Permit #: **28.3301-03**

Effective Date: **November 13, 2007**

Expiration Date: **November 13, 2012**

SOUTH DAKOTA DEPARTMENT OF

ENVIRONMENT AND NATURAL RESOURCES

TITLE V AIR QUALITY PERMIT

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

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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

3M Company
Building 42-2E-27
PO Box 33331
St. Paul, Minnesota 55133-3331

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

3M Company
610 North County Road 19
NW¼ Section 16, T123, R63
Aberdeen, South Dakota 57401

3. Permit Contact

Tina Mumm, Corporate Environmental Contact
(651) 778 5036

4. Facility Contact

Paul Peterson, Environmental Coordinator
(605) 229-5002

5. Responsible Official

Lee Compton, Plant Manager
(605) 229-5002

B. Permit Revisions or Modifications

None

C. Type of Operation

The 3M operations in Aberdeen are separated into two divisions: a division, which cuts and rolls large adhesive stock into marketable units and a division, which manufactures respirator masks.

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1.0 STANDARD CONDITIONS

1.1 <u>Operation of source.</u> 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 actual date, unless modified by the conditions of this permit. Except as otherwise provided herein, the control equipment shall be operated in 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
Unit #1	Manufacturing line AM-1, a 1993 solventless pressure sensitive tape manufacturing line. The manufacturing line includes extruders, a coating station, and curing processes. The manufacturing line has two exhaust points.	Maximum throughput of 1,200 pounds per hour.	Not Applicable
Unit #2	Manufacturing line AM-2, a 2001 solventless pressure sensitive tape manufacturing line. The manufacturing line includes extruders, a coating station, and curing processes. The manufacturing line has two exhaust points.	Maximum throughput of 2,750 pounds per hour.	Not Applicable
Unit #3	One Industrial Process Cooling Tower with three cells.	Not Applicable	Not Applicable
Unit #4	BOC Edwards Thermal Processing Unit.	10.3 pounds per hour of perfluorinated compound gas.	Wet Scrubber
Unit #5	BOC Edwards Thermal Processing Unit #2.	10.3 pounds per hour of perfluorinated compound gas.	Wet Scrubber
Unit #6	Boiler #1 - 1984 Cleaver-Brooks	17 million Btus	Not Applicable

Unit	Description	Maximum Operating Rate	Control Device
	steam boiler, model number CB200-400, fired with natural gas and distillate oil.	per hour heat input	
Unit #7	Boiler #2 - 1995 Johnston Boiler Company steam boiler, model number PFTA400-4LG300S, fired with natural gas and distillate oil.	16.8 million Btus per hour heat input	Not Applicable
Unit #8	Boiler #3 - 1974 Bryan steam boiler, model number L72W1-FD, fired with distillate oil.	3.9 million Btus per hour heat input.	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 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 can not 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 ASRD 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 ASRD 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 RECORD KEEPING REQUIREMENTS

5.1 **Record keeping 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. Maintenance schedule for each piece of control equipment listed in Table 1-1. At a minimum, the maintenance schedule shall meet the manufacturer's recommended schedule for maintenance. The following information shall be recorded for maintenance:
   a. Identify the unit;
   b. The date and time maintenance was performed;
   c. Description of the type of maintenance;
   d. Reason for performing maintenance;
   e. Signature of person performing maintenance;
2. The following information shall be recorded for each visible emission reading required in permit condition 8.1:
   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;
3. The owner or operator shall maintain relevant records of the occurrence and duration of each startup, shutdown, or malfunction of process equipment and/or air pollution control equipment; and
4. 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:

1. The amount of natural gas burned in Units #6, #7, and #8, in million cubic feet;
2. The amount of distillate oil burned in Units #6, #7, and #8; in gallons;
3. The amount of material processed through Units #1 and #2, in tons;
4. The amount of ozone produced during the curing process of Unit #1 and #2, in tons; and
5. The number of hours each unit operated, in hours

The amount of natural gas, distillate oil, material, etc. that is burned, processed, or produced shall be based on production records, consumption records, purchase records, etc.

5.6 **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.

5.7 **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. 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) and/or ARSD 74:36:06:03(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 Emission Limit

Unit	Description	Emission Limit
Unit #6	Boiler #1 - 1984 Cleaver-Brooks steam boiler, model number CB200-400, fired with natural gas and distillate oil.	0.6 lbs/MMBtu
Unit #7	Boiler #2 - 1995 Johnston Boiler Company steam boiler, model number PFTA400-4LG300S, fired with natural gas and distillate oil.	0.6 lbs/MMBtu
Unit #8	Boiler #3 - 1974 Bryan steam boiler, model number L72W1-FD, fired with distillate oil.	0.6 lbs/MMBtu

6.4 **Sulfur dioxide limits.** In accordance with ARSD 74:36:06:02(2) and/or ARSD 74:36:06:03(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
Unit #6	Boiler #1 - 1984 Cleaver-Brooks steam boiler, model number CB200-400, fired with natural gas and distillate oil.	3.0 pounds per million Btu heat input
Unit #7	Boiler #2 - 1995 Johnston Boiler Company steam boiler, model number PFTA400-4LG300S, fired with natural gas and distillate oil.	3.0 pounds per million Btu heat input
Unit #8	Boiler #3 - 1974 Bryan steam boiler, model number L72W1-FD, fired with distillate oil.	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 **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

6.6 **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.

6.7 **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 PERFORMANCE TESTS

7.1 **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.

7.2 **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.

7.3 **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.

7.4 **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.

7.5 **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.

7.6 **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.

8.0 MONITORING

8.1 **Periodic monitoring for opacity limits.** In accordance with ARSD 74:36:13:07, the owner or operator shall demonstrate compliance with the opacity limits in Chapter 6.0, for Boilers #1, #2, and #3, while the appropriate boiler is fired on distillate oil., on a periodic basis. Periodic monitoring shall be based on the amount of visible emissions from each unit and evaluated according to the following steps:

Step 1: If there are no visible emissions from a unit subject to an opacity limit, periodic monitoring shall consist of a visible emission reading. A visible emission reading shall consist of a visual survey of each 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. Visible emission readings on each unit subject to an opacity limit in Chapter 6.0 shall be based on the following frequency:

a. The owner or operator shall conduct a visible emission reading once per calendar month;
b. If no visible emissions are observed from a unit in six consecutive monthly visible emission readings, the owner or operator may decrease the frequency of readings from monthly to semiannually for that unit; or
c. If no visible emissions are observed from a unit in two consecutive semiannual visible emission readings, the owner or operator may decrease the frequency of testing of readings from semiannually to annually for that unit.

Step 2: 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. Visible emission tests shall be based on the following frequency:

a. The visible emission test must be conducted within one hour of witnessing a visible emission from a unit during a visible emission reading;
b. If the visible emission test required in Step 2(a) results in an opacity value less than or equal to 50 percent of the opacity limit for the unit, the owner or operator shall perform a visible emission test once per month;
c. If the opacity value of a visible emission test is less than five percent for six straight monthly tests, the owner or operator may revert back to monthly visible emission readings as required in Step 1;
d. If the visible emission test required in Steps 2(a) or 2(b) results in an opacity value greater than 50 percent of the opacity limit but less than the opacity limit, the owner or operator shall perform a visible emission test once per week; or
e. If the visible emission test in Step 2(d) results in an opacity value less than or equal to 50 percent of the opacity limit for six straight weekly readings, the owner or operator may revert back to a monthly visible emission test as required in Step 2(b).

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 8.2, 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.

8.2 <u>Certified personnel – visible emission tests.</u> 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.

9.0 NEW SOURCE PERFORMANCE STANDARD Subpart RR

9.1 <u>VOC emission reduction – Coater line without control device.</u> In accordance with ARSD 74:36:07:21, as referenced to 40 CFR § 60.442(a)(1), the owner or operator shall not cause the discharge into the atmosphere from coater line without control device of not more than 0.20 kilograms of volatile organic compounds per kilogram of coating solids applied. Compliance is calculated on a weighted average basis for one calendar month.

9.2 <u>Calculate weighted average of VOC per coating solids applied.</u> In accordance with ARSD 74:36:07:21, as referenced to 40 CFR § 60.443(a), the owner or operator shall calculate the weighted average mass (kilograms) of volatile organic compounds per mass (kilogram) of coating solids applied each calendar month "G" for coater line.

"G" shall be determined by the following procedures:

1. Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using 40 CFR, Part 60, Appendix A, Reference Method 24 or by the coating manufacturer's formulation data; and
2. Compute the weighted average using Equation 9-1.

Equation 9-1 – Calculating weighted average VOC per coating solids applied

$$G = \frac{\sum_{i-1}^{n} W_{oi} M_{ci}}{\sum_{i-1}^{n} W_{si} M_{ci}}$$

where:

- G = the calculated weighted average mass (kilograms) of volatile organic compounds per mass (kilograms) of coating solids applied each calendar month;
- M_{ci} = the total mass (kilograms) of each coating, i, applied during the calendar month as determined from records;
- W_{oi} = the weight fraction of organics applied of each coating, i, applied during a calendar month as determined from 40 CFR Part 60, Appendix A, Reference Method 24 or coating manufacturer's formulation data; and
- W_{si} = the weight fraction of solids applied of each coating, i, applied during a calendar month as determined from 40 CFR Part 60, Appendix A, Reference Method 24 or coating manufacturer's formulation data.

3. If the value of G is less than or equal to 0.20 kilograms of volatile organic compounds per kilogram of coating solids applied, the owner or operator is in compliance with permit condition 9.1

9.3 **Monthly coating records.** In accordance with ARSD 74:36:07:21, as referenced to 40 CFR § 60.445(a), the owner or operator shall maintain a calendar month record of all coatings used in Unit #1 and Unit #2 and the results of 40 CFR, Part 60, Appendix A, Reference Method 24 or the manufacturer's formulation data used for determining the volatile organic compound content of the coatings.

9.4 **Volatile organic compound content.** In accordance with ARSD 74:36:07:21, as referenced to 40 CFR § 60.446(a), the owner or operator shall determine the volatile organic compound per unit of coating solids applied. The volatile organic compound per unit of coating solids applied shall be determined by 40 CFR Part 60, Appendix A, Reference Method 24 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the coater line web substrate.

9.5 **Semi-Annual report.** In accordance with ARSD 74:36:07:21, as referenced to 40 CFR § 60.447(b) and (c), the owner or operator shall submit a semi-annual report to the Secretary. The semi-annual report shall contain the following information:

1. Name of facility, permit number, reference to this permit condition, identifying the submittal as a semi-annual report and calendar dates covered in the reporting period; and
2. A statement that no exceedances have occurred during the reporting period. If an exceedance occurs during the reporting period, a quarterly report shall be submitted to the Administrator (i.e., April 30th, July 30th, October 30th, and January 30th). The quarterly report shall state the number of months in the quarter that the volatile organic compound emission limit specified in permit condition 9.1 was exceeded.

The semi-annual reports must be postmarked no later than 30 days after the end of the reporting period (i.e., July 30th and January 30th).

10.0 NEW SOURCE PERFORMANCE STANDARD Subpart Dc

10.1 **Changing boiler fuels.** In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.40c, Boiler #2 shall be fueled only with natural gas and distillate oil. If the boiler is fueled with other fuels such as propane, coal, other oil, or wood, additional standards and requirements in 40 CFR Part 60, Subpart Dc may apply. The owner or operator shall apply for and obtain approval from the Secretary before other fuels can be used as a fuel in Boiler #2.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2. Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6. Specifications for fuel oils are defined in the

American Society for Testing and Materials in ASTM D396-78, "Standards Specifications for Fuel Oils".

10.2 Boiler #2 sulfur dioxide limits. In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.42c(d) (h) and (i), the owner or operator shall not burn distillate oil containing greater than 0.5 weight percent sulfur in Boiler #2. Compliance with the fuel oil sulfur limit shall be determined based on a certification from the fuel supplier. The certification shall include the information as stated in permit condition 10.3. The sulfur dioxide emission limits and fuel oil sulfur limits shall apply at all times, including periods of start-up, shutdown, and malfunction.

10.3 Monitoring sulfur content. In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.46c(e) 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 as stated in permit condition 10.1; and

3. A statement that the sulfur content of the oil does not exceed 0.5 weight percent sulfur.

10.4 Boiler #2 Monthly Records. In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.48c(g), the owner or operator shall record and maintain records of the amount of each fuel combusted during each calendar month.

10.5 Boiler #2 Semi-Annual Report. In accordance with ARSD 74:36:07:05, as referenced to 40 CFR § 60.48c(j), the owner or operator shall submit a semi-annual report to the Secretary. The semi-annual reports shall contain the following information:

1. Name of facility, permit number, reference to this permit condition, identifying the submittal as a semi-annual report, and the calendar dates covered in the reporting period; and

2. The fuel supplier certification for each load of distillate oil purchased or received. If no distillate oil is purchased or received during the reporting period, a statement that no distillate oil was purchased or received shall be included. The fuel supplier certification shall contain the information as stated in permit condition 10.3.

The semiannual reports must be postmarked no later than 30 days after the end of the reporting period (i.e., July 30th and January 30th).

11.0 MACT Standard Subpart Q

11.1 <u>Restriction on water treatment chemicals for industrial process cooling towers.</u> In accordance with ARSD 74:36:08:11, as referenced to 40 CFR §§ 63.402 and 63.404(b), no owner or operator shall use chromium based water treatment chemicals in an industrial process cooling tower. A cooling water sample residual hexavalent chromium concentration in excess of 0.5 parts per million by weight shall be considered a violation.