance tests shall consist of the following:

Naughton Unit 3:

<u>NO<sub>x</sub> Emissions</u> – Compliance with the NO<sub>x</sub> 30-day rolling average shall be determined using a continuous emissions monitoring system (CEMS) certified in accordance with 40 CFR part 75.

<u>PM/PM<sub>10</sub> Emissions</u> – Testing shall follow 40 CFR 60.46 and EPA Reference Test Methods 1-5 and 202, or an equivalent EPA Reference Method.

Testing required by the Chapter 6, Section 3, Operating Permit may be submitted to satisfy the testing required by this condition.

Prior to any testing required by this permit, a test protocol shall be submitted to the Division for approval, at least 30 days prior to testing. Notification should be provided to the Division at least 15 days prior to any testing. Results of the tests shall be submitted to this office within 45 days of completing the tests.

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- 9. Effective upon permit issuance, this condition shall supersede portions of Condition 12 of Air Quality Permit MD-6042A2 as it pertains to Naughton Unit 3. Compliance with the NO<sub>x</sub> limits set forth in this permit for Naughton Unit 3 shall be determined with data from the continuous monitoring systems required by 40 CFR Part 75 as follows.
  - A) Exceedances of the NO<sub>x</sub> limits shall be defined as follows:
    - i) Any 30-day rolling average which exceeds the lb/MMBtu NO<sub>x</sub> limits as calculated using the following formula:

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

Where:

 $E_{avg} = Weighted 30$ -day rolling average emission rate (lb/MMBtu).

- C= 1-hour average emission rate (lb/MMBtu) for hour "h" calculated using valid data from the CEM equipment certified and operated in accordance with Part 75 and the procedures in 40 CFR part 60, appendix A, Method 19. Valid data shall meet the requirements of WAQSR, Chapter 5, Section 2(j). Valid data shall not include data substituted using the missing data procedure in subpart D of Part 75, nor shall the data have been bias adjusted according to the procedures of Part 75.
- *n* = The number of unit operating hours in the last 30 successive boiler operating days with valid emissions data meeting the requirements of WAQSR, Chapter 5, Section 2(j). A-"boiler operating day" shall be defined as any 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time at the steam generating unit.
- ii) Any 30-day rolling average which exceeds the lb/hr NO<sub>x</sub> limits as calculated using the following formula:

$$\overline{E}_{avg} = \frac{\sum_{h=1}^{n} (C)_{h}}{\mu}$$

Where:

 $E_{avg} = Weighted 30$ -day rolling average emission rate (lb/hr).

PacifiCorp Energy Air Quality Permit MD-15946 Page-4

- C = 1-hour average emission rate (lb/hr) for hour "h" calculated using valid data (output concentration and average hourly volumetric flowrate) from the CEM equipment certified and operated in accordance with Part 75. Valid data shall meet the requirements of WAQSR, Chapter 5, Section 2(j). Valid data shall not include data substituted using the missing data procedure in subpart D of Part 75, nor shall the data have been bias adjusted according to the procedures of Part 75.
- n = The number of unit operating hours in the last 30 successive boiler operating days with valid emissions data meeting the requirements of WAQSR, Chapter 5, Section 2(j). A "boiler operating day" shall be defined as any 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time at the steam generating unit.
- B) PacifiCorp shall comply with all reporting and record keeping requirements as specified in WAQSR Chapter 5, Section 2(g) and 40 CFR part 60, subpart D. All excess emissions shall be reported using the procedures and reporting format specified in WAQSR Chapter 5, Section 2(g).
- 10. PacifiCorp shall use EPA's Clean Air Markets reporting program to convert the monitoring system data to annual emissions. PacifiCorp shall provide substituted data according to the missing data procedures of 40 CFR Part 75 during any period of time that there is not monitoring data. All monitoring data must meet the requirements of WAQSR, Chapter 5, Section 2(j).
- Effective upon permit issuance, this condition shall supersede Condition 14 of Air Quality Permit MD-6042A2 as it pertains to Naughton Unit 3. Compliance with the PM/PM<sub>10</sub> limits set forth in Condition 5 of this permit shall be determined with data from testing for PM conducted annually, or more frequently as specified by the Administrator, following 40 CFR 60.46 and EPA Reference Test Methods 1-5 and 202, or an equivalent EPA Reference Method. Testing required by the Chapter 6, Section 3 Operating Permit may be submitted to satisfy the testing required by this condition.
- 12. Records required by this permit shall be maintained for a period of at least five (5) years and shall be made available to the Division upon request.
- 13. Effective upon permit issuance, this condition shall supersede Condition 18 of Air Quality Permit MD-6042A2. PacifiCorp Energy shall remove the coal pulverizers on Unit 3 from service no later than January 1, 2018. PacifiCorp Energy shall provide written notification to the Division of the actual date of pulverizer removal from service within 30 days of such date.
- 14. PacifiCorp Energy shall complete the conversion of Naughton Unit 3 to natural gas prior to June 30, 2018, and conduct the initial performance tests required in Condition 6 of this permit no later than 90 calendar days after initial startup of Unit 3 after natural gas conversion.

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15. All conditions from previously issued Air Quality Permit MD-6042A2 shall remain in effect unless specifically superseded by a condition of this permit.

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 3 of the Wyoming Air Quality Standards and Regulations, which details the requirements for compliance with Condition 3. 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,

Steven A. Dietrich Administrator Air Quality Division

ee: Greg Meeker

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Todd Parfitt Director Dept. of Environmental Quality