

AF Lorts Company, Inc.
8120 West Harrison, Tolleson, AZ
Permit Number V99-006
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July 17, 2006

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APPENDIX A: EQUIPMENT LIST

APPENDIX B: SOURCE TYPE AND CONTROL MEASURES

AF Lorts Company, Inc.
8120 West Harrison, Tolleson, AZ
Permit Number V99-006
June 2, 2006

These Permit Conditions incorporate the following Permit Revisions:
Significant Permit Revision S05-003

In accordance with Maricopa County Air Pollution Control Rules and Regulations (Rules), Rule 210 § 302.2, all Conditions of this Permit are federally enforceable unless they are identified as being locally enforceable only. However, any Permit Condition identified as locally enforceable only will become federally enforceable if, during the term of this Permit, the underlying requirement becomes a requirement of the Clean Air Act (CAA) or any of the CAA's applicable requirements.

All federally enforceable terms and conditions of this Permit are enforceable by the Administrator of the United States Environmental Protection Agency (Administrator or Administrator of the USEPA hereafter) and citizens under Section 304 of the CAA.

Any cited regulatory paragraphs or section numbers refer to the version of the regulation that was in effect on the first date of public notice of the applicable Permit Condition unless specified otherwise.

GENERAL CONDITIONS:

- 1. AIR POLLUTION PROHIBITED:** [County Rule 100 §301] [SIP Rule 3]
The Permittee shall not discharge from any source whatever into the atmosphere regulated air pollutants which exceed in quantity or concentration that specified and allowed in the County or State Implementation Plan (SIP) Rules, the Arizona Administrative Code (AAC) or the Arizona Revised Statutes (ARS), or which cause damage to property or unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of a community, or obscure visibility, or which in any way degrade the quality of the ambient air below the standards established by the Maricopa County Board of Supervisors or the Director of the Arizona Department of Environmental Quality (ADEQ).
- 2. CIRCUMVENTION:** [County Rule 100 §104] [40 CFR 60.12] [40 CFR 63.4(b)]
The Permittee shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of regulated air pollutants to the atmosphere, conceals or dilutes an emission which would otherwise constitute a violation of this Permit or any Rule or any emission limitation or standard. The Permittee shall not circumvent the requirements concerning dilution of regulated air pollutants by using more emission openings than is considered normal practice by the industry or activity in question.
- 3. CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS:**
[County Rule 100 §401] [County Rule 210 §§301.7, 302.1e(1), 305.1c(1) & 305.1e]
Any application form, report, or compliance certification submitted under the County Rules or these Permit Conditions shall contain certification by a responsible official of truth, accuracy, and completeness of the application form or report as of the time of submittal. This

certification and any other certification required under the County Rules or these Permit Conditions shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

4. COMPLIANCE:

A. COMPLIANCE REQUIRED:

- 1) The Permittee must comply with all conditions of this permit and with all applicable requirements of Arizona air quality statutes and the air quality rules. Compliance with permit terms and conditions does not relieve, modify, or otherwise affect the Permittee's duty to comply with all applicable requirements of Arizona air quality statutes and the Maricopa County Air Pollution Control Regulations. Any permit non-compliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application. Noncompliance with any federally enforceable requirement in this Permit constitutes a violation of the Act. [This Condition is federally enforceable if the condition or requirement itself is federally enforceable and only locally enforceable if the condition or requirement itself is locally enforceable only]
[County Rule 210 §§301.8b(4) & 302.1h(1)]
- 2) The Permittee shall halt or reduce the permitted activity in order to maintain compliance with applicable requirements of Federal laws, Arizona laws, the County Rules, or other conditions of this Permit.
[County Rule 210 §302.1h(2)]
- 3) For any major source operating in a nonattainment area for any pollutant(s) for which the source is classified as a major source, the source shall comply with reasonably available control technology (RACT) as defined in County Rule 100.
[County Rule 210 §302.1(h)(6)] [SIP Rule 220 §302.2]
- 4) For any major source operating in a nonattainment area designated as serious for PM₁₀, for which the source is classified as a major source for PM₁₀, the source shall comply with the best available control technology (BACT), as defined in County Rule 100.
[County Rule 210 §302.1(h)(7)]

B. COMPLIANCE CERTIFICATION REQUIREMENTS: [County Rule 210 §305.1d]
The Permittee shall file an annual compliance certification with the Control Officer and also with the Administrator of the USEPA. The report shall certify compliance with the terms and conditions contained in this Permit, including emission limitations, standards, or work practices. The certification shall be on a form supplied or approved by the Control Officer and shall include each of the following:

- 1) The identification of each term or condition of the permit that is the basis of the certification;
- 2) The compliance status;
- 3) Whether compliance was continuous or intermittent;
- 4) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
- 5) Other facts as the Control Officer may require to determine the compliance status of the source.

The annual certification shall be filed at the same time as the second semiannual monitoring report required by the Specific Condition section of these Permit Conditions and every 12 months thereafter.

- C. **COMPLIANCE PLAN:** [County Rule 210 §305.1g]
Based on the certified information contained in the application for this Permit, the facility is in compliance with all applicable requirements in effect as of the first date of public notice of the proposed conditions for this Permit unless a compliance plan is included in the Specific Conditions section of this Permit. The Permittee shall continue to comply with all applicable requirements and shall meet any applicable requirements that may become effective during the term of this permit on a timely basis. [This Condition is federally enforceable if the applicable requirement itself is federally enforceable and only locally enforceable if the applicable requirement itself is locally enforceable only]

5. CONFIDENTIALITY CLAIMS:

Any records, reports or information obtained from the Permittee under the County Rules or this Permit shall be available to the public, unless the Permittee files a claim of confidentiality in accordance with ARS §49-487(c) which:

- A. precisely identifies the information in the permit(s), records, or reports which is considered confidential, and
B. provides sufficient supporting information to allow the Control Officer to evaluate whether such information satisfies the requirements related to trade secrets or, if applicable, how the information, if disclosed, could cause substantial harm to the person's competitive position.

The claim of confidentiality is subject to the determination by the Control Officer as to whether the claim satisfies the claim for trade secrets.

[County Rule 100 §402] [County Rule 200 §411]

A claim of confidentiality shall not excuse the Permittee from providing any and all information required or requested by the Control Officer and shall not be a defense for failure to provide such information.

[County Rule 100 §402]

If the Permittee submits information with an application under a claim of confidentiality under ARS §49-487 and County Rule 200, the Permittee shall submit a copy of such information directly to the Administrator of the USEPA.

[County Rule 210 §301.5]

6. CONTINGENT REQUIREMENTS:

NOTE: This Permit Condition covers activities and processes addressed by the CAA which may or may not be present at the facility. This condition is intended to meet the requirements of both Section 504(a) of the 1990 Amendments to the CAA, which requires that Title V permits contain conditions necessary to assure compliance with applicable requirements of the Act as well as the Acid Rain provisions required to be in all Title V permits.

- A. ACID RAIN: [County Rule 210 §§302.1b(2) & 302.1f] [County Rule 371 §301]
- 1). Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the CAA and incorporated under County Rule 371, both provisions shall be incorporated into this Permit and shall be enforceable by the Administrator.
 - 2) The Permittee shall not allow emissions exceeding any allowances that the source lawfully holds under Title IV of the CAA or the regulations promulgated thereunder and incorporated under County Rule 371.
 - a) No permit revision shall be required for increases in emissions that are authorized by allowances acquired under the acid rain program and incorporated under County Rule 371, provided that such increases do not require a permit revision under any other applicable requirement.
 - b) No limit is placed on the number of allowances held by the Permittee. The Permittee may not, however, use allowances as a defense to non-compliance with any other applicable requirement.
 - c) Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the CAA.
 - d) All of the following prohibitions apply to any unit subject to the provisions of Title IV of the CAA and incorporated into this Permit under County Rule 371:
 - (1) Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners or operators of the unit or the designated representative of the owners or operators.
 - (2) Exceedances of applicable emission rates.
 - (3) The use of any allowance prior to the year for which it was allocated.
 - (4) Violation of any other provision of the permit.
- B. ASBESTOS: [40 CFR 61, Subpart M] [County Rule 370 §301.8 - locally enforceable only]
The Permittee shall comply with the applicable requirements of Sections 61.145 through 61.147 and 61.150 of the National Emission Standard for Asbestos and County Rule 370 for all demolition and renovation projects.
- C. RISK MANAGEMENT PLAN (RMP): [40 CFR 68]
Should this stationary source, as defined in 40 CFR 68.3, be subject to the accidental release prevention regulations in 40 CFR Part 68, then the Permittee shall submit an RMP by the date specified in 40 CFR Section 68.10 and shall certify compliance with the requirements of 40 CFR Part 68 as part of the annual compliance certification as required by 40 CFR Part 70. However, neither the RMP nor modifications to the RMP shall be considered to be a part of this Permit.
- D. STRATOSPHERIC OZONE PROTECTION: [40 CFR 82 Subparts E, F, and G]
If applicable, the Permittee shall follow the requirements of 40 CFR 82.106 through 82.124 with respect to the labeling of products using ozone depleting substances.
- If applicable, the Permittee shall comply with all of the following requirements with respect to recycling and emissions reductions:
- 1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices under 40 CFR 82.156.

- 2) Equipment used during maintenance, service, repair, or disposal of appliances must meet the standards for recycling and recovery equipment in accordance with 40 CFR 82.158.
- 3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by a certified technician under 40 CFR 82.161.

If applicable, the Permittee shall follow the requirements of 40CFR 82 Subpart G, including all Appendices, with respect to the safe alternatives policy on the acceptability of substitutes for ozone-depleting compounds.

7. **DUTY TO SUPPLEMENT OR CORRECT APPLICATION:** [County Rule 210 §301.6]
If the Permittee fails to submit any relevant facts or has submitted incorrect information in a permit application, the Permittee shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, the Permittee shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a proposed permit.
8. **EMERGENCY EPISODES:** [County Rule 600 §302] [SIP Rule 600 §302]
If an air pollution alert, warning, or emergency has been declared, the Permittee shall comply with any applicable requirements of County Rule 600 §302.
9. **EMERGENCY PROVISIONS:** [County Rule 130 §§201 & 402]
An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, that require immediate corrective action to restore normal operation, and that cause the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

An emergency constitutes an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the requirements of this Permit Condition are met.

The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- A. An emergency occurred and that the Permittee can identify the cause or causes of the emergency;
- B. At the time of the emergency, the permitted source was being properly operated;
- C. During the period of the emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in this permit; and
- D. The Permittee as soon as possible telephoned the Control Officer, giving notice of the emergency, and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice fulfills the requirement of County Rule 210 §302.1.e(2) with respect to deviation reporting. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

This provision is in addition to any emergency or upset provision contained in any applicable requirement.

10. EXCESS EMISSIONS: [County Rule 140 §§103, 401 & 402]
NOTE: There are reporting requirements associated with excess emissions. These requirements are contained in the Reporting section of the General Permit Conditions in a subparagraph called Excess Emissions. The definition of excess emissions can be found in County Rule 100 §200.

- A. Exemptions: The excess emissions provisions of this Permit Condition do not apply to the following standards and limitations:
- 1) Promulgated pursuant to Section 111 (Standards Of Performance for New Stationary Sources) of the Clean Air Act (Act) or Section 112 (National Emission Standards For Hazardous Air Pollutants) of the Act;
 - 2) Promulgated pursuant to Title IV (Acid Deposition Control) of the Act or the regulations promulgated thereunder and incorporated under Rule 371 (Acid Rain) of these rules or Title VI (Stratospheric Ozone Protection) of the Act;
 - 3) Contained in any Prevention Of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the Environmental Protection Agency (EPA);
 - 4) Included in a permit to meet the requirements of Rule 240 (Permit Requirements For New Major Sources And Major Modifications To Existing Major Sources), Subsection 308.1(e) (Permit Requirements For Sources Located In Attainment And Unclassified Areas) of these rules.
- B. Affirmative Defense For Malfunctions: Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. The owner and/or operator of a source with emissions in excess of an applicable emission limitation due to malfunction has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the owner and/or operator of the source has complied with the excess emissions reporting requirements of these Permit Conditions and has demonstrated all of the following:
- 1) The excess emissions resulted from a sudden and unavoidable breakdown of the process equipment or the air pollution control equipment beyond the reasonable control of the operator;
 - 2) The source's air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
 - 3) If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, then the owner and/or operator satisfactorily demonstrated that such measures were impractical;
 - 4) The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;

- 5) All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
- 6) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- 7) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in County Rule 510 that could be attributed to the emitting source;
- 8) The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
- 9) All emissions monitoring systems were kept in operation, if at all practicable; and
- 10) The owner's and/or operator's actions in response to the excess emissions were documented by contemporaneous records.

C. Affirmative Defense For Startup And Shutdown:

- 1) Except as provided in paragraph 2) below, and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. The owner and/or operator of a source with emissions in excess of an applicable emission limitation due to startup and shutdown has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the owner and/or operator of the source has complied with the excess emissions reporting requirements of these Permit Conditions and has demonstrated all of the following:
 - a. The excess emissions could not have been prevented through careful and prudent planning and design;
 - b. If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
 - c. The source's air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
 - d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable, during periods of such emissions;
 - e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
 - f. During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in County Rule 510 (Air Quality Standards) that could be attributed to the emitting source;
 - g. All emissions monitoring systems were kept in operation, if at all practicable; and
 - h. The owner's and/or operator's actions in response to the excess emissions were documented by contemporaneous records.
- 2) If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to paragraph A. of this Permit Condition.

- D. Affirmative Defense For Malfunctions During Scheduled Maintenance: If excess emissions occur due to malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to paragraph B. of this Permit Condition.
- E. Demonstration Of Reasonable And Practicable Measures: For an affirmative defense under paragraphs A and B of this Permit Condition, the owner and/or operator of the source shall demonstrate, through submission of the data and information required by this Permit Condition and the excess emissions reporting requirements of these Permit Conditions, that all reasonable and practicable measures within the owner's and/or operator's control were implemented to prevent the occurrence of the excess emissions.

11. FEES: [County Rule 200 §409] [County Rule 210 §§302.1i & 401]
The Permittee shall pay fees to the Control Officer under ARS 49-480(D) and County Rule 280.

12. MODELING: [County Rule 200 §407] [locally enforceable only]
Where the Control Officer requires the Permittee to perform air quality impact modeling, the Permittee shall perform the modeling in a manner consistent with the "Guideline on Air Quality Models (Revised)" (EPA-450/2-78-027R, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, July 1986) and "Supplement B to the Guideline on Air Quality Models" (U.S. Environmental Protection Agency, September 1990). Both documents shall be referred to hereinafter as "Guideline", and are adopted by reference. Where the person can demonstrate that an air quality impact model specified in the guideline is inappropriate, the model may be modified or another model substituted if found to be acceptable to the Control Officer.

13. MONITORING / TESTING:

A. The Permittee shall monitor, sample, or perform other studies to quantify emissions of regulated air pollutants or levels of air pollution that may reasonably be attributable to the facility if required to do so by the Control Officer, either by Permit or by order in accordance with County Rule 200 §309.

[County Rule 200 §309] [SIP Rule 41]

B. Except as otherwise specified in these Permit Conditions or by the Control Officer, the Permittee shall conduct required testing used to determine compliance with standards or permit conditions established under the County or SIP Rules or these Permit Conditions in accordance with County Rule 270 and the applicable testing procedures contained in the applicable Rule, the Arizona Testing Manual for Air Pollutant Emissions or other approved USEPA test methods.

[County Rule 200 §408] [County Rule 210 §302.1.c] [County Rule 270 §§300 & 400]
[SIP Rule 27]

C. The owner or operator of a permitted source shall provide, or cause to be provided, performance testing facilities as follows:

- 1) Sampling ports adequate for test methods applicable to such source.
- 2) Safe sampling platform(s).
- 3) Safe access to sampling platforms(s).
- 4) Utilities for sampling and testing equipment.

[County Rule 270 §405] [SIP Rule 42]

14. PERMITS:

- A. BASIC: [County Rule 210 §302.1h(3)]
This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.
- B. DUST CONTROL PLAN REQUIREMENTS:
(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee needs to have the routine dust generating activity covered as part of this Permit. Nonroutine activities, such as construction, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)
- 1) The Permittee must first submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan before commencing any routine dust generating operation.
[County Rule 310 §303.3] [SIP Rule 310 §303.3]
 - 2) A Dust Control Plan shall not be required to play on a ball field and/or for landscape maintenance. For the purpose of this Permit Condition, landscape maintenance does not include grading, trenching, nor any other mechanized surface disturbing activities.
[County Rule 310 §303.4] [SIP Rule 310 §303.4]
 - 3) Any Dust Control Plan shall, at a minimum, contain all the information described in Section 304 of Rule 310.
[County Rule 310 §§303.1 & 304] [SIP Rule 310 §303.1 & 304]
 - 4) Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of Rule 310 at all times.
[County Rule 310 §303] [SIP Rule 310 §303]
- C. PERMITS AND PERMIT CHANGES, AMENDMENTS AND REVISIONS:
- 1) The Permittee shall comply with the Administrative Requirements of Section 400 of County Rule 210 for all changes, amendments and revisions at the facility for any source subject to regulation under County Rule 200, shall comply with all required time frames, and shall obtain any required preapproval from the Control Officer before making changes. All applications shall be filed in the manner and form prescribed by the Control Officer. The application shall contain all the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision including information listed in County Rule 200 §308 and County Rule 210 §§301 & 302.3.
[County Rule 200 §§301 & 308] [County Rule 210 §§301.4a, b, c, & 400]
 - 2) The Permittee shall supply a complete copy of each application for a permit, a minor permit revision, or a significant permit revision directly to the Administrator of the USEPA. The Control Officer may require the application information to be submitted in a computer-readable format compatible with the Administrator's national database management system.
[County Rule 210 §§303.1a, 303.2, 405.4, & 406.4]

3) While processing an application, the Control Officer may require the applicant to provide additional information and may set a reasonable deadline for a response.
[County Rule 210 §301.4f]

4) No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
[County Rule 210 §302.1j]

D. POSTING:

1) The Permittee shall keep a complete permit clearly visible and accessible on the site where the equipment is installed.
[County Rule 200 §311]

2) If a Dust Control Plan, as required by Rule 310, has been approved by the Control Officer, the Permittee shall post a copy of the approved Dust Control Plan in a conspicuous location at the work site, within on-site equipment, or in an on-site vehicle, or shall otherwise keep a copy of the Dust Control Plan available on site at all times.
[County Rule 310 §401] [SIP Rule 310 §401]

E. PROHIBITION ON PERMIT MODIFICATION: [County Rule 200 §310]
The Permittee shall not willfully deface, alter, forge, counterfeit, or falsify this permit.

F. RENEWAL:

1) The Permittee shall submit an application for the renewal of this Permit in a timely and complete manner. For purposes of permit renewal, a timely application is one that is submitted at least six months, but not more than 18 months, prior to the date of permit expiration. A complete application shall contain all of the information required by the County Rules including Rule 200 §308 and Rule 210 §§301 & 302.3.

[County Rule 210 §§301.2a, 301.4a, b, c, d, h & 302.3]

2) The Permittee shall file all permit applications in the manner and form prescribed by the Control Officer. To apply for a permit renewal, the Permittee shall complete the "Standard Permit Application Form" and shall supply all information, including the information required by the "Filing Instructions" as shown in Appendix B of the County Rules, which is necessary to enable the Control Officer to make the determination to grant or to deny a permit which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of the CAA, ARS and County Rules.

[County Rule 200 §§308 & 309] [County Rule 210 §301.1]

3) The Control Officer may require the Permittee to provide additional information and may set a reasonable deadline for a response.
[County Rule 210 §301.4f]

4) If the Permittee submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied. This protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit, by

the deadline specified by the Control Officer, any additional information identified as being needed to process the application.

[County Rule 200 §403.2] [County Rule 210 §§301.4f & 301.9]

G. REVISION / REOPENING / REVOCATION:

- 1) This permit shall be reopened and revised to incorporate additional applicable requirements adopted by the Administrator pursuant to the CAA that become applicable to the facility if this permit has a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this Permit is due to expire unless the original permit or any of its terms have been extended pursuant to Rule 200 §403.2.

[County Rules 200 §402.1]

Any permit revision required under this Permit Condition, 14.G.1, shall reopen the entire permit and shall comply with provisions in County Rule 200 for permit renewal (*Note: this includes a facility wide application and public comment on the entire permit*) and shall reset the five year permit term.

[County Rules 200 §402.1a(1) & 210 §302.5]

- 2) This permit shall be reopened and revised under any of the following circumstances:
 - a) Additional requirements, including excess emissions requirements, become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the Title V permit.
 - b) The Control Officer or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - c) The Control Officer or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue a permit under this Permit Condition, 14.G.2, shall follow the same procedures as apply to initial permit issuance and shall effect only those parts of the Permit for which cause to reopen exists.

[County Rule 200 §402.1]

- 3) This permit shall be reopened by the Control Officer and any permit shield revised, when it is determined that standards or conditions in the permit are based on incorrect information provided by the applicant.

[County Rule 210 §407.3]

- 4) This Permit may be revised, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Permit revision, revocation and reissuance, or termination or of a notification of planned changes or anticipated noncompliance does not stay any Permit Condition.

[County Rule 210 §302.1h(3)]

H. REVISION UNDER A FEDERAL HAZARDOUS AIR POLLUTANT STANDARD:
[County Rule 210 §301.2c] [locally enforceable only]

If the Permittee becomes subject to a standard promulgated by the Administrator under Section 112(d) of the CAA, the Permittee shall, within 12 months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard.

I. REQUIREMENTS FOR A PERMIT:

- 1) Air Quality Permit: Except as noted under the provisions in Sections 403 and 405 of County Rule 210, no source may operate after the time that it is required to submit a timely and complete application, except in compliance with a permit issued under County Rule 210. Permit expiration terminates the Permittee's right to operate. However, if a source submits a timely and complete application, as defined in County Rule 210 §301, for permit issuance, revision, or renewal, the source's failure to have a permit is not a violation of the County Rules until the Control Officer takes final action on the application. The Source's ability to operate without a permit as set forth in this paragraph shall be in effect from the date the application is determined to be complete until the final permit is issued. This protection shall cease to apply if, subsequent to the completeness determination, the applicant fails to submit, by the deadline specified in writing by the Control Officer, any additional information identified as being needed to process the application. If a source submits a timely and complete application for a permit renewal, but the Control Officer has failed to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the permit renewal has been issued or denied.

[County Rule 210 §301.9]

- 2) Earthmoving Permit:

(NOTE: If the Permittee engages in or allows any routine dust generating activities at the facility, the Permittee needs to have the routine dust generating activity covered as part of this Permit. Non-routine activities, such as construction, require a separate Earthmoving Permit that must be obtained from the Control Officer before the activity may begin.)

The Permittee shall not cause, commence, suffer, allow, or engage in any earthmoving operation that disturbs a total surface area of 0.10 acre or more without first obtaining a permit from the Control Officer. Permits shall not be required for earthmoving operations for emergency repair of utilities, paved roads, unpaved roads, shoulders, and/or alleys.

[County Rule 200 §305]

- 3) Burn Permit: The Permittee shall obtain a Permit To Burn from the Control Officer before conducting any open outdoor fire except for the activities listed in County Rule 314 §§302.1 and 302.2.

[County Rule 314] [County Rule 200 §306] [SIP Rule 314]

J. RIGHTS AND PRIVILEGES: [County Rule 210 §302.1h (4)]

This Permit does not convey any property rights nor exclusive privilege of any sort.

K. SEVERABILITY: [County Rule 210 §302.1g]

The provisions of this Permit are severable, and, if any provision of this Permit is held invalid, the remainder of this Permit shall not be affected thereby.

L. SCOPE:

The issuance of any permit or permit revision shall not relieve the Permittee from compliance with any Federal laws, Arizona laws, or the County or SIP Rules, nor does any other law, regulation or permit relieve the Permittee from obtaining a permit or permit revision required under the County Rules.

[County Rule 200 §308]

Nothing in this permit shall alter or affect the following:

- 1) The provisions of Section 303 of the Act (Emergency Orders), including the authority of the Administrator of the USEPA under that section.
- 2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of permit issuance.
- 3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act.
- 4) The ability of the Administrator of the USEPA or of the Control Officer to obtain information from the Permittee under Section 114 of the Act, or any provision of State law.
- 5) The authority of the Control Officer to require compliance with new applicable requirements adopted after the permit is issued. [locally enforceable only]

[County Rule 210 §407.2]

M. TERM OF PERMIT:

[County Rule 210 §§302.1a & 402]

This Permit shall remain in effect for no more than 5 years from the date of issuance.

N. TRANSFER:

[County Rule 200 §404]

Except as provided in ARS §49-429 and County Rule 200, this permit may be transferred to another person if the Permittee gives notice to the Control Officer in writing at least 30 days before the proposed transfer and complies with the permit transfer requirements of County Rule 200 and the administrative permit amendment procedures under County Rule 210.

15. RECORDKEEPING:

A. RECORDS REQUIRED:

[County Rule 100 §501] [County Rule 310 §502] [SIP Rule 40 A]

The Permittee shall maintain records of all emissions testing and monitoring, records detailing all malfunctions which may cause any applicable emission limitation to be exceeded, records detailing the implementation of approved control plans and compliance schedules, records required as a condition of any permit, records of materials used or produced, and any other records relating to the emission of air contaminants which may be requested by the Control Officer.

B. RETENTION OF RECORDS:

Unless a longer time frame is specified by these Permit Conditions, information and records required by applicable requirements and copies of summarizing reports recorded by the Permittee and submitted to the Control Officer shall be retained by the Permittee for 5 years after the date on which the information is recorded or the report is submitted

[County Rule 100 §504] [SIP Rule 40 C]

The Permittee shall retain records of all required monitoring data and support information for a period of at least five years from the date of the monitoring sample,

measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[County Rule 210 §§302.1d(2)]

C. MONITORING RECORDS: [County Rule 210 §302.1d(1) & 305.1b]

Records of any monitoring required by this Permit shall include the following:

- 1) The date, place as defined in the permit, and time of sampling or measurements;
- 2) The date(s) analyses were performed;
- 3) The name of the company or entity that performed the analysis;
- 4) The analytical techniques or methods used;
- 5) The results of such analysis; and
- 6) The operating conditions as existing at the time of sampling or measurement.

D. RIGHT OF INSPECTION OF RECORDS: [County Rule 100 §106] [SIP Rule 40 D]

When the Control Officer has reasonable cause to believe that the Permittee has violated or is in violation of any provision of County Rule 100 or any County Rule adopted under County Rule 100, or any requirement of this permit, the Control Officer may request, in writing, that the Permittee produce all existing books, records, and other documents evidencing tests, inspections, or studies which may reasonably relate to compliance or noncompliance with County Rules adopted under County Rule 100. No person shall fail nor refuse to produce all existing documents required in such written request by the Control Officer.

16. REPORTING:

NOTE: See the Permit Condition titled Certification Of Truth, Accuracy and Completeness in conjunction with reporting requirements.

A. ANNUAL EMISSION INVENTORY REPORT:

[County Rule 100 §505] [SIP Rule 40 B]

Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall complete and shall submit to the Control Officer an annual emissions inventory report. The report is due by April 30, or 90 days after the Control Officer makes the inventory form(s) available, whichever occurs later.

The annual emissions inventory report shall be in the format provided by the Control Officer.

The Control Officer may require submittal of supplemental emissions inventory information forms for air contaminants under ARS §49-476.01, ARS §49-480.03 and ARS §49-480.04.

B. DATA REPORTING: [County Rule 100 §502]

When requested by the Control Officer, the Permittee shall furnish to the Maricopa County Air Quality Division (Division hereafter) information to locate and classify air contaminant sources according to type, level, duration, frequency, and other characteristics of emissions and such other information as may be necessary. This information shall be sufficient to evaluate the effect on air quality and compliance with the County or SIP Rules. The Permittee may subsequently be required to submit annually, or at such intervals specified by the Control Officer, reports detailing any

changes in the nature of the source since the previous report and the total annual quantities of materials used or air contaminants emitted.

- C. DEVIATION REPORTING: [County Rule 210 §§302.1e & 305.1c]
The Permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions. Unless specified otherwise elsewhere in these Permit Conditions, an upset for the purposes of this Permit Condition shall be defined as the operation of any process, equipment or air pollution control device outside of either its normal design criteria or operating conditions specified in this Permit and which results in an exceedance of any applicable emission limitation or standard. The Permittee shall submit the report to the Control Officer within 2 working days from knowledge of the deviation. The report shall contain a description of the probable cause of such deviations and any corrective actions or preventive measures taken. In addition, the Permittee shall report within a reasonable time of any long-term corrective actions or preventative actions taken as the result of any deviations from permit requirements.

All instances of deviations from the requirements of this Permit shall also be clearly identified in the semiannual monitoring reports required in the Specific Condition section of these Permit Conditions.

- D. EMERGENCY REPORTING: [County Rule 130 §402.4]
(NOTE: Emergency Reporting is one of the special requirements which must be met by a Permittee wishing to claim an affirmative defense under the emergency provisions of County Rule 130. These provisions are listed earlier in these General Conditions in the section titled "Emergency Provisions". Since it is a form of deviation reporting, the filing of an emergency report also satisfies the requirement of County Rule 210 to file a deviation report.)
The Permittee shall, as soon as possible, telephone the Control Officer giving notice of the emergency, and submitted notice of the emergency to the Control Officer by certified mail, facsimile, or hand delivery within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

- E. EMISSION STATEMENTS REQUIRED AS STATED IN THE ACT: [County Rule 100 §503]
Upon request of the Control Officer and as directed by the Control Officer, the Permittee shall provide the Control Officer with an emission statement, in such form as the Control Officer prescribes, showing measured actual emissions or estimated actual emissions of NO_x and volatile organic compounds (VOC) from that source. At a minimum, the emission statement shall contain all information contained in the "Guidance on Emission Statements" document as described in the USEPA's Aerometric Information Retrieval System (AIRS) Fixed Format Report (AFP 644). The statement shall contain emissions for the time period specified by the Control Officer. Statements shall be submitted annually.

F. EXCESS EMISSIONS REPORTING:

[County Rule 140 §500] [locally enforceable only]

(NOTE: This reporting subsection is associated with the requirements listed earlier in these General Conditions in the section titled "Excess Emissions".)

- 1) The owner and/or operator of any source shall report to the Control Officer any emissions in excess of the limits established by the County or SIP Rules or by these Permit Conditions. The report shall be in two parts as specified below:
 - a) Notification by telephone or facsimile within 24 hours of the time when the owner and/or operator first learned of the occurrence of excess emissions that includes all available information from paragraph 2) of this Permit Condition.
 - b) Detailed written notification by submission of an excess emissions report within 72 hours of the notification required by paragraph 1) a) of this Permit Condition.
- 2) The excess emissions report shall contain the following information:
 - a) The identity of each stack or other emission point where the excess emissions occurred;
 - b) The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
 - c) The time and duration or expected duration of the excess emissions;
 - d) The identity of the equipment from which the excess emissions emanated;
 - e) The nature and cause of such emissions;
 - f) The steps taken, if the excess emissions were the result of a malfunction, to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions;
 - g) The steps that were or are being taken to limit the excess emissions; and
 - h) If this Permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, a list of the steps taken to comply with the Permit procedures.
- 3) In the case of continuous or recurring excess emissions, the notification requirements of this Permit Condition shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in the notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to paragraphs 1) and 2) of this Permit Condition.

G. OTHER REPORTING:

[County Rule 210 §302.1h(5)]

The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing this permit, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by this Permit. For information claimed to be confidential, the Permittee shall furnish a copy of such

records directly to the Administrator of the USEPA along with a claim of confidentiality as covered elsewhere in these Permit Conditions.

17. RIGHT TO ENTRY AND INSPECTION OF PREMISES:

The Control Officer, during reasonable hours, for the purpose of enforcing and administering County Rules or any provision of ARS relating to the emission or control prescribed pursuant thereto, may enter every building, premises, or other place, except the interior of structures used as private residences. Every person is guilty of a petty offense under ARS §49-488 who in any way denies, obstructs or hampers such entrance or inspection that is lawfully authorized by warrant.

[County Rule 100 §105]

The Permittee shall allow the Control Officer or his authorized representative, upon presentation of proper credentials and other documents as may be required by law, to:

- A. Enter upon the Permittee’s premises where a source is located or emissions-related activity is conducted, or where records are required to be kept under the conditions of the permit;
 [County Rule 210 §305.1f] [SIP Rule 43]
- B. Have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 [County Rule 210 §305.1f] [SIP Rule 43]
- C. Inspect, at reasonable times, any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
 [County Rule 210 §305.1f] [SIP Rule 43]
- D. Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements; and
 [County Rule 210 §305.1f] [SIP Rule 43]
- E. To record any inspection by use of written, electronic, magnetic, and photographic media.

[County Rule 210 §305.1f] [Locally enforceable only]

SPECIFIC CONDITIONS:

18. ALLOWABLE EMISSIONS LIMITATIONS

The allowable emission limitations of these Permit Conditions are based upon the facility as presently constructed and operated. They do not provide for facility changes or changes in the method of operation that would otherwise trigger new applicable requirements including New Source Review (NSR) or Best Available Control Technology (BACT).

- A. Facility-Wide Requirements
 - 1) The Permittee shall limit the emissions from the facility in accordance with the following table:

Pollutant	Monthly Limit, Tons	Rolling 12 Month Limit, Tons
Any Single Federally Listed Hazardous Air Pollutant (HAP)	2.0	9.0
Total of All Federally Listed Hazardous Air Pollutants (HAPs)	4.0	22.5

The rolling 12 month limit shall be calculated by summing the monthly emissions for the most recent 12 calendar months.

[County Rule 210 §302.1b]

2) Particulate Matter Limits

a) Wood Furniture Manufacturing

- (1) The Permittee shall not discharge or cause or allow the discharge of particulate matter into the ambient air from any affected operation in excess of the allowable hourly emission rate determined by the following equation:

$$E = 3.59 P^{0.62} \quad \text{Equation (1)}$$

Where:

E = Emissions in pounds per hour, and

P = Process weight rate in tons per hour.

[County Rule 311 §301.1][SIP Rule 311 §301.1]

The total process weight from all similar operations at a facility, plant or premises shall be used for determining the maximum allowable emissions of particulate matter.

[County Rule 311 §302][SIP Rule 311 §302]

- (2) In the event that the Permittee exceeds the applicable standard set forth in County Rule 311 §301.1 and above, the Permittee shall comply by installing and operating an approved emission control system.

[County Rule 311 §304][SIP Rule 311 §304]

b) Fuel Burning Equipment

The Permittee shall not discharge, cause or allow the discharge of particulate matter emissions, caused by combustion of fuel, from any fuel burning operation in excess of amounts calculated by the following equation:

$$E = 1.02 Q^{0.769} \quad \text{Equation (2)}$$

where:

E = The maximum allowable particulate emission rate in pounds-mass per hour

Q = The heat output in million BTU per hour.

[SIP Rule 311 §304.1]

3) Opacity Limits

- a) The Permittee shall not discharge into the ambient air from any single source of emissions any air contaminant, other than uncombined water, in excess of 20 percent opacity, except as provided in County Rule 300 §302.

[County Rule 300 §§301 and 302][locally enforceable only]

- b) Except as otherwise provided in Regulation I, Rule 4, Exceptions, the opacity of any plume or effluent from any source of emissions, other than uncombined water, shall not be greater than 40 percent opacity as

determined by Reference Method 9 in the Arizona Testing Manual.
[SIP Rule 30]

19. OPERATIONAL LIMITATIONS AND STANDARDS

A. Facility-Wide Operational Requirements

- 1) The Permittee shall not emit gaseous or odorous air contaminants from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.

[County Rule 320 §300][locally enforceable only]

- 2) Materials including, but not limited to, solvents or other volatile compounds, paints, acids, alkalis, pesticides, fertilizer and manure shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably evaporate, leak, escape or be otherwise discharged into the ambient air so as to cause or contribute to air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory.

[County Rule 320 §302][SIP Rule 32C]

- 3) Where a stack, vent or other outlet is at such a level that air contaminants are discharged to adjoining property, the Control Officer may require the installation of abatement equipment or the alteration of such stack, vent, or other outlet to a degree that will adequately dilute, reduce or eliminate the discharge of air contaminants to adjoining property.

[County Rule 320 §303][SIP Rule 32D]

- 4) The Permittee shall burn only natural gas, propane and butane in the fuel burning equipment listed in the equipment list of this permit.

[County Rule 210 §302.1b][SIP Rule 210 §302.1b]

B. Operational Requirements for Woodworking Equipment Vented to Cyclone/Baghouse as Identified in Appendix A, Equipment List

The Permittee shall install, operate and maintain an approved emission control device on all woodworking equipment vented to Cyclone/Baghouse as identified in Appendix A, Equipment List. Such woodworking equipment shall be vented to the device without bypass.

[County Rule 100 §301][County Rule 311]
[SIP Rule 3]

C. Operational Requirements for Spray Coating Equipment

[County Rule 315 §301][locally enforceable only]

- 1) The Permittee shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:
 - a) The Permittee shall not operate spray coating equipment outside of a building unless it is operated inside an enclosure which has at least three sides a minimum of eight feet in height and able to contain any object(s) being coated.

- (1) For three-sided enclosures, the Permittee shall direct the spray in a horizontal or downward pointing manner so that overspray is directed at the walls or floor of the enclosure. No spraying shall be conducted within three feet of any open end and/or within two feet of the top of the enclosure.
 - (2) For enclosures with three sides and a roof, or for complete enclosures, the Permittee shall direct the spray into the enclosure so that the overspray is directed away from any opening in the enclosure. No spraying shall be conducted within three feet of any open end and/or within two feet of any open top of the enclosure.
- b) The Permittee shall install and operate a filtering system on any spray booth or enclosure with forced air exhaust.
- (1) The filtering system shall have an average overspray removal efficiency of at least ninety-two percent (92%) by weight, as specified in writing by the manufacturer, for the type of material being sprayed.
 - (2) No gaps, sags or holes shall be present in the filters and all exhaust must be discharged into the atmosphere.
[County Rule 315 §301.2][locally enforceable only]
- 2) The controls required for spray coating in County Rule 315 §301, and the conditions of this Permit based upon that requirement, above, shall not apply:
- a) To the spray coating of buildings or dwellings, including appurtenances and any other ornamental objects that are not normally removed prior to coating;
 - b) To the spray coating of facility equipment or structures which are fixed in a permanent location and cannot easily be moved into an enclosure or spray booth and which are not normally dismantled or moved prior to coating;
 - c) To the spray coating of objects which cannot fit inside of an enclosure with internal dimensions of 10'W x 25'L x 8'H;
 - d) To enclosures and spray booths and exhausts located entirely in a completely enclosed building, providing that any vents or openings do not allow overspray to be emitted into the outside air; or
 - e) To any coating operations utilizing only hand-held aerosol cans.
[County Rule 315 §302][locally enforceable only]

D. Operational Requirements for Coating Wood Furniture and Fixtures

- 1) VOC Content Limitation [County Rule 342 §301.1][SIP Rule 342 §301.1]
The Permittee shall not apply a topcoat or sealer to wood furniture or fixtures unless the VOC content is limited either to the pounds of VOC per pound of solids (kilogram VOC per kilogram of solids) in Column A, or to the grams of VOC per liter in Column B of Table 342-1 below, unless covered by an exemption listed in these permit conditions.

Table 342-1: General VOC Limits of Coatings

Type of Coating	Column A	Column B
	(pounds of VOC per pound of solids)	(grams of VOC per liter, less non-precursor compounds and water)
Topcoat	1.8	635
Sealer	1.9	645
Acid-cured, alkyd amino topcoat	2.0	655
Acid-cured, alkyd amino vinyl sealer	2.3	680

- 2) When a sealer's topcoat does not exceed 0.8 pound of VOC per pound of solids (0.8 kilogram of VOC per kilogram of solids), there is no limit on the VOC content of the sealer.
 [County Rule 342 §301.1b][SIP Rule 342 §301.1b]
- 3) Stains, washcoats, glazes, toners, inks, and other coatings not specified in Table 342-1 or the strippable booth coating requirements of these Permit Conditions, do not have limits on VOC content.
 [County Rule 342 §301.2][SIP Rule 342 §301.2]
- 4) The Permittee shall not use a strippable booth coating unless, as applied, the coating has no more than 0.8 pounds of VOC per pound of solids or no more than 3.0 pounds of VOC per gallon (360 grams per liter), less non-precursor volatile compounds.
 [County Rule 342 §301.2][SIP Rule 342 §301.2]
- 5) Spray Equipment Requirements for Coating Wood Furniture and Fixtures
 - a) The Permittee shall not spray wood furniture with coating exceeding 1.0 pound of VOC per pound of solids (1.0 kilogram of VOC per kilogram of solids) without providing evidence of possession and use of a low-pressure spray gun or system, an electrostatic system, or a system in which the energy for atomization is provided principally via hydraulic pressure; this includes air assisted airless and ultra-low-volume-air assisted technologies. Such requirement does not apply to any facility, activity or person specifically exempted by applicable subsections of County Rule 342 § 307, or to any specific system that is approved by the Administrator as having a transfer efficiency consistently exceeding 64 percent.
 [County Rule 342 §302.1][SIP Rule 342 §302.1]
 - b) The Permittee shall not use a conventional air-atomized spray gun or other restricted use gun, except:
 - (1) To apply finishing materials that have a VOC content not exceeding 1.0 pound of VOC per pound of solids (1.0 kilogram of VOC per kilogram of solids).
 [County Rule 342 §302.2a][SIP Rule 342 §302.2a]
 - (2) For touch-up and repair under either of the following conditions:

- (a) Such application is performed after completion of the entire finishing operation; or
 - (b) Such application is performed after applying stain and before any further coating, by equipment having a total capacity not exceeding 2.1 gallons (or 8 liters).
[County Rule 342 §302.2c][SIP Rule 342 §302.2c]
 - (3) To apply less than five percent (5%) of all coating pursuant to County Rule 342 §307.2.e.
[County Rule 342 §302.2d][SIP Rule 342 §302.2d]
 - c) The Permittee shall operate and maintain in proper working order all process equipment in which VOC-containing materials are used or stored.
[County Rule 342 §303][SIP Rule 342 §303]
- 6) Booth Cleaning [County Rule 342 §304.1][SIP Rule 342 §304.1]
- a) The Permittee shall not clean spray booth components using a solvent containing more than 8.0 percent by weight of VOCs, including water and non-precursor compounds, except for: conveyors, continuous coaters and their enclosures, and metal filters.
 - b) If the spray booth coating is being replaced, the Permittee shall use no more than 1.0 gallon (3.8 liters) VOC- solvent to clean the booth.
- 7) Cleaning Guns and Lines [County Rule 342 §304.2][SIP Rule 342 §304.2]
The Permittee shall collect all solvent used to clean spray guns and shall pump or drain all solvent used for line cleaning into non-leaking container(s). Such containers shall be immediately closed or covered after all the solvent has been collected, and shall remain so except when in use.
- 8) Handling and Disposal of VOC [County Rule 342 §305][SIP Rule 342 §305]
- a) The Permittee shall cover and keep covered each VOC-containing material intended for the day's production, which is not currently in use. The Permittee shall store finishing and cleaning materials in closed containers.
 - b) The Permittee also shall store all VOC-containing materials, including but not limited to rags, waste coatings, waste solvents and their residues, in closed containers which are legibly labeled with their contents and which remain covered when not in use.
- 9) Exemptions from VOC Requirements for Coating Wood Furniture and Fixtures
[County Rule 342 §§307 and 403][SIP Rule 342 §§307 and 403]
- a) Total Exemption:
The following materials are exempt from the requirements of this Permit which are based on County Rule 342: adhesives, architectural coatings, printing ink, and coatings not applied on or over a wood-product substrate.
 - b) Partial Exemptions:
 - (1) Coatings in aerosol spray cans not exceeding 22 fl. oz. (0.66 liter) capacity used exclusively for touch-up and/or repairs are exempt from all requirements of Section 300 of County Rule 342 and the

- conditions of this permit that are based upon those requirements.
- (2) The following shall be exempt from the requirements of County Rule 342 §§301 and 302 and the conditions of this permit that are based upon those requirements:
 - (a) Prepackaged aerosol spray cans which are not used for touch-up or repair, metal leaf finishes, and faux finishes do not have limits on VOC content when the annual total use of all such coating types together is less than 250 gallons (948 liters).
 - (b) Any refinishing operation necessary for preservation, to return the furniture or fixture to original condition, to replace missing furniture to produce a matching set, or to produce custom replica furniture.
 - (3) The coating for a single resin-layer finish which does not exceed a VOC limit of 3 pounds of VOC per pound of solids for completed finishes up to 3 dry mils thickness or does not exceed 2.3 pounds of VOC per pound of solids for finishes over 3 dry mils is exempt from the requirements of County Rule 342 §301.1 and the conditions of this Permit that are based upon those requirements if all of the following conditions are met:
 - (a) The containers are clearly marked: “FOR USE IN SINGLE RESIN-LAYER FINISH,”
 - (b) Facility records clearly identify this material: “DOES NOT MEET THE VOC LIMITS OF SECTION 301, RULE 342 - FOR USE ONLY IN SINGLE RESIN-LAYER FINISHES,” and
 - (c) The booth used to apply a single resin-layer finish above 2.3 pounds of VOC per pound of solids is dedicated to that operation only, and is clearly labeled: “FOR SINGLE RESIN-LAYER FINISHES ONLY.”
 - (4) In addition to the uses of restricted-use guns allowed under County Rule 342 §302.2 and the conditions of this permit based upon that requirement, the Permittee may use a conventional air atomized or other restricted use gun to apply coatings exceeding 1 lb VOC/lb if all the following conditions are met:
 - (a) The volume of such coating applied in this way is less than five percent (5%) of the total volume of coating applied at the facility;
 - (b) Each gun has a red tag when spraying materials exceeding 1.0 pound of VOC per pound of solids. The red tag shall be a red 4 square-inch vivid, durable tag, sticker, or painted emblem/label visible on the gun or within 3 feet of the gun on the gun’s hose;
 - (c) A log shall be kept of the amount of coating used by each such gun pursuant to the Recordkeeping Requirements of these Permit Conditions.

E. Operational Requirements for MAC Baghouse

[County Rule 311§305] [SIP Rule 311§306]

- 1) No later than 120 days after approval of Significant Permit Revision S05-003, the Permittee shall operate and maintain the MAC baghouse in accordance with

the requirements of the O&M Plan most recently approved in writing by the control officer.

- 2) The Permittee shall install, operate, and maintain a differential pressure gauge on the MAC baghouse.
- 3) Measurement of a pressure differential outside of the applicable parametric range of 0.3 to 7 inches of water column for the MAC baghouse shall require the Permittee to investigate and take corrective action if necessary to bring the control device into proper operation.

20. MONITORING AND RECORDKEEPING REQUIREMENTS

A. Facility-Wide Requirements [County Rule 210 §302.1c]

- 1) Opacity Readings
 - a) Opacity shall be determined by observations of visible emissions conducted in accordance with 40 CFR Part 60 Appendix A, Method 9.
[40 CFR 60.11.b][County Rule 300 §501]
 - b) Opacity of visible emissions from intermittent sources as defined by County Rule 300 §201 shall be determined by observations conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except that at least 12 rather than 24 consecutive readings shall be required at 15-second intervals for the averaging time.
[County Rule 300 §502][locally enforceable only]
- 2) The Permittee shall monitor for compliance with the facility-wide hazardous air pollutants, (HAPs), emissions limits of these Permit Conditions by monthly calculating and recording the monthly and the rolling 12 month emissions of federally listed HAPs. These calculations shall list all HAPs individually and calculate the following;
 - a) Monthly emissions of each individual HAP
 - b) Rolling 12 month emission totals of each individual HAP
 - c) Monthly emissions of combined HAPs
 - b) Rolling 12 month emission total of combined HAPs

The calculations shall be made no later than the end of the following month, unless a different timeframe is specified elsewhere in these permit conditions. All HAPs in the materials used in the woodworking operations are assumed to be emitted into the atmosphere unless records acceptable to the Control Officer are kept documenting the quantity and HAP content of HAP containing materials disposed of off site. The Permittee shall maintain specification sheets or technical data sheets supplied by the manufacturer specifying the HAP content of all HAP containing materials used in the woodworking process. The rolling 12 month emission totals shall be calculated by summing the emissions for the most recent complete 12 calendar months. The monthly and rolling 12 month emission totals from the facility shall be calculated based upon one of the following method.

- (a) Upon initial issuance of this permit and anytime thereafter that the rolling 12 month emission total of combined HAPs from the facility is less than or equal to 18.0 tons and the rolling 12 month emission totals of individual HAP are below 7.0 tons; the Permittee shall calculate the facility's HAP

emissions based upon actual material usage for each month. The Permittee shall keep on site the usage records showing the volume of all HAP containing materials consumed each month.

- (b) At anytime if the rolling 12 month emission total of combined HAPs from the facility exceeds 18.0 tons or any rolling 12 month emission total of an individual HAP is greater than 7.0 tons; the Permittee shall calculate the facility's HAP emissions based upon actual material usage for each week. The Permittee shall keep on site the usage records showing the volume of all HAP containing materials consumed on a weekly basis. The monthly calculation of the 12 month rolling total emissions of HAPs under this scenario shall be completed by the 10th of the following month.

[County Rule 210 §302.1c]

- 3) These records shall be updated each day of operation and include at a minimum the following information: a record of the total weight of all process materials including raw materials, additives, fuels, etc., which are put into a process flow at the beginning of each batch process shall be kept on site. This shall include all materials which participate in the process and are changed in mass, form, state or in other characteristics by means of their interaction in the given process. The duration of each separate batch process shall also be recorded.
- (a) **Batch process records:** Maintain a record of the total weight of all process materials including raw materials, additives, and fuels which are put into a process flow at the beginning of each batch process shall be kept. This shall include all materials which participate in the process and are changed in mass, form, state or in other characteristics by means of their interaction in the given process. The duration of each separate batch process shall also be recorded.
- (b) **Continuous or semi-continuous process records:** Maintain a daily record of the weight of all process material entering into each process including raw materials, additives, fuels, the start time and the duration of each process run. In addition to the foregoing, records shall be kept for processes which run continuously for more than 24 hours. Such records shall include the total weight of any material entering into the process over the entire duration of the process run from start up to shut down and the total elapsed time of operation.

[County Rule 311 §502.2] [SIP 311§502.2]

B. Monitoring and Recordkeeping Requirements for Cyclones and the MAC Baghouse that Serve Woodworking Equipment

[County Rule 300][County Rule 210 §302.1c]

- 1) The Permittee shall record the following information for all visible emissions observations and Method 9 opacity readings required by this permit:
- a) The date and time the visible emissions observation or Method 9 opacity reading was taken;
- b) The name of the observer;
- c) Whether or not visible emissions were present;

- d) If visible emissions are present and the controls and facility processes are operating in a mode other than their normal operating conditions, such as startup or shutdown, a description of the operating conditions at the time that the opacity is observed;
- e) The opacity determined by a Method 9 opacity reading, if a Method 9 reading is required by these permit conditions;
- f) If applicable, a description of any corrective action(s) taken, including the date of such action(s); and
- g) Any other related information.

[County Rule 300] [County Rule 210 §302.1]

- 2) The Permittee shall conduct a facility walk-through twice daily and observe visible emissions from the cyclones until such time that the MAC baghouse completely replaces the cyclones in operational function (i.e., the cyclones are no longer serving to reduce particulate matter emissions from a single emission unit). Once the MAC baghouse becomes operational, the Permittee shall conduct a facility walk-through once each day the facility operates and observe visible emissions from the MAC baghouse. The term “operational” for this condition shall mean the first instance that the MAC baghouse is serving to reduce particulate matter emissions from one or more emission units.

[County Rules 300] [County Rule 210 §302.1c]

- 3) If visible emissions, other than uncombined water, are observed being discharged into the ambient air, the Permittee shall monitor for compliance with the opacity standards specified in this permit by having a certified visible emissions evaluator determine the opacity of the visible emissions being discharged into the ambient air using the techniques specified in EPA Reference Method 9.

If the Permittee observes visible emissions, the initial Method 9 opacity reading shall be taken within twenty-four (24) hours of observing visible emissions. If the emitting equipment is not operating on the day that the initial Method 9 opacity reading is required to be taken, then the initial Method 9 opacity reading shall be taken the next day that the emitting equipment is in operation. If the problem causing the visible emissions is corrected before the initial Method 9 opacity reading is required to be performed, and there are no visible emissions (excluding uncombined water) observed from the previously emitting equipment while the equipment is in normal operation, the Permittee shall not be required to conduct the Method 9 opacity readings.

Follow-up Method 9 opacity readings shall be performed by a certified visible emissions evaluator while the emitting equipment in its standard mode of operation in accordance with the following schedule:

- a) Daily:
 - (1) Except as provided in paragraph (c) of this Permit Condition, a Method 9 opacity reading shall be conducted each day that the emitting equipment is operating until a minimum of 14 daily Method 9 readings have occurred.
 - (2) If the Method 9 opacity readings required by this Permit Condition are less than 20% for 14 consecutive days, the frequency of Method 9 opacity readings may be decreased to weekly, in accordance with paragraph(b) of this Permit Condition.

- b) Weekly:
 - (1) If the Permittee has obtained 14 consecutive daily Method 9 readings which do not exceed 20% opacity, the frequency of Method 9 readings may be decreased to once per week for any week in which the equipment is operated.
 - (2) If the opacity measured during a weekly Method 9 reading exceeds 20%, the frequency of Method 9 opacity readings shall revert to daily, in accordance with paragraph (a) of this Permit Condition.
 - (3) If the opacity measured during the required weekly Method 9 readings never exceeds 20%, the Permittee shall continue to obtain weekly opacity readings until the requirements of paragraph (c) of this Permit Condition are met.
- c) Cease Follow-up Method 9 Opacity Monitoring:
Regardless of the applicable monitoring schedule, follow-up Method 9 opacity readings may cease if the emitting equipment, while in its standard mode of operation, has no visible emissions, other than uncombined water, during every observation taken during a Method 9 procedure.

[County Rule 210 §302.1c]

- 4) Opacity Readings
 - a) Opacity shall be determined by observations of visible emissions conducted in accordance with 40 CFR Part 60 Appendix A, Method 9.
[40 CFR 60.11.b] [County Rule 300 §501]
 - b) Opacity of visible emissions from intermittent sources as defined by County Rule 300 §201 shall be determined by observations conducted in accordance with 40 CFR Part 60 Appendix A, Method 9, except that at least 12 rather than 25 consecutive readings shall be required at 15-second intervals for the averaging time.
[County Rule 300 §502] [locally enforceable only]
- 5) If visible emissions are observed from the cyclones and/or MAC baghouse and the problem isn't corrected within twelve (12) hours of the observation the Permittee shall investigate the problem, document the findings, and provide a description of the corrective action taken to bring the control device into proper operation. In addition the Department may require the Permittee to submit a Corrective Action Plan (CAP).
[County Rule 200 §309]
- 6) The Control Officer may require the CAP contain one or more of the following elements:
 - a) Improved preventive maintenance practices.
 - b) Improved cyclone and/or MAC baghouse operating practices.
 - c) Process operation changes.
 - d) Other actions appropriate to improve cyclone and/or MAC baghouse performance.
 - e) Schedule for CAP implementation and periodic reporting on the progress of CAP implementation.

- 7) The Permittee shall operate and maintain each cyclone in accordance with the requirements of the Operations and Maintenance (O&M) Plan most recently approved in writing by the control officer until such time that the MAC baghouse completely replaces the cyclones in operational function (i.e., the cyclones are no longer serving to reduce particulate matter emissions from a single emission unit).

[County Rule 210 §302.1c][County Rule 311 §305][SIP Rule 311 §306]

- 8) Once the MAC baghouse becomes operational, daily pressure differential readings shall be taken and recorded for the MAC baghouse every day that the facility operates. The Permittee shall log all pressure differential readings by recording the date when the reading was taken, the identity of the baghouse, the name or initials of the person who took the reading, the value of the pressure differential (or range of values), and any other related information. The Permittee shall investigate the cause of any pressure differential reading outside of the range of 0.3 to 7 inches of water column to identify, correct or repair the problem and record in a log book the cause of the problem and the corrective action initiated to remedy the abnormal pressure differential reading. The term “operational” for this condition shall mean the first instance that the baghouse is serving to reduce particulate matter emissions from one or more emission units.

[County Rule 210 §302.1c]

- 9) If the frequency of measurement of a pressure differential outside the pressure differential range of 0.3 to 7 inches of water column for the MAC baghouse or other information indicate that the baghouse is not being operated in accordance with the O&M plan most recently approved by the Control Officer, the Department may require the Permittee to submit a CAP.

[County Rule 200 §309]

C. Monitoring and Recordkeeping Requirements for Spray Coating

[County Rule 210 §§302.1d and 302.1e][County Rule 315]

- 1) Should the Permittee operate any spray coating equipment inside an enclosure that is located outside of a building, the Permittee shall weekly observe spraying activity occurring in such enclosures to ensure the following:
 - a) No spraying is conducted within three feet of any open end, or within two feet of any open top of the enclosure; and
 - b) The spray is directed in a horizontal or downward pointing manner for three-sided enclosures, or away from any opening for complete enclosures and three-sided enclosures with roofs.The Permittee shall log the results of the inspections, including the name of the person conducting the inspection, the date of the inspection, and any action taken to correct incorrect application, if applicable.
- 2) The Permittee shall inspect each filter installed on a spray booth or enclosure, for gaps, sags or holes each day of operation.
 - a) Should the Permittee observe any gaps, sags or holes in any of the filters, the Permittee shall immediately repair or replace the filter and record the name of the inspector, the location of filtering system containing the filter (if more than one spray booth), and the date that the filter was replaced.

- b) Should the Permittee observe any gaps, sags or holes in any of the filters, the Permittee shall immediately repair or replace the filter and record the name of the inspector, the location of filtering system containing the filter (if more than one spray booth), and the date that the filter was replaced.
 - c) If no gaps, sags or holes are observed in any of the filters, the Permittee shall record the name of the inspector, the location of the filtering system containing the filter (if more than one spray booth), and the date that the filter was inspected.
- 3) The Permittee shall maintain on file and make available to the Control Officer upon request, a copy of the manufacturer's specifications verifying that the average overspray removal efficiency for the filter is at least ninety-two percent (92%).
 - 4) The Permittee shall inspect the facility weekly for evidence of any spraying activity that occurred outside of any enclosure required by these Permit Conditions. The Permittee shall record the results of the inspection, including the name of the person conducting the inspection and the date of the inspection.

D. Monitoring and Recordkeeping Requirements for Coating Wood Furniture and Fixtures

- 1) The Permittee shall keep the following records and lists in a consistent and complete manner and shall make them available to the Control Officer without delay during normal business hours. Each record shall be maintained for a minimum of five years.
 - a) Current List of VOC Containing Material
The Permittee shall maintain a current list of all VOC-containing material which contains the name or code of each material and its VOC content, expressed in accordance with County Rule 342 §§501.1b and 501.1c. Any qualified single resin-layer finish shall be identified as such.
 - b) Current List of Mix Ratios
The Permittee shall maintain a current list of the manufacturer's recommended mix ratio of components, including but not limited to addition of reducers and catalysts/hardeners, except when the manufacturer has no recommendations for any additions.
[County Rule 342 §501][SIP Rule 342 §501]
- 2) The Permittee shall maintain daily records indicating the amount and VOC content of each day's use of each topcoat, sealer, or booth material that exceeds applicable VOC limits contained in County Rule 342 §§301 or 304 and the conditions of this Permit based upon those requirements. The records shall be logged and totaled by the end of the following workday. VOC content shall be entered for each such material.
[County Rule 342 §501.2a][SIP Rule 342 §501.2a]
- 3) The Permittee shall maintain the following monthly records for material compliant with County Rule 342 §§301 and 304, and the conditions of this Permit based upon those requirements, and shall update such records prior to the conclusion of the following month:
 - a) For each topcoat and sealer to which reducer is added at any time after its arrival at a facility, enter the VOC content in lb VOC/lb Solids or in

- grams/liter (lb/gal) less water and non-precursor organic compounds.
- b) The amount of coating, the amount of catalyst/hardener, and the amount of reducer/coating diluent used.
- c) The quantity and type of organic solvent used each month for stripping and cleaning.
- d) The quantity of organic solvent disposed of offsite during the month just ended.
- e) Exception: The Permittee shall update yearly the totals of usage of each VOC-containing material known to be used in quantities less than 15 gallons (or 57 liters) per year.
[County Rule 342 §501.2b][SIP Rule 342 §501.2b]

The Permittee shall not be required to maintain records of the VOC content of any mixture of any coatings regulated by County Rule 342 as long as no individual coating in the mixture exceeds the VOC limits for coatings in Table 342-1. If any diluent, as defined in County Rule 342 §211, is mixed with a coating regulated by Table 342-1, and the diluent has a VOC content in excess of the maximum VOC content of the coating allowed by Table 342-1, records of the mixture shall be kept according to County Rule 342 §501.2b.

[County Rule 210 §302.1c]

- 4) The Permittee shall keep records on the use of conventional air-atomized spray equipment and other restricted-use guns associated with County Rule 342 §302 and the conditions of this Permit based on those requirements. The records shall be kept according to the following:
 - a) A log shall be kept of the amount of coating exceeding 1 pound of VOC per pound of solid used by each conventional air-atomized or other restricted use gun. This log shall be updated daily or each time coating is added to the gun's coating reservoir.
[County Rule 342 §307.2e(3)][SIP Rule 342 §307.2e(3)]
 - b) Records shall show for each semi-annual period the total volume (VR) of coatings used during that semi-annual period exceeding 1.0 pound of VOC per pound of solids (or 1.0 kilogram of VOC per kilogram of solids) applied with conventional air-atomized spray equipment and other restricted-use guns.
[County Rule 342 §501.2c][SIP Rule 342 §501.2c]
 - c) Records shall show for each semi-annual period the total volume of all finishing materials (AMV) used throughout the facility.
[County Rule 342 §501.2c][SIP Rule 342 §501.2c]
 - d) The total volume (VR) so applied over the previous six months shall be divided by the total of all coatings used in the same period (AMV) and these calculations and the result shall be entered in the log.
[County Rule 342 §501.2c][SIP Rule 342 §501.2c]
- 5) The Permittee shall maintain records of disposal/recovery of all VOC containing materials.
[County Rule 342 §501.3][SIP Rule 342 §501.3]

21. REPORTING REQUIREMENTS

**NOTE: Additional reporting requirements are found in the general conditions of this permit and in each section of the Specific Conditions for Potential Support Activities.*

A. Semi-Annual Monitoring Report

The Permittee shall file semiannual monitoring reports with the Control Officer, Attn: Large Source Compliance Supervisor. The initial reporting period shall begin on the permit issuance date and shall cover a period of 6 months or less. The second and subsequent reporting periods shall be in 6 month intervals after the end of the initial reporting period. The semiannual monitoring reports shall be filed by the end of the month following the reporting period. Each report shall cover all instances of deviations from these permit conditions during the reporting period, the cause of the deviations if any were present, and any applicable corrective actions taken. The monitoring report shall also contain the following information at a minimum:

- 1) Emissions Calculations [County Rule 210 §302.1e]
The Permittee shall include the results of the monthly and the rolling 12-month emissions calculations for each month in the six-month reporting period.
- 2) Deviation Reporting [County Rule 210 §302.1e(1)]
The Permittee shall identify all instances of deviations from permit requirements in the semi-annual monitoring report. The Permittee shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.
- 3) Odor Log [County Rule 210 §302.1e(1)][County Rule 320]
The Permittee shall provide a copy of the portion of the odor log that covers the applicable 6 month reporting period. If no complaints were received during the reporting period, a statement to that effect may be substituted for a copy of the odor log.
- 4) Visible Emissions [County Rule 210 §302.1e][County Rule 311]
If visible emissions were observed during the reporting period:
 - a) Dates on which visible emissions were observations were taken;
 - b) Name of the observer;
 - c) Whether or not visible emissions were present;
 - d) The opacity of visible emissions determined by a Method 9 opacity reading, if applicable;
 - e) A description of any corrective actions taken, including the date such action was taken;
 - f) The name of individual certified as a visible emissions evaluator, the date of last certification, and company/agency providing the certification; and
 - g) Any other related information.
- 5) Spray Coating [County Rule 210 §302.1e][County Rule 315]
For the purposes of the semi-annual compliance certification, the Permittee shall provide the following information:
 - a) If the Permittee operates all spray coating equipment outside of a building and inside an enclosure without forced air exhaust, the Permittee shall provide a statement certifying the following:
 - 1) That the enclosure has at least three sides that are a minimum of

- eight feet in height;
- 2) That no spraying was conducted within three feet of any open end, or within two feet of any open top of the enclosure; and
- 3) That the spray is directed in a horizontal or downward pointing manner for three-sided enclosures, or away from any opening for complete enclosures and three-sided enclosures with roofs.
- b) If the Permittee operates all spray coating equipment with a filtering system on a spray booth or enclosure with forced air exhaust, the Permittee shall provide a statement certifying the following:
 - 1) That each filter installed on a spray booth or enclosure was inspected for gaps, sags or holes once every two weeks;
 - 2) That all filters that were observed to have gaps, sags or holes were immediately replaced; and
 - 3) Details of the make and manufacturer of each filter used as well as its overspray control efficiency.
- c) The Permittee shall provide a statement certifying that no spraying occurred outside of the paint booths.
- d) If such certifications can not be provided as described in subsections 1 through 3 above, the Permittee shall identify the reasons and shall instead submit a statement detailing any corrective action taken.

6) Coating Wood Furniture and Fixtures

[County Rule 210 §302.1e][County Rule 342]

- a) A list of coatings regulated by County Rule 342 that were used at the facility during the six month period, along with the VOC content of each coating.
- b) If any conventional air-atomized or other restricted use guns were used during the six month period, a description of the exemption that applies to the use of such guns and justification for the exemption.

22. COMPLIANCE PLAN

[County Rule 210 §305.1g]

- A. The Permittee shall install a different control technology to ensure compliance with County Rule 311 in accordance with the following compliance schedule.

Milestones	Completion Date
Prepare and submit a significant permit revision application for new control technology.	1-17-2005
Purchase Control technology and have the equipment on-site	No later than 90 days after approval of Significant Permit Revision S05-003 by MCAQD

Milestones	Completion Date
Installation of Control technology and Submission of a notification of the capability to operate the baghouse at its maximum production rate on a sustained basis to the Control Officer (“Capability to operate the baghouse at its maximum production rate on a sustained basis” in this instance means that the baghouse is actively serving to reduce particulate matter emissions from every item of woodworking equipment required to be vented to the baghouse as listed in Appendix A of this permit)	No later than 120 days after approval of Significant Permit Revision S05-003 by MCAQD
Submit Test Protocol to Maricopa County in accordance with County Rule 270.	Within 30 days after the baghouse has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 150 days after approval of Significant Permit Revision S05-003 by MCAQD
Conduct Performance Test in accordance with EPA Test Method 5.	Within 60 days after the baghouse has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 180 days after approval of Significant Permit Revision S05-003 by MCAQD
Submit Test Report to Maricopa County Department of Air Quality	Within 90 days after the baghouse has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 210 days after approval of Significant Permit Revision S05-003 by MCAQD

B. The Permittee shall submit a certified progress report to the Control Officer monthly to the Attn: Large Source Compliance Supervisor. The report shall contain, at a minimum, the following information:

- 1) Dates when the milestones specified in paragraph A of this permit condition were achieved; and
- 2) An explanation of why any dates in the schedule of compliance were not or will not be met, any preventive or corrective measures adopted.

23. TESTING

A. **TESTING REQUIREMENT:** The Permittee shall conduct a performance test on the MAC baghouse in accordance with the compliance schedule detailed in Condition 22.A.

[County Rule 270 §401][SIP Rule 27 §A]

- 1) **MAC Baghouse:** The Permittee shall measure the PM₁₀ concentrations in the baghouse inlet and exhaust streams to demonstrate compliance with a minimum PM₁₀ removal efficiency of 99% by weight. Alternatively, the

Permittee can measure the PM concentration in the exhaust stream of the baghouse to demonstrate compliance with the particulate matter emission limits of County Rule 311 and Condition 18.A.2)a)(1) of these permit conditions.
[County Rule 311 §301]

- B. **TESTING CRITERIA:** Performance tests shall be conducted and data reduced in accordance with the test methods and procedures specified unless the Control Officer and Administrator specifies or approves minor changes in methodology to a reference method, approves the use of an equivalent test method, approves the use of an alternative method that has been determined to be acceptable for demonstrating compliance, or waives the requirement for performance tests because the Permittee has demonstrated by other means that the source is in compliance with the standard.
[County Rule 270 §402][SIP Rule 27 §B]
- C. **TEST METHODS:** Sampling sites and velocity traverse points shall be selected in accordance with EPA Test Method 1 or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4. These methods must be performed, as applicable, during each test run.
[County Rule 270 §301.1][SIP Rule 27 §B]
- 1) **MAC Baghouse:** PM₁₀ testing shall be conducted in accordance with EPA Test Method 201A. PM testing shall be conducted in accordance with EPA Test Method 5.
- D. **OPERATING CONDITIONS:** Performance tests shall be conducted under representative operating conditions and all equipment shall be operated during testing in accordance with the most recently approved O&M Plan or according to its operations manual if no O&M Plan is required. The Permittee shall make available to the Control Officer any records necessary to determine appropriate conditions for performance tests. Operations during periods of startup, shutdown, and equipment malfunction shall not constitute representative conditions for performance tests unless otherwise specified in the applicable standard or permit conditions.
[County Rule 270 §403]
- E. **MONITORING REQUIREMENTS:** The Permittee shall record all process and control equipment information that are necessary to document operating conditions during the test and explain why the conditions represent normal operation. Operational parameters shall be monitored and recorded at least once every 30 minutes during each of the required test runs and documented in the test report. The operational parameters monitored shall be capable of indicating that the equipment is operating within the permitted limits, both during and after the performance tests.
[County Rule 270 §301.1][SIP Rule 27 §B]
- 1) **MAC Baghouse:** The Permittee shall record the material input and baghouse pressure drop during the performance test. This and any additional operational parameters shall be identified in the test protocol and recorded during testing.
- F. **TEST PROTOCOL SUBMITTAL:** The Permittee shall submit a separate test protocol for each performance test to the Department for review and approval at least

30 days prior to each performance test. The test protocol shall be prepared in accordance with the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County" dated June 17, 2005. A completed copy of the Department's "Test Protocol Submittal Form" shall accompany each test protocol.

[County Rule 270 §301.1][SIP Rule 27 §B]

- G. **NOTICE OF TESTING:** The Permittee shall notify the Department in writing at least two weeks in advance of the actual date and time of each performance test so that the Department may have a representative attend.

[County Rule 270 §404]

- H. **TESTING FACILITIES REQUIRED:** The Permittee shall install any and all sample ports or platforms necessary to conduct the performance tests, provide safe access to any platforms and provide the necessary utilities for testing equipment.

[County Rule 270 §405][SIP Rule 42]

- I. **MINIMUM TESTING REQUIREMENTS:** Each performance test shall consist of three separate test runs with each test run being at least one hour in duration unless otherwise specified in the applicable standard or in this permit. The same test methods shall be conducted for both the inlet and outlet measurements, if applicable, which must be conducted simultaneously. Emissions rates, concentrations, grain loadings, and/or efficiencies shall be determined as the arithmetic average of the values determined for each individual test run. Performance tests may only be stopped for good cause, which includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee's control. Termination of a performance test without good cause after the first test run has commenced shall constitute a failure of the performance test.

[County Rule 270 §406]

- J. **TEST REPORT SUBMITTAL:** The Permittee shall complete and submit a separate test report for each performance test to the Department within 30 days after the completion of testing. The test report shall be prepared in accordance with the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County" dated June 17, 2005. A completed copy of the Department's "Test Report Submittal Form" shall accompany each test report.

[County Rule 270 §301.1][SIP Rule 27 §B]

- K. **COMPLIANCE WITH EMISSION LIMITS:** Compliance with allowable emission limits and standards shall be determined by the performance tests specified in this permit. If test results do not demonstrate compliance with the requirements of these permit conditions, the Permittee shall make the necessary repairs and/or adjustments to the equipment and demonstrate compliance through retesting. This will not nullify the fact that test results did not demonstrate compliance with the requirements of the permit conditions or nullify any violations that may result from this noncompliance. In addition to compliance demonstrations, test results shall be used for annual emissions inventory purposes, if applicable.

[County Rule 270 §407]

- L. All test extension requests, test protocols, test date notifications, and test reports required by this permit shall be submitted to the Department and addressed to the attention of the Performance Test Evaluation Supervisor.
[County Rule 270 §301.1][SIP Rule 27 §B]

SPECIFIC CONDITIONS FOR POTENTIAL SUPPORT ACTIVITIES

24. PERMIT CONDITIONS FOR SOLVENT CLEANING

**NOTE: These conditions are intended to regulate VOC-containing solvent. "Cleaning Solvent" is defined in County Rule 311 §206 as "Solvent used for cleaning that contains more than 2.0% VOC by weight and more than 20 grams of VOC per liter (0.17lb/gal)."*

- A. Operational Limitations and Standards
Unless exempted by County Rule 331 §308, the Permittee shall comply with all of the following requirements:

- 1) All cold cleaners shall comply with one of the following requirements:
[County Rule 210 §302.1]

- a) The Permittee shall use low VOC cleaner. A low VOC cleaner is any solution or homogeneous suspension that, as used, contains less than 50 grams of VOC per liter of material (0.42 lb VOC/ gal), or is at least ninety-five (95%) water by weight or volume as determined by an applicable test method in County Rule 331 §502; OR

[County Rule 331 §§218 and 304.3]

- b) The Permittee shall use a sealed system. A sealed system is an airtight or airless cleaning system that is operated according to the manufacturer's specifications and, unless otherwise indicated by the manufacturer, meets all of the following requirements:

- (1) Has a door or other pressure-sealing apparatus that is shut during each cleaning and drying cycle.
- (2) Has a differential pressure gauge that always indicates the pressure in the sealed chamber when occupied or in active use.
- (3) Any associated pressure relief device(s) shall be so designed and operated as to prevent liquid cleaning-solvents from draining out;
OR

[County Rule 331 §304.3]

- c) The Permittee shall install or operate batch loaded cleaners with a remote reservoir, including the cabinet type(s), equipped with the following:

- (1) A sink-like work area or basin that is sloped sufficiently towards the drain so as to prevent pooling of cleaning-solvent.
- (2) A single, unimpeded drain opening or cluster of openings served by a single drain for the cleaning-solvent to flow from the sink into the enclosed reservoir. Such opening(s) shall be contained within a contiguous area not larger than 15.5 square inches (100 cm²).
- (3) A means for drainage of cleaned parts such that the drained solvent is returned to the cleaning machine; OR

[County Rule 331 §305][SIP Rule 331 §305]

- d) The Permittee shall install or operate batch-loaded cleaners without a remote reservoir (such as a solvent dip-tank), equipped with all of the following:
- (1) Have and use an internal drainage rack or other assembly that confines within the freeboard all cleaning-solvent dripping from parts and returns it to the hold of the cleaning machine (degreaser).
 - (2) Have an impervious cover which when closed prevents cleaning-solvent vapors in the cleaning machine from escaping into the air/atmosphere when not processing work in the cleaning machine. The cover shall be fitted so that in its closed position the cover is between the cleaning-solvent and any lip exhaust or other safety vent, except that such position of cover and venting may be altered by an operator for valid concerns of flammability established in writing and certified to by a Certified Safety Professional or a Certified Industrial Hygienist to meet health and safety requirements.
 - (3) The freeboard height shall be not less than 6 inches (15.2 cm). Freeboard height for batch cleaning machines is the vertical distance from the solvent/air interface to the least elevated point of the top-rim when the cover is open or removed, measured during idling mode.
 - (4) The freeboard zone shall have a permanent, conspicuous mark that locates the maximum allowable solvent level that conforms to the applicable freeboard requirements.

[County Rule 331 §305][SIP Rule 331 §302]

2) Solvent Handling Requirements

- a) All cleaning-solvent, including solvent soaked materials, shall be kept in closed leakfree containers that are opened only when adding or removing material.
- (1) Rags used for wipe cleaning shall be stored in closed containers when not in use.
 - (2) Each container shall be clearly labeled with its contents.

[County Rule 331 §301.1][SIP Rule 331 §§301 and 306]

b) If any cleaning-solvent escapes from a container:

- (1) Wipe up or otherwise remove immediately if in accessible areas.
- (2) For areas where access is not feasible during normal production, remove as soon as reasonably possible.

[County Rule 331 §301.2][locally enforceable only]

c) Unless records show that VOC-containing cleaning material was sent offsite for legal disposal, it will be assumed that it evaporated on site.

[County Rule 331 §301.3][locally enforceable only]

3) Equipment Requirements for All Cleaning Machines

- a) The Permittee shall provide a leak-free container (degreaser) for the solvents and the articles being cleaned.

[County Rule 331 §302.1][SIP Rule 331 §301.1]

- (1) The VOC-containment portion shall be impervious to VOC-containing liquid and vapors.
[County Rule 331 §302.1a][locally enforceable only]
- (2) No surface of any freeboard required by these Permit Conditions shall have an opening or duct through which VOC can escape to the atmosphere except as required by OSHA.
[County Rule 331 §302.1b][locally enforceable only]
- b) The Permittee shall properly maintain and operate all cleaning machine equipment required by these Permit Conditions and any of its emission controls required by these Permit Conditions.
[County Rule 331 §302.2][SIP Rule 331§ 306.1]
- c) The Permittee shall not dispose of any solvent, including waste solvent, in such a manner as will cause or allow its evaporation into the atmosphere. Records of its disposal/recovery shall be kept in accordance with hazardous waste disposal statutes.
[SIP Rule 331 §306.4]
- 4) Specific Operating & Signage Requirements For Cleaning Machines
[County Rule 331 §303][SIP Rule 331 §306]
- a) The Permittee shall conform to the following operating requirements when cleaning with cleaning-solvents other than Low-VOC Cleaners or when not using a sealed system:
 - (1) Comfort fans shall not be used near cleaning machines;
 - (2) Do not remove any device designed to cover the solvent unless processing work in the cleaning machine or maintaining the machine;
 - (3) Drain cleaned parts for at least (15) fifteen seconds after cleaning or until dripping ceases, whichever is later;
 - (4) If using a cleaning-solvent spray system:
 - (a) Use only a continuous, undivided stream (not a fine, atomized, or shower type spray).
 - (b) Pressure at the orifice from which the solvent emerges shall not exceed (10) ten psig and shall not cause liquid solvent to splash outside the solvent container.
 - (c) In an in-line cleaning machine, a shower-type spray is allowed, provided that the spraying is conducted in a totally confined space that is separated from the environment.
 - (d) Exceptions to the foregoing Subsections (a), (b), and (c) are provided for in County Rule 331 §§307.1, 307.2, and 307.3.
 - (5) The Permittee shall not cause agitation of a cleaning-solvent in a cleaning machine by sparging with air or other gas. Covers shall be placed over ultrasonic cleaners when the cleaning cycle exceeds (15) fifteen seconds;
 - (6) The Permittee shall not place porous or absorbent materials in or on a cleaning machine. This includes, but is not limited to, cloth, leather, wood, and rope. No object with a sealed wood handle, including a brush, is allowed;

- (7) The ventilation rate at the cleaning machine shall not exceed 65 cfm per square foot of evaporative surface ($20 \text{ m}^3/\text{min}/\text{m}^2$), unless that rate must be changed to meet a standard specified and certified by a Certified Safety Professional, a Certified Industrial Hygienist, or a licensed professional engineer experienced in ventilation, to meet health and safety requirements;
 - (8) Limit the vertical speed of mechanical hoists moving parts in and out of the cleaning machine to a maximum of 2.2 inches per second and (11) eleven ft/ min (3.3 m/min);
 - (9) The Permittee shall prevent cross contamination of solvents regulated by County Rule 331§304 of this Section with solvents that are not so regulated. Use signs, separated work-areas, or other effective means for this purpose. This includes those spray gun cleaning solvents that are regulated by another Section of this Permit.
- b) Should the Permittee use a cleaning-solvent other than Low-VOC cleaner, in any solvent machine (degreaser) or dip tank that is not a sealed system, the Permittee shall provide on the machine, or within 3 1/4 feet (1 meter) of the machine, a permanent, conspicuous label, or placard which includes at a minimum, each of the following applicable instructions, or its equivalent:
- (1) "Keep cover closed when parts are not being handled." (This is not required for remote reservoir cleaners.)
 - (2) "Drain parts until they can be removed without dripping."
 - (3) "Do not blow off parts before they have stopped dripping."
 - (4) "Wipe up spills and drips as soon as possible; store used spill rags [or 'wiping material'] in covered container."
 - (5) "Don't leave cloth or any absorbent materials in or on this tank."
 - (6) For cleaning machines with moving parts such as hoists, pumps, or conveyors, post: "Operating instructions can be obtained from _____" where the Permittee shall list a person or place where the instructions are available.
- 5) Solvent Specification [County Rule 331 §304][locally enforceable only]
All cleaning solvents, except Low-VOC cleaners and those used in a sealed system, shall be conforming solvents. A conforming solvent is one which has a total VOC vapor pressure at 68°F (20°C) not exceeding 1 millimeter of mercury column maximum total VOC vapor pressure.
- 6) Special Non-Vapor Cleaning Situations
[County Rule 331 §§307.1, 307.2 and 307.3]
- a) The Permittee shall operate and equip the devices in the following manner when blasting or misting with conforming solvents;
 - (1) The device shall have internal drainage, a reservoir or sump, and a completely enclosed cleaning chamber, designed so as to prevent any perceptible liquid from emerging from the device; and
 - (2) The device shall be operated such that there is no perceptible leakage from the device except for incidental drops from drained, removed parts.

- b) The Permittee shall use a sealed system for all blasting or misting with a non-conforming solvent.
- c) Cleaning systems using cleaning-solvent that emerges from an object undergoing high pressure flushing with a visible mist or at a pressure exceeding 10 psig, shall comply as follows:
 - (1) For conforming solvents, use a containment system that is designed to prevent any perceptible cleaning-solvent liquid from becoming airborne outside the containment system, such as a completely enclosed chamber.
 - (2) Use a sealed system for non-conforming solvents.
- d) Low-VOC cleaners are not subject to the foregoing special non-vapor cleaning requirements a), b) and c).

B. Monitoring and Recordkeeping Requirements

[County Rule 331 §501][SIP Rule 331 §501]

- 1) The Permittee shall maintain a current list of cleaning-solvents, and shall state the VOC-content of each in pounds VOC per gallon of material or grams per liter of material.
- 2) Should the Permittee use any cleaning-solvent subject to the vapor-pressure limits of County Rule 331 §304.1 and Permit Conditions based on those limits, the Permittee shall have on site the written value of the total VOC vapor-pressure of each such solvent in one of the following forms:
 - a) A manufacturer's technical data sheet,
 - b) A manufacturer's safety data sheet (MSDS), or
 - c) Actual test results.
- 3) By the end of each calendar month, the Permittee shall record the amount of cleaning-solvent used during the previous month, as well as show the type and amount of each make-up and all other cleaning-solvent.
- 4) At least annually, the Permittee shall update usage records of concentrate that is used only in the formulation of Low VOC Cleaner.
- 5) For the purposes of recording usage, the Permittee may give cleaning-solvents of similar VOC content a single group-name distinct from any product names in the group. The total usage of all the products in that group are then recorded under just one name. (In such a case, the operator must also keep a separate list that identifies the product names of the particular solvents included under the group name.) To the group name shall be assigned the highest VOC content among the members of that group, rounded to the nearest 10th of a pound of VOC per gallon of material, or to the nearest gram VOC per liter of material.

C. Reporting Requirements

[County Rule 210 §302.1e(1)]

- 1) The Permittee shall include the following information in each semi-annual monitoring report:
 - a) A summary of the listed cleaning-solvents currently used at the facility with the VOC-content of each cleaning solvent stated in VOC per gallon of material or grams per liter of material;
 - b) A summary of any testing that may have been performed during the period

25. PERMIT CONDITIONS FOR DUST GENERATING ACTIVITIES

A. Dust Control Plan Required

- 1) The Permittee shall submit a Dust Control Plan and obtain the Control Officer's approval of the Dust Control Plan, before commencing any routine dust generating operation. The Dust Control Plan shall describe all control measures to be implemented before, after and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. The Plan shall include at least all the information contained in County Rule 310 §304. At least one primary control measure and one contingency control measure must be identified from Table 1 of County Rule 310.
[County Rule 310 §§303, 303.2, 303.3(b) and 303.4(a)]
[SIP Rule 310 §§303, 303.2, 303.3(b) and 303.4(a)]
- 2) Failure to comply with the provisions of an approved Dust Control Plan is deemed to be a violation of this Permit. Regardless of whether an approved Dust Control Plan is in place or not, the Permittee is still subject to all requirements of these permit conditions at all times. In addition, the Permittee with an approved Dust Control Plan is still subject to all of the requirements of County Rule 310, even if the Permittee is complying with the approved Dust Control Plan.
[County Rule 310 §§303.1 and 306] [County SIP Rule 310 §§303.1 and 306]
- 3) If the Control Officer determines that an approved Dust Control Plan has been followed, yet fugitive dust emissions from any given fugitive dust source still exceed limits from this permit condition, then the Permittee shall make written revisions to the Dust Control Plan and shall submit such revised Dust Control Plan to the Control Officer within three working days of receipt of the Control Officer's written notice, unless such time period is extended by the Control Officer, upon request, for good cause. During the time that the Permittee is preparing revisions to the approved Dust Control Plan, the Permittee must still comply with all requirements of these permit conditions.
[County Rule 310 §305] [County SIP Rule 310 §305]
- 4) If any changes to a Dust Control Plan, associated with a Title V Permit, are necessary as a result of the most recent revisions of County Rule 310, then the Permittee shall submit a revised Dust Control Plan to the Control Officer, according to the minor permit revision procedures describe in County Rule 210, no later than 6 months after the effective date of the most recent revisions to County Rule 310.
[County Rule 310 §402.2] [County SIP Rule 310 §402.2]

B. Allowable Emissions

The Permittee shall not allow visible fugitive dust emissions to exceed twenty percent (20%) opacity. Exceedances of the opacity limit that occur due to a wind event shall constitute a violation of the opacity limit. However, it shall be an affirmative defense in an enforcement action if the Permittee demonstrates all of the following conditions:

- 1) All control measures required were followed and one or more of the control measures listed below were applied and maintained;
 - a) Cease dust generating operations for the duration of the condition/situation/event when the 60-minute average wind speed is greater than 25 miles per hour. If dust generating operations are ceased for the remainder of the work day, stabilization measures must be implemented; or

- b) Apply water or other suitable dust suppressant twice per hour; or
- c) Apply water as necessary to maintain a soil moisture content at a minimum of twelve percent (12%) as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administer of EPA. For areas which have an optimum moisture content for compaction of less than twelve percent (12%) as determined by ASTM Method D1557-91(1998) or other equivalent as approved by the Control Officer and the Administer of EPA, maintain at least seventy percent (70%) of the optimum soil moisture content.

- 2) The twenty percent(20%) opacity exceedance could not have been prevented by better application, implementation, operation, or maintenance of control measures;
- 3) The Permittee compiled and retained records, in accordance with Recordkeeping requirements of this permit; and
- 4) The occurrence of a wind event on the day(s) in question is documented by records. The occurrence of a wind event must be determined by the nearest Maricopa County Environmental Services Department Air Quality Division monitoring station, from any other certified meteorological station, or by a wind instrument that is calibrated according to manufacturer's standards and that is located at the site being checked.

[County Rule 310 §301 and Table 2][SIP Rule 310 §301 and Table 2]

C. Operational Limitations and Standards

1) Unpaved Parking Lot

The Permittee shall not allow visible dust emissions from any unpaved parking lot to exceed twenty percent (20%) opacity, and either:

- a) Shall not allow silt loading equal to or greater than 0.33 oz ft²; or
- b) Shall not allow the silt content to exceed eight percent (8%).

[County Rule 310 §302.1][SIP Rule 310 §302.1]

2) Unpaved Haul/Access Road

a) The Permittee shall not allow visible dust emissions to exceed twenty percent (20%) opacity from unpaved access roads and:

- (1) Shall not allow silt loading equal to or greater than 0.33 oz/ft²; or
- (2) Shall not allow the silt content to exceed six percent (6%); or

b) As an alternative to meeting the stabilization requirements for an unpaved haul/access road, limit vehicle trips to no more than 20 per day and limit vehicle speeds to no more than 15 miles per hour. If complying with this Subsection, the Permittee must include, in a Dust Control Plan, the number of vehicles traveled on the unpaved haul/ access road (i.e., number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).

[County Rule 310 §302.2][SIP Rule 310 §302.2]

3) Open Area and Vacant Lot Or Disturbed Surface Area

The Permittee, on any open area and vacant lot or disturbed surface area on which no activity is occurring shall meet at least one of the standards described below, as applicable. The Permittee shall be considered in violation of this permit if such

inactive disturbed surface area is not maintained in a manner that meets at least one of the standards described below, as applicable.

- a) Maintain a visible crust; or
- b) Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cm/second or higher; or
- c) Maintain a flat vegetative cover (i.e., attached (rooted) vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least fifty percent (50%); or
- d) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than thirty percent (30%); or
- e) Maintain a standing vegetative cover (i.e., vegetation that is attached (rooted) with a predominant vertical orientation) that is equal to or greater than ten percent (10%) and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements; or
- f) Maintain a percent cover that is equal to or greater than ten percent (10%) for non-erodible elements; or
- g) Comply with a standard of an alternative test method, upon obtaining the written approval from the Control Officer and the Administrator of the Environmental Protection Agency (EPA).

[County Rule 310 §302.3][SIP Rule 310 §302.3]

4) Control Measures:

- a) The Permittee shall implement control measures before, after, and while conducting any dust generating operation, including during weekends, after work hours, and on holidays. See subsection 304.3, Table 1 and Table 2 of County Rule 310. For the purpose of these Permit Conditions, any control measure that is implemented must meet the applicable standard(s) described in County Rule 310 §§301 and 302, as determined by the corresponding test method(s), as applicable, and must meet other applicable standard(s) set forth in County Rule 310. Failure to comply with the provisions County Rule 308 (Work Practices), as applicable, and/or of an approved Dust Control Plan, is deemed a violation of this Permit.

[County Rule 310 §306][County SIP Rule 310 §306]

- b) Should any primary control measures(s) in an approved Dust Control Plan prove ineffective, the Permittee shall immediately implement the contingency control measure, which may obviate the requirement of submitting a revised Dust Control Plan. Any control measure that is implemented must meet the applicable standards described in these permit conditions, as determined by the corresponding test method(s), as applicable, and must meet other applicable standards set forth in County Rule 310.

[County Rule 310 §§303, 303.2, 303.3(b) and 303.4(a)]

[County SIP Rule 310 §§303, 303.2, 303.3(b) and 303.4(a)]

5) Work Practices:

- a) Bulk Material Hauling Off-Site Onto Paved Public Roadways
When engaged in bulk material hauling off-site onto paved public roadways, the Permittee shall comply with the following work practices.

Such work practices shall be implemented to meet the standards described in County Rule 310 §§ 301 and 302.

- (1) Load all haul trucks such that the freeboard is not less than three inches; and
- (2) Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and / or tailgate(s); and
- (3) Cover all haul trucks with a tarp or other suitable closure; and
- (4) Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

[County Rule 310 §308.1][County SIP Rule 308.1]

[County SIP Rule 316(a) and (b)]

b) Open Storage Piles:

- (1) During stacking, loading, and unloading operations, apply water, as necessary, to maintain compliance with the twenty percent (20%) opacity limitation for fugitive dust sources.

[County Rule 310 §308.6a][County SIP Rule 310 §308.6a]

- (2) Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material, or with use of spray bars and wetting agents, or other measures to prevent excessive amounts of particulate matter from becoming airborne.

[SIP Rule 31 §A.4.b]

- (3) When not conducting stacking, loading, and unloading operations, comply with one of the following work practices:

- (a) Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or
- (b) Apply water to maintain a soil moisture content at a minimum of twelve percent (12%), as determined by ASTM Method D2216-98, or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than twelve percent (12%), as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least seventy percent (70%) of the optimum soil moisture content; or
- (c) Meet one of the stabilization requirements described in County Rule 310 §302.3; or
- (d) Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than fifty percent (50%). If complying with this subsection (d), the Permittee must also implement either Condition (b) or (c) above.

[County Rule 310 §308.6b][County SIP Rule 310 §308.6b]

- (4) The Permittee shall not cause, suffer, allow, or prevent organic or inorganic dust-producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.

[SIP Rule 31 §A.4.a]

D. Monitoring and Recordkeeping Requirements

The Permittee shall keep a daily written log recording the actual application or implementation of the control measures delineated in the approved Dust Control Plan. The log or the records and supporting documentation shall be made available to the Control Officer within 48 hours, excluding weekends, from written or verbal request. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.

[County Rule 310 §502][County SIP Rule 310 §502]

Copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation shall be retained at least five years from the date such records are established.

[County Rule 310 §503][County SIP Rule 310 §503]

E. Testing Requirements

The following test methods shall be used as appropriate.

a) Opacity Observations:

(1) Dust Generating Operations

Opacity observations of a source engaging in dust generating operations shall be conducted in accordance with County Rules Appendix C, Section 3 (Visual Determination Of Opacity Of Emissions From Sources For Time-Averaged Regulations) of County Rule 310, except opacity observations for intermittent sources shall require 12 rather than 24 consecutive readings at 15-second intervals for the averaging time.

[County Rule 310 §501.1a, Appendix C Section 3]

[County SIP Rule 310 §501.1a, Appendix C Section3]

(2) Unpaved Parking Lot and Unpaved Haul/Access Road

Opacity observations of any unpaved parking lot and any Unpaved Haul/Access Road shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-for Unpaved Roads and Unpaved Parking Lots) of the County Rules.

[County Rule 310 §§501.1b and c, Appenix C Sections 2 and 3]

[County SIP Rule310 §§501.1b and c, Appendix C Sections 2 and 3]

b) Stabilization Observations:

(1) Unpaved Parking Lot and Unpaved Haul/Access Road

Stabilization observations for unpaved parking lots shall be conducted in accordance with Appendix C, Section 2.1 (Test Methods For Stabilization-For Unpaved Roads and Unpaved Parking Lots) of the County Rules. When more than 1 test method is permitted for a determination, an exceedance of the limits established in these Permit Conditions determined by any of the applicable test methods constitutes a violation of this Permit.

[County Rule 310 §§501.2a and b, Appendix C Section 2]

[County SIP Rule 310 §§501.2a and b, Appendix C Section2]

- (2) Open Area Or Disturbed Surface Area: Stabilization observations for an open area and vacant lot or any disturbed surface area on which no activity is occurring shall be conducted in accordance with at least one of the techniques described in County Rule 310 subsection 501.2c(1) through c(7), as applicable.

[County Rule 310 §501.2c]
 [County SIP Rule 310 §501.2c]

26. PERMIT CONDITIONS FOR ARCHITECTURAL COATING

A. Operational Limitations and Standards

- 1) The Permittee shall limit the volatile organic compound (VOC) content of architectural coatings as follows:

- a) Bituminous Pavement Sealer

[County Rule 335 §301][SIP Rule 335 §301]

The Permittee shall not apply any architectural coating manufactured after July 13, 1988, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating.

- b) Non-Flat Architectural Coating

[County Rule 335 §303][SIP Rule 335 §303]

The Permittee shall not apply any non-flat architectural coating manufactured after July 13, 1990, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings listed below.

- c) Flat Architectural Coating [County Rule 335 §304][SIP Rule 335 §304]

The Permittee shall not apply any flat architectural coating manufactured after July 13, 1989, which contains more than 2.1 lbs (250 g/l) of volatile organic compounds per gallon of coating, excluding water and any colorant added to tint bases. These limits do not apply to specialty coatings listed below.

- d) Specialty Coatings [County Rule 335 §305][SIP Rule 335 §305]

The Permittee shall not apply any architectural coating manufactured after July 13, 1991 that exceeds the following limits. The limits are expressed in pounds of VOC per gallon of coating as applied, excluding water and any colorant added to tint bases.

<u>COATING</u>	<u>(lb/gal)</u>
Concrete Curing Compounds	2.9
Dry Fog Coating	
Flat	3.5
Non-flat	3.3
Enamel Undercoaters	2.9
General Primers, Sealers and Undercoaters	2.9
Industrial Maintenance Primers and Topcoats	
Alkyds	3.5
Catalyzed Epoxy	3.5

Bituminous Coating Materials	3.5
Inorganic Polymers	3.5
Vinyl Chloride Polymers	3.5
Chlorinated Rubbers	3.5
Acrylic Polymers	3.5
Urethane Polymers	3.5
Silicones	3.5
Unique Vehicles	3.5
Lacquers	5.7
Opaque Stains	2.9
Wood Preservatives	2.9
Quick Dry Enamels	3.3
Roof Coatings	2.5
Semi-transparent Stains	2.9
Semi-transparent and Clear Wood Preservatives	2.9
Opaque Wood Preservatives	2.9
Specialty Flat Products	3.3
Specialty Primers, Sealers & Undercoaters	2.9
Traffic Coatings	
Applied to Public Streets and Highways	2.1
Applied to other Surfaces	2.1
Black Traffic Coatings	2.1
Varnishes	2.9
Waterproof Mastic Coating	2.5
Waterproof Sealers	3.3

e) Exemptions

[County Rule 335 §§306and 307][SIP Rule 335 §§306and 307]

The VOC content requirement of this Section shall not apply to the following:

- (1) Architectural coatings supplied in containers having capacities of one quart or less.
- (2) Architectural coatings recommended by the manufacturer for use solely as one or more of the following:
 - (a) Below ground wood preservative coatings.
 - (b) Bond breakers.
 - (c) Fire retardant coatings.
 - (d) Graphic arts coatings (sign paints)
 - (e) Mastic texture coatings.
 - (f) Metallic pigmented coatings.
 - (g) Multi-colored paints.
 - (h) Quick-dry primers, sealers and undercoaters.
 - (i) Shellacs.
 - (j) Swimming pool paints.
 - (k) Tile-like glaze coatings.

B. Monitoring and Recordkeeping Requirements

[County Rule 210 §302.1c] [County Rule 210 §302.1e]

The Permittee shall keep a material list of all coatings used. The material list shall contain the name of each coating, a short description of the material, the pounds of VOCs per gallon of coating excluding water and colorant added to tint bases, and the

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amount of each coating used. If the coating is exempt from the volatile organic compounds content requirements, the justification for the determination shall be documented and kept on file.

- C. Reporting Requirements [County Rule 210 §302.1e]
The Permittee shall include a statement whether or not architectural coating was performed during the six month reporting period in the semi-annual monitoring report.

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APPENDIX A
Equipment List for AF Lorts Company , Inc.
8120 West Harrison, Tolleson, AZ
Permit V99-006

Equipment List

Machine Number	Machine Type	Manufacturer	Power Rating	Vented to Cyclone/Baghouse ⁽¹⁾
100000	Gang Rip Saw	SCMI	25 HP	Yes
101000	Wonder Saw	Barr-Mullin	30 KVA	Yes
102000	Straight Line	Diehl	15 hp	yes
103000	Straight Line	Diehl	15hp	yes
104000	Straight Line	Mattison	15 hp	no
105000	Straight Line	Mattison	15 hp	no
106000	Band Saw	Waco	10 hp	no
107000	Chop Saw	Wynot	7.5 hp	yes
108000	Panel Saw	S.S Cut Mfg	5 hp	yes
109000	Band Saw	Norfield	7.5 hp	yes
111000	Table Saw	Irvington	7.5 hp	no
112000	Miter Saw	Hitachi	.75 hp	No
113000	Band Saw	Bell Machine	.75 hp	yes
114000	Miter Saw	Black & Decker	.75 hp	no
115000	Miter Saw	Pistorius	3.0 hp	no
116000	Miter Saw	Pistorius	3.0 hp	no
200000	Clamp Carrier	Doucet	7.5 hp	no
201000	Clamp Carrier	Taylor	1.5 hp	no
204000	Clamp Press	Handy Mfg	1.5 hp	no
205000	Clamp Press	Handy Mfg	1.5 hp	no
206000	Clamp Press	Handy Mfg	1.5 hp	no
207000	Clamp Press	Handy Mfg	1.5 hp	no
208000	Clamp Press	Handy Mfg	1.5 hp	no
209000	Clamp Press	Handy Mfg	1.5 hp	no
210000	Clamp Press	Handy Mfg	1.5 hp	no
211000	Table Clamp	Handy Mfg	1.5 hp	no
300000	Belt Sander	Timesaver	50 hp	yes
302000	Planer	Oliver	68.2 hp	yes
303000	Belt Sander	Timesaver	100 hp	yes
304000	Panel Sander	Shimura	10 hp	yes
305000	Pedal Sander	Baldor	2 hp	no
306000	Table Sander	Eks Carl & Co.	2 hp	no
307000	Drum Sander	US Motors	1 hp	no
308000	Pedal Sander	Grind & Pol Co.	2 hp	no
309000	Pedal Sander	Eks Carl & Co.	2 hp	no
310000	Pedal Sander	Howell Motors	1 hp	no
310000	Belt Sander	Porter Cable	.75 hp	no

Machine Number	Machine Type	Manufacturer	Power Rating	Vented to Cyclone/Baghouse⁽¹⁾
312000	Oscillating Sander	Oakley Co	.5 hp	no
313000	Pedal Sander	Green Machine Co.	2 hp	no
314000	Pedal Sander	Oakley Co.	.5 hp	no
315000	Oscillating Sander	Oakley Co.	.5 hp	no
316000	Spindle Sander	Whirlwind	1 hp	no
317000	Stroke Sander	Oakley Co.	.5 hp	no
318000	Pedal Sander	Redin	2 hp	no
319000	Pedal Sander	Redin	2 hp	no
320000	Oscillating Sander	Allen Bradley	2 hp	no
400000	CNC Router	Komo	12 hp	yes
401000	Ornamental Mill	Custom	1 hp	no
402000	Router	P.C. Speedmat	5 hp	no
403000	Pin Router	Porter	1.5 hp	no
404000	Dovetail	Tyler & Co.	8.0 hp	yes
405000	Router	P.C. Speedmat	.5 hp	no
500000	Grinder	Rondamat	10 hp	no
501000	Moulder	Weinig	56.7 hp	yes
502000	Tenoner	Challoner	70.75 hp	yes
503000	Tenoner	SCMI	62.75 hp	yes
504000	Shaper	Whitney & Son	5 hp	yes
505000	Shaper	Holzher	5 hp	yes
506000	A&B Shaper	Custom	20 hp	yes
507000	Lathe	Hapfo	1 hp	no
508000	Carver	Parten	9 hp	no
509000	Bench Grinder	Allied	1 hp	no
510000	Hauncher	JKO Cutters	.3 hp	no
600000	Hor/Ver Boring	Scheicher	3 hp	yes
601000	Corner Block	Sandhill	9 hp	no
602000	Drill Press	Rockwell	2 hp	no
603000	Drill Press	Powermatic	1.5 hp	no
604000	Hor Boring	B.M. Root Co.	15hp	no
605000	Vert Gang Drill	Cemco	6 hp	no
606000	Counterbore	Ritter Mfg. Inc.	1 hp	no
NA	Radial Saw	OMGA	7 hp	yes
NA	Table Saw	Rockwell/Delta	7.5 hp	no
NA	Band Saw	King	.75	no

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Machine Number	Machine Type	Manufacturer	Power Rating	Vented to Cyclone/Baghouse⁽¹⁾
NA	Horizontal Boring	Delta	1 hp	no
NA	Band Saw	Dayton	1.5 hp	no
NA	Lathe	Jet	1	no
NA	Vacuum	Quincy	25	yes
NA	(3) Paint booth		27000 cfm ea	
NA	Drying Oven		1.0 MMBTU/hr	
NA	Cyclone		57000 cfm	
NA	Cyclone		9800 cfm	
NA	Baghouse	MAC	Model: 144MCF572	NA

⁽¹⁾ As required by Condition 22, the Cyclones are to be replaced by the MAC Baghouse in accordance with the provisions of Permit V99-006 as revised by Significant Revision S05-003.

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APPENDIX B

Table 310-1: Source Type and Control Measures

TABLE 310-1

SOURCE TYPE AND CONTROL MEASURES	
Vehicle Use In Open Areas And Vacant Lots:	
1A	Restrict trespass by installing signs.
2A	Install physical barriers such as curbs, fences, gates, posts, signs, shrubs, and/or trees to prevent access to the area.
Unpaved Parking Lots:	
1B	Pave.
2B	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with subsection 302.1 of this rule.
3B	Apply a suitable dust suppressant, in compliance with subsection 302.1 of this rule.
Unpaved Haul/Access Roads: (The control measures listed below (1C-5C) are required work practices, per subsection 308.4 of this rule.)	
1C	Limit vehicle speed to 15 miles per hour or less and limit vehicular trips to no more than 20 per day.
2C	Apply water, so that the surface is visibly moist and subsection 302.2 of this rule is met.
3C	Pave.
4C	Apply and maintain gravel, recycled asphalt, or other suitable material, in compliance with subsection 302.2 of this rule.
5C	Apply a suitable dust suppressant, in compliance with subsection 302.2 of this rule.
Disturbed Surface Areas:	
Pre-Activity:	
1D	Pre-water site to the depth of cuts.
2D	Phase work to reduce the amount of disturbed surface areas at any one time.
During Dust Generating Operations:	
3D	Apply water or other suitable dust suppressant, in compliance with Section 301 of this rule.
4D	Apply water as necessary to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98 or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content.
5D	Construct fences or 3 foot - 5 foot high wind barriers with 50% or less porosity adjacent to roadways or urban areas that reduce the amount of wind blown material leaving a site. If constructing fences or wind barriers, must also implement 3D or 4D above.
Temporary Stabilization During Weekends, After Work Hours, And On Holidays:	
6D	Apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
7D	Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.
8D	Restrict vehicular access to the area, in addition to either of the control measures described in 6D and 7D above.
Permanent Stabilization (Required Within 8 Months Of Ceasing Dust Generating	

Operations):

- 9D Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions, in compliance with subsection 302.3 of this rule.
- 10D Pave, apply gravel, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
- 11D Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.

Open Areas And Vacant Lots:

- 1E Restore area such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby undisturbed native conditions.
- 2E Pave, apply gravel, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule.
- 3E Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule.

Control measures 1F – 1M below are required work practices and/or methods designed to meet the work practices, per Section 308 (Work Practices) of this rule.

Bulk Material Handling Operations And Open Storage Piles:

During Stacking, Loading, And Unloading Operations:

- 1F Apply water as necessary, to maintain compliance with Section 301 of this rule; and

When Not Conducting Stacking, Loading, And Unloading Operations:

- 2F Cover open storage piles with tarps, plastic, or other material to prevent wind from removing the coverings; or
- 3F Apply water to maintain a soil moisture content at a minimum of 12%, as determined by ASTM Method D2216-98, or other equivalent as approved by the Control Officer and the Administrator of EPA. For areas which have an optimum moisture content for compaction of less than 12%, as determined by ASTM Method D1557-91(1998) or other equivalent approved by the Control Officer and the Administrator of EPA, maintain at least 70% of the optimum soil moisture content; or
 - 4F Meet the stabilization requirements described in subsection 302.3 of this rule; or
- 5F Construct and maintain wind barriers, storage silos, or a three-sided enclosure with walls, whose length is no less than equal to the length of the pile, whose distance from the pile is no more than twice the height of the pile, whose height is equal to the pile height, and whose porosity is no more than 50%. If implementing 5F, must also implement 3F or 4F above.

Bulk Material Hauling/Transporting:

When On-Site Hauling/Transporting Within The Boundaries Of The Work Site When Crossing A Public Roadway Upon Which The Public Is Allowed To Travel While Construction Is Underway:

- 1G Load all haul trucks such that the freeboard is not less than 3 inches when crossing a public roadway upon which the public is allowed to travel while construction is underway; and
- 2G Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- 3G Install a suitable trackout control device that controls and prevents trackout and/or removes particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse such work site. Examples of trackout control devices are described in Table 1 (Trackout 1J, 2J, 3J) of this rule; and

When On-Site Hauling/Transporting Within The Boundaries Of The Work Site But Not Crossing A Public Roadway Upon Which The Public Is Allowed To Travel While Construction Is Underway:

- 4G Limit vehicular speeds to 15 miles per hour or less while traveling on the work site; or
- 5G Apply water to the top of the load such that the 20% opacity standard, as described in Section 301 of this rule, is not exceeded, or cover haul trucks with a tarp or other suitable closure.

Off-Site Hauling/Transporting Onto Paved Public Roadways:

- 6G Cover haul trucks with a tarp or other suitable closure; and
- 7G Load all haul trucks such that the freeboard is not less than 3 inches; and
- 8G Prevent spillage or loss of bulk material from holes or other openings in the cargo compartment's floor, sides, and/or tailgate(s); and
- 9G Before the empty haul truck leaves the site, clean the interior of the cargo compartment or cover the cargo compartment.

Cleanup Of Spillage, Carry Out, Erosion, And/Or Trackout:

- 1H Operate a street sweeper or wet broom with sufficient water, if applicable, at the speed recommended by the manufacturer and at the frequency(ies) described in subsection 308.3 of this rule; or
- 2H Manually sweep-up deposits.

Trackout:

- 1J Install a grizzly or wheel wash system at all access points.
- 2J At all access points, install a gravel pad at least 30 feet wide, 50 feet long, and 6 inches deep.
- 3J Pave starting from the point of intersection with a paved public roadway and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.

Weed Abatement By Discing Or Blading:

- 1K Pre-water site and implement 3K or 4K below.
- 2K Apply water while weed abatement by discing or blading is occurring and implement 3K or 4K below.
- 3K Pave, apply gravel, apply water, or apply a suitable dust suppressant, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs; or
- 4K Establish vegetative ground cover in sufficient quantity, in compliance with subsection 302.3 of this rule, after weed abatement by discing or blading occurs.

Easements, Rights-Of-Way, And Access Roads For Utilities (Electricity, Natural Gas, Oil, Water, And Gas Transmission) Associated With Sources That Have A Non-Title V Permit, A Title V Permit, And/Or A General Permit Under These Rules:

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- | | |
|----|---|
| 1L | Inside the PM ₁₀ nonattainment area, restrict vehicular speeds to 15 miles per hour and vehicular trips to no more than 20 per day; or |
| 2L | Outside the PM ₁₀ nonattainment area, restrict vehicular trips to no more than 20 per day; or |
| 3L | Implement control measures, as described in Table 1 (Unpaved Haul/Access Roads-1C through 5C) of this rule. |

Earthmoving Operations On Disturbed Surface Areas 1 Acre Or Larger:	
--	--

- | | |
|----|--|
| 1M | If water is the chosen control measure, operate water application system (e.g., water truck), while conducting earthmoving operations on disturbed surface areas 1 acre or larger. |
|----|--|

[County Rule 310 Table 1]

Technical Support Document (TSD)

AF Lorts Company, Inc
8120 West Harrison, Tolleson, AZ 85353
Permit Number V99-006
January 4, 2005

I. COMPANY DESCRIPTION

AF Lorts Company, Inc. (AF Lorts) manufactures various types of wood furniture for commercial sale. The facility Standard Industrial Classification (SIC) Code is 2511. The facility receives wood and wood product material by truck. Lumber is taken to the mill where it goes through other woodworking processes depending on the part being produced. The wood product is sanded then finished.

Company Information:

Facility Name: **AF Lorts Company, Inc.**
8120 West Harrison
Tolleson, AZ 85353
Mailing Address: Same as facility address

II. Historical Overview

A. VOC Emission Limits

AF Lorts is a major source for VOC the source is located in a serious nonattainment area for ozone. AF Lorts potential to emit for VOC and the VOC emission reported for year 2003 is over 50 tpy. AF Lorts in their Title V application requested a voluntarily accepted VOC emission limit of 99.9 tons per year. Maricopa County received a letter on October 9, 2003 from AF Lorts withdrawing its request, therefore no VOC emission limit is in the permit. The source signed an affidavit that the facility was constructed in 1973 and there are no records indicating a physical change or a change in the method of operation therefore NSR has never applied.

B. Hazardous Air Pollutant, (HAP), Emission Limit

AF Lorts submitted in the Title V application a request for a voluntarily accepted HAP emission limit. The annual limit requested for each single HAP was 4.9 tons. The annual limit requested for a combination of HAPs emission limit was 12.9 tons. This voluntary limit permitted AF Lorts to be considered a synthetic minor for HAP emissions. Maricopa County received a letter October 30, 2003 from AF Lorts withdrawing its request, therefore no HAP limit is in the public noticed permit nor the version sent to the EPA for review. Because there was no annual HAP limit, it was assumed that the facilities potential to emit for HAPs exceeded 10 tons annually for any single federally listed HAP and 25 tons annually for all federally listed HAP combined. This caused the facility to be considered a major source for HAPs and therefore subject to the MACT requirements of 40 CFR 63 Subpart JJ. The MACT standard was included in the draft permits for this reason.

Since the public and the EPA review of this permit, AF Lorts had voluntarily agreed to a limit for HAP emissions in order to be considered a synthetic minor source for this pollutant. The facility has also submitted a certified letter stating that the annual major HAP thresholds have never been exceeded. After discussions between Maricopa County Air Quality Department and the USEPA Region IX, it was concluded that the MACT standard could be removed from the permit after the inclusion of annual HAP emission limits without another public notice. The reasoning behind this decision was that this change was due to an inaccuracy in the permit itself that was brought up during the public notice period. AF Lorts was never a major source for HAPs according to actual emissions. The change was also considered a correction. The issued permit reflects the facility more accurately. The permit was also has become more stringent in regards to allowable emissions with the inclusion of permit limits for HAPs.

- C. AF Lorts in their Title V application reports the PM₁₀ PTE as 59 TPY based on one medium efficiency cyclone. There are two cyclones at the facility it is assumed that they are both medium efficiency cyclones. The PM₁₀ PTE reported was not documented how it was calculated. In 2003 AF Lorts hauled 569.25 tons of wood waste away. Using the North Carolina assumptions outlined below, (**Section III.B.2.**), 30 percent of the waste is assumed to be PM₁₀₀ and a ninety percent control efficiency of the cyclone. Therefore it is calculated by MCAQD that the PM₁₀₀ emissions for both cyclones is 17.1 tpy. The PTE is calculated by multiplying the actual emissions by the ratio of (8760/2496). The 2496 is calculated using 6 days a week, 8 hours per day and 52 weeks per year. The 8760 is derived to from the amount of hours that are in a year. The result is that AF Lorts PTE for PM₁₀₀ (a surrogate for PM₁₀) is 60 tons per year. This is a conservative estimate considering PM₁₀₀ emissions were calculated and would be much higher than PM₁₀ which is the criteria pollutant. The calculation is as follows:

$$PTE = (569.25)(30\%)(1-0.9)(8760/2496) = 60 \text{ tons PM}_{100}$$

The PTE calculation for PM₁₀ will be significantly lower than 60 tons per year after the installation of fabric filter technology that is required by the compliance plan in the Title V Permit.

III. APPLICABLE REQUIREMENTS

A. Facility Wide Annual HAP Emission Limits (Permit Condition 18.1)

Pollutant	Monthly Limit, Tons	Rolling 12 Month Limit, Tons
Any Single Federally Listed Hazardous Air Pollutant (HAP)	2.0	9.0
Total of All Federally Listed Hazardous Air Pollutants (HAPs)	4.0	22.5

The HAP limits in the permit allow AF Lorts to be considered a minor source for HAP emissions. Woodworking facilities that are a major source for HAPs become subject to the MACT requirements of 40 CFR 63 Subpart JJ. As long as the facility never exceeds the HAP limits in the permit, Subpart JJ will not apply. County Rule 210 §302.1b allows for enforceable emission limitations that assure compliance with all the applicable requirements. The permit limit and the monitoring and recordkeeping associated with the limit provide assurances that AF Lorts is not

subject to the MACT requirements and therefore assure compliance with all applicable standards.

B. County Rule 311 - Particulate Matter (Permit Condition 18.2)

1) Discussion

The facility is subject to County Rule 311, Particulate Matter from Process Industries, which imposes a cap on hourly emissions of particulate matter based on the process weight of material at the facility. The facility does not process more than 60,000 pounds per day of wood, therefore, an applicable requirement is County Rule 311 §301.1, with the following process weight rate equation:

$$E = 3.59P^{0.62}$$

Where:

E = Emissions in pounds per hour, and
P = Process weight rate in tons per hour.

Also applicable are County Rule 311 §§305 and 306, which allow AF Lorts to comply with the particulate matter standard by operating an approved "emission control system", with an approved O&M plan. AF Lorts operates an eight foot (8) cyclone rated at approximately 57,000 CFM, and a four (4) foot cyclone rated at approximately 9,800 CFM. There is no manufacturer's specification; however the sources supplied an emission factor of 90% removal efficiency for a centrifugal collector.

2) Monitoring for Compliance with Woodworking Emission Limitations

Figure 1, below shows a plot of the allowable particulate matter emissions at a facility in pounds per hour (E) versus the weight of wood processed at the facility in tons per hour (P) according to the equation $E = 3.59P^{0.62}$.

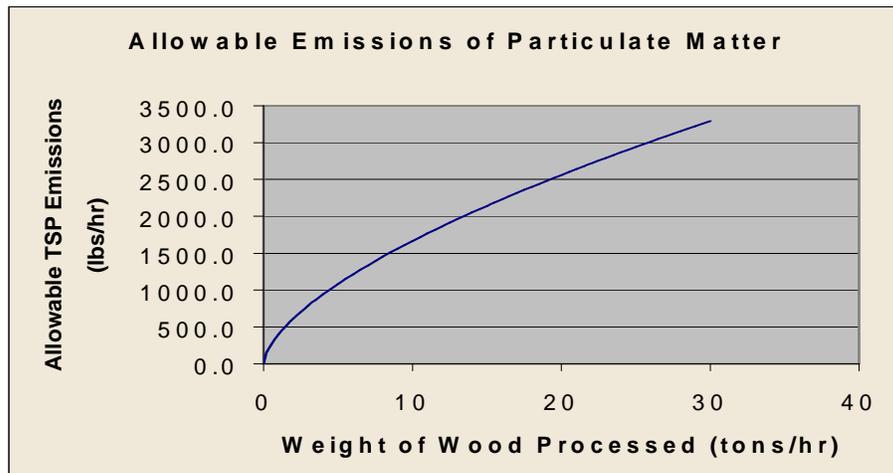


Figure 1: Allowable emissions of particulate matter (PM_{100}) at a facility in pounds per hour based on the process weight of wood at a facility. The

allowable emissions for the facility, which processes less than 60,000 lbs/day, are given by the equation in County Rule 311 §301.1.

Emission Limits Calculated by Process Weight Rate Equation

Based on the Title V application submitted, AF Lorts processed 1,001,961 board feet of wood. Assuming one (1) board-foot of hardwood weighs 3.4 lbs, the total wood weight processed is 3,406,667 lbs (1638 tons) of wood per year. Assuming that the facility has 2080 actual operating hours per year, approximately 0.8 tons of wood are processed per hour. Plugging the process weight in tons per hour yields an emission limit of 3.13 pounds per hour of PM, as follows:

$$E = 3.59 * (.8)^{0.62}$$
$$= 3.13 \text{ lb/hour PM}$$

Actual Emissions of Particulate Matter

A draft report entitled "Estimating Emissions from Generation and Combustion of 'Waste' Wood," (North Carolina Report) by the North Carolina Department of Environment and Natural Resources, gives the following estimate of the percentages of woodwaste generated by various processes at a woodworking facility:

Rough Sawing	20%
Fine Sawing	30%
Sanding	20%
Molding (hog)	40% (sic)

That report also estimates the percentages of wood waste that is generated by a process that is regulated as PM (<100 micrometer aerodynamic diameter) as follows:

Rough Sawing	18%
Fine Sawing	31%
Sanding	76%
Molding	5.2%

The total percentage of wood waste generated at a woodworking facility that is regulated as PM can be estimated by multiplying the percentage of the wood waste generated by a process and the percentage of that wood waste that is regulated as PM. Using the numbers given in the North Carolina Report yields the following percentage:

$$(0.2 * 0.18) + (0.3 * 0.31) + (0.2 * 0.76) + (0.4 * 0.05) \approx 0.3 \text{ or } 30\%$$

According to its emission inventory for 2001, AF Lorts removed approximately 648 tons (1,296,000 lbs) of wood waste per year. AF Lorts assumes a cyclone removal efficiency of 90.0% efficiency for particles aerodynamic diameter of 10 micron and larger based of generalized emission factors for a medium efficiency centrifugal collector. Assuming that the percentages of wood working operations studied in the North Carolina report are indicative of wood working operations at AF Lorts, and the facility operates

2080 hours per year, actual emissions at the facility can be calculated as follows:

Weight of sawdust generated per year = 1,296,000 lbs

Weight of sawdust that is PM_{100} = $1,296,000 * 0.3 = 388,800$ lbs

Pounds of PM_{100} emitted per year = $388,800 * (.1/.9) = 43,200$ lbs/year

Pounds of PM_{100} emitted per hour = $43,200 / 2080 = 20.77$ lbs/ hour

Comparing the actual hourly particulate matter emissions of 20.77lbs/hour to the allowable emissions of 3.13 lbs/ hour demonstrates that the facility is not in compliance with the process weight rate equation. The permit contains a compliance plan to remove the cyclones and replace them with a different control technology. At this time the cyclones are operated in accordance with the O&M plan.

B. County Rule 300 - Opacity Limits (Permit Condition 18.3)

1. Discussion of Opacity Limits

County Rule 300 restricts visible emissions from any source to 20% opacity, other than emissions of uncombined water. County Rule 300 and the 20% opacity limitation of the permit conditions are locally enforceable only. SIP Rule 30 and the 40% opacity limitation of the permit conditions are federally enforceable.

2. Monitoring for Compliance with Opacity Limits (Permit Condition 20.B)

The Permittee will monitor for compliance with the opacity requirements of this permit by performing an observation of visible emissions at least twice daily, looking for visible emissions from any source capable of visible emissions other than uncombined water. This requirement is intended to regulate the opacity from sources that vent outdoors. If visible emissions, other than uncombined water, are observed being discharged into the ambient air, the Permittee shall monitor for compliance with the opacity standards specified in this permit by having a certified visible emissions evaluator determine the opacity of the visible emissions being discharged into the ambient air using the techniques specified in EPA Reference Method 9.

If the Permittee observes visible emissions, the initial Method 9 opacity reading shall be taken within twenty four (24) hours of observing visible emissions. If the emitting equipment is not operating on the day that the initial Method 9 opacity reading is required to be taken, then the initial Method 9 opacity reading shall be taken the next day that the emitting equipment is in operation. If the problem causing the visible emissions is corrected before the initial Method 9 opacity reading is required to be performed, and there are no visible emissions (excluding uncombined water) observed from the previously emitting equipment while the equipment is in normal operation, the Permittee shall not be required to conduct the Method 9 opacity readings.

Follow-up Method 9 opacity readings shall be performed by a certified visible emissions evaluator while the emitting equipment in its standard mode of operation in accordance with the following schedule:

- a) Daily:
 - (3) Except as provided in paragraph 3 of this Permit Condition, a Method 9 opacity reading shall be conducted each day that the emitting equipment is operating until a minimum of 14 daily Method 9 readings have occurred.
 - (4) If the Method 9 opacity readings required by this Permit Condition are less than 20% for 14 consecutive days, the frequency of Method 9 opacity readings may be decreased to weekly, in accordance with paragraph 2 of this Permit Condition.
- b) Weekly:
 - (4) If the Permittee has obtained 14 consecutive daily Method 9 readings which do not exceed 20% opacity, the frequency of Method 9 readings may be decreased to once per week for any week in which the equipment is operated.
 - (5) If the opacity measured during a weekly Method 9 reading exceeds 20%, the frequency of Method 9 opacity readings shall revert to daily, in accordance with paragraph 1 of this Permit Condition.
 - (6) If the opacity measured during the required weekly Method 9 readings never exceeds 20%, the Permittee shall continue to obtain weekly opacity readings until the requirements of paragraph 3 of this Permit Condition are met.
- c) Cease Follow-up Method 9 Opacity Monitoring:

Regardless of the applicable monitoring schedule, follow-up Method 9 opacity readings may cease if the emitting equipment, while in its standard mode of operation, has no visible emissions, other than uncombined water, during every observation taken during a Method 9 procedure.

C. County Rule 320 - Odors and Gaseous Air Contaminants (Permit Conditions 19.A.1), 2) and 3))

Discussion of Operational Limitations on Odors and Gaseous Air Contaminants.

County Rule 320 §§300, 302 and 303, entitled "Standards", "Material Containment Required" and "Reasonable Stack Height Required", respectively, apply to this facility and have been incorporated into the permit conditions. Permit conditions based on County Rule 320 §300 are locally enforceable only.

D. County Rule 315 - Spray Coating (Permit Condition 19.C.)

The permit conditions associated with County Rule 315 - Spray Coating, discussed below, are locally enforceable only. AF Lorts regularly uses spray-coating

equipment to apply coating to wood furniture and fixtures. According to the application, the spray coating activity at AF Lorts is currently conducted entirely inside the building. AF Lorts has automated spray machines with forced air exhaust

1. Spray Coating Outside Buildings inside Enclosures (**Permit Condition 19.C.1**)

a) Discussion of Limitations on Spray Coating Outside of a Building, Inside an Enclosure

If the Permittee operates any spray coating equipment outside of a building, the Permittee is required to conduct such activities inside an enclosure with at least three sides a minimum eight feet in height. In addition, it is required that spraying in such enclosures be conducted so that overspray is directed at the walls or floor of the enclosure. No spraying shall be conducted within three feet of any open end and/or within two feet of the top of the enclosure.

b) Monitoring for Compliance with Limitations on Spray Coating Outside of a Building, Inside an Enclosure (**Permit Condition 20.C.1**)

AF Lorts will monitor for compliance with these requirements by observing spraying activity inside any enclosure located outside of a building each week to ensure that proper spraying techniques are used. The monitoring is not required any week that the Permittee does not spray in such enclosures.

2. Spray Coating with Forced Air Exhaust

a) Discussion on Limitations on Spray Coating with Forced Air Exhaust (**Permit Condition 19.C.1b**)

For spray coating equipment with forced air exhaust, County Rule 315 and the Permit require the use of a filtering system with an average overspray removal efficiency of 92% by weight. For regular filters, the Permit also requires that there be no gaps, sags or holes in the filters and that all exhaust is discharged to the atmosphere.

b) Monitoring for Compliance: Spray Coating with Forced Air Exhaust (**Permit Condition 20.C.2 and 3**)

According to manufacturer's information provided in the application, the spray filters at AF Lorts have average paint removal efficiencies for various materials ranging from 93% to 98%, to monitor for compliance with the requirements for spray booths with forced air exhaust, AF Lorts will continue to maintain information indicating the removal efficiency of the spray filters on site. Because spray coating wood furniture and fixtures is a main activity conducted by this facility, an inspection of the dry filters for gaps, sags or holes is required on each spray booth, each day the booth operates. AF Lorts is required to record the result of the inspections.

E. County Rule 342 - Coating Wood Furniture and Fixtures (**Permit Condition 19.D**)

1. Discussion

a) VOC Content Limitations (**Permit Conditions 19.D.1 - 19.D.4**)

County Rule 342 limits the VOC content of topcoats and sealers applied to wood furniture or fixtures as follows:

Type of Coating	Column A	Column B
	(pounds of VOC per pound of solids)	(grams of VOC per liter, less non-precursor compounds and water)
Topcoat	1.8	635
Sealer	1.9	645
Acid-cured, alkyd amino topcoat	2.0	655
Acid-cured, alkyd amino vinyl sealer	2.3	680

In addition, strippable booth coatings have a limit of 0.8 lbs VOC/ lb solid or no more than 3.0 lbs VOC/ gallon (360 grams per liter), less non-precursor volatile compounds. If the spray booth coating is being replaced the Permittee may not use more than 1 gallon of VOC solvent to clean the booth. Stains, washcoats, glazes, toners, inks, and other coatings do not have limits on VOC content. Solvents for cleaning spray booth components are limited to 8% by weight VOC, including water and non-precursor organic compounds. The VOC content limitation for cleaning solvents does not apply when cleaning conveyors; continuous coaters and their enclosures; and metal filters.

b) Spray equipment for Coating Wood Furniture and Fixtures (**Permit Condition 19.D.5**)

In addition to the requirements of County Rule 315, Spray Coating, discussed previously, there are spray equipment requirements in County Rule 342. When coating wood furniture and fixtures with a finishing material exceeding 1 lb VOC/ lb solid, the Permittee is required to use a low-pressure spray gun or system, an electrostatic system, or a system in which the energy for atomization is provided principally via hydraulic pressure (including "air assisted airless and ultra-low-volume-air assisted technologies"), or any specific system that is approved by the Administrator as having a transfer efficiency consistently exceeding 64%, or meet criteria for an exemption outlined in the Permit (**Permit Condition 19.E.9b**)(4). These requirements apply even when the finishing material does not have a maximum VOC content specified by Table 342-1. Rather, this requirement applies to **finishing material**, which is defined in County Rule 342 §216 as "A coating other than one designed solely or principally as an adhesive, temporary maskant, and/or preservative. For wood furniture and fixtures, finishing materials include, but are not limited to, topcoats, sealers, primers, stains, basecoats, washcoats, enamels, toners, glazes, and graining inks."

In addition the Permittee may only use a conventional air-atomized spray gun under certain circumstances: for application of materials with a VOC content not exceeding 1 lb VOC/ lb solids, for touch-up and repair as outlined in the permit conditions, or to apply less than 5%, **by volume**, of all coating.

c) Material Containment (**Permit Conditions 19.D.7 and 8**)

The Permittee is required to collect solvent used in cleaning and store it in non-leaking containers, closed when not in use.

The Permittee is also required to cover and keep covered any VOC-containing materials intended for the day's production, when not in use. The Permittee shall keep VOC-containing materials including but not limited to rags, waste coatings, waste solvents and their residues, in closed containers which are legibly labeled with their contents and which remain covered when "not in use."

For the purposes of this permit condition, the Department has discretion as to the definition of "not in use." Generally, any VOC-containing rags should be considered "not in use" during breaks, lunch, or any time that production stops for more than **10 minutes**. Rags that are used for staining that will be reused with a darker stain, may be considered "in use," even when an operator is not directly handling such rags, at the inspectors discretion. The Permittee should plan production so that the rags that will be reused are not left uncovered for an extended period of time. If production can not be planned in such a manner, the Permittee should place the rags that will be reused in a covered container labeled for reuse.

- d) Appendices of County Rule 342 (Averaging, Small Coating Source, ECS for VOCs)

AF Lorts does not average at this time. Therefore, the requirements for averaging (County Rule 342 Appendix A) have not been included in the permit conditions at this time. Should the Permittee decide to average, the Permittee shall submit a modification to the permit for the incorporation of the averaging requirements.

AF Lorts is a major source of VOC's, therefore the simplified provisions of Appendix B of County Rule 342 do not apply. At this time AF Lorts does not use an Emissions Control System to limit the emission of VOCs at the facility; therefore the provisions of Appendix C of County Rule 342 do not apply. Should the Permittee decide to install an Emissions Control System, the Permittee will request approval for the system from the Control Officer through a permit revision.

2. Monitoring for Compliance

- a) VOC Content Limitations (**Permit Condition 20.D.1) and 2)**)

The Permittee will monitor for compliance with these limits by maintaining a current list of materials with each material's VOC content and will maintain **daily** records indicating the amount and VOC content of each day's use of topcoat, sealer, or booth material that **exceeds** the applicable VOC limits, above. Again, a Permittee need not maintain daily records of the amount and VOC content of the listed coating unless the coatings exceed the applicable limits of County Rule 342 §§301 and 304.

- b) Spray Equipment for Coating Wood Furniture (**Permit Condition 20.D.4)**)

To monitor for compliance with the spray equipment requirements, OakCraft is required to maintain records associated with the use of any conventional air-atomized spray equipment and other restricted-use guns. These records will include the amount of coating with a VOC content exceeding 1 pound VOC/lb solid used by each such gun, updated daily. The records will also show the total volume of coating applied with such guns in six months, divided by total volume of all coatings used in the same period to come up with the percent of coatings applied with these guns. All of the results will be logged and available for inspection upon request of the control officer.

F. Reporting Requirements (Permit Condition 21)

Reporting requirements for AF Lorts are found in the General Conditions of the permit (Subsections 1-17), Subsection 21 of the permit, and in each of the Subsections 22 - 25.

Subsection 21.A requires the submission of a semi-annual monitoring report, including deviation reporting. That section of the report should be very detailed and should include information such as any day, week or month that any monitoring was required but not performed, a reason for those deviations, and any action taken to ensure that the monitoring will be performed in the future. Additionally, deviations from specified operating ranges or emission limitations or standards should be included, with any additional information

IV. POTENTIALLY APPLICABLE REQUIREMENTS

This permit contains conditions for Solvent Cleaning (County Rule 331), Architectural Coating (County Rule 335) and Dust Generating (County Rule 310). These permit conditions have been included to make the Permittee aware of the applicable requirements should these activities be conducted at the facility. .

Note that the "list" mentioned in the Architectural Coating monitoring section (**Permit Condition 23**) could simply be a compilation of current MSDS sheets.

V. HAPS MODELING

Screen3 modeling was conducted for Toluene, Xylene, Glycol Ether, Methanol, Ethyl Benzene, MEK, and Naphthalene according to MCESD "Air Toxics/Hazardous Air Pollutant Permitting Procedures" (2/29/00 Draft). Toluene emission rate is the highest of the other HAPS per the application. The maximum concentration of Toluene for the 1hr concentration is 84.66 ug/m³, 33.86 ug/m³ for the 24hr, and 6.77ug/m³ for the annual per the screen3 results. When compare to the AAAQGs of 4400 ug/m³ for 1hr, 3000ug/m³ for 24hr, and no annual guidance number. The 1hr, 24hr, and annual concentrations are not exceeded. Methanol's 1hr concentration is 45.03 ug/m³, 24hr concentration is 18.0 ug/m³, and annual concentration is 3.6 ug/m³. MEK's 1hr concentration is 27.02 ug/m³, 24hr concentration is 10.8 ug/m³, and annual concentration is 2.16 ug/m³. Xylene, Glycol Ether, and Naphthalene's 1hr concentration is 11.35 ug/m³, 24hr concentration is 4.54 ug/m³, and annual concentration is .908 ug/m³. Comparing these numbers to the AAAQG's listed in the table below the above

listed HAPs do not exceed the AAAQG's.

	Toluene	Toluene	Xylene	Glycol Ether	Methanol	Ethyl Benzene	MEK	Naphthalene
Ug/m ³	Predicted	AAAQGs	AAAQGs	AAAQGs	AAAQGs	AAAQGs	AAAQGs	AAAQGs
Max 1-hr	84.66	4400	5400	3600	2600	4500	7400	630
24 hr	33.86	3000	3500	950	2100	3500	4700	400
Annual	.77	No Listing	No Listing	No Listing	No Listing	No Listing	270	No Listing

VI. CAM APPLICABLE REGULATIONS

Compliance Assurance Monitoring (CAM) (40 CFR 64)
 AF Lorts submitted a complete Title V application before April 19, 1998 and is not major after controls therefore CAM is delayed until the permit is renewed.

VII. TESTING REQUIREMENT

The permit contains a compliance plan to replace the cyclones with a different control technology to ensure compliance with County Rule 311. The permit does not require testing of the cyclones. The compliance schedule requires that AF Lorts perform a performance test once the new control technology is installed.

County Rule 220 Section 309 has granted the Control Officer the authority to impose any permit conditions that are necessary to ensure compliance with federal laws, Arizona laws, or the Maricopa County Rules.

DRAFT Revision Technical Support Document
AF Lorts Manufacturing Company, Inc.
Permit Number V99-006
Significant Permit Revision S05-003
June 2, 2006

1. APPLICANT FACILITY ADDRESS

AF Lorts Company, Inc.
8120 West Harrison
Tolleson, AZ 85353

2. PROJECT DESCRIPTION

AF Lorts Manufacturing Company, Inc. (Lorts) operates a furniture manufacturing facility at 8120 West Harrison in Tolleson, Arizona. The facility is currently equipped with two (2) cyclones to reduce particulate matter emissions generated by wood working machinery.

Title V Permit V99-006 was issued on January 5, 2005 for the operation of the Lorts facility. The issued and currently valid permit includes a compliance plan at Condition 22.A. This compliance plan requires replacement of the two (2) cyclones with a different control technology to ensure compliance with County Rule 311. The compliance plan also includes a compliance schedule. The first milestone of the compliance schedule requires submittal of a significant permit revision application to authorize the installation of the new control technology. This submittal was required by January 17, 2005.

Lorts submitted an application for a significant permit revision to install a baghouse and replace the existing cyclone system dated January 17, 2005 (marked received January 18, 2005). Lorts has indicated in their application that they intend to replace the cyclones with a MAC baghouse model 144MCF572. This model is described as being rated at 66,000 CFM, having an 8:1 cloth ratio, having 572 polyester bags that measure 4.6' x 144", and a 150 HP fan. Lorts indicates in their application that all woodworking equipment vented to the cyclone system will be vented to the MAC baghouse. The equipment list included as Appendix A to Permit V99-006 indicates which equipment is vented to the control device (currently the cyclones, and soon to be the baghouse).

It should be noted that Lorts had indicated to the Department (in meetings and emails dated April 26, 2005 and July 8, 2005) that they were planning on removing the woodworking equipment from the facility, potentially resulting in changes to applicable requirements. This indication slowed the processing of this permit revision. Lorts has subsequently indicated that they are no longer sure of their plans with regard to the woodworking equipment. Lorts did submit, at the request of the Department, a letter dated March 14, 2006 (marked received March 21, 2006) in which Lorts requests that the Department proceed with the processing of this permit revision (S05-003) as applied for with the submittal dated January 17, 2005. Consequently, the Department is going forward with the processing of the application for Significant Permit Revision S05-003 at this time.

3. FEDERAL NEW SOURCE REVIEW (NSR) / MCAPCR MAJOR SOURCE PERMITTING

3.1 Attainment and Major Source Status

The Lorts facility is located in what was the Phoenix metropolitan 1-hour ozone nonattainment area. On July 18, 1997 (62 FR 38856), EPA revised the ozone NAAQS to establish an 8-hour standard. The 1-hour standard was revoked effective June 15, 2005 for all areas in Arizona (see 40 CFR 81.303 as amended by 70 FR 44470 - 44478) and no longer applies. As a result of the revocation of the 1-hour standard, the 8-hour standard has replaced the 1-hour standard for ozone in the Maricopa County non-attainment area. The Lorts facility is located in an area that has been designated subpart 1 nonattainment for the 8-hour standard (see 40 CFR 81.303). The subpart 1 classification (also referred to as "basic") indicates that the area meets the current 1-hour ozone standard, but does not meet the 8-hr standard.

In accordance with 40 CFR 81.303, the Lorts facility is located in an area designated as serious nonattainment for particulate matter with a nominal aerodynamic diameter smaller than or equal to 10 microns (PM_{10}). The facility is located in an area designated unclassifiable or in attainment with the national standard for carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2) and particulate matter with a nominal aerodynamic diameter smaller than or equal to 2.5 microns ($PM_{2.5}$). The July 1, 2005 version of 40 CFR 81.303 continues to refer to the area as not meeting the standard for Total Suspended Particulate (TSP).

Based on the above listed designations, the major source definitions of the MCAPCR (note that, with the exception of PM_{10} , the major source definitions of the MCAPCR are consistent with those defined for the Federally approved SIP and the delegated PSD program), and the Lorts facility's potential to emit (as limited by permit condition), the facility is a major source of VOC, and a minor source of the remaining criteria pollutants.

Table 3.1-1 (on the following page) summarizes the NSR major source status of the Lorts facility.

Table 3.1-1 Lorts Facility NSR Major Source Status

Pollutant	Attainment Status (Classification)	Major Source Threshold (tpy)	Lorts Facility PTE (tpy)	Major Source Status
Ozone	Nonattainment (Subpart 1)	VOC: 100 NO _x : 100	VOC: 788.4 ^(a) NO _x : 0.33	Major for VOC Minor for NO _x ^(b)
PM ₁₀ / PM ^(c)	Nonattainment (Serious)	70 / 100	13.2 / 19.9 ^(d)	Minor
CO	Attainment	100 / 250	0.28	Minor
SO ₂	Attainment	100 / 250	0.0	Minor
NO ₂	Unclassifiable/ Attainment	100 / 250	0.33	Minor
PM _{2.5}	Unclassifiable/ Attainment	100 / 250	< 13.2	Minor

^(a)The PTE value for VOC is taken from page 2 of Attachment 5 “Potential to Emit Calculations” in the undated “Appendix B” information for what is believed to be an updated portion of the application for Title V Permit V99-006. This value is for demonstration purposes only and, therefore, has not been reviewed.

^(b)Effective April 11, 1995, EPA gave final approval of the Phoenix area NO_x exemption (see 60 FR 19510). This action exempted the Phoenix area from implementing the NO_x requirements for NSR as they relate to attainment of the NAAQS for ozone. The Control Officer did not recognize this waiver, resulting in the application of NSR requirements for NO_x as they relate to ozone nonattainment on the County level only. This NO_x exemption/waiver (see CAA §182f) was approved with respect to the 1-hour ozone standard. According to Phase 2 of the *Final Rule To Implement the 8-Hour Ozone National Ambient Air Quality Standard*, for areas previously granted a NO_x waiver under the 1-hour ozone standard, a petitioner would need to seek a new waiver for purposes of the 8-hour ozone standard (see 70 FR 71662). Approval of such an action has not been finalized to date. Therefore, NSR provisions applicable to major stationary sources of volatile organic compounds also apply to major stationary sources of NO_x.

^(c)PM₁₀ replaced TSP as the particulate matter NAAQS indicator in 1987, and in 1993 EPA revised the PSD particulate matter increments so that the increments are measured in terms of PM₁₀, authorizing EPA to eliminate all area TSP designations. Redesignation was not accomplished for the Phoenix area. As is stated in the May 20, 1992 EPA memorandum on the issue, “it would be prudent to maintain the same area designation for both TSP and PM-10. For example, having an area designated as attainment for TSP and nonattainment for PM-10 would subject the same area to two different new source review analysis.” This is supported by the July 1, 2005 version of 40 CFR 81.303, which continues to refer to the Phoenix area as not meeting the standard for TSP. Thus, for the purposes of this analysis, PM/TSP will be treated as a nonattainment pollutant.

^(d)The listed value is the estimated post-change PTE. It should also be noted that the pre-change PTE for PM and PM₁₀ are below the respective major source thresholds. Details regarding particulate matter emission calculations are presented in Attachment A to this TSD.

3.2 Federal Nonattainment NSR and MCAPCR Major Source Nonattainment Area Permitting Applicability

As indicated in Table 3.1-1, the Lorts facility is located in a nonattainment area for both ozone and PM₁₀. Accordingly, the changes proposed at the facility must be analyzed for Federal nonattainment New Source Review (NNSR) applicability and MCAPCR major source permitting requirements for nonattainment pollutants. Also as indicated in Table 3.1-1, the Lorts facility is a major source of VOC emissions, but a minor source of NO_x and PM₁₀ emissions (before the proposed change and after the proposed change). Accordingly, the nonattainment permitting applicability criteria differ for these pollutants. These criteria are expanded upon below.

3.2.1 Nonattainment Area Permitting Applicability for VOC

For a major source, nonattainment (Federal and county) permitting requirements are triggered when a physical change or change in the method of operation occurs at an existing facility that results in a significant net emissions increase of the nonattainment pollutant for which the source is major (i.e. a major modification).

While the Department has identified that the requested change is a physical change or change in the method of operation of the facility, the Department has also identified that causation does not exist for the proposed changes with regard to a net emissions increase for VOC emissions. The Department has not historically required woodworking sources to disclose the specifics of their processes (i.e., specific product process flows, equipment process rates, worst case coating scenarios, etc.). Therefore, it is not possible to quantitatively evaluate the effect changes to woodworking equipment will have on VOC emissions (i.e., to evaluate the potential for increased utilization of coating processes due to changes to woodworking processes). Therefore, it may be prudent to conservatively assume that each physical change or change in the method of operation of woodworking equipment may reasonably “result in” a VOC emissions increase (i.e., it may be prudent to assume that causation exists unless it is demonstrated otherwise).

However, in the case of this requested change for the replacement of the existing cyclone system with a baghouse, the Department has identified that there is no reason to believe the change will cause increased utilization of the coating equipment located at the facility. A relationship between the particulate matter control system and potential process rate increases has not been established. Although the expected increase in control efficiency will decrease the particulate matter emitted to product produced ratio, the Lorts facility is not currently limited by a short-term or annual particulate matter emission limit. The particulate matter emitting processes must merely meet the process weight rate equation of County Rule 311. Therefore, replacement of the cyclones with a more efficient baghouse will not allow the facility to create more product as a result of an indirect increase in the room beneath a particulate matter emissions cap.

In addition, it has not been identified that the new emission control system will allow the existing woodworking equipment to operate in a more efficient manner. The new system flow characteristics are not expected to result in a significantly better operating environment for the existing equipment, and the cost per unit is not expected to be affected in a significant or quantifiable manner.

Based on these identifications (or, more appropriately, lack of identifications), the Department believes the replacement of the existing cyclone system with a baghouse will not result in a VOC emissions increase at the facility.

Because the proposed change will not result in a VOC emissions increase, calculation of the net VOC emissions increase is unnecessary and nonattainment permitting requirements are not triggered for the proposed change for VOC as a precursor to the formation of ozone.

3.2.2 Nonattainment Area Permitting Applicability for PM₁₀ and NO_x (and PM/TSP)

For a minor source, nonattainment (Federal and county) permitting requirements are triggered if the change to a minor source would increase its emissions to major source levels (see R9-3-101.91c of the State of Arizona Air Pollution Control Administrative Rules and Regulations, as referenced by SIP Rule 21.D (4/17/85) and MCAPCR Rule 240 §210). MCAPCR Rule 240 §210.4 adds the requirement that the change also be significant in addition to increasing emissions to major source levels for sources in a serious or severe ozone nonattainment area, but this requirement does not apply to the Lorts facility due to the current ozone attainment status classification (i.e., because the area is subpart 1/basic nonattainment for ozone, the provisions for serious and severe areas do not apply).

The emissions of PM₁₀ and NO_x associated with the Lorts facility will not exceed the major source levels for these pollutants. The post-change potential to emit (PTE) of PM₁₀ and NO_x are 13.2 and 0.33 tpy respectively. These values compare with the major source thresholds of 70 tpy for PM₁₀ (see MCAPCR Rule 240 §210.1 and note that the major source threshold for PM₁₀ is 100 tpy on the Federal level per R9-3-101.91a of the State of Arizona Air Pollution Control Administrative Rules and Regulations as referenced by SIP Rule 21.D) and 100 tpy for NO_x (see MCAPCR Rule 240 §210.1 and R9-3-101.91a of the State of Arizona Air Pollution Control Administrative Rules and Regulations as referenced by SIP Rule 21.D). Thus, nonattainment permitting requirements are not triggered for the proposed change with respect to PM₁₀ and NO_x emissions.

As mentioned in footnote “b” to Table 3.1-1, PM/TSP is also treated as a nonattainment pollutant for Federal PSD, SIP approved NNSR and County major source permitting purposes. The post-change potential to emit (PTE) of PM/TSP is 19.9 tpy. This value compares with the major source thresholds of 100 tpy for PM (see MCAPCR Rule 240 §210.1 and R9-3-101.91a of the State of Arizona Air Pollution Control Administrative Rules and Regulations as referenced by SIP Rule 21.D). Thus, nonattainment permitting requirements are not triggered for the proposed change with respect to PM/TSP.

3.3 Federal PSD and MCAPCR Major Source Attainment Area Permitting Applicability

Federal Prevention of Significant Deterioration (PSD) applicability and MCAPCR major source permitting requirements for attainment pollutants must also be analyzed for the

proposed change. With regard to MCAQD's delegation/approval status for the Federal PSD program, it is stated in 40 CFR §52.144(a) that "the requirements of Sections 160 through 165 of the Clean Act [PSD permitting requirements] are not met, since the plan as it applies to stationary sources under the jurisdiction of the Pima County Health Department and the Maricopa County Department of Health Services and stationary sources locating on Indian lands does not include approvable procedures for preventing the significant deterioration of air quality." Thus, regulation for preventing significant deterioration of air quality is defined in 40 CFR §52.144(b) which states that "the provisions of §52.21(b) through (w) are hereby incorporated and made a part of the applicable State plan for the State of Arizona for that portion applicable to the Pima County Health Department and the Maricopa County Department of Health Services and sources locating on Indian lands." Therefore, MCAQD must enforce the requirements of 40 CFR 52.21 for Federal PSD purposes.

It must also be noted that the County has established its own requirements for major sources and major modifications to existing major sources in attainment areas as defined in the MCAPCR. Thus, sources must meet the requirements of the Federal program (40 CFR 52.21) as well as the county only requirements of the MCAPCR.

Attainment area permitting applicability criteria differ from the criteria for nonattainment pollutants. Attainment area permitting applicability criteria for modifications also differs depending on the major source status of the source with respect to attainment and noncriteria pollutants. However, once a source is major for a single regulated NSR pollutant (nonattainment, attainment or noncriteria – see the May 4, 1995 letter from John S. Seitz of the USEPA to Mr. Robert Kalish of the Dow Chemical Company) as is the case for the Lorts facility for VOC, the applicability criteria is defined for each attainment or noncriteria pollutant. Therefore, the discussion here will be limited to the applicability criteria for a major source of at least one regulated NSR pollutant.

The applicability criteria for Federal PSD and MCAPCR attainment area permitting differ. The following discussion is separated accordingly.

3.3.1 Federal PSD Applicability for a Major Source of One or More Regulated NSR Pollutants

Federal PSD permitting requirements are triggered by any physical change or change in the method of operation of a major stationary source that would result in: (1) a significant emissions increase of a regulated NSR pollutant; and (2) a significant net emissions increase of that pollutant from the major stationary source (i.e. a major modification as defined at 40 CFR 52.21(b)(2)(i)).

While the Department has identified that the requested change is a physical change or change in the method of operation of the facility, the Department has also identified that causation does not exist for the proposed changes with regard to an emissions increase of attainment or noncriteria pollutants (it is important to emphasize that the following discussion applies to pollutants other than VOC and particulate matter). The only identified source of relevant pollutants (see Table 3.3-1 for a list of relevant pollutants) is the combustion of natural gas in the drying oven associated with the coating process. The Department has not historically required woodworking sources to

disclose the specifics of their processes (i.e., specific product process flows, equipment process rates, worst case coating scenarios, etc.). Therefore, it is not possible to quantitatively evaluate the effect changes to woodworking equipment will have on the coating process (i.e., to evaluate the potential for increased utilization of coating processes due to changes to woodworking processes). Therefore, it may be prudent to conservatively assume that each physical change or change in the method of operation of woodworking equipment may reasonably “result in” an emissions increase of pollutants associated with the coating process (i.e., it may be prudent to assume that causation exists unless it is demonstrated otherwise).

However, as discussed in Section 3.2.1 above, in the case of this requested change for the replacement of the existing cyclone system with a baghouse, the Department has identified that there is no reason to believe the change will cause increased utilization of the coating equipment located at the facility. A relationship between the particulate matter control system and potential process rate increases has not been established and it has not been identified that the new emission control system will allow the existing woodworking equipment to operate in a more efficient manner. Based on these identifications (or, more appropriately, lack of identifications), the Department believes the replacement of the existing cyclone system with a baghouse will not result in an emissions increase of at the facility.

Because the proposed change will not result in an emissions increase of the relevant pollutants, calculation of the net emissions increases of attainment or noncriteria pollutants is unnecessary and Federal PSD permitting requirements are not triggered for a regulated NSR pollutant as a result of the proposed changes. Table 3.3-1 lists the relevant pollutants for reference.

Table 3.3-1 List of Attainment or Noncriteria Pollutants

Pollutant^(a)	Significant Rate
Carbon Monoxide	100 tpy
Nitrogen Oxides	40 tpy
Sulfur Dioxide	40 tpy
Lead	0.6 tpy
Fluorides	3 tpy
Sulfuric Acid Mist	7 tpy
Hydrogen Sulfide	10 tpy
Total Reduced Sulfur	10 tpy
Reduced Sulfur Compounds	10 tpy

Table 3.3-1 List of Attainment or Noncriteria Pollutants

Pollutant^(a)	Significant Rate
Municipal Waste Combustor Organics	3.5 e-6 tpy
Municipal Waste Combustor Metals	15 tpy
Municipal Waste Combustor Acid Gases	40 tpy
Municipal Solid Waste Landfills Emissions	50 tpy
Any other regulated NSR pollutant	Any Emission Rate
Any emissions rate or any net emissions increase associated with a major stationary source or major modification, which would construct within 10 kilometers of a Class I area, and have an impact on such area equal to or greater than 1 µg/m ³	
^(a) As indicated at 40 CFR 52.21(a)(2), the Federal PSD provisions apply in an area designated as attainment or unclassifiable. Thus nonattainment pollutants have not been listed in Table 4.3-1, including PM/TSP (see footnote “b” to Table 4.1-1).	

3.3.2 County Attainment Area Permitting Applicability for a Major Source of One or More Conventional Air Pollutants

County attainment area permitting requirements are triggered by any physical change or change in the method of operation of a major source that would result in a significant net emissions increase of any regulated air pollutant (i.e. a major modification as defined at MCAPCR Rule 100 §200.58).

As discussed in Section 3.3.1 above, while the Department has identified that the requested change is a physical change or change in the method of operation of the facility, the Department has also identified that causation does not exist for the proposed changes with regard to an emissions increase of attainment or noncriteria pollutants. Thus, county attainment area permitting requirements are not triggered for the proposed changes.

4. MCAPCR RULE 241 APPLICABILITY

4.1 BACT Applicability

According to MCAPCR Rule 241 §301.2, an applicant for a permit revision subject to MCAPCR Rule 210 must apply BACT to any modified stationary source if the modification causes an increase in emissions of more than 150 lbs/day or 25 tons/yr of volatile organic compounds, nitrogen oxides, sulfur dioxide or particulate matter; more than 85 lbs/day or 15 tons/yr of PM₁₀; or more than 550 lbs/day or 100 tons/yr of carbon monoxide. BACT is only required for the sources or group of sources being modified.

The applicability of Rule 241 is based on the definitions of the MCAPCR and internal policy. Modification is defined at MCAPCR Rule 100 §200.64 to be a physical change in or a change in the method of operation of a source which increases the actual emissions of any regulated air pollutant by more than any relevant de minimis amount (or results in the emissions of any new pollutant by more than such de minimis amount). Per MCAPCR Rule 100 §200.63, the definition of method of operation is included in the definition of operation (see MCAPCR Rule 100 §200.71) and includes any physical action resulting in a change in the location, form, or physical properties of a material, or any chemical action resulting in a change in the chemical composition or properties of a material. The Department has identified that the changes proposed for the Lorts facility constitute a physical change or change in the method of operation as defined by the county rules.

Departmental policy has not been finalized regarding how to identify Rule 241 applicability with regard to whether the “causation”¹ concept is valid. However, due to the fact that the language of Rule 241 §301.2 states that BACT is triggered when “the modification causes and increase in emissions,” it will be assumed in this analysis that the “causation” concept applies to Rule 241 applicability. Thus, as discussed in Section 3.2.1 above, the Department believes the replacement of the existing cyclone system with a baghouse will not result in a VOC emissions increase at the facility.

Departmental policy has also not been finalized regarding the calculation procedure to be used to identify the value of the “increase in emissions” discussed in Rule 241 §§301.2 and 302 for pollutants for which the modification may cause an increase in emissions. However, as shown in Table 4.1-1 above, the post-change PTE for the relevant pollutants other than VOC are below the annual emission rate thresholds that would trigger Rule 241 §301.2 applicability. Thus BACT requirements cannot be triggered on an annual basis.

The daily emission rate thresholds cannot be triggered for the pollutants associated with natural gas combustion only (i.e. NO_x, CO, and SO₂). This is because the oven does not have the capacity to emit at these rates (the causation concept also likely precludes these pollutants from review). With regard to particulate matter emissions, based on the estimated annual PTE for PM and PM₁₀ (see Attachment A and Table 4.1-1) and the methodology used to make these estimates (i.e., the assumption of 8760 hours of operation per year), the facility is not expected to emit particulate matter at rates greater than the daily emission rates that would trigger the BACT requirements of Rule 241.

¹ The NSR regulatory provisions require that a physical or operational change “result in” an increase in actual emissions in order to consider that change to be a modification [see e.g., 40 CFR 52.21(2)(i)]. In other words, NSR will not apply unless EPA finds that there is a causal link between the proposed change and any post-change increase in emissions. This causal link is also referred to as “causation.”

4.2 RACT Applicability

Assuming the causation concept applies, particulate matter is the only pollutant for which the modification may result in an increase in emissions.

The woodworking equipment at the Lorts facility is subject to the requirements of Rule 311. As defined by County Rule 100 §200.89, for facilities subject to Regulation III (which includes Rule 311), the existing source performance standard is considered RACT. Furthermore, the EPA approved and incorporated by reference Rule 311 into the State Implementation Plan on April 10, 1995 as a new rule adopted by the state as RACM (see 60 FR 18010). It should be noted that this action was subsequently vacated by the Ober decision, but restored by an 8/4/97 final EPA action (see 62 FR 41856). Thus, by complying with the requirements of Rule 311, RACT is being implemented.

5. AMBIENT IMPACT ANALYSIS

As discussed in Section 4 above, Federal New Source Review and County Major Source Permitting requirements are not triggered for the proposed changes. Accordingly, the associated ambient impact analysis requirements are not triggered.

Based on the February 29, 2000 Draft Department guidance document entitled “Air Toxics/Hazardous Air Pollutant Permitting Procedure” (HAP Guidance), chemicals emitted in meaningful quantities and listed in the Arizona Ambient Air Quality Guidelines are required to be included in a screening air quality impact analysis. A meaningful quantity is defined as more than 500 pounds per year. The HAP Guidance document also indicates that the outlined procedure applies to the approval of permit revisions for existing sources. However, the document does not elaborate on the specific evaluation process for permit revisions.

A HAPs modeling analysis was performed with the initial issuance of Permit V99-006 (see Section V of the corresponding TSD). The Department has identified that the changes proposed with this permit revision do not warrant revisiting the previous ambient impact analysis (partly due to the lack of a policy indicating the analysis should be revisited, partly because it is unknown how the change will affect HAP emissions, and partly because there is no regulatory significance to the analysis).

6. REVISED PERMIT CONDITIONS

The facility changes discussed in Section 3 are authorized by this significant permit revision through the following changes made to specific permit conditions:

6.1 Permit Condition 19.B

Pre-revision:

Operational Requirements for Cyclones

The Permittee shall install, operate and maintain an approved emission control device on all wood working equipment vented outdoors. Such woodworking equipment shall be vented to the device without bypass.

Post-revision:

Operational Requirements for Woodworking Equipment Vented to Cyclone/Baghouse as identified in Appendix A, Equipment List

The Permittee shall install, operate and maintain an approved emission control device on all woodworking equipment vented to Cyclone/Baghouse as identified in Appendix A, Equipment List. Such woodworking equipment shall be vented to the device without bypass.

Discussion:

The reference to the cyclones only was removed as the operation of the baghouse will replace the operation of the cyclones. The condition was also revised to specify the equipment to which this requirement applies.

6.2 Permit Condition 19.E

Pre-revision:

Did not exist.

Post-revision:

Operational Requirements for MAC Baghouse

- 1) No later than 120 days after approval of Significant Permit Revision S05-003, the Permittee shall operate and maintain the MAC baghouse in accordance with the requirements of the O&M Plan most recently approved in writing by the control officer.*
- 2) The Permittee shall install, operate, and maintain a differential pressure gauge on the MAC baghouse.*
- 3) Measurement of a pressure differential outside of the applicable parametric range of 0.3 to 7 inches of water column for the MAC baghouse shall require the Permittee to investigate and take corrective action if necessary to bring the control device into proper operation.*

Discussion:

As cited in the permit, the requirement to operate and maintain the baghouse in accordance with the requirements of an approved O&M Plan is mandated by County Rule 311 §305 and SIP Rule 311 §306. The requirements to install/operate/maintain a differential pressure gauge and to investigate and take corrective action as necessary when a pressure differential

outside of the applicable parametric range is measured has been included to ensure the control device is properly maintained in compliance with the rule requirements.

6.3 Permit Condition 20.B

Pre-revision:

Monitoring and Recordkeeping Requirements for Cyclones Vented Outdoors that Serve Woodworking Equipment

Post-revision:

Monitoring and Recordkeeping Requirements for Cyclones and the MAC Baghouse that Serve Woodworking Equipment

Discussion:

This condition was revised to reflect the future operation of the Baghouse.

6.4 Permit Condition 20.B.2)

Pre-revision:

The Permittee shall conduct a facility walk-through twice daily and observe visible emissions from the cyclones.

Post-revision:

The Permittee shall conduct a facility walk-through twice daily and observe visible emissions from the cyclones until such time that the MAC baghouse completely replaces the cyclones in operational function (i.e., the cyclones are no longer serving to reduce particulate matter emissions from a single emission unit). Once the MAC baghouse becomes operational, the Permittee shall conduct a facility walk-through once each day the facility operates and observe visible emissions from the MAC baghouse. The term “operational” for this condition shall mean the first instance that the MAC baghouse is serving to reduce particulate matter emissions from one or more emission units.

Discussion:

The condition was revised to reflect the future operation of the Baghouse. This condition ensures the permittee will perform sufficient monitoring of the control device to allow evaluation of the permittee’s compliance with the applicable requirements. It should be pointed out that the frequency of visible emissions observations is reduced from twice daily for the cyclones to once per day for the baghouse. This reduction in frequency is consistent with what was done for Permit V97-014 (Woodcase). Permit V97-014 Condition 20.B.3 states that “the Permittee shall conduct a facility walk-through twice daily and observe visible emissions from the cyclone. This condition shall no longer apply once the new control technology replaces the cyclone in accordance with the Compliance Plan of this permit.”

Permit V97-014 Condition 20.B.4 then goes on to require daily visible emissions observations for the new baghouse. The once per day requirement for visible emissions observations for the baghouse is also consistent with Permits V97-004 (Mastercraft), V99-005 (Thornwood), and V99-007 (OakCraft).

6.5 Permit Condition 20.B.5)

Pre-revision:

If visible emissions are observed from the cyclones and the problem isn't corrected within twelve (12) hours of the observation the Permittee shall investigate the problem, document the findings, and provide a description of the corrective action taken to bring the control device into proper operation. In addition the Department may require the Permittee to submit a Corrective Action Plan (CAP).

Post-revision:

If visible emissions are observed from the cyclones and/or MAC baghouse and the problem isn't corrected within twelve (12) hours of the observation the Permittee shall investigate the problem, document the findings, and provide a description of the corrective action taken to bring the control device into proper operation. In addition the Department may require the Permittee to submit a Corrective Action Plan (CAP).

Discussion:

This condition was revised to reflect the future operation of the Baghouse.

6.6 Permit Condition 20.B.6)

Pre-revision:

The Control Officer may require the CAP contain one or more of the following elements:

- a) Improved preventive maintenance practices.*
- b) Improved cyclone operating practices.*
- c) Process operation changes.*
- d) Other actions appropriate to improve cyclone performance.*
- e) Schedule for CAP implementation and periodic reporting on the progress of CAP implementation.*

Post-revision:

The Control Officer may require the CAP contain one or more of the following elements:

- a) Improved preventive maintenance practices.*
- b) Improved cyclone and/or MAC baghouse operating practices.*
- c) Process operation changes.*
- d) Other actions appropriate to improve cyclone and/or MAC baghouse performance.*
- e) Schedule for CAP implementation and periodic reporting on the progress of CAP implementation.*

Discussion:

This condition was revised to reflect the future operation of the Baghouse.

6.7 Permit Condition 20.B.7)

Pre-revision:

The Permittee shall operate and maintain each cyclone in accordance with the requirements of the Operations and Maintenance (O&M) Plan for that piece of equipment most recently approved in writing by the control officer.

Post-revision:

The Permittee shall operate and maintain each cyclone in accordance with the requirements of the Operations and Maintenance (O&M) Plan most recently approved in writing by the control officer until such time that the MAC baghouse completely replaces the cyclones in operational function (i.e., the cyclones are no longer serving to reduce particulate matter emissions from a single emission unit).

Discussion:

This condition was revised to reflect the future operation of the MAC Baghouse.

6.8 Permit Condition 20.B.8)

Pre-revision:

Did not exist.

Post-revision:

Once the MAC baghouse becomes operational, daily pressure differential readings shall be taken and recorded for the MAC baghouse every day that the facility operates. The Permittee shall log all pressure differential readings by recording the date when the reading was taken, the identity of the baghouse, the name or initials of the person who took the reading, the value of the pressure differential (or range of values), and any other related information. The Permittee shall investigate the cause of any pressure differential reading outside of the range of 0.3 to 7 inches of water column to identify, correct or repair the problem and record in a log book the cause of the problem and the corrective action initiated to remedy the abnormal pressure differential reading. The term "operational" for this condition shall mean the first instance that the baghouse is serving to reduce particulate matter emissions from one or more emission units.

Discussion:

The requirement to take daily pressure differential readings has been included to ensure sufficient periodic monitoring is performed to allow evaluation of the permittee's compliance with the applicable requirements. The requirement to investigate and take corrective action as necessary when a pressure differential outside of the applicable parametric range is measured has been included to ensure the control device is properly operated and maintained to promote compliance with the rule requirements.

6.9 Permit Condition 20.B.9)

Pre-revision:

Did not exist.

Post-revision:

If the frequency of measurement of a pressure differential outside the pressure differential range of 0.3 to 7 inches of water column for the MAC baghouse or other information indicate that the baghouse is not being operated in accordance with the O&M plan most recently approved by the Control Officer, the Department may require the Permittee to submit a CAP.

Discussion:

This requirement has been added to ensure compliance with applicable regulations.

6.10 Permit Condition 22.A

Pre-revision:

The Permittee shall install a different control technology to ensure compliance with County Rule 311 in accordance with the following compliance schedule.

<i>Milestones</i>	<i>Completion Date</i>
<i>Prepare and submit a significant permit revision application for new control technology.</i>	<i>1-17-2005</i>
<i>Purchase Control technology and have the equipment on-site</i>	<i>No later than 90 days after approval of the <u>permit revision</u> by MCAQD</i>
<i>Installation of Control technology</i>	<i>No later than 120 days after approval of the <u>permit revision</u> by MCAQD</i>
<i>Submit Test Protocol to Maricopa County in accordance with County Rule 270.</i>	<i>No later than <u>180</u> days after approval of the <u>permit revision</u> by MCAQD</i>
<i>Conduct Performance Test in accordance with EPA Test Method 5.</i>	<i>No later than <u>240</u> days after approval of the <u>permit revision</u> by MCAQD</i>
<i>Submit Test Report to Maricopa County Department of Air Quality</i>	<i>No later than <u>270</u> days after approval of the <u>permit revision</u> by MCAQD</i>

Post-revision:

The Permittee shall install a different control technology to ensure compliance with County Rule 311 in accordance with the following compliance schedule.

<i>Milestones</i>	<i>Completion Date</i>
<i>Prepare and submit a significant permit revision application for new control technology.</i>	<i>1-17-2005</i>
<i>Purchase Control technology and have the equipment on-site</i>	<i>No later than 90 days after approval of <u>Significant Permit Revision S05-003</u> by MCAQD</i>
<i><u>Installation of Control technology and Submission of a notification of the capability to operate the baghouse at its maximum production rate on a sustained basis to the Control Officer (“Capability to operate the baghouse at its maximum production rate on a sustained basis” in this instance means that the baghouse is actively serving to reduce particulate matter emissions from every item of woodworking equipment required to be vented to the baghouse as listed in Appendix A of this permit)</u></i>	<i>No later than 120 days after approval of <u>Significant Permit Revision S05-003</u> by MCAQD</i>
<i>Submit Test Protocol to Maricopa County in accordance with County Rule 270.</i>	<i><u>Within 30 days after the baghouse has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 150 days after approval of <u>Significant Permit Revision S05-003</u> by MCAQD</u></i>
<i>Conduct Performance Test in accordance with EPA Test Method 5.</i>	<i><u>Within 60 days after the baghouse has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 180 days after approval of <u>Significant Permit Revision S05-003</u> by MCAQD</u></i>
<i>Submit Test Report to Maricopa County Department of Air Quality</i>	<i><u>Within 90 days after the baghouse has achieved the capability to operate at its maximum production rate on a sustained basis but no later than 210 days after approval of <u>Significant Permit Revision S05-003</u> by MCAQD</u></i>

Discussion:

Reference to this specific permit revision, S05-003, has been added to the completion dates for clarification. A requirement to submit a notification of the “capability to operate the baghouse at its maximum production rate on a sustained basis” has been added consistent with the requirements of MCAPCR Rule 270 §401 and the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” (i.e., because both the rule and guidelines identify the testing timeframe based on this occurrence, the requirement to report on this occurrence was added). The definition of “capability to operate the baghouse at

its maximum production rate on a sustained basis” has been included to further clarify the status of the baghouse required by this milestone.

An attempt has also been made to make the subsequent milestones and completion dates consistent with both MCAPCR Rule 270 §401 and the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements”. Consistency was possible with regard to completion dates defined by the “capability to operate the baghouse at its maximum production rate on a sustained basis”. Thus these completion dates have been added.

However, because the Rule language and the Department’s guidelines differ with regard to the maximum amount of time allowed for the milestone completion dates (i.e., MCAPCR Rule 270 §401 requires the test to be conducted and report submitted within 180 days after initial start-up, where the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” requires the test to be conducted and report submitted within 180 days after permit issuance), the maximum amount of time was made as consistent as possible with the Department’s guidelines and what had already been approved into the compliance schedule with the issuance of Permit V99-006. The discrepancy being that the original compliance schedule allowed 90 days to purchase the equipment and 120 days to install the baghouse. According to the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements”, the schedule should require the Permittee to purchase, install and operate the equipment within 90 days of permit issuance (which is assumed to include revision approval) in order to allow the test protocol to be submitted, the test to be performed, and the test report to be submitted within 180 days of permit issuance.

Therefore, in the spirit of compromise, the original compliance schedule completion dates for equipment purchase and installation have been retained. However, the outside completion dates for test protocol submittal, test performance, and test report submittal have been revised to be consistent with the 30, 60 and 90 day relative timeframe of the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements”.

6.11 Permit Condition 23.A²

² Note that it would not typically be advisable to insert a new permit condition in a permit and assign the new condition the same condition number as a permit condition that already exists, and renumber all subsequent conditions upon revision – i.e., typically the new testing conditions should not be inserted as Condition 23 with the existing Condition 23, Solvent Cleaning, being renumbered to 24 with the same being done for the subsequent permit conditions for Dust Generating Activities and Architectural Coating. Referencing problems would likely be created for past versions of the TSD and associated correspondence. However, upon closer examination, it was found that Permit V99-006 was actually issued with a Condition 23 (Solvent Cleaning), a Condition 25 (Dust Generating Activities), and a Condition 26 (Architectural Coating), but no Condition 24, even though the Table of Contents reflects a Condition 24 (Dust Generating Activities), a Condition 25 (Architectural Coating) and no Condition 26. Therefore, in order to address this discrepancy as well as fit the testing requirements into the specific conditions section prior to support activities, Condition 23 has been changed to “Testing”, Solvent Cleaning has been moved from Condition 23 to Condition 24, and Conditions 25 and 26 have been left as Dust Generating Activities and Architectural Coating respectively. The Table of Contents has been updated to accurately reflect the permit conditions. These changes are not expected to cause referencing problems as the January 4, 2005 TSD does not refer to the affected permit conditions with the exception of an inaccurate reference to “Architectural Coating” as Condition 23 on page 10 in the Potentially Applicable Requirements section.

Pre-revision:

Did not exist in a relatable form (see Footnote 2).

Post-revision:

TESTING REQUIREMENT: The Permittee shall conduct a performance test on the MAC baghouse in accordance with the compliance schedule detailed in Condition 22.A.

- 1) *MAC Baghouse: The Permittee shall measure the PM₁₀ concentrations in the baghouse inlet and exhaust streams to demonstrate compliance with a minimum PM₁₀ removal efficiency of 99% by weight. Alternatively, the Permittee can measure the PM concentration in the exhaust stream of the baghouse to demonstrate compliance with the particulate matter emission limits of County Rule 311 and Condition 18.A.2)a)(1) of these permit conditions.*

Discussion:

The schedule related to testing is defined in the compliance schedule of Condition 22.A. As discussed in Section 6.10 above, the schedule has been revised to be as consistent as possible with both MCAPCR Rule 270 §401 and the Department's "Standardized Permit Condition Guidelines for Performance Test Requirements".

With regard to the baghouse testing requirement, the Department has historically given permittees operating woodworking facilities the option of testing particulate matter control devices to demonstrate compliance with a minimum PM₁₀ removal efficiency or to demonstrate compliance with the particulate matter emission limits of County Rule 311. In this instance, both options are also given to Lorts. Because a PM₁₀ removal efficiency of 99% was used to calculate the particulate matter PTE and to demonstrate compliance with the particulate matter emission limits of County Rule 311 (see Attachment A), a performance test that demonstrates that the baghouse can achieve this PM₁₀ removal efficiency will both verify the PTE emission calculations and demonstrate compliance with the PM emission limits of County Rule 311. Alternatively, a performance test that demonstrates compliance with the particulate matter emission limits of County Rule 311 does just that (however, the Department believes that the available data regarding expected baghouse efficiencies such as AP-42 Appendix B.2 Table B.2-3 is sufficient to assume a 99% PM₁₀ removal efficiency for the baghouse in lieu of source specific testing for this value).

6.12 Permit Condition 23.B²

Pre-revision:

Did not exist in a relatable form (see Footnote 2).

Post-revision:

TESTING CRITERIA: Performance tests shall be conducted and data reduced in accordance with the test methods and procedures specified unless the Control Officer and Administrator

specifies or approves minor changes in methodology to a reference method, approves the use of an equivalent test method, approves the use of an alternative method that has been determined to be acceptable for demonstrating compliance, or waives the requirement for performance tests because the Permittee has demonstrated by other means that the source is in compliance with the standard.

Discussion:

This language is taken directly from the Department's "Standardized Permit Condition Guidelines for Performance Test Requirements" and incorporates the requirements of County Rule 270 §402 and SIP Rule 27 §B as cited in the permit.

6.13 Permit Condition 23.C²

Pre-revision:

Did not exist in a relatable form (see Footnote 2).

Post-revision:

TEST METHODS: Sampling sites and velocity traverse points shall be selected in accordance with EPA Test Method 1 or 1A. The gas volumetric flow rate shall be measured in accordance with EPA Test Method 2, 2A, 2C, 2D, 2F, 2G or 19. The dry molecular weight shall be determined in accordance with EPA Test Method 3, 3A or 3B. The stack gas moisture shall be determined in accordance with EPA Test Method 4. These methods must be performed, as applicable, during each test run.

- 1) *MAC Baghouse: PM₁₀ testing shall be conducted in accordance with EPA Test Method 201A. PM testing shall be conducted in accordance with EPA Test Method 5.*

Discussion:

This language is taken directly from the Department's "Standardized Permit Condition Guidelines for Performance Test Requirements" and incorporates the requirements of County Rule 270 §301.1 and SIP Rule 27 §B as cited in the permit. As indicated in the Department's "Standardized Permit Condition Guidelines for Performance Test Requirements", EPA Test Method 202 is not required for PM₁₀ testing as the presence of condensables is not anticipated.

6.14 Permit Condition 23.D²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

OPERATING CONDITIONS: Performance tests shall be conducted under representative operating conditions and all equipment shall be operated during testing in accordance with the most recently approved O&M Plan or according to its operations manual if no O&M Plan is required. The Permittee shall make available to the Control Officer any records necessary to determine appropriate conditions for performance tests. Operations during periods of startup, shutdown, and equipment malfunction shall not constitute representative conditions for performance tests unless otherwise specified in the applicable standard or permit conditions.

Discussion:

This language is taken directly from the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” and incorporates the requirements of County Rule 270 §403 as cited in the permit.

6.15 Permit Condition 23.E²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

MONITORING REQUIREMENTS: The Permittee shall record all process and control equipment information that are necessary to document operating conditions during the test and explain why the conditions represent normal operation. Operational parameters shall be monitored and recorded at least once every 30 minutes during each of the required test runs and documented in the test report. The operational parameters monitored shall be capable of indicating that the equipment is operating within the permitted limits, both during and after the performance tests.

- 1) *MAC Baghouse: The Permittee shall record the material input and baghouse pressure drop during the performance test. This and any additional operational parameters shall be identified in the test protocol and recorded during testing.*

Discussion:

This language is taken directly from the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” and incorporates the requirements of County Rule 270 §301.1 and SIP Rule 27 §B as cited in the permit. Specifically, this condition calls out some of the key procedures to be used for data recording during the performance test as required in the Arizona Testing Manual.

6.16 Permit Condition 23.F²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

TEST PROTOCOL SUBMITTAL: The Permittee shall submit a separate test protocol for each performance test to the Department for review and approval at least 30 days prior to each performance test. The test protocol shall be prepared in accordance with the Department's "Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County" dated June 17, 2005. A completed copy of the Department's "Test Protocol Submittal Form" shall accompany each test protocol.

Discussion:

This language is taken directly from the Department's "Standardized Permit Condition Guidelines for Performance Test Requirements" and incorporates the requirements of County Rule 270 §301.1 and SIP Rule 27 §B as cited in the permit. Specifically, this condition clarifies some of the key procedures to be used for test protocol submittal as required in the Arizona Testing Manual.

6.17 Permit Condition 23.G²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

NOTICE OF TESTING: The Permittee shall notify the Department in writing at least two weeks in advance of the actual date and time of each performance test so that the Department may have a representative attend.

Discussion:

This language is taken directly from the Department's "Standardized Permit Condition Guidelines for Performance Test Requirements" and incorporates the requirements of County Rule 270 §404 as cited in the permit.

6.18 Permit Condition 23.H²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

TESTING FACILITIES REQUIRED: The Permittee shall install any and all sample ports or platforms necessary to conduct the performance tests, provide safe access to any platforms and provide the necessary utilities for testing equipment.

Discussion:

This language is taken directly from the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” and incorporates the requirements of County Rule 270 §405 and SIP Rule 42 as cited in the permit.

6.19 Permit Condition 23.I²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

MINIMUM TESTING REQUIREMENTS: Each performance test shall consist of three separate test runs with each test run being at least one hour in duration unless otherwise specified in the applicable standard or in this permit. The same test methods shall be conducted for both the inlet and outlet measurements, if applicable, which must be conducted simultaneously. Emissions rates, concentrations, grain loadings, and/or efficiencies shall be determined as the arithmetic average of the values determined for each individual test run. Performance tests may only be stopped for good cause, which includes forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the Permittee’s control. Termination of a performance test without good cause after the first test run has commenced shall constitute a failure of the performance test.

Discussion:

This language is taken directly from the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” and incorporates the requirements of County Rule 270 §406 as cited in the permit.

6.20 Permit Condition 23.J²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

TEST REPORT SUBMITTAL: The Permittee shall complete and submit a separate test report for each performance test to the Department within 30 days after the completion of testing. The test report shall be prepared in accordance with the Department’s “Air Quality Performance Test Guidelines for Compliance Determination in Maricopa County” dated June 17, 2005. A completed copy of the Department’s “Test Report Submittal Form” shall accompany each test report.

Discussion:

This language is taken directly from the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” and incorporates the requirements of County Rule 270 §301.1 and SIP Rule 27 §B as cited in the permit. Specifically, this condition clarifies some of the key procedures to be used for test report submittal as required in the Arizona Testing Manual.

6.21 Permit Condition 23.K²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

COMPLIANCE WITH EMISSION LIMITS: Compliance with allowable emission limits and standards shall be determined by the performance tests specified in this permit. If test results do not demonstrate compliance with the requirements of these permit conditions, the Permittee shall make the necessary repairs and/or adjustments to the equipment and demonstrate compliance through retesting. This will not nullify the fact that test results did not demonstrate compliance with the requirements of the permit conditions or nullify any violations that may result from this noncompliance. In addition to compliance demonstrations, test results shall be used for annual emissions inventory purposes, if applicable.

Discussion:

This language is taken directly from the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” and incorporates the requirements of County Rule 270 §407 as cited in the permit.

6.22 Permit Condition 23.L²

Pre-revision:

Did not exist (see Footnote 2).

Post-revision:

All test extension requests, test protocols, test date notifications, and test reports required by this permit shall be submitted to the Department and addressed to the attention of the Performance Test Evaluation Supervisor.

Discussion:

This language is taken directly from the Department’s “Standardized Permit Condition Guidelines for Performance Test Requirements” and incorporates the requirements of County Rule 270 §301.1 and SIP Rule 27 §B as cited in the permit. Specifically, this condition

clarifies some of the key procedures to be used for performance test related deliverables as required in the Arizona Testing Manual.

6.23 Renumbering of Specific Conditions for Support Activities

See Footnote 2 for a discussion of the renumbering of the specific conditions for Support Activities.

6.24 Appendix A – Equipment List

The Equipment List was updated to reflect the future operation of the baghouse (i.e., the MAC Baghouse was added to the equipment list and reference to the baghouse is now made for the control device to which woodworking equipment is vented).

Attachment A

Particulate Matter Emission Calculations

Particulate Matter Emissions Estimates

The proposed changes at the Lorts facility will affect the particulate matter emissions profile. The following sections discuss the pre-change and post-change potential to emit particulate matter for the Lorts facility, and present a demonstration of compliance with the particulate matter emissions limit of County Rule 311.

A.1 Pre-change Potential to Emit

Permit V99-006 contains applicable requirements related to particulate matter (PM). The permit does not contain a facility-wide PM emission limit. However, the process weight rate equation of Rule §301.1 is a standard that applies to PM emissions. The permit does not contain a facility-wide PM₁₀ emission limit or any other standard related to PM₁₀. However, PM₁₀ is also a pollutant which may trigger regulatory requirements (e.g., County Rule 241). As a result, a characterization of both PM and PM₁₀ emissions is required for the facility.

PM and PM₁₀ emissions are emitted from multiple processes at the AF Lorts facility. It is assumed that the regulated activities can be divided into woodworking operations, coating and wood waste loading. The methodology used to estimate emissions from these processes is discussed below.

A.1.1 Woodworking Operations

The TSD for the original issuance of Title V Permit Number V99-006 included a methodology for estimating particulate matter emissions based on the weight of particulate matter captured by control equipment and assumed efficiencies for the capture and control equipment.

A draft report entitled "Estimating Emissions from Generation and Combustion of 'Waste' Wood," (North Carolina Report) by the North Carolina Department of Environment and Natural Resources was used to estimate the fraction of wood waste that may qualify as particulate matter.

The North Carolina Report gives an estimate of the percentage of wood waste generated by various processes at a woodworking facility. The data provided in the North Carolina Report are summarized in Table A.1.1-1.

Table A.1.1-1

Process	Contribution to Total Wood Waste Generated
Rough Sawing	20%
Fine Sawing	30%
Sanding	20%
Molding (hog)	40%

That North Carolina Report also estimates the percentages of wood waste generated by a process that is regulated as particulate matter (material which has a nominal aerodynamic diameter smaller than 100 microns) and a smaller fraction assumed to be representative of PM₁₀. This data is summarized in Table A.1.1-2.

Table A.1.1-2

Process	PM₁₀₀ Fraction	PM₁₀ Fraction
Rough Sawing	18%	1.89%
Fine Sawing	31%	0.37%
Sanding	76%	23.8%
Molding	5.2%	0

The total percentage of wood waste generated at a woodworking facility that is regulated as PM₁₀ and PM can be estimated by multiplying the percentage of the wood waste generated by a process by the percentage of that wood waste that is PM₁₀ and PM₁₀₀. These calculations for the values given in the North Carolina Report are illustrated in Table A.1.1-3.

Table A.1.1-3 Calculation of Percentage of Wood Waste That is PM and PM₁₀

Process	Contribution to Total Wood Waste Generated	PM₁₀ Fraction	PM Fraction	Contribution to Total PM₁₀ Fraction	Contribution to Total PM Fraction
	<i>[A]</i>	<i>[B]</i>	<i>[C]</i>	<i>[A]*[B]</i>	<i>[A]*[C]</i>
Rough Sawing	20%	1.89%	18%	0.4%	3.6%
Fine Sawing	30%	0.37%	31%	0.1%	9.3%
Sanding	20%	23.8%	76%	4.8%	15.2%
Molding	40%	0	5.2%	0%	2.1%
Total:	110% ^(a)			5.3%	30.2%

^(a) The total printed in the North Carolina Report is 100%. However, the values in column A are accurate representations of the values listed in the North Carolina Report for the individual processes (i.e., the total listed in the North Carolina Report does not reflect the sum of the values for the individual processes listed in the North Carolina Report). The reason for this discrepancy is unknown.

Data related to the amount of wood waste collected at the Lorts facility was provided for both the original Title V processing and for Significant Revision S05-003. The value provided in the original Title V TSD was 569.25 tons with indication given that the value was for 2003.

The value provided with the Significant Revision S05-003 application was 632.625 tons and was indicated to be the average of wood waste collected for calendar years 2002 and 2003. The discrepancy between these two values alludes to the inexactness of this methodology. The value for wood waste collected can be combined with an assumed capture efficiency for the control system to estimate the amount of actual wood waste generated at the facility. Assuming the control system is 100% efficient at capturing wood waste (based on historical assumptions), the actual mass of wood waste generated as an annual average for 2002 and 2003 can be calculated as follows:

$$\text{Actual Wood Waste Generated} = \text{Wood Waste Collected} / \text{Capture Efficiency}$$

$$632.625 \text{ tons} = 632.625 \text{ tons} / 100\%$$

It is important to note that the wood waste generated does not include the particulate matter that is emitted to the atmosphere. The total wood-related material lost from the process (W_T) can be calculated as:

$$W_T = W_{WG} + W_A \quad \text{Equation A.1.1-1}$$

Where W_{WG} represents the amount of wood waste generated, and W_A represents the amount of wood emitted to the atmosphere (or particulate matter emissions). W_A can be represented in terms of the fraction of total wood-related material lost from the process that may be emitted as particulate matter (P_F) and the control efficiency of the air pollution control device (x) as:

$$W_A = W_T * P_F * (1-x) \quad \text{Equation A.1.1-2}$$

These terms can be substituted into Equation A.1.1-1 and rearranged:

$$W_T = W_{WG} + W_T * P_F * (1-x)$$

$$W_T = W_{WG} + (W_T * P_F) - (W_T * P_F * x)$$

$$W_T - (W_T * P_F) + (W_T * P_F * x) = W_{WG}$$

$$W_T [1 - (P_F) + (P_F * x)] = W_{WG}$$

$$W_T = W_{WG} / [1 - (P_F) + (P_F * x)] \quad \text{Equation A.1.1-3}$$

The value for the amount of wood waste generated (W_{WG}) of 632.625 tons, the value for the fraction of total wood-related material lost from the process that may be emitted as particulate matter (P_F) of 30.2% (see Table A.1.1-3 for Total PM), and the value for the control efficiency of the air pollution control device (x) of 90% for the cyclones (as assumed in the original Title V TSD) can be substituted into Equation A.1.1-3 as follows to calculate the total wood-related material lost from the process:

$$W_T = 632.625 \text{ tons} / [1 - (0.302) + (0.302 * 0.9)]$$

$$W_T = 652.33 \text{ tons}$$

Combining this estimate for total wood-related material lost from the process with the above calculations for the fraction of this material that is PM₁₀ and PM (see Table A.1.1-3), the actual amount of PM₁₀ and PM generated at the Oak Canyon facility as an annual average for 2002 and 2003 can be calculated as follows:

$$\text{Actual PM}_{10} = \text{Total Wood Material Lost} * \% \text{ Wood Waste that is PM}_{10}$$

$$\mathbf{34.57 \text{ tons}} = 652.33 \text{ tons} * 5.3\%$$

$$\text{Actual PM} = \text{Actual Wood Waste} * \% \text{ Wood Waste that is PM}$$

$$\mathbf{197.00 \text{ tons}} = 652.33 \text{ tons} * 30.2\%$$

The values calculated for actual PM₁₀ and PM generated can be combined with a control efficiency of 90% for the cyclones (as assumed in the original Title V TSD) to calculate PM₁₀ and PM emissions from this activity:

$$\text{Actual PM}_{10} \text{ Emiss.} = \text{Actual PM}_{10} * (1 - \text{Capt. Eff.}) + \text{Actual PM}_{10} * \text{Capt. Eff.} * (1 - \text{Cont. Eff.})$$

$$\mathbf{3.46 \text{ tons}} = 34.57 \text{ tons} * (1 - 100\%) + 34.57 \text{ tons} * 100\% * (1 - 90\%)$$

$$\text{Actual PM Emiss.} = \text{Actual PM} * (1 - \text{Capt. Eff.}) + \text{Actual PM} * \text{Capt. Eff.} * (1 - \text{Cont. Eff.})$$

$$\mathbf{19.70 \text{ tons}} = 197.00 \text{ tons} * (1 - 100\%) + 197.00 \text{ tons} * 100\% * (1 - 90\%)$$

The actual emissions calculated above can be used to estimate the potential emissions of particulate matter due to woodworking activities. Based on information provided by Lorts, 2080 hours of operation per year is a reasonable assumption as it relates to the actual emission estimates made above. Therefore, potential annual emissions can be calculated by increasing the actual emission estimates by the ratio of potential operating hours (8760) to actual operating hours (2080):

$$\text{PM}_{10} \text{ PTE} = \text{Actual PM}_{10} \text{ Emiss} * \text{Potential Hours} / \text{Actual Hours}$$

$$\mathbf{14.57 \text{ tons}} = 3.46 \text{ tons} * 8760 \text{ hr} / 2080 \text{ hr}$$

$$\text{PM PTE} = \text{Actual PM Emiss} * \text{Potential Hours} / \text{Actual Hours}$$

$$\mathbf{82.97 \text{ tons}} = 19.70 \text{ tons} * 8760 \text{ hr} / 2080 \text{ hr}$$

These values establish estimates for particulate matter emission PTE associated with woodworking activities.

A.1.2 Coating

According to Volume 2, Chapter 7, Section 4.4 of EPA's *Emission Inventory Improvement Program Technical Report Series*, the preferred method for estimating PM/PM₁₀ emissions from open coating operations is material balance. PM/PM₁₀ emissions are calculated by material balance using the following equation:

$$E_{PM} = Q * C_{PM} * (1 - T.E./100) \quad \text{Equation A.1.2}$$

where:

- E_{PM} = PM/PM₁₀ emissions (lb/time)
- Q = Material usage rate (gal/time)
- C_{PM} = PM/PM₁₀ or solids content of material (lb/gal)
- T.E. = Transfer efficiency of the application equipment (%)

The PM/PM₁₀ content of the coating material (C_{PM}) can be determined from the manufacturer's technical specification sheet. The transfer efficiency for a particular product and application technique can be obtained from the application equipment manufacturer or from technical references such as AP-42 (EPA, 1995a). A removal efficiency associated with spray booth filters can be added to the above equation to estimate the total particulate matter emissions due to coating operations (filters are required to remove at least 92% of overspray by rule).

Lorts estimated that their facility could potentially emit 1,576,800 pounds of VOC on an annual basis. In order to make a rough estimate of the particulate matter PTE for coating operations, the estimated VOC PTE can be combined with the permitted pounds VOC/pound solids content values to estimate the amount of solids processed in coatings each year. Permit V99-006 Condition 19.D provides multiple VOC content limits for coatings to be used at the Lorts facility. For the purposes of this calculation, it will be assumed that 2.0 pounds of VOC per pound of solid is a reasonable representation of the coatings to be used at the Lorts facility. This is equivalent to 0.5 pounds of solid per pound of VOC. Using this value, the following estimate can be made for the solid material utilized in the coating process on an annual basis:

$$\text{Solids Rate} = 1,576,800 \text{ lb VOC / yr} * 0.5 \text{ lb solid / lb VOC} = 788,400 \text{ lb solid/yr}$$

The value calculated above can effectively be substituted for the $Q * C_{PM}$ variable in equation A.1.2 above:

$$Q * C_{PM} = \text{Material Usage Rate (gal/time)} * \text{Solids Content (lb/gal)} = \text{Solids Rate (lb/time)}$$

In order to continue making the rough estimate of particulate matter PTE for coating operations, assumptions regarding transfer efficiency (T.E.) and spray booth filter removal efficiency must also be made. Specific transfer efficiency data has not been identified in AP-

42 but indications have been found that a value of 65% may be appropriate and will be used here. The spray booth filters used by Lorts are required to have an average overspray removal efficiency of at least 92% according to Permit V99-006 Condition 19.C.1)b)(1). The appropriate values can be substituted into Equation A.1.2:

$$E_{PM} = Q * C_{PM} * (1 - T.E./100)$$

$$E_{PM} = \text{Solids Rate} * (1 - T.E./100)$$

$$E_{PM} = 788,400 \text{ lb solid/yr} * (1 - 65/100) = 275,940 \text{ lb solid/yr}$$

The above calculated value for E_{PM} can be combined with the average overspray removal efficiency to calculate the estimated potential particulate matter emissions for coating operations:

$$\text{Particulate Matter PTE} = E_{PM} * (1 - \text{Overspray Removal Efficiency})$$

$$\text{Particulate Matter PTE} = 275,940 \text{ lb solid/yr} * (1 - 0.92)$$

$$\text{Particulate Matter PTE} = 22,075 \text{ lb solid/yr} = \mathbf{11.0 \text{ tpy}}$$

A.1.3 Wood Waste Loading

Emissions from the loading of wood waste are calculated using an emission factor of 0.58 pounds per ton (0.00029 tons/ton) of waste removed. This emission factor was used in the TSD for Permit V99-005 with indication given that the value is based on an old AP-42 factor that is no longer current and has not been updated. This emission factor will be used here because a better substitute has not been found.

As discussed above, the Lorts facility collected 632.625 tons of wood waste in 2002. Applying the above referenced emission factor results in the following estimate for actual annual wood waste loading emissions:

$$\text{Actual PM} = \text{Actual Wood Waste Collected} * \text{Emission Factor}$$

$$\mathbf{366.92 \text{ pounds}} = 632.625 \text{ tons} * 0.58 \text{ lb/ton}$$

The actual emissions calculated above can be used to estimate the potential emissions of particulate matter due to wood waste loading. Based on information provided by Lorts, 2080 hours of operation per year is a reasonable assumption as it relates to the actual emission estimates made above. Therefore, potential annual emissions can be calculated by increasing the actual emission estimates by the ratio of potential operating hours (8760) to actual operating hours (2080):

$$\text{PM PTE} = \text{Actual PM Emiss} * \text{Potential Hours} / \text{Actual Hours}$$

$$\mathbf{0.77 \text{ tons} = 1545.3 \text{ pounds}} = 366.92 \text{ pounds} * 8760 \text{ hr} / 2080 \text{ hr}$$

These values establish estimates for particulate matter emission PTE associated with wood waste loading.

A.1.4 Summary of Pre-change Potential to Emit

Table A.1.4 summarizes the particulate matter PTE for the Lorts facility prior to the requested changes associated with this permit revision:

Table A.1.4 – Summary of Pre-change PM PTE

Regulated Activities	PM Emissions	PM₁₀ Emissions
Woodworking Operations	83.0 tons	14.6 tons
Coating	11.0 tons	11.0 tons ^(a)
Wood Waste Loading	0.8 tons	0.8 tons ^(a)
Total	94.8 tons	26.4 tons

^(a) The PM₁₀ emissions are conservatively assumed to be equal to the PM emissions due to lack of better data.

A.2 Post-change Potential to Emit

The changes proposed by Lorts as a part of this permit revision will affect particulate matter emissions. The following sections discuss how the changes will affect the particulate matter PTE for the Lorts facility.

A.2.1 Woodworking Operations

The changes proposed by Lorts as part of this permit revision application will affect the potential particulate matter emissions due to woodworking operations as a result of an expected change to the control efficiency of the new control device.

Adjusting the value for the control efficiency (x) in Equation A.1.1-3 above from 90% for the cyclones to 99% for the proposed baghouse (the Department believes that the available data regarding expected baghouse efficiencies such as AP-42 Appendix B.2 Table B.2-3 is sufficient to assume a 99% particulate matter removal efficiency for the baghouse in lieu of source specific testing for this value):

$$W_T = 632.625 \text{ tons} / [1 - (0.302) + (0.302 * 0.99)]$$

$$W_T = 634.54 \text{ tons}$$

Combining this new estimate for total wood-related material lost from the process with the calculations for the fraction of this material that is PM₁₀ and PM (see Table A.1.1-3), the actual amount of PM₁₀ and PM generated at the Oak Canyon facility as an annual average for 2002 and 2003 is calculated as follows:

$$\text{Actual PM}_{10} = \text{Total Wood Material Lost} * \% \text{ Wood Waste that is PM}_{10}$$

$$\mathbf{33.63 \text{ tons}} = 634.54 \text{ tons} * 5.3\%$$

$$\text{Actual PM} = \text{Actual Wood Waste} * \% \text{ Wood Waste that is PM}$$

$$\mathbf{191.63 \text{ tons}} = 634.54 \text{ tons} * 30.2\%$$

These values calculated for actual PM₁₀ and PM generated can be combined with the control efficiency of 99% for the new baghouse to calculate PM₁₀ and PM emissions from this activity:

$$\text{Actual PM}_{10} \text{ Emiss.} = \text{Actual PM}_{10} * (1 - \text{Capt. Eff.}) + \text{Actual PM}_{10} * \text{Capt. Eff.} * (1 - \text{Cont. Eff.})$$

$$\mathbf{0.34 \text{ tons}} = 33.63 \text{ tons} * (1 - 100\%) + 33.63 \text{ tons} * 100\% * (1 - 99\%)$$

$$\text{Actual PM Emiss.} = \text{Actual PM} * (1 - \text{Capt. Eff.}) + \text{Actual PM} * \text{Capt. Eff.} * (1 - \text{Cont. Eff.})$$

$$\mathbf{1.92 \text{ tons}} = 191.63 \text{ tons} * (1 - 100\%) + 191.63 \text{ tons} * 100\% * (1 - 99\%)$$

The new actual emissions calculated above can be used to estimate the potential emissions of particulate matter due to woodworking activities after the proposed change. Based on information provided by Lorts, 2080 hours of operation per year is a reasonable assumption as it relates to the actual emission estimates made above. Therefore, potential annual emissions can be calculated by increasing the actual emission estimates by the ratio of potential operating hours (8760) to actual operating hours (2080):

$$\text{PM}_{10} \text{ PTE} = \text{Actual PM}_{10} \text{ Emiss} * \text{Potential Hours} / \text{Actual Hours}$$

$$\mathbf{1.43 \text{ tons}} = 0.34 \text{ tons} * 8760 \text{ hr} / 2080 \text{ hr}$$

$$\text{PM PTE} = \text{Actual PM Emiss} * \text{Potential Hours} / \text{Actual Hours}$$

$$\mathbf{8.09 \text{ tons}} = 1.92 \text{ tons} * 8760 \text{ hr} / 2080 \text{ hr}$$

These values establish estimates for particulate matter emission PTE associated with woodworking activities after the baghouse is installed.

A.2.2 Coating

Potential particulate matter emissions due to coating operations are not expected to be affected by the changes proposed as part of this permit revision. Therefore, the estimated PTE for coating operations remains 11.0 tpy as calculated in Section A.1.2 above.

A.2.3 Wood Waste Loading

Potential particulate matter emissions from the loading of wood waste are also not expected to be affected by the changes proposed as part of this permit revision. Therefore, the estimated PTE for wood waste loading remains 0.77 tpy as calculated in Section A.1.3.

A.2.4 Summary of Post-change Potential to Emit

Table A.2.4 summarizes the particulate matter PTE for the Lorts facility after the requested changes associated with this permit revision are made:

Table A.2.4 – Summary of Post-change PM PTE

Regulated Activities	PM Emissions	PM₁₀ Emissions
Woodworking Operations	8.1 tons	1.4 tons
Coating	11.0 tons	11.0 tons ^(a)
Wood Waste Loading	0.8 tons	0.8 tons ^(a)
Total	19.9 tons	13.2 tons

^(a) The PM₁₀ emissions are conservatively assumed to be equal to the PM emissions due to lack of better data.

A.3 Demonstration of Compliance with PM Emissions Limit of County Rule 311

The particulate matter emission rates estimated in Section A.2 above for PM can be evaluated with regard to the process weight rate emission standard of Rule 311 §301.1. As stated on page 4 of the TSD associated with the original issuance of Title V Permit V99-006, Lorts Title V application indicates that they processed 1,001,961 board feet of wood operating at an assumed 2080 hours for a year. The TSD also indicates that 3.4 lbs/board-foot is an appropriate assumption for converting the number of board feet processed to a mass of wood processed. Using this conversion factor, it is estimated that about 3,410,000 pounds (1705 tons) of wood are processed in 2080 hours per year. This data can be used to calculate that 0.82 tons of wood are processed per hour:

$$P = \text{Annual Process Weight} / \text{Annual Operating Time} / \text{Pound to Ton Conversion}$$

$$0.82 \text{ tons/hour} = 3,410,000 \text{ pounds/year} / 2080 \text{ hours/year} / 2000 \text{ pound/ton}$$

The value calculated for the annual process weight rate can then be substituted into the process weight rate equation of Rule 311 §301.1 to calculate the allowable PM emission rate (E) for the facility.

$$E = 3.59 P^{0.62} \text{ (for } P = \text{less than or equal to 30 tons/hr)}$$

$$\mathbf{3.17 \text{ lb/hr}} = 3.59 * (0.82 \text{ ton/hr})^{0.62}$$

The value calculated above for the allowable emission rate can be compared to the value calculated in Section A.2 for annual PM emissions of about 9 tons (particulate matter emissions associated with coating are not required to be included in the calculation). The potential average hourly PM emissions estimate is calculated to be the following:

$$\text{Potential Avg. Hourly PM Emiss.} = \text{PM PTE} / \text{Annual Operating Time} * \text{Ton to Pound Conversion}$$

$$\mathbf{2.05 \text{ lb/hr}} = 9 \text{ tons} / 8760 \text{ hours/year} * 2000 \text{ pound/ton}$$

The estimated potential average hourly short-term particulate matter emission rate of 2.05 lbs/hour can be compared to the estimated average allowable emissions of 3.17 lbs/ hour. The comparison indicates that the facility can comply with the process weight rate equation of Rule 311 §301.1 if the assumptions/values used in the above analysis are valid.