

**MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT**

**Air, Energy & Mining Division
1520 E. Sixth Avenue
P.O. Box 200901
Helena, Montana 59620-0901**

Northwestern Energy
Yellowstone County Generating Station
11 East Park Street
Butte Montana, 59701

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		EPA Method 5 (PM) EPA Method 7E (NO _x) EPA Method 9 (Opacity) EPA Method 10 (CO) EPA Method 25 (VOC) EPA Method 201 (PM) EPA Method 202 (PM)
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	NO _x
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 – Montana Air Quality Permit (MAQP)	X		MAQP #5261
New Source Performance Standards (NSPS)	X s		Subpart A, Subpart IIII, and Subpart JJJJ
National Emission Standards for Hazardous Air Pollutants (NESHAPS)	X		Subpart A
Maximum Achievable Control Technology (MACT)	X		Subpart A, and Subpart ZZZZ

Major New Source Review (NSR) – includes Prevention of Significant Deterioration (PSD) and/or Non-attainment Area (NAA) NSR		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
Compliance Assurance Monitoring (CAM)	X		NOx and CO
State Implementation Plan (SIP)		X	

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emissions units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by NWE on December 20, 2024, with additional technical details submitted on March 5, 2025. Additional supporting documentation including the Montana Air Quality Permit application and MAQP #5261-00 final on September 8, 2021, was also referenced in developing this initial Title V operating permit.

B. Facility Location

The legal description of the site is the N ½ of Section 15, Township 2 South, Range 24 East in Yellowstone County, Montana. The City of Laurel wastewater treatment plant borders the property to the west while existing NWE and CHS Laurel Refinery property make up the northern boundary. A private residence borders the northeastern and eastern sides. The main YCGS facility building is constructed in approximately the center of the 36-acre lot. The main RICE are generally centered around latitude 45.659869 degrees and longitude -108.746068 degrees.

C. Facility Background Information

Montana Air Quality Permit History

On May 10, 2021, NWE submitted an application for what was originally identified as the Laurel Generating Station, which has since been renamed as the Yellowstone County Generating Station (YCGS). The generating units consist of eighteen (18) natural gas-fired reciprocating internal combustion engine (RICE) generator sets each with a nominal gross output of approximately 9.7-megawatt electric (MWe) per generator, for total nominal gross plant output of 175 MWe. Each engine is rated for approximately 13,008 horsepower (hp).

An emergency generator and an emergency fire pump are also located at the YCGS, each equipped with a diesel engine rated at 2,682 brake horsepower (bhp) and 315 bhp, respectively.

There is also a 1.11 million British thermal unit per hour (MMBtu/hr) natural gas dew point heater, also referred to as a line heater, for preheating natural gas to the RICE. **MAQP #5261-00** was issued final on September 8, 2021.

Title V Operating Permit History

This initial YCGS Operating Permit **#OP5261-00** will be issued once the process proceeds thru the draft, proposed, decision, and final version.

D. Taking and Damaging Analysis

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, DEQ is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 2-10-105, MCA, DEQ conducted the following private property taking and damaging assessment.

YES	NO	
		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
		2. Does the action result in either a permanent or indefinite physical occupation of private property?
		3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
		4. Does the action deprive the owner of all economically viable uses of the property?
		5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
		6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
		7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
		7a. Is the impact of government action direct, peculiar, and significant?
		7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
		7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
		Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, DEQ determined there are no taking or damaging implications associated with this permit action.

E. Compliance Designation

A full compliance evaluation (FCE) was conducted for the period October 15, 2024, through November 5, 2025. This included a site visit on October 29, 2025, conducted by DEQ Field Services Staff. The results from the FCE are summarized below.

No warning or violation letters have been issued to YCGS during the period covered by this CMR. No air quality enforcement activities have occurred at this facility during the review period. Violation and enforcement actions conducted by DEQ are documented and submitted to EPA's ICIS-Air database.

YCGS is required to conduct start-up testing for each RICE on location within 180 days of initial start-up. During the compliance review period, YCGS has tested several of the RICE with passing results, with the final two engines being tested during the on-site visit. YCGS submitted source test protocols and reports to DEQ for each of the stack testing events. All source tests indicated compliance with the MAQP conditions and the applicable air programs. Source testing activities conducted by regulated sources in Montana are documented and submitted to EPA's ICIS-Air database.

Based upon the information gathered during the facility inspections, observations made during site visits, and the review of facility reports, notifications, and compliance certifications submitted by YCGS during the review period, as required by MAQP #5261-00 and applicable air programs, DEQ believes that YCGS is in compliance with the applicable requirements for the period covered by this Compliance Monitoring Report.

SECTION II. SUMMARY OF EMISSIONS UNITS

A. Facility Process Description

The generating units consist of eighteen (18) natural gas-fired reciprocating internal combustion engine (RICE) generator sets each with a nominal gross output of approximately 9.7-megawatt electric (MWe) per generator, for total nominal gross plant output of 175 MWe. Each engine is rated for approximately 13,008 horsepower (hp).

An emergency generator and an emergency fire pump are also located at the YCGS, each equipped with a diesel engine rated at 2,682 brake horsepower (bhp) and 315 bhp, respectively.

There is also a 1.11 million British thermal unit per hour (MMBtu/hr) natural gas dew point heater, also referred to as a line heater, for preheating natural gas to the RICE. MAQP #5261-00 was issued final on September 8, 2021.

B. Emissions Units and Pollution Control Device Identification

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	Caterpillar Natural Gas-Fired Reciprocating Internal Combustion Engine (RICE) Generator Set	Selective Catalytic Reduction (SCR) and Oxidation Catalyst
EU002	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU003	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU004	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU005	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU006	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU007	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU008	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU009	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU010	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU011	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU012	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU013	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU014	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU015	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU016	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU017	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU018	Caterpillar Natural Gas-Fired RICE Generator Set	SCR and Oxidation Catalyst
EU019	Emergency Power Diesel Engine (Gen Set) Up to a 2, 682 brake horsepower (bhp) rating	40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ
EU020	Emergency Engine for Fire Pump (Gen Set) Up to a 315 bhp rating	40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ
EU021	Dew Point Heater up to 1.1 MMBtu/hr	Good Combustion Practices and only Pipeline Quality Natural Gas

C. Categorically Insignificant Sources/Activities

The following table of insignificant sources and/or activities were provided by NWE.

The application identified the Line Heater as an insignificant emitting unit. While the Line Heater has the potential to emit less than five tons per year of any regulated air pollutant and less than 500 pounds of potential lead and HAPs emissions, it does have an applicable BACT requirement for clean burning fuels. The Line Heater meets three of the four requirements for being considered an insignificant emitting unit; however, given the ARM 17.8.752 reference and associated applicable BACT requirement, it does not meet the final requirement for an insignificant emitting unit. Therefore, the applicable requirements for the Line Heater are included in Section III.D of this operating permit.

No other insignificant emitting units were presented by NEW.

Emissions Unit ID	Description

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

Emission limits and standards in the Title V permit were established from the preconstruction permit MAQP #5261-00, the NSPS requirements and the MACT requirements. These documents were supported by the Title V application materials submitted on December 20, 2024, and March 5, 2025.

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance do not require the permit to impose the same level of rigor for all emissions units. Furthermore, they do not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for a insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo (**i.e., no monitoring**) will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emissions units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, DEQ may request additional testing to determine compliance with the emission limits and standards.

C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but DEQ has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

D. Recordkeeping Requirements

The permittee is required to keep all records listed in the operating permit as a permanent business record for at least five years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to DEQ and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limit and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with ARM 17.8.1232, a public notice was published in the *Billings Gazette* newspaper on or before December 15, 2025. DEQ provided a 30-day public comment period on the draft operating permit from December 15, 2025, to January 14, 2026. ARM 17.8.1232 requires DEQ to keep a record of both comments and issues raised during the public participation process. The comments and issues received by January 14, 2026, will be summarized, along with DEQ's responses, in the following table. All comments received during the public comment period will be promptly forwarded to NWE so they may have an opportunity to respond to these comments as well.

Summary of Public Comments (To be included if received following Draft Issuance)

Person/Group Commenting	Comment	DEQ Response

G. Draft Permit Comments

(To be included if received following Draft Issuance)

Summary of Permittee Comments

Permit Reference	Permittee Comment	DEQ Response

Summary of EPA Comments

Permit Reference	EPA Comment	DEQ Response

SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS

Air Quality Administrative Rules of Montana (ARM) and Federal Regulations identified as not applicable to the facility or to a specific emissions unit at the time of the permit issuance are listed below (ARM 17.8.1214). The following list does not preclude the need to comply with any new requirements that may become applicable during the permit term.

The applicant did not identify a full list of non-applicable requirements within the application. DEQ prepared this preliminary non-applicable list.

Rule Citation	Reason
ARM 17.8.610	This requirement is not applicable because the facility is not in this source category.
40 CFR 53 40 CFR 58	These requirements are not applicable because this facility does not have any ambient air monitoring or surveillance requirements.
40 CFR 59 40 CFR 60, Subparts C, Cb, Cc, Cd, Ce 40 CFR 60, Subparts D, Da, Db, Dc 40 CFR 60, Subparts E-Z 40 CFR 60, Subparts AA-EE 40 CFR 60, Subparts GG-XX 40 CFR 60, Subparts AAA-BBB 40 CFR 60, Subpart DDD 40 CFR 60, Subparts FFF-LLL 40 CFR 60, Subparts NNN-XXX 40 CFR 60, Subparts AAAA-FFFF 40 CFR 60, Subparts KKKK-MMMM 40 CFR 60, Subparts QQQQ-OOOO 40 CFR 60, Subpart QQQQ 40 CFR 61, Subparts B-F 40 CFR 61, Subparts H-I 40 CFR 61, Subparts K-R 40 CFR 61, Subparts T 40 CFR 61, Subparts W 40 CFR 61, Subparts Y 40 CFR 61, Subparts BB 40 CFR 61, Subparts FF 40 CFR 63, Subparts F 40 CFR 63, Subparts L-O 40 CFR 63, Subparts Q-U 40 CFR 63, Subparts W-Y 40 CFR 63, Subparts AA-EE 40 CFR 63, Subpart GG-NN 40 CFR 63, Subparts CCC-EEE 40 CFR 63, Subparts GGG-JJJ 40 CFR 63, Subparts LLL-RRR 40 CFR 63, Subparts TTT-VVV 40 CFR 63, Subparts XXX 40 CFR 63, Subpart AAAA	These requirements are not applicable because the facility is not an affected source as defined in these regulations.

Rule Citation	Reason
40 CFR 63, Subparts CCCC-YYYY 40 CFR 63, Subparts AAAAAA-NNNNN 40 CFR 63, Subparts PPPPP-UUUUU 40 CFR 63, Subparts WWWWW 40 CFR 63, Subparts YYYYY-ZZZZZ 40 CFR 63, Subparts BBBBBB-HHHHHH 40 CFR 63, Subparts LLLLLL-TTTTTT 40 CFR 63, Subparts VVVVVV-EEEEEE 40 CFR 63, Subpart HHHHHH	
40 CFR 72-78 ARM 17.8.1234	These requirements are not applicable because the facility is not an affected source as defined by the acid rain regulations.

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT Standards (Part 63)

The YCGS facility is relatively simple in that Subpart A and Subpart ZZZZ are the only applicable MACT standards.

Subpart ZZZZ- National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

B. NESHAP Standards (Part 61)

DEQ is not aware of any proposed or pending NESHAP standards, in addition to those that already may be listed, that may be applicable.

C. NSPS Standards

The YCGS facility is relatively simple in that Subpart A, Subpart IIII, and Subpart JJJJ are the only applicable New Source Performance Standards.

Subpart JJJJ- Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.
Subpart IIII- Standards of Performance for Stationary Compression Ignition Internal Combustion Engine.

D. Risk Management Plan

As of this date (11/17/25), this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

Aqueous ammonia will be injected in the proposed RICE exhaust for NO_x control in a Selective Catalytic Reduction catalyst. Per Table 1 of §68.130, aqueous ammonia is a regulated substance. However, the size of the proposed ammonia tanks (two each at 10,000 gallons) and the concentration of ammonia used (19%) is below the threshold values of Table 1

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.

E. CAM Applicability

An emitting unit located at a Title V facility that meets the following criteria listed in ARM 17.8.1503 is subject to Subchapter 15 and must develop a CAM Plan for that unit:

- The emitting unit is subject to an emission limitation or standard for the applicable regulated air pollutant (unless the limitation or standard that is exempt under ARM 17.8.1503(2));
- The emitting unit uses a control device to achieve compliance with such limit; and

- The emitting unit has potential pre-control device emission of the applicable regulated air pollutant that is greater than major source thresholds.

Unit(s) determination(s):

The RICE meet the CAM requirements and NWE is subject to having a CAM plan in place for both NO_x and CO. The required CAM plans are in the Appendices to the OP.

F. PSD and Title V Greenhouse Gas Tailoring Rule

On May 7, 2010, EPA published the “light duty vehicle rule” (Docket # EPA-HQ-OAR- 2009-0472, 75 FR 25324) controlling greenhouse gas (GHG) emissions from mobile sources, whereby GHG became a pollutant subject to regulation under the Federal and Montana Clean Air Act(s). On June 3, 2010, EPA promulgated the GHG “Tailoring Rule” (Docket # EPA-HQ-OAR-2009-0517, 75 FR 31514) which modified 40 CFR Parts 51, 52, 70, and 71 to specify which facilities are subject to GHG permitting requirements and when such facilities become subject to regulation for GHG under the PSD and Title V programs.

Under the Tailoring Rule, any PSD action (either a new major stationary source or a major modification at a major stationary source) taken for a pollutant or pollutants other than GHG that would become final on or after January 2, 2011 would be subject to PSD permitting requirements for GHG if the GHG increases associated with that action were at or above 75,000 TPY of carbon dioxide equivalent (CO₂e) and greater than 0 TPY on a mass basis. Similarly, if such action were taken, any resulting requirements would be subject to inclusion in the Title V Operating Permit. Facilities which hold Title V permits due to criteria pollutant emissions over 100 TPY would need to incorporate any GHG applicable requirements into their operating permits for any Title V action that would have a final decision occurring on or after January 2, 2011.

Starting on July 1, 2011, PSD permitting requirements would be triggered for modifications that were determined to be major under PSD based on GHG emissions alone, even if no other pollutant triggered a major modification. In addition, sources that are not considered PSD major sources based on criteria pollutant emissions would become subject to PSD review if their facility-wide potential emissions equaled or exceeded 100,000 TPY of CO₂e and 100 or 250 TPY of GHG on a mass basis depending on their listed status in ARM 17.8.801(22) and they undertook a permitting action with increases of 75,000 TPY or more of CO₂e and greater than 0 TPY of GHG on a mass basis. With respect to Title V, sources not currently holding a Title V permit that have potential facility-wide emissions equal to or exceeding 100,000 TPY of CO₂e and 100 TPY of GHG on a mass basis would be required to obtain a Title V Operating Permit.

The Supreme Court of the United States (SCOTUS), in its *Utility Air Regulatory Group v. EPA* decision on June 23, 2014, ruled that the Clean Air Act neither compels nor permits EPA to require a source to obtain a PSD or Title V permit on the sole basis of its potential emissions of GHG. SCOTUS also ruled that EPA lacked the authority to tailor the Clean Air Act’s unambiguous numerical thresholds of 100 or 250 TPY to accommodate a CO₂e threshold of 100,000 TPY. SCOTUS upheld that EPA reasonably interpreted the Clean Air Act to require sources that would need PSD permits based on their emission of conventional pollutants to comply with BACT for GHG. As such, the Tailoring Rule has been rendered invalid and sources cannot become subject to PSD or Title V regulations based on GHG emissions alone. Sources that must undergo PSD permitting due to pollutant emissions other than GHG may still be required to comply with BACT for GHG emissions.