RESPONSE TO COMMENTS

AMERIMAX COATED PRODUCTS
PERMIT #1581-AR-3
AFIN: 54-00132

On August 24 and September 1, 2011, the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period, written comments on the draft permitting decision were submitted by ADEQ's Air Division Compliance Branch on behalf of the Department and by Trinity Consultants on behalf of the facility. The Department's response to these issues follows.

Comment #1 (ADEQ Air Division Compliance Branch): SN-04 Condition #6 should require operation of the thermal oxidizer at all times when product is being painted or cured, rather than only when product is being cured. Operation of this thermal oxidizer is slightly different than the thermal oxidizer previously used (SN-01).

Response to Comment #1: The Department agrees. The condition shall now read "At all times when product is being painted or cured...".

Comment #2 (ADEQ Air Division Compliance Branch): During testing performed on July 21, 2011, the minimum operating temperature for SN-04 was set at 1141° F.

Response to Comment #2: SN-04 Condition #6 will be updated in the final permit to reflect this temperature, with the option of modifying the limit by future testing.

Comment #3 (Trinity Consultants): SN-04 Condition #6 should be reworded to refer not to the most recent testing, but to the most recent satisfactory test.

Response to Comment #3: The Department concurs. The wording will be changed from "most recent testing per Specific Condition #9..." to "most recent passing test per Specific Condition #9...".

In addition to the changes based on these comments, Plantwide Condition #15 was clarified based on the facility's July 2011 testing, to specify the limitations involved when testing is performed at a throughput below 90 percent of the rated capacity.

ADEQ

ARKANSAS
Department of Environmental Quality

DEC 8 2011

David Seiler, Plant Manager
Amerimax Coated Products
215 Phillips County Road 324
Helena, AR 72342

Dear Mr. Seiler:

The enclosed Permit No. 1581-AR-3 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 4/5/2011.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 1581-AR-3 for the construction, operation and maintenance of an air pollution control system for Amerimax Coated Products to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

Mike Bates
Chief, Air Division

ADEQ
MINOR SOURCE
AIR PERMIT

Permit No. : 1581-AR-3

IS ISSUED TO:

Amerimax Coated Products
215 Phillips County Road 324
Helena-West 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:

Mike Bates
Chief, Air Division

DEC 8 2011
Date

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
PM_{10}	Particulate Matter Smaller Than Ten Microns
SO_2	Sulfur Dioxide
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Section I: FACILITY INFORMATION

PERMITTEE:	Amerimax Coated Products
AFIN:	54-00132
PERMIT NUMBER:	1581-AR-3
FACILITY ADDRESS:	215 Phillips County Road 324 Helena-West Helena, AR 72342
MAILING ADDRESS:	215 Phillips County Road 324 Helena, AR 72342
COUNTY:	Phillips County
CONTACT NAME:	David Seiler
CONTACT POSITION:	Plant Manager
TELEPHONE NUMBER:	870-572-5074
REVIEWING ENGINEER:	Bart Patton
UTM North South (Y):	Zone 15: 3821737.19 m
UTM East West (X):	Zone 15: 716120.86 m

Section II: INTRODUCTION

Summary of Permit Activity

Amerimax Coated Products owns and operates an aluminum and steel continuous roll coating facility located in Helena, Phillips County, Arkansas. The facility emits volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) during painting and paint curing operations.

The permit was revised to make the following changes:

- Removing the existing fume incinerator (SN-01), carbon adsorption system / thermal oxidizer / heat exchanger (SN-02/02A/02B), and start-up/auxiliary water heater (SN-03)
- Installing a new thermal oxidizer to control emissions from the coaters and curing ovens (SN-04), a new oven auxiliary burner (SN-05), and a new start-up/auxiliary water heater (SN-06)
- Removing three existing "wet" section metal cleaning tanks (associated with SN-03)
- Adding six new cleaning/pre-treatment tanks (associated with SN-06) and a hot-water heat-exchanger system, both using waste heat from SN-04
- Adding the following to the insignificant activities list: the 3.0 MMBtu/hr burners on Tanks 5 and 6; the "Wet" section tanks 1, 1A, 2, 2A, 3, 3A, 4, 5, and 6; the 100-gallon capacity gasoline storage tank; the 100-gallon diesel storage tank; a salt spray unit; and a methyl ethyl ketone (MEK) rub process
- Removing the following from the insignificant activities list: the Chem-Coater Sealant Process and the 300-gallon above-ground storage tank
- Making the following reclassifications on the insignificant activities list: the Drum Storage Room as category B-3 in lieu of A-13
- Increasing maximum coating usage from 2,400 gallons per calendar day to 4,800 gallons per calendar day

TLV values in Specific Condition #17 were updated using 2011 ACGIH values. 1,2-Propylenimine (CAS #75-55-8) was removed from the list in Specific Condition #17 because its current value is below the threshold applicable to Specific Condition #17; this compound's use should now be governed by Specific Condition #19.

Specific Conditions #13 and #19 were reworded to clarify the previous permit's intent, that allowable HAPs for coating operations must be VOCs.

Total permitted emissions changed as follows: PM, +0.1 lb/hr (+0.4 tpy); PM_{10}, +0.1 lb/hr (+0.4 tpy); VOC, -33.5 lb/hr (-0.5 tpy); CO, +0.9 lb/hr (+3.9 tpy); NO_x, +1.1 lb/hr (+4.8 tpy); and Lead, -0.11 lb/hr (-0.5 tpy).

Process Description

Unpainted aluminum or galvanized steel coils are loaded onto an unwinder and threaded through an accumulator. The strip passes through a paint cleaning/pre-treatment, or "Wet," section consisting of cleaner and rinse tanks. Tanks 1, 2, and 2A contain a caustic detergent used for removing residual oil and dirt from the strip surface. Caustic is rinsed from the strip in Tanks 1A, 3, and 3A. The strip is rinsed with water again in Tank 6.

The strip is etched before coating to ensure proper paint adhesion. Coating is rolled onto one or both sides of the metal in Coater No. 1, No. 2, or No. 3. The coaters are enclosed under negative pressure, and emissions will be vented to the proposed thermal oxidizer (SN-04). After being coated, 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 will also be vented to the proposed thermal oxidizer (SN-04). Hot exhaust air from the new thermal oxidizer is recycled to provide heat to the curing oven and to water for the paint pre-treatment process.

The system also includes a 5.15 MMBtu/hr natural gas-fired oven auxiliary burner (SN-05) to heat the ovens during initial startup and during periods when the thermal oxidizer system is not providing adequate heat. Similarly, the hot water heater is equipped with a 20.473 MMBtu/hr gas-fired startup/auxiliary burner (SN-06) used to generate hot water before the thermal oxidizer waste system is fully up to temperature.

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 June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective July 18, 2009
40 CFR Part 60 Subpart TT – *Standards of Performance for Metal Coil Surface Coating*

Total Allowable Emissions

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		
Pollutant	Emission Rates	
	lb/hr	tpy
PM	0.6	2.8
PM_{10}	0.6	2.8
SO_2	0.3	1.5
VOC	50.3	94.5
CO	4.9	21.6
NO_x	5.9	26
Any single HAP	50.05	9.50
Total All HAPs	50.05	23.75

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.

Permit No. 1581-AR-1 was to allow the facility to become a "synthetic minor" source by imposing federally-enforceable emission limits upon the facility which limited emissions to levels below those which require a Title V Operating Air Permit. With this action, permitted carbon monoxide (CO) emissions from this facility increased by 10.8 tons per year (tpy). Permitted emissions decreases with this action were: 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 were due to updated emission factors from the US EPA. Changes in VOC and HAP emissions were due to the lower limits necessary to qualify for a "synthetic minor" permit. There were no physical or operational changes occurring at the facility with this modification. The facility utilized the existing control devices to meet the new, lower emission limits for VOC and HAPs.

Permit No. 1581-AR-2 was issued on November 15, 2005. The facility modified the permit to include HAPs that were not previously listed in the permit and to revise the limits on currently permitted HAPs. The coating application limit of 4,800 gallons per day was reduced to 2,400 gallons per day. Annual emissions for the facility remained unchanged. Several insignificant activities were also added to the permit.

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. and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
01	Fume Incinerator	Removed in 2011 (at R3)		
02/02B	Thermal Oxidizer on Carbon Adsorber System	Removed in 2011 (at R3)		
02A	Carbon Adsorber	Removed in 2011 (at R3)		
03	Tank Heater (2.75 MMBtu/hr)	Removed in 2011 (at R3)		
04	Thermal Oxidizer (32.5 MMBtu/hr)	PM_{10} SO_2 VOC CO NO_x	0.3 0.1 50.0 2.7 3.2	1.4 0.5 * 11.9 14.1
05	Curing Oven Auxiliary Burner (5.15 MMBtu/hr)	PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 0.5 0.6	0.5 0.5 * 2.2 2.7
06	Startup / Auxiliary Water Heater (20.473 MMBtu/hr)	PM_{10} SO_2 VOC CO NO_x	0.2 0.1 0.2 1.7 2.1	0.9 0.5 * 7.5 9.2
04	Thermal Oxidizer (32.5 MMBtu/hr)	VOC	-	94.5*
05	Curing Oven Auxiliary Burner (5.15 MMBtu/hr)	VOC		
06	Startup / Auxiliary Water Heater (20.473 MMBtu/hr)	VOC		

* Annual VOC emissions bubbled plantwide.

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

SN	Description	Pollutant	lb/hr	tpy
01	Fume Incinerator	Removed in 2011 (at R3)		
02/02B	Thermal Oxidizer on Carbon Adsorber System	Removed in 2011 (at R3)		
02A	Carbon Adsorber	Removed in 2011 (at R3)		
03	Tank Heater (2.75 MMBtu/hr)	Removed in 2011 (at R3)		
04	Thermal Oxidizer (32.5 MMBtu/hr)	PM Any Single HAP Total All HAPs	0.3 50.0** 50.0**	1.4 * *
05	Curing Oven Auxiliary Burner (5.15 MMBtu/hr)	PM Total All HAPs	0.1 0.01	0.5 *
06	Startup / Auxiliary Water Heater (20.473 MMBtu/hr)	PM Total All HAPs	0.2 0.04	0.9 *
All	Plantwide Annual Limit for HAPs	Any Single HAP Total All HAPs	- -	9.50 23.75

*** Subject to Plantwide Limits of 9.5 tpy single HAP and 23.75 tpy of total HAPs.**
**** See individual source listings for lb/hr limits for speciated HAPs at SN-04.**

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 §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 §18.801 and A.C.A. §8-4-203 as referenced by §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 §18.901 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN-04 Conditions

6. At all times when product is being painted or cured, the permittee shall operate the thermal oxidizer at a temperature at or above 1141°F or the temperature set at the most recent passing test per Specific Condition #9, whichever is applicable. [§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 thermal oxidizer. 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 thermal oxidizer at all times to achieve a VOC destruction efficiency of 97.5% 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]

9. The permittee shall conduct performance testing on the thermal oxidizer (SN-04). The initial performance test shall occur no later than 90 days after issuance of this permit, and each subsequent test shall occur no later than five (5) years from the date of the last performance test. This testing shall be conducted in accordance with US EPA Reference Method 25 or 25A, or some other pre-approved method. The permittee shall measure the VOC concentration in the gas stream entering and leaving the control device. A report of the results of this test shall be submitted to the Department within 45 days of completion of the test, and a current copy of this report shall be kept on site at the facility. [§19.702 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Plantwide Conditions

10. 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]

11. The permittee shall not exceed a VOC annual emission limitation of 94.5 tons/yr combined from sources SN-04, SN-05, and SN-06. Compliance with this condition shall be demonstrated by compliance with Specific Condition 12. [§19.501 et seq of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

12. The permittee shall maintain monthly records and calculations of the VOC emissions from sources SN-04, SN-05, and SN-06. These records shall indicate, for SN-04, 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 12.1 (below). These records shall indicate, for SN-04, SN-05, and SN-06, fuel usage and associated VOC emissions based on approved emission factors. 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]

$$E = \Sigma[0.025 * U_i * C_i] \qquad \text{Formula 12.1}$$

Where:

0.025 = constant which represents overall capture and control efficiency for the control devices in use at the facility.
E = Monthly VOC Emissions in pounds
U_i = Usage of compound i for that month, in gallons
C_i = VOC content of compound i, in pounds per gallon

13. The facility's emissions of hazardous air pollutants are limited by amount and type. In its coating operations, the facility shall limit itself to HAPs that are VOCs. 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 14. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

14. The permittee shall maintain monthly records and calculations of the HAP emissions from sources SN-04, SN-05, and SN-06. These records shall indicate, for SN-04, 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 14.1 (below). These records shall indicate, for SN-04, SN-05, and SN-06, fuel usage and associated HAP emissions based on approved emission factors. 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]

$$E_n = \Sigma[0.025 * U_i * Cn_i] \qquad \text{Formula 14.1}$$

Where:

0.025 = 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
U_i = Usage of compound i for that month, in gallons
Cn_i = content of HAP n contained in compound i, in pounds per gallon

15. The permittee shall not apply more than 4,800 gallons of coating during any single calendar day, based on a test in which the permittee operates the thermal oxidizer within 10 percent of the rated throughput capacity. If 90 percent of the rated throughput capacity cannot be achieved, the permittee shall be limited to 10 percent over the actual tested throughput. The permittee shall reference this limitation in any compliance reports submitted to the Department. For the testing performed in July 2011, the actual tested throughput of 2,890 gallons/day would result in a limitation of 3,179 gallons/day. [§19.702 and §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]

16. The permittee shall maintain daily records of the amount of coating applied at the facility for the purposes of demonstrating compliance with Specific Condition 15. 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]

17. The Department has reviewed the following listed compounds and determined that they may be emitted as pure substances at the maximum allowable usage rate. These compounds are exempt from the requirements of Specific Condition 19 provided that the facility complies with Specific Conditions 13 and 15. [§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	CAS #	TLV (mg/m^3)
Cumene	98-82-8	245.79
Ethyl Benzene	100-41-4	86.84
Isophorone	78-59-1	28.26
Naphthalene	91-20-3	52.43
Toluene	108-88-3	75.36
Xylene	1330-20-7	434.19
Methyl Isobutyl Ketone	108-10-1	81.93
Dimethyl Phthalate	131-11-3	5.00
Methyl chloroform	71-55-6	1,909.9
Propylene dichloride	78-87-5	46.21
Trichloroethylene	79-01-6	53.74
Ethyl chloride	75-00-3	263.89
Methanol	67-56-1	262.09
1,1,2-Trichloroethane	79-00-5	54.56
1,1,2,2-Tetrachloroethane	79-34-5	6.87
Methyl methacrylate	80-62-6	204.70
n-Hexane	110-54-3	176.24
Methyl chloride	74-87-3	103.25
Tetrachloroethylene	127-18-4	169.53

Pollutant	CAS #	TLV (mg/m^3)
Styrene	100-42-5	85.20
Chloroform	67-66-3	48.83
1,4-Dioxane	123-91-1	72.07
1,4-Dichlorobenzene(p)	106-46-7	60.13
Chlorobenzene	108-90-7	46.04
Ethylene dichloride	107-06-2	40.47
2-Nitropropane	79-46-9	36.44
Chloroprene	126-99-8	36.21
Vinyl acetate	108-05-4	35.21
Acetonitrile	75-05-8	33.58
Carbon tetrachloride	56-23-5	31.46
Carbon disulfide	75-15-0	31.11
Dimethyl formamide	68-12-2	29.89
Dichloroethyl ether	111-44-4	29.25
N,N-Diethyl aniline	121-69-7	24.79
Catechol	120-80-9	22.52
m-Cresol	108-39-4	20
o-Cresol	95-48-7	20
p-Cresol	106-44-5	20
Ethyl acrylate	140-88-5	20.47
Vinylidene chloride	75-01-4	2.56
Phenol	108-95-2	19.25
Methyl iodide	74-88-4	11.61
Hexachloroethane	67-72-1	9.68
o-Toluidine	95-53-4	8.77
Aniline	62-53-3	7.62
Phthalic anhydride	85-44-9	6.06
Acrylic acid	79-10-7	5.90
Nitrobenzene	98-95-3	5.04
Propylene oxide	75-56-9	4.75
1,3-Dichloropropene	542-75-6	4.54
1,3-Butadiene	106-99-0	4.42
Acrylonitrile	107-13-1	4.34
Triethylamine	121-44-8	4.14
Allyl chloride	107-05-01	3.13

18. The facility shall not exceed the following solvent/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	10.0
Formaldehyde	4.5

Sufficient proof of compliance shall be demonstrated by complying with Specific Conditions 11, 13, and 15, and maintaining a collection of current coating and solvent MSDSs, and the maximum content by weight for the pollutants listed above.

19. HAP-containing materials not listed in Specific Conditions 17 and 18 are allowable for use within the parameters listed below: [Regulation 18, §18.1004 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

Any HAP which is a volatile organic compound (VOC) may be used within the content by weight limits described in the following table:

Minimum HAPs TLV (mg/m^3)	**Maximum Content (lb/gal)**
3.26	9.92
2.47	7.51
1.48	4.50
0.5	1.52
0.47	1.40
0.01	0.03

Compliance will be determined using ACGIH TLV values as listed in the 2011 ACGIH handbook of Threshold Limit Values (TLVs) and Biological Exposure Indices (BEIs). If no TLV is available from this source, the facility may request the use of an alternate value from the Department. Proof of compliance with the TLV limits shall be kept on site and made available to Department personnel upon request. Sufficient proof of compliance shall be a collection of current coating and solvent MSDS sheets, along with an up-to-date summary sheet listing each HAP emitted, its TLV, and its maximum weight percent in any material used. The permittee shall update TLV values for HAPs in use upon receipt of new or updated MSDS sheets.

20. 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:

$$ED = \sqrt{\left(\frac{4 * area}{\prod}\right)}$$

    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]

21. The permittee shall maintain documentation of the design parameters which demonstrate compliance with Specific Conditions 20(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]

22. 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 20(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. [§19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

NSPS Conditions

23. 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)]

24. 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)]

25. 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 (thermal oxidizer), the facility shall determine the destruction efficiency according to the following equation.

       $E = [\Sigma (Q_n * C_n) - \Sigma (Q_m * C_m)] / \Sigma (Q_n * C_n)$ [§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

26. 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 thermal oxidizer drops as defined under 40 CFR §60.464(c). If no such periods occur, the facility may submit the report semiannually in accordance with 40 CFR 60.7(c). [§19.304 of Regulation 19 and 40 CFR 60.465(d)]

27. 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)]

28. The permittee shall maintain, at the source, daily records of the thermal oxidizer combustion temperature. [§19.304 of Regulation 19 and 40 CFR §60.465(e)]

29. 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]

Section V: INSIGNIFICANT ACTIVITIES

The Department deems the following types of activities or emissions as insignificant on the basis of size, emission rate, production rate, or activity in accordance with Group A of the Insignificant Activities list found in Regulation 18 and 19 Appendix A. Insignificant activity emission determinations rely upon the information submitted by the permittee in applications dated April 5, 2011, and May 12, 2011.

Description	Category
3.0 MMBtu/hr burners on Tanks 5 and 6	A-1
"Wet" Section Tanks 1, 1A, 2, 2A, 3, 3A, 4, 5, and 6	A-4
Laboratory Hood and Lab Oven	A-5
Roller Trimmer Lathe	A-13
Prime Coat Cooler Vent and Finish Coat Cooler Vent	B-49
Gasoline Storage Tank (100 gallon cap)	A-13
Diesel Storage Tank (100 gallon cap)	A-2
Drum Storage Room Exhaust Vent	B-3
Cooling Tower	A-13
Salt Spray Unit	B-38
Methyl Ethyl Ketone (MEK) Rub	A-13

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 §8-4-304 and §8-4-311]

3. The permittee shall 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 §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 §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 §8-4-304 and §8-4-311]

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 §8-4-304 and §8-4-311]

   Arkansas Department of Environmental Quality
   Air Division
   ATTN: Compliance Inspector Supervisor

7. The permittee shall 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) business days in advance of such test. The permittee must submit compliance test results to the Department within thirty (30) calendar 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 §8-4-304 and §8-4-311]

8. The permittee shall provide: [Regulation 19 §19.702 and/or Regulation 18 §18.1002 and A.C.A. §8-4-203 as referenced by §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; and
   d. Utilities for sampling and testing equipment

9. The permittee shall operate equipment, control apparatus and emission monitoring equipment within their design limitations. The permittee shall 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 §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 §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 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 §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 §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 §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, 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 §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 §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 §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 §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)]

19. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:

    a. Such an extension does not violate a federal requirement;
    b. The permittee demonstrates the need for the extension; and
    c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

    [Regulation 18 §18.314(A), Regulation 19 §19.416(A), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

20. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facilities total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:

    a. Such a request does not violate a federal requirement;
    b. Such a request is temporary in nature;
    c. Such a request will not result in a condition of air pollution;
    d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
    e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
    f. The permittee maintains records of the dates and results of such temporary emissions/testing.

    [Regulation 18 §18.314(B), Regulation 19 §19.416(B), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

21. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:
    a. The request does not violate a federal requirement;
    b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
    c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

    [Regulation 18 §18.314(C), Regulation 19 §19.416(C), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

APPENDIX A

40 CFR Part 60 Subpart TT – *Standards of Performance for Metal Coil Surface Coating*

Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart TT—Standards of Performance for Metal Coil Surface Coating

Source: 47 FR 49612, Nov. 1, 1982, unless otherwise noted.

§ 60.460 Applicability and designation of affected facility.

(a) The provisions of this subpart apply to the following affected facilities in a metal coil surface coating operation: each prime coat operation, each finish coat operation, and each prime and finish coat operation combined when the finish coat is applied wet on wet over the prime coat and both coatings are cured simultaneously.

(b) This subpart applies to any facility identified in paragraph (a) of this section that commences construction, modification, or reconstruction after January 5, 1981.

§ 60.461 Definitions.

(a) All terms used in this subpart not defined below are given the same meaning as in the Act or in subpart A of this part.

Coating means any organic material that is applied to the surface of metal coil.

Coating application station means that portion of the metal coil surface coating operation where the coating is applied to the surface of the metal coil. Included as part of the coating application station is the flashoff area between the coating application station and the curing oven.

Curing oven means the device that uses heat or radiation to dry or cure the coating applied to the metal coil.

Finish coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the final coating(s) on the surface of the metal coil. Where only a single coating is applied to the metal coil, that coating is considered a finish coat.

Metal coil surface coating operation means the application system used to apply an organic coating to the surface of any continuous metal strip with thickness of 0.15 millimeter (mm) (0.006 in.) or more that is packaged in a roll or coil.

Prime coat operation means the coating application station, curing oven, and quench station used to apply and dry or cure the initial coating(s) on the surface of the metal coil.

Quench station means that portion of the metal coil surface coating operation where the coated metal coil is cooled, usually by a water spray, after baking or curing.

VOC content means the quantity, in kilograms per liter of coating solids, of volatile organic compounds (VOC's) in a coating.

(b) All symbols used in this subpart not defined below are given the same meaning as in the Act and in subpart A of this part.

C_a= the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon).

C_b= the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon).

C_f= the VOC concentration in each gas steam emitted directly to the atmosphere (parts per million by volume, as carbon).

D_c= density of each coating, as received (kilograms per liter).

D_d= density of each VOC-solvent added to coatings (kilograms per liter).

D_r= density of VOC-solvent recovered by an emission control device (kilograms per liter).

E= VOC destruction efficiency of the control device (fraction).

F= the proportion of total VOC's emitted by an affected facility that enters the control device (fraction).

G= volume-weighted average mass of VOC's in coatings consumed in a calendar month per unit volume of coating solids applied (kilograms per liter).

L_c= the volume of each coating consumed, as received (liters).

L_d= the volume of each VOC-solvent added to coatings (liters).

L_r= the volume of VOC-solvent recovered by an emission control device (liters).

L_s= the volume of coating solids consumed (liters).

M_d= the mass of VOC-solvent added to coatings (kilograms).

M_o= the mass of VOC's in coatings consumed, as received (kilograms).

M_r= the mass of VOC's recovered by an emission control device (kilograms).

N= the volume-weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter).

Q_a= the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour).

Q_b= the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).

Q_f= the volumetric flow rate of each gas steam emitted directly to the atmosphere (dry standard cubic meters per hour).

R= the overall VOC emission reduction achieved for an affected facility (fraction).

S= the calculated monthly allowable emission limit (kilograms of VOC per liter of coating solids applied).

V_s= the proportion of solids in each coating, as received (fraction by volume).

W_o= the proportion of VOC's in each coating, as received (fraction by weight).

§ 60.462 Standards for volatile organic compounds.

(a) On and after the date on which §60.8 requires a performance test to be completed, each owner or operator subject to this subpart shall not cause to be discharged into the atmosphere more than:

(1) 0.28 kilogram VOC per liter (kg VOC/ *l*) of coating solids applied for each calendar month for each affected facility that does not use an emission control device(s); or

(2) 0.14 kg VOC/ *l* of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(3) 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

(4) A value between 0.14 (or a 90-percent emission reduction) and 0.28 kg VOC/ *l* of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

§ 60.463 Performance test and compliance provisions.

(a) Section 60.8(d) and (f) do not apply to the performance test.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under §60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.

(c) The owner or operator shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/ *l* of coating solids applied.

(1) An owner or operator shall use the following procedures for each affected facility that does not use a capture system and control device to comply with the emission limit specified under §60.462(a)(1). The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysisof each coating, as received, using Method 24. The Administrator may require the owner or operator who uses formulation data supplied by the manufacturer of the coatings to determine the VOC content of coatings using Method 24 or an equivalent or alternative method. The owner or operator shall determine the volume of coating and the mass of VOC-solvent added to coatings from company records on a monthly basis. If a common coating distribution system serves more than one affected facility or serves both affected and existing facilities, the owner or operator shall estimate the volume of coating used at each affected facility by using the average dry weight of coating and the surface area coated by each affected and existing facility or by other procedures acceptable to the Administrator.

(i) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied during each calendar month for each affected facility, except as provided under paragraph (c)(1)(iv) of this section. The weighted average of the total mass of VOC's used per unit volume of coating solids applied each calendar month is determined by the following procedures.

(A) Calculate the mass of VOC's used (Mo+Md) during each calendar month for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj} \qquad Equation\ 1$$

($\Sigma L_{dj} D_{dj}$ will be 0 if no VOC solvent is added to the coatings, as received)

where

n is the number of different coatings used during the calendar month, and

m is the number of different VOC solvents added to coatings used during the calendar month.

(B) Calculate the total volume of coating solids used (L_s) in each calendar month for each affected facility by the following equation:

$$L_s = \sum_{i=1}^{n} V_{si} L_{ci} \quad \textit{Equation 2}$$

Where:

n is the number of different coatings used during the calendar month.

(C) Calculate the volume-weighted average mass of VOC's used per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{L_s} \quad \textit{Equation 3}$$

(ii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during the calendar month for each affected facility by the following equation:

$$N = G \quad \textit{Equation 4}$$

(iii) Where the volume-weighted average mass of VOC's discharged to the atmosphere per unit volume of coating solids applied (N) is equal to or less than 0.28 kg/ *l,* the affected facility is in compliance.

(iv) If each individual coating used by an affected facility has a VOC content, as received, that is equal to or less than 0.28 kg/ *l* of coating solids, the affected facility is in compliance provided no VOC's are added to the coatings during distribution or application.

(2) An owner or operator shall use the following procedures for each affected facility that continuously uses a capture system and a control device that destroys VOC's (e.g., incinerator) to comply with the emission limit specified under §60.462(a) (2) or (3).

(i) Determine the overall reduction efficiency (R) for the capture system and control device.

For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed in paragraphs (c)(2)(i) (A), (B), and (C) of this section. In subsequent months, the owner or operator may use the most recently determined overall reduction efficiency (R) for the performance test, providing control device and capture system operating conditions have not changed. The procedure in paragraphs (c)(2)(i) (A), (B), and (C) of this section, shall be repeated when directed by the Administrator or when the owner or operator elects to operate the control device or capture system at conditions different from the initial performance test.

(A) Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:

$$F = \frac{\sum_{i=1}^{j} C_{ai} Q_{ai}}{\sum_{i=1}^{j} C_{ai} Q_{ai} + \sum_{i=1}^{k} C_{fi} Q_{fi}}$$

Equation 5

Where:

I is the number of gas streams entering the control device, and

p is the number of gas streams emitted directly to the atmosphere.

(B) Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

$$E=\frac{\sum_{j=1}^{p} Q_{bj}C_{bj}-\sum_{i=1}^{n} Q_{ai}C_{ai}}{\sum_{i=1}^{n} Q_{ai}C_{ai}}$$

Equation 6

Where:

n is the number of gas streams entering the control device, and

m is the number of gas streams leaving the control device and entering the atmosphere.

The owner or operator of the affected facility shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in §60.466. The owner or operator of the affected facility shall construct a temporary enclosure around the coating applicator and flashoff area during the performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOC emissions are measurable. If a permanent enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is adequately containing VOC emissions, no additional enclosure is required for the performance test.

(C) Determine overall reduction efficiency (R) using the following equation:

$$R=EF \qquad \textit{Equation 7}$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) shall be computed as follows.

(ii) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (A), (B), and (C) of this section.

(iii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:

$$N=G(1-R) \qquad \textit{Equation 8}$$

(iv) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/ *I* of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(3) An owner or operator shall use the following procedure for each affected facility that uses a control device that recovers the VOC's (e.g., carbon adsorber) to comply with the applicable emission limit specified under §60.462(a)(2) or (3).

(i) Calculate the total mass of VOC's consumed (M_o+M_d) during each calendar month for each affected facility using equation (1).

(ii) Calculate the total mass of VOC's recovered (M_r) during each calendar month using the following equation:

$$M_r = L_r D_r \quad \textit{Equation 9}$$

(iii) Calculate the overall reduction efficiency of the control device (R) for each calendar month for each affected facility using the following equation:

$$R = \frac{M_r}{M_o + M_d} \quad \textit{Equation 10}$$

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) must be computed as follows.

(iv) Calculate the total volume of coating solids consumed (L_s) and the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (B) and (C) of this section.

(v) Calculate the volume-weighted average mass of VOC's emitted to the atmosphere (N) for each calendar month for each affected facility using equation (8).

(vi) If the weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/ l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

(4) An owner or operator shall use the following procedures for each affected facility that intermittently uses a capture system and a control device to comply with the emission limit specified in §60.462(a)(4).

(i) Calculate the total volume of coating solids applied without the control device in operation (L_{sn}) during each calendar month for each affected facility using the following equation:

$$L_{sn} = \sum_{i-1}^{n} V_{si} L_{ci} \quad \textit{Equation 11}$$

Where:

n is the number of coatings used during the calendar month without the control device in operation.

(ii) Calculate the total volume of coating solids applied with the control device in operation (L_{sc}) during each calendar month for each affected facility using the following equation:

$$L_{sc} = \sum_{i-1}^{n} V_{si} L_{ci} \quad \textit{Equation 12}$$

Where:

n is the number of coatings used during the calendar month with the control device in operation.

(iii) Calculate the mass of VOC's used without the control device in operation ($M_{on}+M_{dn}$) during each calendar month for each affected facility using the following equation:

$$M_{on} + M_{dn} + \sum_{i=1}^{n} L_{ci} D_{ci} W_{ci} + \sum_{j=1}^{m} L_{sj} D_{sj} \quad Equation\ 13$$

Where:

n is the number of different coatings used without the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used without the control device in operation during the calendar month.

(iv) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied without the control device in operation (G_n) during each calendar month for each affected facility using the following equation:

$$G_n = \frac{M_{on} + M_{dn}}{L_{sn}} \quad Equation\ 14$$

(v) Calculate the mass of VOC's used with the control device in operation ($M_{oc}+M_{dc}$) during each calendar month for each affected facility using the following equation:

$$M_{oc} + M_{dc} = \sum_{i=1}^{n} L_{ci} D_{ci} W_{ci} + \sum_{i=1}^{m} L_{sj} D_{sj} \quad Equation\ 15$$

Where:

n is the number of different coatings used with the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used with the control device in operation during the calendar month.

(vi) Calculate the volume-weighted average of the total mass of VOC's used per unit volume of coating solids applied with the control device in operation (G_c) during each calendar month for each affected facility using the following equation:

$$G = \frac{M_{oc} + M_{dc}}{L_{sn}} \quad Equation\ 16$$

(vii) Determine the overall reduction efficiency (R) for the capture system and control device using the procedures in paragraphs (c)(2)(i) (A), (B), and (C) or paragraphs (c)(3) (i), (ii), and (iii) of this section, whichever is applicable.

(viii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month for each affected facility using the following equation:

$$N=\frac{G_n L_{sn}+G_c L_{sc}(1-R)}{L_{sn}+L_{sc}} \qquad Equation\ 17$$

Equation 17

(ix) Calculate the emission limit(s) for each calendar month for each affected facility using the following equation:

$$S=\frac{0.28\,L_{sn}+0.1\,G_c L_{sc}}{L_{ns}+L_{sc}}$$

or

$$\frac{0.28\,L_{sn}+0.14\,L_{sc}}{L_{sn}+L_{sc}} \qquad Equation\ 18$$

whichever is greater.

(x) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to the calculated emission limit (S) for the calendar month, the affected facility is in compliance. Each monthly calculation is a performance test.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

§ 60.464 Monitoring of emissions and operations.

(a) Where compliance with the numerical limit specified in §60.462(a) (1) or (2) is achieved through the use of low VOC-content coatings without the use of emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, the owner or operator shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in §60.463.

(b) Where compliance with the limit specified in §60.462(a)(4) is achieved through the intermittent use of emission control devices, the owner or operator shall compute and record for each affected facility the average VOC content of coatings applied during each calendar month according to the equations provided in §60.463.

(c) If thermal incineration is used, each owner or operator subject to the provisions of this subpart shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with §60.462(a)(2), (3), or (4). This device shall have an accuracy of ±2.5 °C. or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. Each owner or operator shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to control emissions from an affected facility remains more than 28 °C (50 °F) below the temperature at which compliance with §60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by §60.8. The records required by §60.7 shall identify each such occurrence and its duration. If catalytic incineration is used, the owner or operator shall install, calibrate, operate, and maintain a device to monitor and record continuously the gas temperature both upstream and downstream of the incinerator catalyst bed. This device shall have an accuracy of ±2.5 °C. or ±0.75 percent of the temperature being measured expressed in degrees Celsius, whichever is greater. During coating operations, the owner or operator shall record all periods in excess of 3 hours where the average difference between the temperature upstream and downstream of the incinerator catalyst bed remains below 80 percent of the temperature difference at which compliance was demonstrated during the most recent measurement of incinerator efficiency or when the inlet

temperature falls more than 28 °C (50 °F) below the temperature at which compliance with §60.462(a)(2), (3), or (4) was demonstrated during the most recent measurement of incinerator efficiency required by §60.8. The records required by §60.7 shall identify each such occurrence and its duration.

[47 FR 49612, Nov. 1, 1982; 48 FR 1056, Jan. 10, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

§ 60.465 Reporting and recordkeeping requirements.

(a) Where compliance with the numerical limit specified in §60.462(a) (1), (2), or (4) is achieved through the use of low VOC-content coatings without emission control devices or through the use of higher VOC-content coatings in conjunction with emission control devices, each owner or operator subject to the provisions of this subpart shall include in the initial compliance report required by §60.8 the weighted average of the VOC content of coatings used during a period of one calendar month for each affected facility. Where compliance with §60.462(a)(4) is achieved through the intermittent use of a control device, reports shall include separate values of the weighted average VOC content of coatings used with and without the control device in operation.

(b) Where compliance with §60.462(a)(2), (3), or (4) is achieved through the use of an emission control device that destroys VOC's, each owner or operator subject to the provisions of this subpart shall include the following data in the initial compliance report required by §60.8:

(1) The overall VOC destruction rate used to attain compliance with §60.462(a)(2), (3), or (4) and the calculated emission limit used to attain compliance with §60.462(a)(4); and

(2) The combustion temperature of the thermal incinerator or the gas temperature, both upstream and downstream of the incinerator catalyst bed, used to attain compliance with §60.462(a)(2), (3), or (4).

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.462. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

(d) The owner or operator of each affected facility shall also submit reports at the frequency specified in §60.7(c) when the incinerator temperature drops as defined under §60.464(c). If no such periods occur, the owner or operator shall state this in the report.

(e) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal incineration, each owner or operator shall maintain, at the source, daily records of the incinerator combustion temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed.

[47 FR 49612, Nov. 1, 1982, as amended at 55 FR 51383, Dec. 13, 1990; 56 FR 20497, May 3, 1991; 65 FR 61761, Oct. 17, 2000]

§ 60.466 Test methods and procedures.

(a) The reference methods in appendix A to this part, except as provided under §60.8(b), shall be used to determine compliance with §60.462 as follows:

(1) Method 24, or data provided by the formulator of the coating, shall be used for determining the VOC content of each coating as applied to the surface of the metal coil. In the event of a dispute, Method 24 shall be the reference method. When VOC content of waterborne coatings, determined by Method 24, is used to determine compliance of affected facilities, the results of the Method 24 analysis shall be adjusted as described in Section 12.6 of Method 24;

(2) Method 25, both for measuring the VOC concentration in each gas stream entering and leaving the control device on each stack equipped with an emission control device and for measuring the VOC concentration in each gas stream emitted directly to the atmosphere;

(3) Method 1 for sample and velocity traverses;

(4) Method 2 for velocity and volumetric flow rate;

(5) Method 3 for gas analysis; and

(6) Method 4 for stack gas moisture.

(b) For Method 24, the coating sample must be at least a 1-liter sample taken at a point where the sample will be representative of the coating as applied to the surface of the metal coil.

(c) For Method 25, the sampling time for each of three runs is to be at least 60 minutes, and the minimum sampling volume is to be at least 0.003 dscm (0.11 dscf); however, shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(d) The Administrator will approve testing of representative stacks on a case-by-case basis if the owner or operator can demonstrate to the satisfaction of the Administrator that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks.

CERTIFICATE OF SERVICE

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Amerimax Coated Products, 215 Phillips County Road 324, Helena, AR, 72342, on this 7th day of December, 2011.

Cynthia Hook, ASIII, Air Division