ADEQ MINOR SOURCE AIR PERMIT

Permit No.: 1581-AR-1

IS ISSUED TO:

Amerimax Coated Products
215 Phillips County Rd. 324
Helena, AR 72342
Phillips County
AFIN: 54-00132

THIS PERMIT IS THE ABOVE REFERENCED PERMITTEE'S AUTHORITY TO CONSTRUCT, MODIFY, OPERATE, AND/OR MAINTAIN THE EQUIPMENT AND/OR FACILITY IN THE MANNER AS SET FORTH IN THE DEPARTMENT'S MINOR SOURCE AIR PERMIT AND THE APPLICATION. THIS PERMIT IS ISSUED PURSUANT TO THE PROVISIONS OF THE ARKANSAS WATER AND AIR POLLUTION CONTROL ACT (ARK. CODE ANN. SEC. 8-4-101 *ET SEQ.*) AND THE REGULATIONS PROMULGATED THEREUNDER, AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:	
Michael Bonds	Date
Chief, Air Division	

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List of Acronyms and Abbreviations

A.C.A. Arkansas Code Annotated

AFIN ADEQ Facility Identification Number

CFR Code of Federal Regulations

CO Carbon Monoxide

HAP Hazardous Air Pollutant

lb/hr Pound Per Hour

No. Number

NO_x Nitrogen Oxide

PM Particulate Matter

PM10 Particulate Matter Smaller Than Ten Microns

SO2 Sulfur Dioxide

Tpy Tons Per Year

UTM Universal Transverse Mercator

VOC Volatile Organic Compound

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Section I: FACILITY INFORMATION

PERMITTEE: Amerimax Coated Products

AFIN: 54-00132

PERMIT NUMBER: 1581-AR-1

FACILITY ADDRESS: 215 Phillips County Rd. 324

Helena, AR 72342

MAILING ADDRESS 215 Phillips County Rd. 324

Helena, Arkansas 72342

COUNTY: Phillips

CONTACT POSITION: Heath Albers - Plant Manager

TELEPHONE NUMBER: (870) 572-5074

REVIEWING ENGINEER: David Triplett

UTM North South (Y): Zone 15: 3821000

UTM East West (X): Zone 15: 716000

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Section II: INTRODUCTION

Amerimax Coated Products owns and operates an aluminum and steel continuous roll coating facility located in Helena, Phillips County, Arkansas. The facility is capable of painting approximately fifty million pounds per year of metal sheet up to 56 inches wide by the roll coating method. The facility emits volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) during painting and paint curing operations. These pollutants are contained in the coatings applied. Further, the facility emits products of natural gas combustion.

Summary of Permit Activity

This permit is being issued to allow the facility to become a "synthetic minor" source by imposing federally-enforceable emission limits upon the facility which limit emissions to levels below those which require a Title V Operating Air Permit. With this action, permitted carbon monoxide (CO) emissions from this facility will increase by 10.8 tons per year (tpy). Permitted emissions decreases with this action are: 73.9 tpy of volatile organic compounds (VOC), 6.5 tpy of nitrogen oxides (NOx), 0.9 tpy particulate matter (PM), 64.31 tpy of any single hazardous air pollutant (HAP), and 352.68 tpy of total HAPs. The changes in emission limits for CO, PM, and NOx are due to updated emission factors from the US EPA. Changes in VOC and HAP emissions are due to the lower limits necessary to qualify for a "synthetic minor" permit. There are no physical or operational changes occurring at the facility with this modification. The facility will utilize the existing control devices to meet the new, lower emission limits for VOC and HAPs.

Process Description

Unpainted aluminum or steel coils are loaded onto an unwinder and threaded through an accumulator. The strip then passes through a "paint pretreat" section consisting of cleaner and rinse tanks. Tanks 1 and 2 contain a caustic detergent used for removing residual oil and dirt from the strip surface. Caustic is rinsed from the strip in Tank 3. Tank 5 contains a phosphate solution and is heated by a natural gas-fired burner (SN-03). The strip is again rinsed with water in Tank 6.

The strip then passes through a "chem-coater" where chromic acid etch is applied by rollers to insure proper paint adhesion. Next, a coating is rolled onto one or both sides or the metal in Coater No. 1, No. 2, or No. 3. The coaters are enclosed under negative pressure, and emissions are vented to a carbon adsorber (SN-02A). Desorbed steam/VOC from the carbon adsorber is directed to, and destroyed in, a separate thermal oxidizer. The thermal oxidizer is equipped with two stacks (SN-02 and SN-02B). SN-02 emits hot thermal oxidizer exhaust, and SN-02B emits thermal oxidizer exhaust that has first been passed through the waste heat boiler which is used to generate steam for the carbon adsorption strip or desorption cycle. Only one of the two thermal oxidizer stacks can be operated at any given time.

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After coating, the metal strip passes into the primer or finish curing oven where the paint is cured at metal temperatures of approximately 500°F. Emissions from the curing ovens are vented to the fume incinerator (SN-01). Hot air from the fume incinerator is recycled as a heat source for the curing oven.

Depending on product specifications, the metal strip is coated and cured in several possible sequences. The painted and cured metal strip then passes through another accumulator, and is rewound as a coated coil.

Regulations

The following table contains the regulations applicable to this permit.

Regulations	
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999	
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective February 15, 1999	
40 CFR Part 60 Subpart TT – Standards of Performance for metal Coil Surface Coating	

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

Total Allowable Emissions

TOTAL ALLOWABLE EMISSIONS			
Pollutant	Emission Rates		
	lb/hr	Тру	
PM	0.5	2.4	
PM_{10}	0.5	2.4	
SO_2	0.3	1.5	
VOC	83.8	95.0	
СО	4.0	17.7	
NO_x	4.8	21.2	
Lead	0.11	0.18	
Formaldehyde ¹	1.11	**	

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TOTAL ALLOWABLE EMISSIONS			
Pollutant	Emission Rates		
Pollutant	lb/hr	Тру	
Napthalene ¹	21.95	**	
Toluene ¹	9.55	**	
Cumene ¹	1.32	**	
Ethylbenzene ¹	8.58	**	
Ethylene Glycol ¹	10.01	**	
Glycol Ethers ¹	60.92	**	
Isophorone ¹	28.02	**	
MEK ¹	4.65	**	
Xylene ¹	32.39	**	
Nickel	0.11	**	
Antimony	0.02	**	
Chromium	0.18	**	
Chromium VI	0.01	**	
Silica	0.12	**	
Any single HAP	*	9.50	
Total All HAPs	*	23.75	

^{*} see lb/hr limits for individual HAPs.

** Subject to plantwide limit of 9.5 tpy of any single HAP or 23.75 tpy of total HAP emissions.

1 HAPs Included in the total VOC

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Section III: PERMIT HISTORY

Amerimax Coated Products was originally Alumax Coated Products, Inc. Alumax relocated this facility from Riverside, California, and the initial air permit (Air Permit No. 1581-A) was issued on January 5, 1995. This permit set emissions limits at 3.2 tpy PM, 27.7 tpy NOx, 1.2 tpy SO2, 6.9 tpy CO, and 184.1 tpy VOC.

Permit 1581-A was transferred from Alumax Coated Products, Inc., to Amerimax Coated Products, Inc., on May 26, 1997.

Permit No. 1581-AOP-R0 was issued to Amerimax Coated Products on October 27, 1998. This was the initial Title V Operating Air Permit for this facility. There were no physical or operational changes at the facility occurring with the issuance of this permit. Criteria pollutant permitted emissions were quantified at 3.3 tpy PM/PM10, 1.2 tpy SO2, 168.9 tpy VOC, 6.9 tpy CO, and 27.7 tpy NOx.

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Section IV: EMISSION UNIT INFORMATION

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 19, §19.501 et seq., effective February 15, 1999 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Fume Incinerator	PM ₁₀ SO ₂ VOC CO NO _x Lead	0.3 0.1 63.3 3.3 4.0 0.11	1.4 0.5 94.5* 14.5 17.6 0.5 ¹
02/02B	Thermal Oxidizer on Carbon Adsorber System	$\begin{array}{c} PM_{10} \\ SO_2 \\ VOC \\ CO \\ NO_x \\ Lead \end{array}$	0.1 0.1 6.4 0.4 0.5 0.11	0.5 0.5 94.5* 1.8 2.2 0.5 ¹
02A	Carbon Adsorber	VOC Lead	14.0 0.11 ¹	94.5* 0.5 ¹
03	Tank Heater (2.75 MMBtu/hr)	PM ₁₀ SO ₂ VOC CO NO _x	0.1 0.1 0.1 0.3 0.3	0.5 0.5 0.5 1.4 1.4

^{*} Subject to plantwide limit of 94.5 tpy from all coating operations at the facility. See SC #19. ¹ total emissions from all sources.

2. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18, §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
		PM	0.30	1.40
		Formaldehyde	0.83	*
		Napthalene	16.60	*
01	Fume Incinerator	Toluene	7.21	*
		Cumene	1.00	*
		Ethylbenzene	6.49	*
		Ethylene Glycol	7.57	*

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Thermal Oxidizer on Carbon Adsorber System Formaldehyde 0.09 Napthalene 1.66 Toluene 0.73 Cumene 0.10 Ethylbenzene 0.65 Ethylene Glycol Glycol Ethers 4.60 Isophorone 2.12 MEK 0.36	* * * * * * * * * * * * *
Isophorone 21.20 MEK 3.51 Xylene 24.50 Nickel 0.10 ¹ Antimony 0.02 ¹ Chromium 0.18 ¹ Chromium VI 0.01 ¹ Silica 0.12 ¹ PM 0.10 0 Formaldehyde 0.09 Napthalene 1.66 Toluene 0.73 Cumene 0.10 Ethylbenzene 0.65 Ethylene Glycol 0.76 Glycol Ethers 4.60 Isophorone 2.12 MEK 0.36	* * * * * * * * * * * * * * * * * * *
MEK 3.51 Xylene 24.50 Nickel 0.10 ¹ Antimony 0.02 ¹ Chromium 0.18 ¹ Chromium VI 0.01 ¹ Silica 0.12 ¹	* * * * * * * * * * * * *
Nickel 0.10 ¹ Antimony 0.02 ¹ Chromium 0.18 ¹ Chromium VI 0.01 ¹ Silica 0.12 ¹	* * * * * * * * * * * * *
Nickel 0.10 ¹ Antimony 0.02 ¹ Chromium 0.18 ¹ Chromium VI 0.01 ¹ Silica 0.12 ¹	* * * * * * * * * * * * * * * * *
Chromium 0.18 ¹ Chromium VI 0.01 ¹ Silica 0.12 ¹ PM	* * * * * * * * * * * * * * * *
Chromium 0.18 ¹ Chromium VI 0.01 ¹ Silica 0.12 ¹	* * * * * * * * * * * * * * *
Chromium VI Silica 0.12 ¹ PM 0.10 0 Formaldehyde 0.09 Napthalene 1.66 Toluene 0.73 Cumene 0.10 Ethylbenzene 0.65 Ethylene Glycol 0.76 Glycol Ethers 4.60 System System Silica 0.12 ¹ PM 0.10 0 Formaldehyde 0.09 Napthalene 1.66 Toluene 0.73 Cumene 0.10 Ethylbenzene 2.12 MEK 0.36	* 0.50 * * * * * * * * *
Silica 0.12 ¹ PM).50 * * * * * * * * * * *
PM 0.10 0 Formaldehyde 0.09 Napthalene 1.66 Toluene 0.73 Cumene 0.10 Ethylbenzene 0.65 Ethylene Glycol 0.76 Glycol Ethers 4.60 Isophorone 2.12 MEK 0.36	* * * * * * * * * * * * *
Thermal Oxidizer on Carbon Adsorber System Formaldehyde N. 0.09 Napthalene 1.66 Toluene 0.73 Cumene 0.10 Ethylbenzene 0.65 Ethylene Glycol Glycol Ethers 4.60 Isophorone 2.12 MEK 0.36	* * * * * * * * * * * * *
Napthalene 1.66 Toluene 0.73 Cumene 0.10 Ethylbenzene 0.65 Ethylene Glycol Glycol Ethers System Isophorone 2.12 MEK 0.36	* * * * * * * *
Toluene 0.73 Cumene 0.10 Ethylbenzene 0.65 Ethylene Glycol Glycol Ethers System System Sophorone MEK 0.36	* * * * *
O2/02B Thermal Oxidizer on Carbon Adsorber System Cumene Cumene Ethylbenzene Ethylene Glycol Glycol Ethers Isophorone MEK O.10 0.10 0.65 Ethylene Glycol Glycol Ethers 4.60 2.12 MEK 0.36	* * * *
Thermal Oxidizer on Carbon Adsorber System Ethylbenzene Ethylene Glycol Glycol Ethers Isophorone MEK Ethylbenzene Ethylene Glycol 0.76 Glycol Ethers Isophorone 0.65 Ethylbenzene Ethylbenzene 0.65 Ethylene Glycol O.76 4.60 2.12 0.36	* * *
Thermal Oxidizer on Carbon Adsorber System Ethylene Glycol 0.76 4.60 2.12 MEK 0.36	*
02/02B Carbon Adsorber System Glycol Ethers Isophorone MEK 4.60 2.12 0.36	*
System Isophorone 2.12 MEK 0.36	-
System MEK 0.36	44
	ጥ
Xylene 2.45	*
Nickel 0.10 ¹	*
Antimony 0.02 ¹	*
Chromium 0.18 ¹	*
Chromium VI 0.01 ¹	*
Silica 0.12 ¹	*
Formaldehyde 0.18	*
Napthalene 3.68	*
Toluene 1.60	*
Cumene 0.22	*
Ethylbenzene 1.44	*
Ethylene Glycol 1.68	*
Glycol Ethers 10.22	*
02A Carbon Adsorber Isophorone 4.70	*
MEK 0.78	*
Xylene 5.44	*
Nickel 0.10 ¹	*
Antimony 0.02 ¹	*
Chromium 0.18 ¹	*
Chromium VI 0.01 ¹	*
Silica 0.12 ¹	*
PM 0.10 0	0.50
1 ank Heater Formaldehyde 0.01	*
(2.75 MMBtu/hr) Napthalene 0.01	*

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SN	Description	Pollutant	lb/hr	tpy
		Toluene	0.01	*
		Nickel	0.01	*
	Plantwide Annual	Any Single	**	9.50
All	Limit for HAPs	HAP		
	LIIIII IOI HAFS	Total All HAPs	**	23.75

^{*} Subject to Plantwide Limits of 9.5 tpy of any single HAP, and 23.75 tpy of total HAPs.

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Limit	Regulatory Citation
All Sources	5%	§18.501 of Regulation 18

- 4. The permittee shall not cause or permit the emission of air contaminants, including odors or water vapor and including an air contaminant whose emission is not otherwise prohibited by Regulation #18, if the emission of the air contaminant constitutes air pollution within the meaning of A.C.A. §8-4-303. [Regulation 18, §18.901 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 5. The permittee shall not conduct operations in such a manner as to unnecessarily cause air contaminants and other pollutants to become airborne. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN-01 Conditions

- 6. The permittee shall operate the fume incinerator at a temperature at or above 1400°F at all times. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 7. The permittee shall calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases from the incinerator. This recorder shall have an accuracy of ±2.5°C or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. Also, the permittee shall record (during actual coating operations) all periods in excess of three (3) hours during which the average temperature remains more than 28°C (50°F) below the temperature required for compliance. [§19.304 of Regulation 19 and 40 CFR §60.464(c)]
- 8. The permittee shall operate the fume incinerator at all times to achieve a VOC destruction efficiency of 95% or greater. Compliance with this condition will be demonstrated through the source testing required under Specific Condition #9. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

^{**} See individual source listings for lb/hr limits for speciated HAPs.

¹ Metals limits are total for all coating operations.

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9. The permittee shall conduct performance testing on the fume incinerator (SN-01) every five (5) years from the date of the last performance test. This testing shall be conducted in accordance with US EPA Reference Method 25. The permittee shall measure the VOC concentration in the gas stream entering and leaving the control device. This test shall be repeated at least once every 5 years. A report of the results of this test shall be submitted to the Department within 45 days of completion of the test. [§19.702 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-02/02B Conditions

- 10. The permittee shall operate the thermal oxidizer at a temperature at or above 1400°F at all times. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 11. The permittee shall calibrate, operate, and maintain a device that continuously records the combustion temperature of the thermal oxidizer. Records of the thermal oxidizer operating temperature shall be maintained on-site and made available to Department personnel upon request. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 12. The thermal oxidizer shall be in operation at all times in which the carbon adsorber is being regenerated. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 13. The permittee shall operate the thermal oxidizer at all times to achieve a VOC destruction efficiency of 95% or greater. Compliance with this condition will be demonstrated through the source testing required under Specific Condition #14. [[§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 14. The permittee shall conduct performance testing on the thermal oxidizer (SN-02/02B) every five (5) years from the date of the last performance test. This testing shall be conducted in accordance with US EPA Reference Method 25. The permittee shall measure the VOC concentration in the gas stream entering and leaving the control device. This test shall be repeated at least once every 5 years. A report of the results of this test shall be submitted to the Department within 45 days of completion of the test. [§19.702 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-02A Conditions

15. The permittee shall operate the carbon adsorber at all times to achieve a VOC control efficiency of 90% or greater. Compliance with this condition will be demonstrated through the source testing required under Specific Condition #16. [[§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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16. The permittee shall conduct performance testing on the carbon adsorber (SN-02A) every five (5) years from the date of the last performance test. This testing shall be conducted in accordance with US EPA Reference Method 25. The permittee shall measure the VOC concentration in the gas stream entering and leaving the control device. This test shall be repeated at least once every 5 years. A report of the results of this test shall be submitted to the Department within 45 days of completion of the test. [§19.702 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Plant-wide Conditions

- 17. The permittee shall burn only pipeline-quality natural gas as fuel at the stationary sources listed in this permit. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 18. The permittee shall not exceed a VOC annual emission limitation of 94.5 tons/yr combined from sources SN-01, SN-02A, and SN-02/02B. Compliance with this condition shall be demonstrated by compliance with Specific Condition #19. [§19.501 et seq of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 19. The permittee shall maintain monthly records and calculations of the VOC emissions from sources SN-01, SN-02A, and SN-02/02B. These records shall indicate the amount of each coating or solvent used, the respective VOC content of each coating/solvent, and the resulting emissions from the usage of each material. These calculations shall be performed utilizing formula 19.1 (below). These records shall be maintained in a spreadsheet, database, or other well-organized format. These records shall be maintained on-site, and made available to Department personnel upon request. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

$$E = \Sigma[0.0595*U_i*C_i]$$
 Formula 19.1

Where:

0.0595 = constant which represents overall capture and control efficiency for the control devices in use at the facility.

E = Monthly VOC Emissions in pounds

Ui = Usage of compound i for that month, in gallons

Ci = VOC content of compound i, in pounds per gallon

20. The permittee shall not exceed an annual HAP emission rate of 9.5 tons/yr for any single HAP compound, or a total HAP annual emission rate of 23.75 tons/yr for all HAPs emitted from the facility. Compliance with this condition shall be demonstrated by compliance with Specific Condition #22. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

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21. The permittee shall maintain monthly records and calculations of the HAP emissions from sources SN-01, SN-02A, and SN-02/02B. These records shall indicate the amount of each coating or solvent used, the respective HAP content of each coating/solvent, and the resulting emissions from the usage of each material. These calculations shall be performed utilizing formula 21.1 (below). These records shall be maintained in a spreadsheet, database, or other well-organized format. These records shall be maintained on-site, and made available to Department personnel upon request. [§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

$$E_n = \Sigma[0.0595*U_i*Cn_i]$$
 Formula 21.1

Where:

0.0595 = constant which represents overall capture and control efficiency for the control devices in use at the facility.

 E_n = Monthly Emissions of HAP n, pounds

Ui = Usage of compound i for that month, in gallons

Cn_i = content of HAP n contained in compound i, in pounds per gallon

- 22. The permittee shall not apply more than 4800 gallons of coating during any single calendar day. [§19.705 of Regulation 19 and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 23. The permittee shall maintain daily records of the amount of coating applied at the facility for the purposes of demonstrating compliance with Specific Condition #22. These records shall be maintained on-site, and shall be made available to Department personnel upon request. [\$19.705 of Regulation 19 and/or \$18.1004 of Regulation 18 and A.C.A. \$8-4-203 as referenced by \$8-4-304 and \$8-4-311]
- 24. The facility shall not exceed the following coating formulation limits. [§19.705 of Regulation 19, and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Pollutant	Maximum allowable content in solvents/coatings
	(lb/gal)
VOC	7.0
Lead	0.52
Formaldehyde	0.09
Napthalene	1.84
Toluene	0.80

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Pollutant	Maximum allowable content in solvents/coatings (lb/gal)
Cumene	0.11
Ethylbenzene	0.72
Ethylene Glycol	0.84
Total Glycol Ethers	5.11
Isophorone	2.35
MEK	0.39
Xylene	2.72
Nickel	0.43
Antimony	0.10
Chromium	0.86
Chromium VI (Hexavalent Chromium)	0.03
Silica	0.56

- 25. The facility shall maintain MSDS or other records which demonstrate compliance with Specific Condition #24. These records shall be updated as necessary, maintained on-site and made available to Department upon request. [§19.705 of Regulation 19, and/or §18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 26. The permittee shall maintain the following operational parameters in order to continuously demonstrate compliance with the 100% capture efficiency used in the VOC emission calculations. These parameters are the defining criteria for a permanent total enclosure.
 - a. Any natural draft opening (NDO) shall be at least four equivalent opening diameters from each VOC emitting point. An "equivalent diameter" is the diameter of a circle that has the same area as the opening. The equation for an equivalent diameter (ED) is:

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$$ED = \sqrt{\frac{4*area}{\prod}}$$

For a circular NDO, this equation simply reduces to the diameter of the opening.

- b. The total area of all NDOs shall not exceed five percent of the surface area of the enclosure's walls, floor, and ceiling.
- c. The average face velocity (FV) of air through each NDO shall be at least 200 ft/min. The direction of air through all NDOs shall be into the enclosure.
- d. All access doors and windows whose areas are not included as NDOs shall be closed during routine operation of the process.

The permittee shall comply with the above parameters no later than 30 days after completion of each permanent total enclosure. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

- 27. The permittee shall maintain documentation of the design parameters which demonstrate compliance with Specific Conditions 26(a) and (b). This documentation shall be maintained on site and shall be provided to Department personnel upon request. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
- 28. The permittee shall install and operate a pressure gauge which verifies the pressure differential across the total enclosure. A pressure differential of 0.007 inches of water will demonstrate compliance with the 200 ft/min face velocity requirement contained in Specific Condition 26(c). The pressure differential shall be monitored by means of a gauge which measures the drop in air pressure.

The gauge shall be monitored once every six months for a one-hour period. Readings shall be recorded during this one hour period every five minutes and the number of basecoater lines operating at that time shall be noted. These records shall be maintained on site and shall be provided to Department personnel upon request. These reports shall also be submitted to the Department per General Provision 7 by the last day of the month after the reported six month period. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

NSPS Conditions

29. This facility is subject to and shall comply with the provisions of 40 CFR Part 60 Subpart TT – *Standards of Performance for Metal Coil Surface Coating*. A copy of this rule has been attached to this permit as Appendix A. [§19.304 of Regulation 19 and 40 CFR §60.460(a)]

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- 30. The permittee shall operate the coating equipment and the control devices located at the facility such that 10% or less of the VOC applied during each calendar month is emitted to the atmosphere. [§19.304 of Regulation 19 and 40 CFR §60.462(a)(3)]
- 31. The permittee shall use the methods outlined in 40 CFR §60.463(c)(2)(i)(A), (B), and (C) in order to determine the percentage of VOC applied that is emitted to the atmosphere. The requirements of these sections of the NSPS rule are summarized below. [§19.304 of Regulation 19 and 40 CFR §60.463(c)(2)]
 - 1. For the capture system and control device that destroys VOC's (fume incinerator, thermal oxidizer), the facility shall determine the destruction efficiency according to the following equation.

$$E = \left[\sum (Q_n * C_n) - \sum (Q_m * C_m) \right] / \sum (Q_n * C_n)$$
 [§60.463 Equation 6] Where:

E = destruction efficiency of the system

n = number of gas streams entering the control device

m = number of gas streams exiting the control device

2. For the capture and control system that recovers VOC's (carbon adsorber), the facility shall determine the control efficiency according to the following equation.

$$R = M_r / (M_o + M_d)$$
 [§60.463 Equation 10]

- 32. The permittee shall identify, record, and submit a written report to the Department every calendar quarter which indicates any instances in which the operational temperature of the fume incinerator drops as defined under 40 CFR §60.464(c). If no such periods occur, then this shall be noted on the report. [§19.304 of Regulation 19 and 40 CFR 60.465(d)]
- 33. The permittee shall maintain on-site for a period of at least two (2) years, records of all data and calculations used to determine monthly VOC emissions from each affected source. [§19.304 of Regulation 19 and 40 CFR §60.465(e)]
- 34. The permittee shall maintain, at the source, daily records of the fume incinerator combustion temperature. [§19.304 of Regulation 19 and 40 CFR §60.465(e)]
- The permittee shall use the test methods and procedures outlined in 40 CFR §60.466. [§19.304 of Regulation 19 and 40 CFR §60.466]

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Section V: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of Appendix A of Regulation 19 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application received September 24, 2003.

Description	Category
Cooling Tower	A-13
Chem-Coater Sealant Process	A-13

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Section VI: GENERAL CONDITIONS

- 1. Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit that specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
- 2. This permit does not relieve the owner or operator of the equipment and/or the facility from compliance with all applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated under the Act. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 3. The permittee will notify the Department in writing within thirty (30) days after commencement of construction, completion of construction, first operation of equipment and/or facility, and first attainment of the equipment and/or facility target production rate. [Regulation 19, §19.704 and/or A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 4. Construction or modification must commence within eighteen (18) months from the date of permit issuance. [Regulation 19, §19.410(B) and/or Regulation 18, §18.309(B) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 5. The permittee must keep records for five years to enable the Department to determine compliance with the terms of this permit such as hours of operation, throughput, upset conditions, and continuous monitoring data. The Department may use the records, at the discretion of the Department, to determine compliance with the conditions of the permit. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

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6. A responsible official must certify any reports required by any condition contained in this permit and submit any reports to the Department at the address below. [Regulation 19, §19.705 and/or Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Arkansas Department of Environmental Quality Air Division ATTN: Compliance Inspector Supervisor Post Office Box 8913 Little Rock, AR 72219

- 7. The permittee will test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) newly constructed or modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start up of the permitted source or (2) existing equipment already operating according to the time frames set forth by the Department. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) days after the completion of testing. [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 8. The permittee will provide: [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. Sampling ports adequate for applicable test methods
 - b. Safe sampling platforms
 - c. Safe access to sampling platforms
 - d. Utilities for sampling and testing equipment
- 9. The permittee will operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee will maintain in good condition at all times equipment, control apparatus and emission monitoring equipment. [Regulation 19, §19.303 and/or Regulation 18, §18.1104 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 10. If the permittee exceeds an emission limit established by this permit, the permittee will be deemed in violation of said permit and will be subject to enforcement action. The Department may forego enforcement action for emissions exceeding any limits established by this permit provided the following requirements are met: [Regulation 19, §19.601 and/or Regulation 18, §18.1101 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. The permittee demonstrates to the satisfaction of the Department that the emissions resulted from an equipment malfunction or upset and are not the result

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- of negligence or improper maintenance, and the permittee took all reasonable measures to immediately minimize or eliminate the excess emissions.
- b. The permittee reports the occurrence or upset or breakdown of equipment (by telephone, facsimile, or overnight delivery) to the Department by the end of the next business day after the occurrence or the discovery of the occurrence.
- c. The permittee must submit to the Department, within five business days after the occurrence or the discovery of the occurrence, a full, written report of such occurrence, including a statement of all known causes and of the scheduling and nature of the actions to be taken to minimize or eliminate future occurrences, including, but not limited to, action to reduce the frequency of occurrence of such conditions, to minimize the amount by which said limits are exceeded, and to reduce the length of time for which said limits are exceeded. If the information is included in the initial report, the information need not be submitted again.
- 11. The permittee shall allow representatives of the Department upon the presentation of credentials: [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
 - a. To enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. To have access to and copy any records required to be kept under the terms and conditions of this permit, or the Act;
 - c. To inspect any monitoring equipment or monitoring method required in this permit;
 - d. To sample any emission of pollutants; and
 - e. To perform an operation and maintenance inspection of the permitted source.
- 12. The Department issued this permit in reliance upon the statements and presentations made in the permit application. The Department has no responsibility for the adequacy or proper functioning of the equipment or control apparatus. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 13. The Department may revoke or modify this permit when, in the judgment of the Department, such revocation or modification is necessary to comply with the applicable provisions of the Arkansas Water and Air Pollution Control Act and the regulations promulgated the Arkansas Water and Air Pollution Control Act. [Regulation 19, §19.410(A) and/or Regulation 18, §18.309(A) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 14. This permit may be transferred. An applicant for a transfer must submit a written request for transfer of the permit on a form provided by the Department and submit the disclosure statement required by Arkansas Code Annotated '8 1 106 at least thirty (30) days in advance of the proposed transfer date. The permit will be automatically transferred to the new permittee unless the Department denies the request to transfer within thirty (30) days of the receipt of the disclosure statement. The Department may deny a transfer on the basis of the information revealed in the disclosure statement or other investigation or,

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deliberate falsification or omission of relevant information. [Regulation 19, §19.407(B) and/or Regulation 18, §18.307(B) and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

- 15. This permit shall be available for inspection on the premises where the control apparatus is located. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 16. This permit authorizes only those pollutant emitting activities addressed herein. [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 17. This permit supersedes and voids all previously issued air permits for this facility. [Regulation 18 and 19 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
- 18. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [A.C.A §8-1-105(c)]





