



Department of Environmental Quality

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



Mark Gordon, Governor

Todd Parfitt, Director

Date: October 30, 2023

Mr. Brett Shakespear
Director, Environmental Compliance & Remediation
PacifiCorp
1407 W North Temple, Ste 210
Salt Lake City, UT 84115

Re: Air Quality Permit P0036941

Dear Mr. Shakespear:

Enclosed is Air Quality Permit P0036941 for the Jim Bridger Plant (P000645) to add clarity for Units 1 and Unit 2 (natural gas conversion) to ensure that the permit meets the requirements in 42 U.S.C. §7410(a)(2). The Jim Bridger Plant is located in Section 3, T20N, R101W, approximately four (4) miles north of Point of Rocks, in Sweetwater County, Wyoming. Changes were made to the permit as follows:

- Permit number in the first paragraph was updated to reference the correct permit P0034936 instead of P0036941.

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

Sincerely,

Nancy E. Vehr
Administrator
Air Quality Division



Department of Environmental Quality

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environment for the benefit of current and future generations.*



Mark Gordon, Governor

Todd Parfitt, Director

Date: October 30, 2023

Mr. Brett Shakespear
Director, Environmental Compliance & Remediation
PacifiCorp
1407 W North Temple, Ste 210
Salt Lake City, UT 84116

Permit No. **P0036941(corrected)**

Dear Mr. Shakespear:

The Division of Air Quality of the Wyoming Department of Environmental Quality has completed final review of PacifiCorp's (CMP000574) application to amend Air Quality Permit P0034936 for the Jim Bridger Plant (F000645) to add clarity to ensure that the permit meets the requirements in 42 U.S.C. §7410(a)(2). The Jim Bridger Plant is located in Section 3, T20N, R101W, approximately four (4) miles north of Point of Rocks, in Sweetwater County, Wyoming.

Air Quality Permit P0034936 was issued December 28, 2022, to modify operations at the Jim Bridger Plant by converting the Unit 1 Boiler (EUG001) and Unit 2 Boiler (EUG002) from coal fired units to natural gas fired units. By letter dated August 16, 2023, PacifiCorp has requested to amend Air Quality Permit P0034936 to add clarifications to the permit. The Division will administratively amend Air Quality Permit P0034936. Therefore, on the basis of the information provided to us, approval to modify the Jim Bridger 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. That PacifiCorp shall file a complete application to modify their Operating Permit within twelve (12) months of commencing operation, in accordance with Chapter 6, Section 3(c)(i)(B) of the WAQSR. Where an existing operating permit would prohibit such construction or change in operation, the owner or operator must obtain a revision before commencing operation.
4. That all notifications, reports and correspondence required by this permit shall be submitted to the Stationary Source Compliance Program Manager. Submissions may be done electronically through <https://airimpact.wyo.gov> to satisfy requirements of this permit.

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(307) 777-7756

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(307) 777-7781

5. That notification of the actual date of initial start-up for each source is required fifteen (15) days after start-up in accordance with Chapter 6, Section 2(i)(ii) of the WAQSR. PacifiCorp shall provide written notification of the commencement of construction to convert Jim Bridger Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) 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 1 and Unit 2 to natural gas firing within sixty (60) days of the end of each semi-annual period.
6. That the date of commencement of construction of converting the Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) from coal fired units to natural gas fired units shall be reported to the Administrator within thirty (30) days of commencement.

~~7. That performance tests be conducted, in accordance with Chapter 6, Section 2(j) of the WAQSR, within thirty (30) days of achieving a maximum design rate but not later than ninety (90) days following initial startup, and a written report of the results be submitted. The operator shall provide fifteen (15) days prior notice of the test date. If a maximum design rate is not achieved within ninety (90) days of startup, the Administrator may require testing be done at the rate achieved and again when a maximum rate is achieved.~~

8. Initial performance testing, as required by Condition 7 of this permit, shall be conducted on the following sources:

- i. Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002):

NO_x Emissions:

Testing is to be performed on a 30-day rolling average using a certified continuous emission monitoring (CEM).

CO Emissions:

Testing is to be performed on a 30-day rolling average using a certified CEM.

A test protocol shall be submitted for review and approval prior to testing. Notification of the test date shall be provided to the Division fifteen (15) days prior to testing. Results shall be submitted to the Division within forty-five (45) days of completing the tests.

9. Emissions from Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) equipped with low NO_x burners shall each be limited to the rates in the table below, effective on and after the date on which the performance test is conducted, as required by Condition 7 of this permit. These limits shall apply at all times, including startups, shutdowns, emergencies, and malfunctions. Effective upon startup of the converted Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas, this condition shall supersede any previous NO_x and CO emission limits for Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002). The tpy limit will go into effect twelve (12) months after startup of Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) on natural gas.

IMPACT AQD ID	Pollutant	lb/MMBtu (30-day Rolling Average)	tpy (Per Calendar Year)	lb/hr (30-day Rolling Average)
EGU001	NO _x	0.12	1,314	720
	CO	0.08	876	480
EGU002	NO _x	0.12	1,314	720
	CO	0.08	876	480

10. This condition shall supersede Condition 5 and 7 of Air Quality Permit MD-6040A2 for Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) only and this permit shall remain in effect for Unit 3 Boiler (EGU003) and Unit 4 Boiler (EGU004). Compliance with the limits set forth in this permit shall be determined with data from the NO_x CEM system required by 40 CFR part 75 and the CO CEM system as follows:

- i. Exceedances of the limits shall be defined as follows:

1. Any 30-day rolling average which exceeds the lb/MMBtu NO_x limit 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 thirty (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.

2. Any 30-day rolling average which exceeds the lb/hr NO_x 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/hr).

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 B 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 thirty (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.

3. Any 30-day rolling average which exceeds the lb/MMBtu and lb/hr CO 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 and lb/hr).

C = 1-hour average emission rate (lb/MMBtu and 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 40 CFR part 60, appendix B, Performance Specification 4 or 4a; 40 CFR 60, appendix F; 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).

~~n = The number of unit operating hours in the last thirty (30) successive boiler operating days with valid emissions data meeting the requirements of WAQSR, Chapter 5, Section 2(c). 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.~~

4. Any NO_x tons total value in a calendar year which exceeds the ones per year (tpy) NO_x limit as calculated using the following formula:

$$E_{NOx} = \sum_{h=1}^n \frac{ER_{(NOx)h} HI_h}{2000}$$

Where:

E_{NOx} = NO_x tons per calendar year

ER_{(NOx)h} = Hourly average NO_x emission rate for hour h, lb/MMBtu

HI_h = Hourly average heat input rate for hour h, MMBtu/hr

n = the number of unit operating hours in the calendar year being evaluated

11. That the Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) shall be limited to pipeline quality natural gas as a fuel and shall occur no later than January 1, 2024 in order to ensure SO₂ and PM/PM₁₀ emissions are no greater than as represented in the application for this permit. Effective upon startup of the converted Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas, this condition shall supersede SO₂ and PM/PM₁₀ limits and requirements associated with Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) from previous permits.
- ~~12. Effective upon startup of the converted Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas, this permit supersedes limits established in Condition 6 of Air Quality Permit MD-12186 for Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002).~~
- ~~13. Effective upon startup of the converted Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas, this permit supersedes requirements listed in Conditions 8 and 9 of Air Quality Permit MD-12186 for Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002).~~
- ~~14. Effective upon startup of the converted Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas, Condition 7 of Air Quality Permit MD-12186 shall remain in effect for Unit 3 Boiler (EGU003) and Unit 4 Boiler (EGU004) but are no longer for Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002).~~
15. That the opacity from the Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) shall be limited to no greater than twenty percent (20%) as determined by Method 9 of 40 CFR part 60, appendix A. Effective upon startup of the converted Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas.

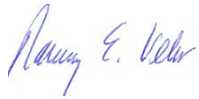
16. Conditions of Air Quality Permit P0025809 shall remain in effect until superseded by this permit. Effective upon startup of the converted Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas, this permit shall supersede Air Quality Permit P0025809.
17. Following the conversion of Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas firing, PacifiCorp shall submit quarterly CEMS performance reports (i.e., excess emissions reports) no later than 30 days following the end of each calendar quarter. The reports shall 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, and when no excess emissions have occurred, such information shall be stated in the quarterly reports.
18. PacifiCorp shall maintain the following records relative to Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) for at least five (5) years following the Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) 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.
19. Following the conversion of Unit 1 Boiler (EGU001) and Unit 2 Boiler (EGU002) to natural gas firing, each unit's individual heat input shall be limited to 21,900,000 MMBtu/year based on a 12-month rolling average of hourly heat input values. Compliance with the heat input limit will be determined using a 40 CFR part 75 certified CEMS and the procedures for determining heat input per 40 CFR part 75.
20. PacifiCorp shall maintain each unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.
21. Nothing 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 methods had been performed.

~~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, 7 and 10. Any appeal of this permit as a final action of the Department must be made to the Environmental Quality Council within thirty (30) days of permit issuance per Chapter 1, Section 8, General Rules of Practice and Procedure, Department of Environmental Quality.~~

PacifiCorp
Air Quality Permit P0036941 (corrected)
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If we may be of further assistance to you, please feel free to contact this office.

Sincerely,



Nancy E. Vehr
Administrator
Air Quality Division



Todd Parfitt
Director
Dept. of Environmental Quality