Permit #: **28.4401-01**

Effective Date: **December 1, 2014**

Expiration Date: **December 1, 2019**

SOUTH DAKOTA DEPARTMENT OF

ENVIRONMENT AND NATURAL RESOURCES

TITLE V AIR QUALITY OPERATING PERMIT

Steven M. Pirner, P.E., 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 Mailing Address

StarMark Cabinetry a division of Norcraft Companies, LP
700 E 48th Street North
Sioux Falls, South Dakota 57104

2. Actual Source Location if Different from Above

Same as Above

3. Permit Contact

Pete Bendix, Vice President of Operations
(605) 336-5568

4. Facility Contact

Pete Bendix, Vice President of Operations
(605) 336-5568

5. Responsible Official

John Swedeen, President
(605) 335-8600

B. Permit Revisions or Modifications

Not Applicable

C. Type of Operation

Manufacturer bathroom and kitchen cabinets

TABLE OF CONTENTS

Page

1.0 Standard Conditions....1

1.1 Operation of source....1
1.2 Duty to comply....2
1.3 Property rights or exclusive privileges....2
1.4 Penalty for violating a permit condition....2
1.5 Inspection and entry....3
1.6 Severability....3
1.7 Permit termination, modification, or revocation....3
1.8 Credible evidence....3

2.0 Permit Fees....4

2.1 Annual air fee required....4
2.2 Annual operational report....4
2.3 Annual air fee....4

3.0 Permit Amendments and Modifications....4

3.1 Permit flexibility....4
3.2 Administrative permit amendment....5
3.3 Minor permit amendment....5
3.4 Permit modification....5
3.5 Permit revision....6
3.6 Testing new fuels or raw materials....6

4.0 Permit Renewal....7

4.1 Permit effective....7
4.2 Permit renewal....7
4.3 Permit expiration....7

5.0 Recordkeeping and Reporting....7

5.1 Recordkeeping and reporting....7
5.2 Signatory requirements....7
5.3 Certification statement....8
5.4 Monitoring log....8
5.5 Annual records....9
5.6 Annual compliance certification....9
5.7 Reporting permit violations....9

6.0 Control of Regulated Air Pollutants....10

6.1 Visibility limit....10
6.2 Visibility exceedances....10
6.3 Air emission exceedances – emergency conditions....10
6.4 Circumvention not allowed....11
6.5 Minimizing emissions....11

TABLE OF CONTENTS

Page

7.0 Performance Tests 11

- 7.1 Performance test may be required 11
- 7.2 Test methods and procedures 11
- 7.3 Representative performance test 12
- 7.4 Submittal of test plan 12
- 7.5 Notification of test 12
- 7.6 Performance test report 12

8.0 Monitoring 13

- 8.1 Periodic opacity monitoring for units operating on a monthly or more frequent basis 13
- 8.2 Monitoring opacity limits for units operating periodically 14
- 8.3 Certified personnel – visible emission tests 15

9.0 MACT Standards – Wood Furniture Manufacturing Operations 15

- 9.1 Wood furniture manufacturing emission limits 15
- 9.2 Compliance procedures for finishing materials 16
- 9.3 General requirements to minimize emissions 17
- 9.4 Work practice implementation plan standards 17
- 9.5 Operator training course 17
- 9.6 Inspection and maintenance plan 18
- 9.7 Cleaning and washoff solvent accounting system 18
- 9.8 Chemical composition of cleaning and washoff solvents 18
- 9.9 Spray booth cleaning 21
- 9.10 Storage requirements 21
- 9.11 Conventional air spray guns prohibited 21
- 9.12 Line cleaning 21
- 9.13 Gun cleaning 21
- 9.14 Washoff operations 22
- 9.15 Formulation assessment plan for finishing operations 22
- 9.16 Demonstrating continuous compliance 26
- 9.17 Recordkeeping requirements 28
- 9.18 Determination of volatile hazardous air pollutant content 29
- 9.19 Determination of solids content 29
- 9.20 Reporting baseline level exceedance 29
- 9.21 Semiannual report 30

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 received December 19, 2011, unless modified by the conditions of this permit. Except as otherwise provided herein, the control equipment shall be operated at all times in accordance with the manufacturer's specification and in a manner that achieves compliance with the conditions of this permit. The application consists of the application forms, supporting data, and supplementary correspondence. If the owner or operator becomes aware 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
#1	Various powered hand tools and table mounted equipment	30,000 cubic feet per minute	1988 Pneumafil baghouse
#2	Various powered hand tools and table mounted equipment	30,000 cubic feet per minute	1998 MAC baghouse
#3	Various powered hand tools and table mounted equipment (i.e., wide belt sander and 2013 Slipcon brush sander)	13,400 cubic feet per minute	1979 Torit baghouse
#4	Fines collected from baghouse associated with Unit #l and wood waste grinder	1,200 cubic feet per minute	1994 Torit
#5	Walkthrough Line - Paint Arrestor (model # CPEF-16-8-T-LH) and JBI (model #IDB-167) spray booths.	Not applicable	Blanket style filter system and the requirements in permit condition 10.1
#6	Line One – Dynaprecipitor (model #CWE 10-8-T-LH), Paint Arrestor (model #CPEF 12-9-T-LH), No Pump (model #CNPB 12-10-T-LH), and Paint Arrestor (model # CPEF 16-7-T-LH) spray booths.	Not applicable	Blanket style filter system and the requirements in permit condition 10.1
#7	Line Two – Nopump (model #CNPB 10-8-T-LH), Paint Arrestor (model # CPEF 12-9-T-LH), Paint Arrestor (model #CPEF 12-9-T-LH), and Paint	Not applicable	Blanket style filter system and the requirements in permit condition 10.1

Unit	Description	Maximum Operating Rate	Control Device
	Arrestor (model #CPEF 16-7-T-LH) spray booths.		
#8	Line Three –Nopump (model #CNPB 12-8-T-LH), two Paint Arrestor (model #CPEF 12-9-T-LH), Paint Arrestor (model #CPEF 16-7-T-LH), and Dynaprecipitor (model #SP-CWE 16-8-T-LH) spray booths.	Not applicable	Blanket style filter system and the requirements in permit condition 10.1
#9	Walkthrough Line – Dynaprecipitor (model #CWE 10-8-T-LH) spray booth.	Not applicable	Blanket style filter system and the requirements in permit condition 10.1

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 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, upon presentation of credentials, 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 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 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 may consist of the following:

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred:
   a. A monitoring method approved 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 paragraph (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 Amendments and Modifications

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 implemented until the Secretary takes final action on the proposed change or the owner or operator was issued an air quality construction permit. 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 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;
3. Requires more frequent monitoring or reporting;
4. The ownership or operational control changes and the Secretary determines 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 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 the proposed change is a permit modification. As provided in ARSD 74:36:05:35, 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 recordkeeping 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 recordkeeping 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 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. In accordance with ARSD 74:36:05:41, the Secretary shall notify the owner or operator at least 30 days before reopening this permit. The 30-day period may be less in the case of an emergency.

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 describing 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 resulting 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 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

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 to operate 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

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 74:36:05:16.01, all applications, reports, or other information submitted to the Secretary shall be signed and certified by a responsible official or a duly authorized representative. 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. 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 duly authorized representative must be designated prior to or together with any reports or information to be signed by a duly authorized representative. The responsible official shall notify the Secretary if an authorization is no longer accurate.

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; and
   e. Signature of person performing maintenance;
2. The following information shall be recorded for each visible emission reading required in permit condition 8.1 and 8.2:
   a. Identify the unit and if it operates on a monthly, quarterly, semiannual, or annual basis;
   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; and

3. 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 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 hazardous air pollutants emitted from the spray booths. The hazardous air pollutant emissions shall be based on the amount of products used and the composition of the product based on the material safety data sheets, manufacturer supplied formulation data, certified product date sheets, EPA approved test method data, or a method approved by the Secretary;
2. The amount of volatile organic compounds emitted from the spray booths. The volatile organic compound emissions shall be based on the amount of products used and the composition of the product based on the material safety data sheets, manufacturer supplied formulation data, certified product data sheets, EPA approved test method data, or a method approved by the Secretary; and
3. The amount of particulate matter emitted from the permitted units.

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, recordkeeping, 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) 773-4068.

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. A description of the permit violation and its cause(s);
2. The duration of the permit violation, including exact dates and times; and
3. The 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 unless otherwise specified in this permit. 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 opacity 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 is not a malfunction and is considered a violation.

6.3 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 owner or operator, 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

6.4 Circumvention not allowed

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR § 63.4(b), no owner or operator shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to the use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere.

6.5 Minimizing emissions

In accordance with ARSD 74:36:08:03, as referenced to 40 CFR § 63.6(e)(1)(i), the owner or operator shall at all times, including periods of startup, shutdown, and malfunction, operate and maintain any permitted unit, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires the owner or operator to reduce emissions from the permitted unit to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the owner or operator to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the owner or operator to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Secretary which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including a startup, shutdown, and malfunction plan, if required), review of operation and maintenance records, and inspection of the operation.

.

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 outlining 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 represented in the same terminology as the permit limits;
5. Quality assurance procedures and results;
6. Records of operating conditions during the test necessary for demonstrating compliance with the permit limits, 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 opacity monitoring for units operating on a monthly or more frequent basis

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 on a periodic basis for the units identified in the monthly log required in permit condition 5.4 that operate on a monthly or more frequent basis. Periodic monitoring for units that operate on a monthly or more frequent basis shall be based on the following steps:

Step 1: 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 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, periodic monitoring shall consist of a visible emission test to determine if the unit is in compliance with the opacity limit specified in Chapter 6.0. The visible emission test shall be for at least 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;
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 in Step 2(b) is less than five percent for three 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 Step 2(a) 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 four 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 reading does not have to be certified in accordance with 40 CFR Part 60, Appendix A, Method 9. 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 8.3, 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.

8.2 Monitoring opacity limits for units operating periodically

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 the units identified in the monthly log required in permit condition 5.4 that operate on a quarterly, semiannual, or annual basis. Periodic monitoring shall be based on the following steps:

Step 1: For units that operate on a quarterly basis, monitoring shall consist of the following:

a. Monitoring shall consist of a visible emission reading once per quarter. 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; or
b. 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 visible emission test must be conducted within one hour of witnessing a visible emission from the unit. The visible emission test shall be for at least 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.

Step 2: For units that operate on a semiannual or annual basis, monitoring shall consist of the following:

a. Monitoring shall consist of a visible emission reading once per year. 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;
b. 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 visible emission test must be conducted within one hour of witnessing a visible emission from the unit. The visible emission test shall be for at least 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 reading does not have to be certified in accordance with 40 CFR Part 60, Appendix A, Method 9. 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 8.3, 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.

8.3 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.

9.0 MACT Standards – Wood Furniture Manufacturing Operations

9.1 Wood furniture manufacturing emission limits

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR §§ 63.800(g) and 63.802(a), the owner or operator shall limit volatile hazardous air pollutant emissions from wood furniture manufacturing operations by meeting the limits in Table 9-1.

Table 9-1 – Emission Limits for Wood Furniture Manufacturing

Emission Type	Limit
Finishing operations:	
(a) Achieve a weighted average volatile hazardous air pollutant content across all coatings (maximum pound of volatile hazardous air pollutant per pound of solids);	1.0 [1]
(b) Use compliant finishing materials (maximum pound of volatile hazardous air pollutant per pound of solids:	
i. Stains;	1.0 [1]
ii. Wash coats;	1.0 [1, 2]
iii. Sealers;	1.0 [1]
iv. Topcoats;	1.0 [1]
v. Basecoats;	1.0 [1, 2]
vi. Enamels; and	1.0 [1, 2]
vii. Thinners (maximum percent volatile hazardous air pollutant by weight allowable); or	10.0
(c) Use any combination of (a) and (b).	1.0
Cleaning Operations:	
Strippable spray booth material (maximum pound of volatile organic compound per pound solids).	0.8
Contact Adhesives:	

Emission Type	Limit
(a) Use compliant contact adhesives (maximum pound of volatile hazardous air pollutant per pound of solids) based on following criteria:	
i. For aerosol adhesives and contact adhesives applied to nonporous substrates; and	[3]
ii. For all other contact adhesives.	1.0 [1]
All Finishing Operations and Contact Adhesives [4]	
(a) Achieve total free formaldehyde emissions across all finishing operations and contact adhesives, pound per rolling 12-month period, as applied; or	400
(b) Use coatings and contact adhesives only if they are low-formaldehyde coatings and contact adhesives	1.0 [5]

[1] – The limits refer to the volatile hazardous air pollutant content of the coating, as applied;
[2] – Wash coats, basecoats, and enamels must comply with the limits presented in this table if they are purchased pre-made and are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials (i.e. those that meet the limits specified in this table) and thinners containing no more than 3.0 percent volatile hazardous air pollutant by weight;
[3] – There is no limit on the volatile hazardous air pollutant content of these adhesives;
[4] – Compliance with the emission limits shall be achieved by no later than November 21, 2014; and
[5] – The limits refer to formaldehyde content by weight of the coating or contact adhesive as specified on certified product data sheets.

The owner or operator shall determine the volatile hazardous air pollutant emissions from finishing material containing formaldehyde or styrene using the methods presented in permit condition 9.15 for determining formaldehyde and styrene use. Compliance with the finishing operation emission limit is demonstrated using the compliance methods in permit condition 9.2.

9.2 Compliance procedures for finishing materials

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.804(a), the owner or operator shall demonstrate compliance with finishing material emission limits in Table 9-1 using one of the following methods.

1. Calculate the average volatile hazardous air pollutant content for all finishing materials using Equation 9-1 and maintain a value of "E" no greater than 1.0;

Equation 9-1– Average volatile hazardous air pollutant content

$$E = \frac{\left(M_{c1}C_{c1} + M_{c2}C_{c2} + \ldots + M_{cn}C_{cn} + S_1W_1 + S_2W_2 + \ldots + S_nW_n\right)}{\left(M_{c1} + M_{c2} + \ldots + M_{cn}\right)}$$

Where:

- E = The emission limit achieved by an emission point or a set of emission points, in pound volatile hazardous air pollutant per pound solids;
- M = The mass of solids in a finishing material used monthly, in pound solids per month;
- C_c = The volatile hazardous air pollutant content of a finishing material (c), in pounds of volatile hazardous air pollutant per pounds of coating solids, as applied;

- S = The volatile hazardous air pollutant content of a solvent, expressed as a weight fraction, added to finishing materials; and
- W = The amount of solvent, in pounds, added to finishing materials during the monthly averaging period.

2. Use compliant finishing materials in accordance with the following criteria:
   a. Demonstrate that each stain, sealer, and topcoat has a volatile hazardous air pollutant content of no more than 1.0 pounds volatile hazardous pollutant per pounds of solids, as applied, and each thinner contains no more than 10.0 percent volatile hazardous air pollutant by weight by maintaining certified product data sheets for each coating and thinner;
   b. Demonstrate that each wash coat, basecoat, and enamel that is purchased pre-made (i.e., it is not formulated onsite by thinning another finishing material) has a volatile hazardous air pollutant content of no more than 1.0 pounds volatile hazardous air pollutant per pound solids, as applied, and each thinner contains no more than 10.0 percent volatile hazardous air pollutant by weight by maintaining certified product data sheets for each coating and thinner; and
   c. Demonstrate that each wash coat, basecoat, and enamel that is formulated onsite is formulated using a finishing material containing no more than 1.0 pounds volatile hazardous air pollutant per pound solids, as applied, and a thinner containing no more than 3.0 percent volatile hazardous air pollutant by weight; or
3. Use any combination of an averaging approach, as described in paragraph (1) and (2) of this permit condition.

9.3 General requirements to minimize emissions

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.802(c), the owner or operator shall at all times operate and maintain the wood furniture manufacturing operations, including associated monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Secretary which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspections.

9.4 Work practice implementation plan standards

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(a), the owner or operator shall maintain a written work practice implementation plan onsite and have it available for inspection by the Secretary upon request. The work practice implementation plan shall define environmentally desirable work practices for each wood furniture manufacturing operation and address each of the work practice standards presented in permit condition 9.5 through 9.15, inclusive. If the work practice implementation plan is inadequate, the Secretary may require the owner or operator to modify the plan.

9.5 Operator training course

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(b), the owner or operator shall train all new and existing personnel, including contract personnel, who are

involved in finishing, gluing, cleaning, and washoff operations; use the manufacturing equipment; or are responsible for implementation of the requirements in this permit. All personnel shall be trained upon hiring and given refresher training annually. The facility shall maintain a copy of the training program with the work practice implementation plan. The training program shall include, at a minimum, the following:

1. A list of current personnel by name and job description that are required to be trained;
2. An outline of the subjects to be covered in the initial and refresher training for each position or group of personnel;
3. Lesson plans for courses to be given at the initial and the annual refresher training that include, at a minimum, appropriate application techniques, appropriate cleaning and washoff procedures, appropriate equipment setup and adjustment to minimize finishing material usage and overspray, and appropriate management of cleanup wastes; and
4. A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion.

9.6 Inspection and maintenance plan

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(c), the owner or operator shall prepare and maintain with the work practice implementation plan a written leak inspection and maintenance plan that specifies:

1. A minimum visual inspection frequency of once per month for all equipment used to transfer or apply coatings, adhesives, or organic solvents;
2. An inspection schedule;
3. Methods for documenting the date and results of each inspection and any repairs that were made; and
4. If a leak is detected, a first attempt at repair shall be made no later than five calendar days after the leak is detected. Final repairs shall be made within 15 calendar days after the leak is detected, unless the leaking equipment is to be replaced by a new purchase, in which case repairs shall be completed within three months.

9.7 Cleaning and washoff solvent accounting system

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(d), the owner or operator shall develop an organic solvent accounting form. The organic solvent accounting form shall contain a record of the quantity and type of organic solvent used each month for washoff and cleaning, the number of pieces washed off, and the reason for the washoff. The form shall track the quantity of spent solvent generated from each washoff and cleaning operation each month, and whether it is recycled onsite or disposed offsite.

9.8 Chemical composition of cleaning and washoff solvents

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(e), the owner or operator shall not use cleaning or washoff solvents that contain any of the pollutants listed in Table 9-2 in concentrations subject to material safety data sheet (MSDS) reporting as required by the Occupational, Safety and Health Administration (OSHA).

Table 9-2 – Pollutants Excluded from Use in Cleaning and Washoff Solvents

Chemical Name	CAS Number
4-Aminobiphenyl	92671
Styrene oxide	96093
Diethyl sulfate	64675
N-Nitrosomorpholine	59892
Dimethyl formamide	68122
Hexamethylphosphoramide	680319
Acetamide	60355
4,4′-Methylenedianiline	101779
o-Anisidine	90040
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
Beryllium salts	-
Benzidine	92875
N-Nitroso-N-methylurea	684935
Bis (chloromethyl) ether	542881
Dimethyl carbamoyl chloride	79447
Chromium compounds (hexavalent)	-
1,2-Propylenimine (2-Methyl aziridine)	75558
Arsenic and inorganic arsenic compounds	99999904
Hydrazine	302012
1,1-Dimethyl hydrazine	57147
Beryllium compounds	7440417
1,2-Dibromo-3-chloropropane	96128
N-Nitrosodimethylamine	62759
Cadmium compounds	-
Benzo (a) pyrene	50328
Polychlorinated biphenyls (Aroclors)	1336363
Heptachlor	76448
3,3′-Dimethyl benzidine	119937
Nickel subsulfide	12035722
Acrylamide	79061
Hexachlorobenzene	118741
Chlordane	57749
1,3-Propane sultone	1120714
1,3-Butadiene	106990
Nickel refinery dust	-
2-Acetylaminoflourine	53963
3,3′-Dichlorobenzidine	53963
Lindane (hexachlorcyclohexane, gamma)	58899
2,4-Toluene diamine	95807
Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
1,2-Diphenylhydrazine	122667

Chemical Name	CAS Number
Toxaphene (chlorinated camphene)	8001352
2,4-Dinitrotoluene	121142
3,3′-Dimethoxybenzidine	119904
Formaldehyde	50000
4,4′-Methylene bis (2-chloroaniline)	101144
Acrylonitrile	107131
Ethylene dibromide (1,2-Dibromoethane)	106934
DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	72559
Chlorobenzilate	510156
Dichlorvos	62737
Vinyl chloride	75014
Coke Oven Emissions	-
Ethylene oxide	75218
Ethylene thiourea	96457
Vinyl bromide (bromoethene)	593602
Selenium sulfide (mono and di)	7488564
Chloroform	67663
Pentachlorophenol	87865
Ethyl carbamate (Urethane)	51796
Ethylene dichloride (1,2-Dichloroethane)	107062
Propylene dichloride (1,2-Dichloropropane)	78875
Carbon tetrachloride	56235
Benzene	71432
Methyl hydrazine	60344
Ethyl acrylate	140885
Propylene oxide	75569
Aniline	62533
1,4-Dichlorobenzene(p)	106467
2,4,6-Trichlorophenol	88062
Bis (2-ethylhexyl) phthalate (DEHP)	117817
o-Toluidine	95534
Propoxur	114261
1,4-Dioxane (1,4-Diethyleneoxide)	123911
Acetaldehyde	75070
Bromoform	75252
Captan	133062
Epichlorohydrin	106898
Methylene chloride (Dichloromethane)	75092
Dibenz (ah) anthracene	53703
Chrysene	218019
Dimethyl aminoazobenzene	60117
Benzo (a) anthracene	56553

Chemical Name	CAS Number
Benzo (b) fluoranthene	205992
Antimony trioxide	1309644
2-Nitropropane	79469
1,3-Dichloropropene	542756
7, 12-Dimethylbenz(a) anthracene	57976
Benz(c) acridine	225514
Indeno(1,2,3-cd)pyrene	193395
1,2:7,8-Dibenzopyrene	189559

9.9 Spray booth cleaning

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(f), the owner or operator shall not use compounds containing more than 8.0 percent by weight of volatile organic compound for cleaning spray booth components other than conveyors, continuous coaters and their enclosures, or metal filters, unless the spray booth is being refurbished. If the spray booth is being refurbished, that is the spray booth coating or other protective material used to cover the booth is being replaced, the owner or operator shall use no more than 1.0 gallon of organic solvent per booth to prepare the surface of the booth prior to applying the booth coating.

9.10 Storage requirements

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(g), the owner or operator shall use normally closed containers for storing finishing, gluing, cleaning, and washoff materials. A normally closed container is one that is closed unless an operator is actively engaged in activities such as emptying or filling the container.

9.11 Conventional air spray guns prohibited

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR §§ 63.800(g) and 63.803(h), by no later than November 21, 2014, the owner or operator shall not use conventional air spray guns to apply finishing materials.

9.12 Line cleaning

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(i), the owner or operator shall pump or drain all organic solvent used for line cleaning into a normally closed container. A normally closed container is one that is closed unless the owner or operator is actively engaged in activities such as emptying or filling the container.

9.13 Gun cleaning

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(j), the owner or operator shall collect all organic solvent used to clean spray guns into a normally closed container. A normally closed container is one that is closed unless the owner or operator is actively engaged in activities such as emptying or filling the container.

9.14 Washoff operations

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(k), the owner or operator shall control emissions from washoff operations by using normally closed tanks for washoff and by minimizing dripping by tilting or rotating the part to drain as much solvent as possible.

9.15 Formulation assessment plan for finishing operations

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.803(l)(1), (2), (3) and (6), the owner or operator shall maintain with the work practice implementation plan a formulation assessment plan. The formulation assessment plan shall contain the following information:

1. Identifies volatile hazardous air pollutants from the list presented in Table 9-3 that are being used in the finishing operations;
2. Establishes a baseline level of usage for each volatile hazardous air pollutant identified in paragraph (1) of this permit condition. The baseline level of usage shall be the highest annual usage from 1994, 1995, or 1996, for each volatile hazardous air pollutant identified in paragraph (1) of this permit condition. For formaldehyde, the baseline level of usage shall be based on the amount of free formaldehyde present in the finishing material when it is applied. For styrene, the baseline level of usage shall be estimated of unreacted styrene, which shall be calculated by multiplying the amount of styrene monomer in the finishing material, when it is applied, by a factor of 0.16;
3. Tracks the annual usage of each volatile hazardous air pollutant identified in paragraph (1) of this permit condition that is present in amounts subject to MSDS reporting as required by OSHA; and
4. If the owner or operator uses a volatile hazardous air pollutant of potential concern listed in Table 9-4 for which a baseline level has not been previously established, then the baseline level shall be established as the *de minimis* level provided in that same table for that chemical. The owner or operator shall track the annual usage of each volatile hazardous air pollutant of potential concern identified in this paragraph that is present in amounts subject to MSDS reporting as required by OSHA.

Table 9-3 – Volatile Hazardous Air Pollutants Used in Finishing Operations

CAS Number	Chemical Name	EPA de minimis
68122	Dimethyl formamide	1.0 tons/year
50000	Formaldehyde	0.2 tons/year
75092	Methylene chloride (Dichloromethane)	4.0 tons/year
79469	2-Nitropropane	1.0 tons/year
78591	Isophorone	0.7 tons/year
1000425	Styrene monomer	1.0 tons/year
108952	Phenol	0.1 tons/year
111422	Dimethanolamine	5.0 tons/year
109864	2-Methoxyethanol	10.0 tons/year
111159	2-Ethoxyethyl acetate	10.0 tons/year

Table 9-4 – Additional Volatile Hazardous Air Pollutants Used in Finishing Operations

CAS Number	Chemical Name	EPA de minimis
92671	4-Aminobiphenyl	1.0 tons/year
96093	Styrene oxide	1.0 tons/year
64675	Diethyl sulfate	1.0 tons/year
59892	N-Nitrosomorpholine	1.0 tons/year
68122	Dimethyl formamide	1.0 tons/year
680319	Hexamethylphosphoramide	0.01 tons/year
60355	Acetamide	1.0 tons/year
101779	4,4[prime]-Methylenedianiline	1.0 tons/year
90040	o-Anisidine	1.0 tons/year
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.00000006 tons/year
92875	Benzidine	0.00003 tons/year
684935	N-Nitroso-N-methylurea	0.00002 tons/year
542881	Bis (chloromethyl) ether	0.00003 tons/year
79447	Dimethyl carbamoyl chloride	0.002 tons/year
75558	1,2-Propylenimine (2-Methyl aziridine)	0.0003 tons/year
57147	1,1-Dimethyl hydrazine	0.0008 tons/year
96128	1,2-Dibromo-3-chloropropane	0.001 tons/year
62759	N-Nitrosodimethylamine	0.0001 tons/year
50328	Benzo (a) pyrene	0.001 tons/year
1336363	Polychlorinated biphenyls (Aroclors)	0.0009 tons/year
76448	Heptachlor	0.002 tons/year
119937	3,3[prime]-Dimethyl benzidine	0.001 tons/year
79061	Acrylamide	0.002 tons/year
118741	Hexachlorobenzene	0.004 tons/year
57749	Chlordane	0.005 tons/year
1120714	1,3-Propane sultone	0.003 tons/year
106990	1,3-Butadiene	0.007 tons/year
53963	2-Acetylaminoflourine	0.0005 tons/year
91941	3,3[prime]-Dichlorobenzidine	0.02 tons/year
58899	Lindane (hexachlorcyclohexane, gamma)	0.005 tons/year
95807	2,4-Toluene diamine	0.002 tons/year
111444	Dichloroethyl ether (Bis(2-chloroethyl) ether)	0.006 tons/year
122667	1,2-Diphenylhydrazine	0.009 tons/year
8001352	Toxaphene (chlorinated camphene)	0.006 tons/year
121142	2,4-Dinitrotoluene	0.002 tons/year
119904	3,3[prime]-Dimethoxybenzidine	0.01 tons/year
50000	Formaldehyde	0.2 tons/year
101144	4,4[prime]-Methylene bis (2-chloroaniline)	0.02 tons/year
107131	Acrylonitrile	0.03 tons/year
106934	Ethylene dibromide (1,2-Dibromoethane)	0.01 tons/year
72559	DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	0.01 tons/year

CAS Number	Chemical Name	EPA de minimis
510156	Chlorobenzilate	0.04 tons/year
62737	Dichlorvos	0.02 tons/year
75014	Vinyl chloride	0.02 tons/year
75218	Ethylene oxide	0.09 tons/year
96457	Ethylene thiourea	0.06 tons/year
593602	Vinyl bromide (bromoethene)	0.06 tons/year
67663	Chloroform	0.09 tons/year
87865	Pentachlorophenol	0.07 tons/year
51796	Ethyl carbamate (Urethane)	0.08 tons/year
107062	Ethylene dichloride (1,2-Dichloroethane)	0.08 tons/year
78875	Propylene dichloride (1,2-Dichloropropane)	0.1 tons/year
56235	Carbon tetrachloride	0.1 tons/year
71432	Benzene	0.2 tons/year
140885	Ethyl acrylate	0.1 tons/year
75569	Propylene oxide	0.5 tons/year
62533	Aniline	0.1 tons/year
106467	1,4-Dichlorobenzene(p)	0.3 tons/year
88062	2,4,6-Trichlorophenol	0.6 tons/year
117817	Bis (2-ethylhexyl) phthalate (DEHP)	0.5 tons/year
95534	o-Toluidine	0.4 tons/year
114261	Propoxur	2.0 tons/year
79016	Trichloroethylene	1.0 tons/year
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.6 tons/year
75070	Acetaldehyde	0.9 tons/year
75252	Bromoform	2.0 tons/year
133062	Captan	2.0 tons/year
106898	Epichlorohydrin	2.0 tons/year
75092	Methylene chloride (Dichloromethane)	4.0 tons/year
127184	Tetrachloroethylene (Perchloroethylene)	4.0 tons/year
53703	Dibenz (ah) anthracene	0.01 tons/year
218019	Chrysene	0.01 tons/year
60117	Dimethyl aminoazobenzene	1.0 tons/year
56553	Benzo (a) anthracene	0.01 tons/year
205992	Benzo (b) fluoranthene	0.01 tons/year
79469	2-Nitropropane	1.0 tons/year
542756	1,3-Dichloropropene	1.0 tons/year
57976	7, 12-Dimethylbenz(a) anthracene	0.01 tons/year
225514	Benz(c) acridine	0.01 tons/year
193395	Indeno(1,2,3-cd)pyrene	0.01 tons/year
189559	1,2:7,8-Dibenzopyrene	0.01 tons/year
79345	1,1,2,2-Tetrachloroethane	0.03 tons/year
91225	Quinoline	0.0006 tons/year

CAS Number	Chemical Name	EPA de minimis
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.04 tons/year
87683	Hexachlorobutadiene	0.09 tons/year
82688	Pentachloronitrobenzene (Quintobenzene)	0.03 tons/year
78591	Isophorone	0.7 tons/year
79005	1,1,2-Trichloroethane	0.1 tons/year
74873	Methyl chloride (Chloromethane)	1.0 tons/year
67721	Hexachloroethane	0.5 tons/year
1582098	Trifluralin	0.9 tons/year
1319773	Cresols/Cresylic acid (isomers and mixture)	1.0 tons/year
108394	m-Cresol	1.0 tons/year
75343	Ethylidene dichloride (1,1- Dichloroethane)	1.0 tons/year
95487	o-Cresol	1.0 tons/year
106445	p-Cresol	1.0 tons/year
74884	Methyl iodide (Iodomethane)	1.0 tons/year
100425	Styrene	1.0 tons/year
107051	Allyl chloride	1.0 tons/year
334883	Diazomethane	1.0 tons/year
95954	2,4,5_Trichlorophenol	1.0 tons/year
133904	Chloramben	1.0 tons/year
106887	1,2_Epoxybutane	1.0 tons/year
108054	Vinyl acetate	1.0 tons/year
126998	Chloroprene	1.0 tons/year
123319	Hydroquinone	1.0 tons/year
92933	4-Nitrobiphenyl	1.0 tons/year
56382	Parathion	0.1 tons/year
13463393	Nickel Carbonyl	0.1 tons/year
60344	Methyl hydrazine	0.006 tons/year
151564	Ethylene imine	0.0003 tons/year
77781	Dimethyl sulfate	0.1 tons/year
107302	Chloromethyl methyl ether	0.1 tons/year
57578	beta-Propiolactone	0.1 tons/year
100447	Benzyl chloride	0.04 tons/year
98077	Benzotrichloride	0.0006 tons/year
107028	Acrolein	0.04 tons/year
584849	2,4_Toluene diisocyanate	0.1 tons/year
75741	Tetramethyl lead	0.01 tons/year
78002	Tetraethyl lead	0.01 tons/year
12108133	Methylcyclopentadienyl manganese	0.1 tons/year
624839	Methyl isocyanate	0.1 tons/year
77474	Hexachlorocyclopentadiene	0.1 tons/year
62207765	Fluomine	0.1 tons/year
10210681	Cobalt carbonyl	0.1 tons/year

CAS Number	Chemical Name	EPA de minimis
79118	Chloroacetic acid	0.1 tons/year
534521	4,6-Dinitro-o-cresol, and salts	0.1 tons/year
101688	Methylene diphenyl diisocyanate	0.1 tons/year
108952	Phenol	0.1 tons/year
62384	Mercury, (acetato-o) phenyl	0.01 tons/year
98862	Acetophenone	1.0 tons/year
108316	Maleic anhydride	1.0 tons/year
532274	2-Chloroacetophenone	0.06 tons/year
51285	2,4-Dinitrophenol	1.0 tons/year
109864	2-Methyoxy ethanol	10.0 tons/year
98953	Nitrobenzene	1.0 tons/year
74839	Methyl bromide (Bromomethane)	10.0 tons/year
75150	Carbon disulfide	1.0 tons/year
121697	N,N-Dimethylaniline	1.0 tons/year
106514	Quinone	5.0 tons/year
123386	Propionaldehyde	5.0 tons/year
120809	Catechol	5.0 tons/year
85449	Phthalic anhydride	5.0 tons/year
463581	Carbonyl sulfide	5.0 tons/year
132649	Dibenzofurans	5.0 tons/year
100027	4-Nitrophenol	5.0 tons/year
540841	2,2,4-Trimethylpentane	5.0 tons/year
111422	Diethanolamine	5.0 tons/year
822060	Hexamethylene-1,6-diisocyanate	5.0 tons/year
-	Glycol ethers [1]	5.0 tons/year
-	Polycyclic organic matter [2]	0.01 tons/year

[1] – Except for ethylene glycol butyl ether, ethylene glycol ethyl ether (2-ethoxy ethanol), ethylene glycol hexyl ether, ethylene glycol methyl ether (2-methoxyethanol), ethylene glycol phenyl ether, ethylene glycol propyl ether, ethylene glycol mono-2-ethylhexyl ether, diethylene glycol butyl ether, diethylene glycol ethyl ether, diethylene glycol methyl ether, diethylene glycol hexyl ether, diethylene glycol phenyl ether, diethylene glycol propyl ether, triethylene glycol butyl ether, triethylene glycol ethyl ether, triethylene glycol methyl ether, triethylene glycol propyl ether, ethylene glycol butyl ether acetate, ethylene glycol ethyl ether acetate, and diethylene glycol ethyl ether acetate; and

[2] – Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah) anthracene, 1,2:7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

9.16 Demonstrating continuous compliance

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.804(g) and (h) the owner or operator shall demonstrate continuous compliance by the appropriate method listed below based on the selected compliance option:

1. The owner or operator that complies with permit condition 9.1 for finishing materials by the procedures in paragraph (1) of permit condition 9.2 shall demonstrate continuous compliance by the averaging calculation for each month resulting in a value of "E" not greater than 1.0 and submit a compliance certification with the semiannual report required in permit condition 9.21. The owner or operator is in violation if "E" is greater than 1.0 for any month. A violation of the monthly average is a separate violation for each day of operation during the month, unless the owner or operator can demonstrate through records the violation of the monthly average can be attributed to a particular day or days during the period;
2. The owner or operator that complies with permit condition 9.1 for finishing materials by the procedures in paragraph (2) of permit condition 9.2 shall demonstrate continuous compliance by using compliant finishing materials, maintaining records that demonstrate the finishing materials are compliant, and submit a compliance certification with the semiannual report required in permit condition 9.21. The owner or operator is in violation whenever a noncompliant finishing materials, as demonstrated by records or by sample of the finishing material, is used;
3. The owner or operator subject to permit condition 9.1 for contact adhesives shall demonstrate continuous compliance by using compliant contact adhesives, maintaining records that demonstrate the contact adhesives are compliant, and submit a compliance certification with the semiannual report required in permit condition 9.21. The owner or operator is in violation whenever noncompliant contact adhesives are used. Each day a noncompliant contact adhesive is used is a single violation;
4. The owner or operator subject to permit condition 9.1 for strippable spray booth coatings shall demonstrate continuous compliance by using compliant strippable spray booth coatings, maintaining records that demonstrate the strippable spray booth coatings are compliant, and submit a compliance certification with the semiannual report required in permit condition 9.21. The owner or operator is in violation whenever noncompliant strippable spray booth coatings are used. Each day a noncompliant strippable spray booth coating is used is a single violation;
5. The owner or operator subject to permit condition 9.1 for all finishing operations and contact adhesives shall demonstrate continuous compliance by one of the following procedures and submit a compliance certification with the semiannual report required in permit condition 9.21:
   a. Calculate total formaldehyde emissions from all finishing materials and contact adhesives using Equation 9-2 and maintain a value of F_{total} of no more than 400 pounds per rolling 12-month period; or

Equation 9-2 – Formaldehyde Emission Calculation

$$F_{total} = \left((C_{f1} \times V_{c1}) + (C_{f2} \times V_{c2}) + \cdots + (C_{fn} \times V_{cn}) + (G_{f1} \times V_{g1}) + (G_{f2} \times V_{g2}) + \cdots + (G_{fn} \times V_{gn}) \right)$$

Where:

- F_{total} = total formaldehyde emissions in each rolling 12-month period;
- C_f = the formaldehyde content of a finishing material (c), in pounds of formaldehyde per gallon;
- V_c = the volume of formaldehyde containing finishing material (c), in gallons;

- G_f = the formaldehyde content of a contact adhesive (g), in pounds of formaldehyde per gallon;
- V_g = the volume of formaldehyde containing contact adhesive (g), in gallons.

    b. Demonstrate compliance by using finishing materials and contact adhesives that are low-formaldehyde finishing materials and contact adhesives, maintaining a certified product data sheet for each finishing materials and contact adhesive and submit a compliance certification with the semiannual report required in permit condition 9.21. The owner or operator is in violation whenever a finishing material or contact adhesive that is not low-formaldehyde, as demonstrated by records or by a sample of the finishing material or contact adhesive is used. Use of a noncompliance finishing material or contact adhesive is a separate violation for each day the noncompliant finishing material or contact adhesive is used.

6. The owner or operator shall demonstrate continuous compliance with the work practice standards through recordkeeping and submit a compliance certification with the semiannual report required in permit condition 9.21. During any period of time that an owner or operator is required to implement the provisions of the work practice plan, each failure to implement an obligation under the plan during any particular day is a violation.

9.17 Recordkeeping requirements

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.806(b), (c), and (e) the owner or operator shall maintain the following records:

1. A certified product data sheet for each finishing material, contact adhesive, and strippable spray booth coating;
2. The volatile hazardous air pollutant content, in pounds of volatile hazardous air pollutant per pound of solids, as applied, of each finishing material and contact adhesive;
3. The volatile organic compound content, in pounds of volatile organic compound per pound of solids, as applied, of each strippable spray booth coating;
4. If the owner or operator chooses to comply with the 400 pounds per year limit on formaldehyde in Table 9-1, the formaldehyde content, in pounds per gallon, as applied, of each finishing material and contact adhesive;
5. If the owner or operator chooses to comply using Equation 9-1, a copy of the averaging calculation for each month and the data on the quantity of coatings and thinners used that is necessary to support the calculation of "E"; and
6. The owner or operator shall maintain onsite the work practice implementation plan and the following records associated with fulfilling the requirements of that plan:
    a. Records demonstrating the operator training program is in place;
    b. Records collected in accordance with the inspection and maintenance plan;
    c. Records associated with the cleaning solvent accounting system;
    d. Records associated with the formulation assessment plan; and
    e. Copies of documentation such as logs developed to demonstrate the other provisions of the work practice implementation plan are followed.

9.18 Determination of volatile hazardous air pollutant content

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.805(a), 40 CFR Part 63, Appendix A, Method 311 shall be used in conjunction with formulation data to determine the volatile hazardous air pollutant content of the liquid coating. Formulation data shall be used to identify volatile hazardous air pollutant present in the coating. Method 311 shall then be used to quantify those volatile hazardous air pollutants identified through formulation data. Method 311 shall not be used to quantify hazardous air pollutants such as styrene and formaldehyde that are emitted during the cure. If it is demonstrated to the satisfaction of the Secretary that a coating does not release volatile organic compound or hazardous air pollutant byproducts during the cure, then batch formulation information shall be accepted. If Method 311 test data is a higher value than the owner's or operator's formulation data, then the Method 311 test value shall govern unless the owner or operator can demonstrate to the satisfaction of the Secretary that the formulation data is correct. Sampling procedures shall follow the guidelines presented in "Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A," EPA-340/1-91-010. (Docket No. A-93-10, Item No. IV-A-1).

9.19 Determination of solids content

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR § 63.805(a), 40 CFR Part 60, Appendix A, Method 24 shall be used to determine the solids content by weight and the density of coatings. If Method 24 test data is a higher value than the owner's or operator's formulation data then the Method 24 test value shall govern unless the owner or operator can demonstrate to the satisfaction of the Secretary that the formulation data is correct. Sampling procedures shall follow the guidelines presented in "Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A," EPA-340/1-91-010. (Docket No. A-93-10, Item No. IV-A-1).

9.20 Reporting baseline level exceedance

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR §§ 63.803(l)(4) and (5) and 63.807(e), if the annual usage of a volatile hazardous air pollutant identified in the formulation assessment plan required in permit condition 9.15 exceeds the baseline level, then the owner or operator shall provide a written notification to the Secretary that describes the amount of the increase and the reasons for exceeding the baseline level. The following explanations would relieve the owner or operator from further action:

1. The exceedance is no more than 15.0 percent above the baseline level;
2. Usage of the volatile hazardous air pollutant is below the de minimis level presented in Table 9-3 for that volatile hazardous air pollutant; or
3. The source of the pollutant is a finishing material with a volatile organic compound content of no more than 1.0 pound volatile organic compound per pound solids, as applied.

If none of the above explanations are the reason for the increase, the owner or operator shall confer with the Secretary to discuss the reason for the increase and whether there are practical and reasonable technology-based solutions for reducing the usage. The evaluation of whether a

technology is reasonable and practical shall be based on cost, quality, and marketability of the product, whether the technology is being used successfully by other wood furniture manufacturing operations, or other criteria mutually agreed upon by the Secretary and the owner or operator. If there are no practical and reasonable solutions, the owner or operator need take no further action. If there are solutions, the owner or operator shall develop a plan to reduce usage of the pollutant to the extent feasible. The plan shall address the approach to be used to reduce emissions, a timetable for implementing the plan, and a schedule for submitting notification of progress.

If the owner or operator is required to provide a written notification, the written notification shall include one or more statements that explain the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

9.21 Semiannual report

In accordance with ARSD 74:36:08:14, as referenced to 40 CFR §§ 63.804(g) and 63.807(c), the owner or operator shall submit a semiannual report to the Secretary with the appropriate information listed below based on the selected compliance option:

1. The owner or operator that complies with Table 9-1 for finishing materials by the procedures in paragraph (1) of permit condition 9.2 shall submit the results of the averaging calculation for each month within that semiannual period and a compliance certification. The compliance certification shall state the value of "E", as calculated by Equation 9-1, is not greater than 1.0 and if it is greater than 1.0, documentation demonstrating the particular day or days the violation of the monthly average occurred;
2. The owner or operator that complies with Table 9-1 for finishing materials by the procedures in paragraph (2) of permit condition 9.2 shall submit a compliance certification. The compliance certification shall state compliant stains, wash coats, sealers, topcoats, basecoats, enamels, and thinners, as applicable, were used each day in the semiannual reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance;
3. The owner or operator that complies with Table 9-1 for contact adhesives shall submit a compliance certification. The compliance certification shall state that compliant contact adhesives are being used or identify each day noncompliant contact adhesives are used and the reasons for noncompliance;
4. The owner or operator subject to Table 9-1 for strippable spray booth coatings shall submit a compliance certification. The compliance certification shall state that compliant strippable spray booth coatings have been used each day or identify each day noncompliant strippable spray booth coatings are used and the reasons for noncompliance;
5. The owner or operator subject to Table 9-1 for total formaldehyde emissions from all finishing materials and contact adhesives that complies by procedures in paragraph (5) of permit condition 9.16 shall submit the following applicable compliance certification:
    a. The compliance certification shall state if the owner or operator maintained the formaldehyde emissions to less than 400 pounds per 12-monthr rolling total; or

b. The compliance certification shall state that low formaldehyde coatings and contact adhesives were used each day during the reporting period or should otherwise identify the periods of noncompliance and the reasons for noncompliance;

6. The owner or operator shall submit a compliance certification stating the work practice implementation plan is being followed or should otherwise identify the provisions of the plan that have not been implemented and each day the provisions were not implemented;
7. If there was a malfunction during the reporting period, the report shall also include the number, duration and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limit to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction to minimize emissions in accordance with permit condition 9.3, including actions taken to correct a malfunction.

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).