

Permit #: 28.0801-02

Effective Date: July 10, 2015

Expiration Date: July 5, 2016



**SOUTH DAKOTA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES
TITLE V AIR QUALITY PERMIT**

**Steven M. Pirner, Secretary
Department of Environment and Natural Resources**

Under the South Dakota Air Pollution Control Regulations

Pursuant to Chapter 34A-1-21 of the South Dakota Codified Laws and the Air Pollution Control Regulations of the State of South Dakota and in reliance on statements made by the owner designated below, a permit to operate is hereby issued by the Secretary of the Department of Environment and Natural Resources. This permit authorizes such owner to operate the unit(s) at the location designated below and under the listed conditions:

A. Owner

1. Company Name and Address

Black Hills Power, Inc.
PO Box 1400
Rapid City, South Dakota 57709

2. Actual Source Location and Mailing Address if Different from Above

409 Deadwood Avenue
Rapid City, South Dakota 57709
Section 34, T2N, R7E, Pennington County

3. Permit Contact

Tim Rogers, Environmental Manager
(605) 721-2286

4. Facility Contact

Kevin Hall, Plant Manger
(719) 250-5776

5. Responsible Official

Mark Lux, VP and General Manager of Power Delivery
(303) 568-3241

B. Permit Revisions or Modifications

March 15, 2013- minor permit amendment to include appropriate 40 CFR Part 63, Subpart ZZZZ requirements
April 8, 2014 – Minor Amendment for the removal of coal fired boiler system
July 10, 2015 – Modification to incorporate an emergency generator

C. Type of Operation

Electric generator

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1.0 STANDARD CONDITIONS

1.1 Operation of source

In accordance with Administrative Rules of South Dakota (ARSD) 74:36:05:16.01(8), the owner or operator shall operate the units, controls, and processes as described in Table 1-1 in accordance with the statements, representations, and supporting data contained in the complete permit application submitted and dated August 20, 2003, October 30, 2012, March 3, 2014 and February 10, 2015 unless modified by the conditions of this permit. Except as otherwise provided herein, the control equipment shall be operated in a manner that achieves compliance with the conditions of this permit at all times. The application consists of the application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in an application, such information shall be promptly submitted.

Table 1-1 – Description of Permitted Units, Operations, and Processes

Unit	Description	Maximum Operating Rate	Control Device
#2	CT #1 – 1977 General Electric Frame 5 simple cycle combustion turbine, model number MS 5001. The unit is fired with natural gas and distillate oil.	324 million Btus per hour heat input	Not Applicable
#3	CT #2 – 1977 General Electric Frame 5 simple cycle combustion turbine, model number MS 5001. The unit is fired with natural gas and distillate oil.	324 million Btus per hour heat input	Not Applicable
#4	CT #3 – 1978 General Electric Frame 5 simple cycle combustion turbine, model number MS 5001P. The unit is fired with natural gas and distillate oil.	324 million Btus per hour heat input	Not Applicable
#5	CT #4 – 1979 General Electric Frame 5 simple cycle combustion turbine, model number MS 5001P. The unit is fired with natural gas and distillate oil.	324 million Btus per hour heat input	Not Applicable
#6	Diesel Generator #1 – 1966 General Motors Corporation diesel generator, model number MP36A. The unit is fired with distillate oil.	20.3 million Btus per hour heat input	2012 MiraTech Corp. V-Cat CO oxidation catalyst
#7	Diesel Generator #2 – 1966 General Motors Corporation diesel generator, model number MP36A. The unit is fired with distillate oil.	20.3 million Btus per hour heat input	2012 MiraTech Corp. V-Cat CO oxidation catalyst
#8	Diesel Generator #3 – 1966 General Motors Corporation diesel generator, model number MP36A. The unit is fired with distillate oil.	20.3 million Btus per hour heat input	2012 MiraTech Corp. V-Cat CO oxidation catalyst
#9	Diesel Generator #4 – 1966 General	20.3 million Btus	2012 MiraTech Corp.

Unit	Description	Maximum Operating Rate	Control Device
	Motors Corporation diesel generator, model number MP36A. The unit is fired with distillate oil.	per hour heat input	V-Cat CO oxidation catalyst
#10	Diesel Generator #5 – 1966 General Motors Corporation diesel generator, model number MP36A. The unit is fired with distillate oil.	20.3 million Btus per hour heat input	2012 MiraTech Corp. V-Cat CO oxidation catalyst
#14	Tank #1 – Above ground storage tank equipped with a fixed roof.	1,000,000 gallons	Not Applicable
#15	Tank #2 – Above ground storage tank equipped with a fixed roof.	1,000,000 gallons	Not Applicable
#17	Service Center – 1985 Onan DDA emergency generator, model #4219E-01, fired with distillate oil.	59 horsepower heat output	Not Applicable
#18	2012 Cummins 500DFEK Diesel generator	755 horsepower	Not Applicable

1.2 Duty to comply

In accordance with ARSD 74:36:05:16.01(12), the owner or operator shall comply with the conditions of this permit. An owner or operator who knowingly makes a false statement in any record or report or who falsifies, tampers with, or renders inaccurate, any monitoring device or method is in violation of this permit. A violation of any condition in this permit is grounds for enforcement, reopening this permit, permit termination, or denial of a permit renewal application. The owner or operator, in an enforcement action, cannot use the defense that it would have been necessary to cease or reduce the permitted activity to maintain compliance. The owner or operator shall provide any information requested by the Secretary to determine compliance or whether cause exists for reopening or terminating this permit.

1.3 Property rights or exclusive privileges

In accordance with ARSD 74:36:05:16.01(12), the State's issuance of this permit, adoption of design criteria, and approval of plans and specifications does not convey any property rights of any sort, any exclusive privileges, any authorization to damage, injure or use any private property, any authority to invade personal rights, any authority to violate federal, state or local laws or regulations, or any taking, condemnation or use of eminent domain against any property owned by third parties. The State does not warrant that the owner's or operator's compliance with this permit, design criteria, approved plans and specifications, and operation under this permit, will not cause damage, injury or use of private property, an invasion of personal rights, or violation of federal, state or local laws or regulations. The owner or operator is solely and severally liable for all damage, injury or use of private property, invasion of personal rights, infringement of federal, state or local laws and regulations, or taking or condemnation of property owned by third parties, which may result from actions taken under the permit.

1.4 Penalty for violating a permit condition

In accordance with South Dakota Codified Laws (SDCL) 34A-1-39 and 34A-1-47, a violation of a permit condition may subject the owner or operator to civil or criminal prosecution, a state

penalty of not more than \$10,000 per day per violation, injunctive action, administrative permit action, and other remedies as provided by law.

1.5 Inspection and entry

In accordance with SDCL 34A-1-41, the owner or operator shall allow the Secretary to:

1. Enter the premises where a regulated activity is located or where pertinent records are stored;
2. Have access to and copy any records that are required under this permit;
3. Inspect operations regulated under this permit; and/or
4. Sample or monitor any substances or parameters for the purpose of assuring compliance.

1.6 Severability

In accordance with ARSD 74:36:05:16.01(11), any portion of this permit that is void or challenged shall not affect the validity of the remaining permit requirements.

1.7 Permit termination, modification, or revocation

In accordance with ARSD 74:36:05:46, the Secretary may recommend that the Board of Minerals and Environment terminate, modify, or revoke this permit for violations of SDCL 34A-1 or the federal Clean Air Act or for nonpayment of any outstanding fee or enforcement penalty.

1.8 Credible evidence

In accordance with ARSD 74:36:13:07, credible evidence may be used for the purpose of establishing whether the owner or operator has violated or is in violation of this permit. Credible evidence is as follows:

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at the source:
 - a. A monitoring method approved for the source pursuant to 40 CFR § 70.6(a)(3) and incorporated in this permit; or
 - b. Compliance methods specified in an applicable plan;
2. The following testing, monitoring, or information gathering methods are presumptively credible testing, monitoring, or information-gathering methods:
 - a. Any monitoring or testing methods approved in this permit, including those in 40 CFR Parts 51, 60, 61, and 75; or
 - b. Other testing, monitoring, or information-gathering methods that produce information comparable to that produced by any method in section (1) or (2)(a).

2.0 PERMIT FEES

2.1 Annual air fee required

In accordance with ARSD 74:36:05:06.01, the owner or operator shall submit an annual administrative fee and an annual fee. The fee is based on actual emissions in accordance with ARSD 74:37.

2.2 Annual operational report

In accordance with ARSD 74:37:01:06, the Secretary will supply the owner or operator with an annual operational report in January of each year. The owner or operator shall complete and submit the operational report to the Secretary by March 1 of each year. The responsible official shall sign the operational report in the presence of a notary public.

2.3 Annual air fee

In accordance with ARSD 74:37:01:08, the Secretary will notify the owner or operator of the required annual air emission fee and administrative fee by June 1 of each year. The fees shall accrue on July 1 and are payable to the Department of Revenue by July 31 of each year.

3.0 PERMIT AMENDMENT AND MODIFICATION CONDITIONS

3.1 Permit flexibility

In accordance with ARSD 74:36:05:30, the owner or operator shall have the flexibility to make changes to the source during the term of this permit. The owner or operator shall provide the Secretary written notice at least seven days in advance of the proposed change (NOTE: The Secretary will forward a copy of the written notice to EPA). The written notice shall include a brief description of the change, the date on which the change is to occur, any change in emissions, the proposed changes to the permit, and whether the requested revisions are for an administrative permit amendment, minor permit amendment, or permit modification.

The Secretary will notify the owner or operator whether the change is an administrative permit amendment, a minor permit amendment, or a permit modification. A proposed change that is considered an administrative permit amendment or a minor permit amendment can be completed immediately after the Secretary receives the written notification. The owner or operator must comply with both the applicable requirements governing the change and the proposed permit terms and conditions until the Secretary takes final action on the proposed change.

A proposed change that is considered a modification cannot be constructed until the Secretary takes final action on the proposed change. Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

3.2 Administrative permit amendment

In accordance with ARSD 74:36:05:33, the Secretary has 60 days from receipt of a written notice to verify that the proposed change is an administrative permit amendment. As provided in ARSD 74:36:01:03, the Secretary considers a proposed change an administrative permit amendment if the proposed change accomplishes one of the following:

1. Corrects typographical errors;
2. Changes the name, address, or phone number of any person identified in this permit or provides a similar minor administrative change at the source;
3. Requires more frequent monitoring or reporting by the source;

4. The ownership or operational control of a source change and the Secretary determines that no other change in this permit is necessary. However, the new owner must submit a certification of applicant form and a written statement specifying the date for transfer of operating permit responsibility, coverage, and liability; or
5. Any other changes that the Secretary and the administrator of EPA determines to be similar to those requirements in this condition.

3.3 Minor permit amendment

In accordance with ARSD 74:36:05:38, the Secretary has 90 days from receipt of a written notice or 15 days after the end of EPA's 45-day review period, whichever is later, to take final action on a minor permit amendment. Final action consists of issuing or denying a minor permit amendment or determining that the proposed change is a permit modification. As provided in ARSD 74:36:04:20:02, the Secretary considers a proposed change to be a minor permit amendment if the proposed change:

1. Does not violate any applicable requirements;
2. Does not involve significant changes to existing monitoring, reporting, or record keeping requirements;
3. Does not require or change a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. Does not seek to establish or change a permit term or condition for which the source has assumed to avoid an applicable requirement, a federally enforceable emission cap, or an alternative emission limit. An alternative emission limit is approved pursuant to regulations promulgated under section 112(i)(5) of the federal Clean Air Act.

3.4 Permit modification

In accordance with ARSD 74:36:05:39, an owner or operator may apply for a permit modification. A permit modification is defined in ARSD 74:36:01:10 as a physical change in or change in the operation of a source that results in at least one of the following:

1. An increase in the amount of an air pollutant emitted by the source or results in the emission of an air pollutant not previously emitted;
2. A significant change to existing monitoring, reporting, or record keeping requirements in the permit;
3. The change requires or changes a case-by-case determination of an emission limit or other standard, a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis; or
4. The change seeks to establish or change a permit term or condition for which there is a corresponding underlying applicable requirement that the source has assumed to avoid an applicable requirement, a federally enforceable emissions cap assumed to avoid classification as a modification under a provision of the Title I of the Clean Air Act, or an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Clean Air Act.

Permit modifications are subject to the same procedural requirements, including public comment, as the original permit issuance except that the required review shall cover only the proposed changes.

3.5 Permit revision

In accordance with ARSD 74:36:05:40, the Secretary may reopen and revise this permit to meet requirements of SDCL 34A-1 or the federal Clean Air Act.

3.6 Testing new fuels or raw materials

In accordance with ARSD 74:36:11:04, an owner or operator may request permission to test a new fuel or raw material to determine if it is compatible with existing equipment before requesting a permit amendment or modification. A complete test proposal shall consist of the following:

1. A written proposal that describes the new fuel or raw material, operating parameters, and parameters that will be monitored and any testing associated with air pollutant emissions during the test;
2. An estimate of the type and amount of regulated air pollutant emissions that will result from the proposed change; and
3. The proposed schedule for conducting the test. In most cases the owner or operator will be allowed to test for a maximum of one week. A request for a test period longer than one week will need additional justification. A test period shall not exceed 180 days.

The Secretary shall approve, conditionally approve, or deny in writing the test proposal within 45 days after receiving a complete proposal. Approval conditions may include changing the test schedule or pollutant sampling and analysis methods. Pollutant sampling and analysis methods may include, but are not limited to performance testing, visible emission evaluation, fuel analysis, dispersion modeling, and monitoring of raw material or fuel rates.

If the Secretary determines that the proposed change will result in an increase in the emission of a regulated air pollutant or result in the emission of an additional regulated air pollutant, the Secretary shall give public notice of the proposed test for 30 days. The Secretary shall consider all comments received during the 30-day public comment period before making a final decision on the test.

The Secretary will not approve a test if the test would cause or contribute to a violation of a national ambient air quality standard.

4.0 PERMIT RENEWAL REQUIREMENTS

4.1 Permit effective

In accordance with ARSD 74:36:05:07, this permit shall expire five years from date of issuance unless reopened or terminated for cause.

4.2 Permit renewal

In accordance with ARSD 74:36:05:08, the owner or operator shall submit an application for a permit renewal at least 180 days before the date of permit expiration if the owner or operator wishes to continue an activity regulated by this permit. The current permit shall not expire and shall remain in effect until the Secretary takes final action on the timely permit renewal application.

4.3 Permit expiration

In accordance with ARSD 74:36:05:28, permit expiration terminates the owner's or operator's right to operate any unit covered by this permit.

5.0 RECORDKEEPING AND REPORTING REQUIREMENTS

5.1 Recordkeeping and reporting

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall maintain all monitoring data, records, reports, and pertinent information specified by this permit for five years from the date of sample, measurement, report, or application unless otherwise specified in this permit. The records shall be maintained on site for the first two years and may be maintained off site for the last three years. All records must be made available to the Secretary for inspection. All notifications and reports shall be submitted to the following address:

South Dakota Department of Environment and Natural Resources
PMB 2020, Air Quality Program
523 E. Capitol, Joe Foss Building
Pierre, SD 57501-3182

5.2 Signatory Requirements

In accordance with ARSD 74:36:05:12 and ARSD 74:36:05:16.01, all applications submitted to the Secretary shall be signed and certified by a responsible official. A responsible official for a corporation is a responsible corporate officer and for a partnership or sole proprietorship is a general partner or the proprietor, respectively. All reports or other information submitted to the Secretary shall be signed and certified by a responsible official or a duly authorized representative. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to the Secretary; and
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

The responsible official shall notify the Secretary if an authorization is no longer accurate. The new duly authorized representative must be designated prior to or together with any reports or information to be signed by a duly authorized representative.

5.3 Certification statement

In accordance with ARSD 74:36:05:16.01(14)(a), all documents required by this permit, including application forms, reports, and compliance certification, must be certified by a responsible official or a duly authorized representative. The certification shall include the following statement:

“I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document and all attachments are true, accurate, and complete.”

5.4 Monitoring log

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall maintain a monitoring log. The monitoring log shall contain the following information:

1. The following information shall be recorded for each visible emission reading required in permit condition 9.1
 - a. Identify the unit;
 - b. The date and time the visible emission reading was performed;
 - c. If visible emissions were observed;
 - d. Description of maintenance performed to eliminate visible emissions;
 - e. Visible emission evaluation if visible emissions are not eliminated; and
 - f. Signature of person performing visible emission reading and/or visible emission evaluation;
2. The following information shall be recorded within two days of each emergency exceedance:
 - a. The date of the emergency exceedance and the date the emergency exceedance was reported to the Secretary;
 - b. The cause(s) of the emergency;
 - c. The reasonable steps taken to minimize the emissions during the emergency; and
 - d. A statement that the permitted equipment was at the time being properly operated.

5.5 Annual records

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall calculate and record the following amounts from January 1 to December 31 of each year and reported in the Annual Operational Report required in permit condition 2.2:

1. The number of hours each unit listed in Table 1-1 was operated;
2. The amount of distillate oil and natural gas burned in Unit #2, #3, #4, and #5, in gallons and million cubic feet, respectively;
3. The amount of distillate oil burned in Unit #6, #7, #8, #9, and #10, in gallons; and
4. The amount of volatile organic compound emissions from Unit #14 and #15.

5.6 Semiannual reporting

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall submit a semiannual report. The semiannual report shall contain the following information:

1. Name of the facility, permit number, reference to this permit condition, and identify the submittal as a quarterly or semiannual report;
2. A copy of the results of each distillate oil analysis obtained during the reporting period, if a shipment of distillate oil is received during the reporting period. If a shipment of distillate oil is not received during the reporting period, state that in the report; and

The report shall be postmarked no later than the 30th day following the end of the calendar reporting period.

5.7 Annual compliance certification

In accordance with ARSD 74:36:05:16.01(14), the owner or operator shall submit an annual compliance certification letter to the Secretary by March 1 of each year this permit is in effect (NOTE: The Secretary will forward a copy of the certification letter to EPA). The certification shall contain the following information:

1. Methods used to determine compliance, including: monitoring, record keeping, performance testing and reporting requirements;
2. The source is in compliance and will continue to demonstrate compliance with all applicable requirements;
3. In the event the source is in noncompliance, a compliance plan that indicates how the source has or will be brought into compliance; and
4. Certification statement required in permit condition 5.3.

5.8 Reporting permit violations

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall report all permit violations. A permit violation should be reported as soon as possible, but no later than the first business day following the day the violation was discovered. The permit violation may be reported by telephone to the South Dakota Department of Environment and Natural Resources at (605) 773-3151 or by FAX at (605) 773-5286.

A written report shall be submitted within five days of discovering the permit violation. Upon prior approval from the Secretary, the submittal deadline for the written report may be extended up to 30 days. The written report shall contain:

1. Description of the permit violation and its cause(s);
2. Duration of the permit violation, including exact dates and times; and
3. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the permit violation.

6.0 CONTROL OF REGULATED AIR POLLUTANTS

6.1 Visibility limit

In accordance with ARSD 74:36:12:01, the owner or operator may not discharge into the ambient air an air contaminant of a density equal to or greater than that designated as 20 percent opacity from any permitted unit, operation, or process listed in Table 1-1. This provision does

not apply when the presence of uncombined water is the only reason for failure to meet the requirement.

6.2 Visibility exceedances

In accordance with ARSD 74:36:12:02, an exceedance of the operating limit in permit condition 6.1 is not considered a violation during brief periods of soot blowing, start-up, shutdown, or malfunctions. Malfunction means any sudden and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. A failure caused entirely or in part by poor maintenance, careless operation, preventable equipment breakdown, or any other cause within the control of the owner or operator of the source is not a malfunction and is considered a violation.

6.3 Total suspended particulate matter limits

In accordance with ARSD 74:36:06:02(1), the owner or operator shall not allow the emission of total suspended particulate matter in excess of the emission limit specified in Table 6-1 for the appropriate permitted unit, operation, and process.

Table 6-1 – Total Suspended Particulate Matter (Filterable) Emission Limit

Unit	Description	Emission Limit
#2	1977 Turbine	0.4 pounds per million Btu heat input
#3	1977 Turbine	0.4 pounds per million Btu heat input
#4	1978 Turbine	0.4 pounds per million Btu heat input
#5	1979 Turbine	0.4 pounds per million Btu heat input
#6	1966 Generator	0.5 pounds per million Btu heat input
#7	1966 Generator	0.5 pounds per million Btu heat input
#8	1966 Generator	0.5 pounds per million Btu heat input
#9	1966 Generator	0.5 pounds per million Btu heat input
#10	1966 Generator	0.5 pounds per million Btu heat input

6.4 Sulfur dioxide limits

In accordance with ARSD 74:36:06:02(2), the owner or operator shall not allow the emission of sulfur dioxide in excess of the emission limit specified in Table 6-2 for the appropriate permitted unit, operations, and process.

Table 6-2 – Sulfur Dioxide Emission Limit

Unit	Description	Emission Limit
#2	1977 Turbine	3.0 pounds per million Btu heat input
#3	1977 Turbine	3.0 pounds per million Btu heat input
#4	1978 Turbine	3.0 pounds per million Btu heat input
#5	1979 Turbine	3.0 pounds per million Btu heat input
#6	1966 Generator	3.0 pounds per million Btu heat input
#7	1966 Generator	3.0 pounds per million Btu heat input
#8	1966 Generator	3.0 pounds per million Btu heat input
#9	1966 Generator	3.0 pounds per million Btu heat input
#10	1966 Generator	3.0 pounds per million Btu heat input

Compliance with the sulfur dioxide emission limit is based on a three-hour rolling average, which is the arithmetic average of three contiguous one-hour periods.

6.5 Changing fuel stored in Tank #1 and/or #2

In accordance with ARSD 74:36:05:16.01(8), the owner or operator shall only use Tank #1 and #2 to store distillate oil (also referred to as diesel fuel). If Tank #1 and/or #2 are to be used to store fuel other than distillate oil, additional standards and requirements in ARSD 74:36:07:13, as referenced to 40 CFR Part 60, Subpart Ka may apply. The owner or operator shall apply for and obtain approval from the Secretary before other fuels are stored in Tank #1 and/or #2.

6.6 Air emission exceedances – emergency conditions

In accordance with ARSD 74:36:05:16.01(18), the Secretary will allow for an unavoidable emission exceedance of a technology-based emission limit if the exceedance is caused by an emergency condition and immediate action is taken by the owner or operator to restore the operations back to normal. An emergency condition is a situation arising from a sudden and reasonably unforeseeable event beyond the control of the source, including acts of God. An emergency shall not include an emission exceedance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. The owner or operator shall notify the Secretary within two working days of the incident and take all steps possible to eliminate the excess emissions. The notification must provide a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. If the notification is submitted orally, a written report summarizing the information required by the notification shall be submitted and postmarked within 30 days of the oral notification

6.7 Circumvention not allowed

In accordance with ARSD 74:36:05:47.01, the owner or operator may not install, use a device, or use a means that conceals or dilutes an air emission that would otherwise violate this permit. This includes operating a unit or control device that emits air pollutants from an opening other than the designed stack, vent, or equivalent opening.

6.8 Minimizing emissions

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.11(d), the owner or operator shall at all times, when practicable, maintain and operate all permitted units in a manner that minimizes air pollution emissions.

7.0 RECIPROCATING INTERNAL COMBUSTION ENGINES

7.1 Maximum Achievable Control Technology Standard – Subpart ZZZZ

In accordance with ARSD 74:36:08:40, as referenced to 40 CFR Part 63, Subpart ZZZZ, the owner or operator shall comply with all applicable emission and operating limitations; fuel requirements; general requirements; testing and initial compliance requirements; monitor, installation, collection, operation and maintenance requirements; initial compliance requirements; continuous compliance requirements; notification, reports, and records requirements; and other requirements and information in the national emission standards for

hazardous air pollutants for stationary reciprocating internal combustion engines on and after May 3, 2013. This permit condition is applicable to Unit #6, #7, #8, #9, #10, #16, and #17.

7.2 Non-resettable clock

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall install a non-resettable hour meter on Unit #6, #7, #8, #9, #10, #16, and #17 on or before May 3, 2013.

8.0 Emergency Generator NSPS Requirements

8.1 Emergency generator emission limits

In accordance with ARSD 74:36:07:88, as referenced to 40 CFR §§ 60.4205(b) and 60.4206, the owner or operator shall operate and maintain the emergency generator that achieves the emission limits in Table 8-1 over the entire life of the emergency generator.

Table 8-1 – Emission Limits for Generators (grams per kilowatt-hour)

Unit	Nonmethane Hydrocarbon + Nitrogen Oxide	Carbon Monoxide	Particulate Matter
#18	6.4	3.5	0.20

8.2 Fuel requirements for emergency generator

In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4207(b), the owner or operator shall only combust diesel fuel in the emergency generator that meets the following per gallon standards:

1. Maximum sulfur content of 15 parts per million; and
2. Minimum cetane index of 40; or
3. Maximum aromatic content of 35 volume percent.

8.3 Operating requirements for emergency generators

In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4211(a), the owner or operator shall comply with the following, except as specified in permit condition 8.6:

1. Operate and maintain the generators according to the manufacturer's emission-related written instructions;
2. Change only those emission-related settings that are permitted by the manufacturer; and
3. Meet the applicable requirements in 40 CFR Part 89, 94, and/or 1068.

8.4 Compliance with emergency generator emission limits

In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4211(c), the owner or operator shall demonstrate compliance with the emission limits in permit condition 8.1 by purchasing an engine certified to meet the emission limits in permit condition 8.1. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in permit condition 8.6.

8.5 Annual operation of emergency generator

In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4211(f), the owner or operator may operate the emergency generator for the purpose of maintenance checks and readiness testing, provided the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency generator in emergency situations. The owner or operator may petition the Secretary for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating Federal, State, or local standards require maintenance and testing of emergency generators beyond 100 hours per year. Emergency generators may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.

8.6 Alternative requirements for emergency generators

In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4211(g)(3), if the owner or operator does not install, configure, operate, and maintain the generators according to the manufacturer's emission-related written instructions or changes the emission-related settings in a way that is not permitted by the manufacturer, the owner or operator must demonstrate compliance as follows:

1. Maintain a maintenance plan and records of conducted maintenance;
2. To the extent practicable, maintain and operate the generator in a manner consistent with good air pollution control practice for minimizing emissions;
3. Conduct an initial performance test to demonstrate compliance with the emission limits in permit condition 8.1 within 1 year of startup, within 1 year after the emergency generator is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the owner or operator changes emission-related settings in a way that is not permitted by the manufacturer; and
4. Conduct subsequent performance tests every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

8.7 Performance test requirements for emergency generators

In accordance with ARSD 74:36:07:88, as referenced to 40 CFR § 60.4212(a) and (c), if the owner or operator conducts a performance test to demonstrate compliance with permit condition 8.1, the following procedures shall be followed:

1. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F; and

2. Exhaust emissions from the emergency generator must not exceed the “NTE” numerical requirements, rounded to the same number of decimal places as the applicable emission limit in permit condition 8.1 and determined by Equation 8-1.

Equation 8-1 – NTE formula

Where:

- NTE = Numerical requirement for each pollutant identified in Table 8-1; and
- STD = Emission limit for each pollutant identified in Table 8-1

8.8 Non-resettable clock

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall install, maintain, and operate a non-resettable hour meter on the emergency generator prior to initial startup.

9.0 PERFORMANCE TESTS

9.1 Performance test may be required

In accordance with ARSD 74:36:11:02, the Secretary may request a performance test during the term of this permit. A performance test shall be conducted while operating the unit at or greater than 90 percent of its maximum design capacity, unless otherwise specified by the Secretary. A performance test conducted while operating less than 90 percent of its maximum design capacity will result in the operation being limited to the percent achieved during the performance test. The Secretary has the discretion to extend the deadline for completion of performance test required by the Secretary if circumstances reasonably warrant but will not extend the deadline past a federally required performance test deadline.

9.2 Test methods and procedures

In accordance with ARSD 74:36:11:01, the owner or operator shall conduct the performance test in accordance with 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M. The Secretary may approve an alternative method if a performance test specified in 40 CFR Part 60, Appendix A, 40 CFR Part 63, Appendix A, and 40 CFR Part 51, Appendix M is not federally applicable or federally required.

9.3 Representative performance test

In accordance with ARSD 74:36:07:01, as referenced to 40 CFR § 60.8(c), performance tests shall be conducted under such conditions as the Secretary shall specify to the owner or operator based on the representative performance of the unit being tested. The owner or operator shall make available to the Secretary such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in this permit.

9.4 Submittal of test plan

In accordance with ARSD 74:36:11:01, the owner or operator shall submit the proposed testing procedures to the Secretary at least 30 days prior to any performance test. The Secretary will notify the owner or operator if the proposed test procedures are approved or denied. If the proposed test procedures are denied, the Secretary will provide written notification that outlines what needs to be completed for approval.

9.5 Notification of test

In accordance with ARSD 74:36:11:03, the owner or operator shall notify the Secretary at least 10 days prior to the start of a performance test to arrange for an agreeable test date when the Secretary may observe the test. The Secretary may extend the deadline for the performance test in order to accommodate schedules in arranging an agreeable test date.

9.6 Performance test report

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall submit a performance test report to the Secretary within 60 days after completing the performance test or by a date designated by the Secretary. The performance test report shall contain the following information:

1. A brief description of the process and the air pollution control system being tested;
2. Sampling location description(s);
3. A description of sampling and analytical procedures and any modifications to standard procedures;
4. Test results;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test, preparation of standards, and calibration procedures;
7. Raw data sheets for field sampling and field and laboratory analyses;
8. Documentation of calculations;
9. All data recorded and used to establish parameters for compliance monitoring; and
10. Any other information required by the test method.

10.0 MONITORING

The person conducting the visible emission test must be certified in accordance with 40 CFR Part 60, Appendix A, Method 9. If a visible emission test is required before a person is certified in accordance with permit condition 10.3, the owner or operator shall notify the Secretary within 24 hours of observing the visible emissions to schedule a visible emission test performed by a state inspector.

10.1 Periodic opacity monitoring for intermittent units

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall demonstrate compliance with the opacity limits in Chapter 6.0 for Unit #2, #3, #4, #5, #6, #7, #8, #9, and #10 on a semiannual basis. If there are no visible emissions, periodic monitoring shall consist of a

visible emission reading. A visible emission reading shall consist of a visual survey of the unit over a two-minute period to identify if there are visible emissions. The visible emission reading must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions. If the unit is not operated during the specified time frame, a visible emission reading is not required and it should be noted in the monitoring log that the unit did not operate during the semiannual period. The owner or operator is required to conduct at least one visible emission reading and subsequent visible emission test, if required, at least once per calendar year.

If visible emissions are observed from a unit at any time other than periods of startup, shutdown, or malfunction, the owner or operator shall conduct a visible emission test on that unit to determine if the unit is in compliance with the opacity limit specified in Chapter 6.0. The emission test shall be for six minutes and conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The visible emission test must be conducted while the unit is in operation; but not during periods of startup, shutdown, or malfunctions.

The person conducting the visible emission test must be certified in accordance with 40 CFR Part 60, Appendix A, Method 9. If a visible emission test is required before a person is certified in accordance with permit condition 10.3, the owner or operator shall notify the Secretary within 24 hours of observing the visible emissions to schedule a visible emission test performed by a state inspector.

10.2 Certified personnel – visible emission tests

In accordance with ARSD 74:36:13:07, within 180 days after permit issuance the owner or operator shall retain a person that is certified to perform a visible emission test in accordance with 40 CFR Part 60, Appendix A, Method 9. The owner or operator shall retain a certified person throughout the remaining term of this permit.

10.3 Monitoring sulfur content of distillate oil

In accordance with ARSD 74:36:05:16.01(9), the owner or operator shall obtain a fuel supplier certification for each load of distillate oil purchased or received. The fuel supplier certification shall include the following information:

1. The name of the oil supplier;
2. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil. Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2. Specifications for fuel oils are defined in the American Society for Testing and Materials in ASTM D396-78, "Standards Specifications for Fuel Oils"; and
3. A statement that the sulfur content of the distillate oil does not exceed 0.5 weight percent sulfur.

In the case where a fuel supplier certification is not obtained for a shipment of distillate oil, the owner or operator shall collect a grab sample from the storage tank in which the shipment is being stored. The grab sample shall be obtained within five business days of discovering that a fuel supplier certification was not obtained. The grab sample shall be analyzed to determine the

sulfur content of the oil in the storage tank. A copy of the results of the analysis shall be submitted with the semiannual report required in permit condition 5.7.

11.0 STATE ONLY – BACM FOR FUGITIVE DUST SOURCES

11.1 Paved road and parking area controls

In accordance with ARSD 74:36:05:16.01(8), the owner or operator shall use a mechanical sweeper that collects particulate matter and is equipped with wet suppression, a vacuum sweeper, or water flush all paved roads and parking areas to remove particulate that has the potential to be re-suspended during the spring, summer, and fall. During the winter months or during freezing weather, the paved roads and parking lots shall be cleaned with the mechanical sweeper that collects particulate matter and is equipped with wet suppression or a vacuum sweeper. The frequency of cleaning will be on an as needed basis to comply with the opacity limit in permit condition 11.2.

11.2 Opacity limit for fugitive sources

In accordance with ARSD 74:36:05:16.01(8), the owner or operator shall not discharge a visible emission to the ambient air of a density equal to or greater than 20 percent opacity from a paved road or parking lot, open storage pile, track out area, or waste pit. The 20 percent opacity reading is based on a series of two minutes averages with a minimum observation period of six minutes. The opacity reading shall be determined by Tennessee Visual Emissions Method 1 as approved by EPA in 40 CFR §52.2220 or by 40 CFR Part 60, Appendix A, Method 9.

If an operation exceeds the opacity limit, the Secretary will allow the owner or operator two opportunities to correct the exceedance with existing controls and/or control measures. In the event of a third exceedance from the same operation, the Secretary will notify the owner or operator that the Best Available Control Measure (BACM) for that operation must be reevaluated. The owner or operator shall reevaluate BACM for that operation and submit a written proposal to the Secretary on the proposed new BACM for the operation within 60 days of receiving the Secretary's notification. The Secretary shall approve or disapprove the proposed new BACM within 60 days of receiving the proposal from the owner or operator. Once the proposed new BACM is approved by the Secretary, the permit will be revised to include the new BACM using the appropriate permit revision method identified in Chapter 3.0 of this permit.

11.3 Opacity readings during a high wind dust alert

In accordance with ARSD 74:36:05:16.01(8), opacity readings documenting an exceedance during a high wind air pollution alert shall not be considered an exceedance of the opacity limit in permit condition 11.2. A high wind air pollution alert is based upon the following weather conditions:

1. Winds equal to or greater than 20 miles per hour on an hourly average occurring for two or more consecutive hours;
2. Peak winds of 40 miles per hour (one minute average) or greater; and
3. The above wind conditions with three or more days of low precipitation (less than 0.02 inches).