Statement of Basis

Permit to Construct No. P-2016.0072
Project ID 61830

Rhino Metals, Inc.
Caldwell, Idaho

Facility ID 027-00169

Final

March 29, 2017
Morrie Lewis
Permit Writer

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
BRC	below regulatory concern for criteria pollutants as provided in IDAPA 58.01.01.221.01
Btu	British thermal units
CAA	Clean Air Act
CAS No.	Chemical Abstracts Service registry number
CFR	Code of Federal Regulations
CMS	continuous monitoring systems
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
day	calendar day
DEQ	Department of Environmental Quality
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
gal	gallons
GHG	greenhouse gases
HAP	hazardous air pollutants
hr	clock hours
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb	pounds
MACT	Maximum Achievable Control Technology
mo	calendar month
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
Rules	Rules for the Control of Air Pollution in Idaho
SDS	Safety Data Sheet
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO_2	sulfur dioxide
T	tons
T2	Tier II operating permit
TAP	toxic air pollutants
U.S.C.	United States Code
VOC	volatile organic compounds
yr	consecutive 12-calendar-month period

FACILITY INFORMATION

Description

Rhino Metals, Inc. fabricates metal furniture, including metal safes. Activities include coating, curing, cutting, and welding operations.

Metal Fabrication and Interior Finishing

Steel is cut and welded into product components. Steel is cut using a Computer Numeric Control (CNC) Plasma Cutting Machine and a CNC Fiber Laser Cutting Machine, each equipped with downdraft systems with internal baghouses; these units exhaust inside the building. Gas Metal Arc welding (GMAW) is conducted using welding machines.

Welded steel components are taken to the product finishing area and prepared for coating and curing (Section 3). After completion of exterior painting, interiors of the metal security safes are fitted with gypsum board for fire protection and fabric-upholstered wood particleboard for shelving. Gypsum board cutting, particleboard cutting, and fabric upholstery is all completed indoors. Particleboard is cut using CNC router cutting machines equipped with downdraft systems with an internal baghouse; the units exhaust inside the building. The fabric upholstery is adhered to particleboard using a water-based glue.

No atmospheric emissions sources are associated with these processes.

Coating and Curing

Welded steel components are prepped and coated. Surface preparation involves the application of bonding fillers, light sanding and surface cleaning in two wash bays that utilize a VOC free solution to remove debris from the safes.

Product is placed into spray booths for primer application, coating application, and drying. The spray booths are each heated with natural gas-fired heaters, and equipped with particulate filtration systems.

In the facilities research and development portion of the building, a powder coating process utilizes VOC-free content coatings and a curing oven on an as-needed basis.

Permitting History and Application Scope

This is the initial PTC for an existing facility, thus there is no permitting history.

The applicant has proposed to:

- Install and operate two spray booths to transition from a powder coating to spray-applied coating process.

Application Chronology

December 13, 2016	DEQ received an application and an application fee.
December 20, 2016 – January 4, 2017	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
January 11, 2017	DEQ determined that the application was complete.
February 2, 2017	DEQ made available the draft permit and statement of basis for peer and regional office review.
February 3 and 17, 2017	DEQ made available the draft permit and statement of basis for applicant review.
March 21, 2017	DEQ received the permit processing fee.
March 29, 2017	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 Emissions Unit and Control Equipment Information

Source	Control Equipment
CNC Plasma Cutting Machine	Reasonable control of fugitive emissions Cutting operations are conducted within an enclosed building; emissions may also be captured and vented to a fume collector and filtration system.
CNC Fiber Laser Cutting Machine	Reasonable control of fugitive emissions Cutting operations are conducted within an enclosed building; emissions may also be captured and vented to a fume collector and filtration system.
Spray Booth # 1 Manufacturer: Thermotek or equivalent [(a)] Model: RAM2.36-A20-18A or equivalent [(a)] Maximum capacity: 1,417,500 Btu/hr Fuel: natural gas Date of installation: 3/22/2016 Maximum operation: 15,816,176 scf/yr (facility-wide) Maximum operation: 119.1 gal/day, 44,484 gal/yr, or as limited by Coating Emission Limits (facility-wide)	Reasonable control of fugitive emissions Spray coatings are applied within an enclosed building, or emissions may be captured and vented to a filtration system; all spray guns have a minimum of 65% transfer efficiency (see below). Spray Booth # 1 filter system Particulate filtration method: dry filters Manufacturer: Air Flow Technologies Series [(a)] Model: 15g or equivalent [(a)] PM Control Efficiency: 98.81% or greater
Spray Booth # 2 Manufacturer: Thermotek or equivalent [(a)] Model: RAM2.36-A20-18A or equivalent [(a)] Maximum capacity: 1,417,500 Btu/hr Fuel: natural gas Date of installation: 3/22/2016 Maximum operation: 15,816,176 scf/yr (facility-wide) Maximum operation: 119.1 gal/day, 44,484 gal/yr, or as limited by Coating Emission Limits (facility-wide)	Reasonable control of fugitive emissions Spray coatings are applied within an enclosed building, or emissions may be captured and vented to a filtration system; all spray guns have a minimum of 65% transfer efficiency (see below). Spray Booth # 2 filter system Particulate filtration method: dry filters Manufacturer: Air Flow Technologies Series [(a)] Model: 15g or equivalent [(a)] PM Control Efficiency: 98.81% or greater
Spray guns Manufacturer: SATAjet or equivalent [(a)] Model: 5000 B RP or equivalent [(a)]	Reasonable control of fugitive emissions Spray coatings are applied within an enclosed building, or emissions may be captured and vented to a filtration system; all spray guns have a minimum of 65% transfer efficiency (see below). Spray guns Type: reduced pressure (RP) or equivalent [(a)] Transfer Efficiency: 65% or greater
Curing Oven Manufacturer: Power Flame or equivalent [(a)] Model: FD75-PB Maximum capacity: 750,000 Btu/hr Fuel: natural gas Date of installation: (unknown) Maximum operation: 15,816,176 scf/yr (facility-wide)	None
GMAW Welding Machines Manufacturers: Miller or equivalent [(a)] Models: Millermatic 252 or equivalent [(a)] Electrode type: E70S [(a)] Maximum operation: 30,660 lb electrode/yr	Reasonable control of fugitive emissions Welding operations are conducted within an enclosed building; emissions may also be captured and vented to a fume collector and filtration system.

(a) "or equivalent" equipment is equipment which has equivalent or less maximum capacity and equivalent or lower pollutant emission rates, whether calculated based on maximum design capacity or based on established permit limits. Use of replacement equipment shall not result in the emission of any regulated air pollutant not previously emitted, and shall not result in an emission increase as defined in IDAPA 58.01.01.007.

Emissions Inventories

Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition, Potential to Emit was used to determine the facility-wide emissions of criteria pollutant, HAP, and TAP emissions (see Appendix A) to demonstrate preconstruction compliance with TAP screening emission levels (EL) and "below regulatory concern" (BRC) criteria pollutant levels, and to ensure VOC and HAP major source applicability thresholds were not exceeded. Emission inventories were based on process information specific to the facility for this proposed project, natural gas combustion emission factors from AP-42,[1] formulation data from material safety data sheets (SDS), manufacturer specification sheets for spray gun transfer efficiencies, annual usage of 15.8 MMscf/yr for combustion units (Permit Condition 3.7) and daily and annual usage limits and formulation requirements for welding and coating operations (Permit Conditions 2.5, 3.6, and 3.8).

Actual operation of the facility will be at most two 10-hours shifts, 4 days per week, 52 weeks per year (or approximately 4,160 hours per year) due to equipment limitations and inherent limitations in the process. For spray coating operations, hourly emission rates were based on maximum material throughputs and equipment capacities.

This is an existing facility. However, since this is the first time the facility is receiving a permit, pre-project emissions were set to zero for all criteria pollutants.

Table 2 POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$		SO_2		NO_x		CO		VOC		Lead		HAP	
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]
Booth #1 Combustion	0.01	0.01	0.001	0.001	0.14	0.16	0.12	0.13	0.01	0.01	7E-07	8E-07	0.003	0.01
Booth #2 Combustion	0.01	0.01	0.001	0.001	0.14	0.16	0.12	0.13	0.01	0.01	7E-07	8E-07	0.003	0.01
Curing Oven	0.005	0.01	4E-04	0.001	0.07	0.17	0.06	0.14	0.004	0.01	4E-07	8E-07	0.001	0.00
Coatings	6E-05	0.56	0.00	0.00	0.00	0.00	0.00	0.00	18.55	81.27	0.00	0.00	3.11	13.60
Welding	0.02	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.001	0.0003
Post-Project Totals	**0.05**	**0.63**	**0.002**	**0.003**	**0.35**	**0.49**	**0.30**	**0.40**	**18.57**	**81.30**	**2E-6**	**3E-6**	**3.12**	**13.62**
BRC[c]		*1.00*		*4.00*		*4.00*		*10.00*		*4.00*		*0.06*		

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.
c) Potential emission rates are considered "below regulatory concern" for criteria pollutants when less than 10% of significant emission rates as defined in Section 006.

Non-Carcinogenic and Carcinogenic TAP Emissions

Estimated emission increases of non-carcinogenic and carcinogenic toxic air pollutants (TAP) were used to demonstrate preconstruction compliance with TAP screening emission levels (EL).

[1] Compilation of Air Pollutant Emission Factors, AP-42, Volume I, Fifth Edition (AP-42), Tables 1.4-1, 1.4-2, 1.4-3 and 1.4-4 in Section 1.4 – Natural Gas Combustion, Office of Air Quality Planning and Standards Office of Air and Radiation (OAQPS), EPA, July 1998.

Because annual usage of 15.8 MMscf/yr for combustion units (Permit Condition 3.7) and daily and annual usage limits and formulation requirements for welding and coating operations (Permit Conditions 2.5, 3.6, and 3.8) were established, no TAP EL specified in IDAPA 58.01.01.585–586 are expected to be exceeded by the facility (see Appendix A).

Modeling was not required for non-carcinogenic or carcinogenic TAP, because no TAP EL were exceeded as a result of this project.

HAP Emissions

Potential emissions of hazardous air pollutants (HAP) were estimated to ensure HAP major source thresholds were not exceeded (Table 2).

Because annual usage of 15.8 MMscf/yr for combustion units (Permit Condition 3.7) and daily and annual usage limits and formulation requirements for welding and coating operations (Permit Conditions 2.5, 3.6, and 3.8) were imposed and agreed to by the permittee, no individual nor combined HAP major source threshold are expected to be exceeded by the facility (see Appendix A).

Ambient Air Quality Impact Analyses

Modeling analyses was not performed for this project, because the facility-wide emissions of all regulated air pollutants except VOC were below the "below regulatory concern" (BRC) threshold levels of less than 10% of "significant" emission rates for criteria pollutants as defined in IDAPA 58.01.01.006. Modeling of TAP was not conducted, because the uncontrolled or controlled maximum emission rates of each TAP were below applicable screening emission levels (EL) in IDAPA 58.01.01.585–586. Refer to the Emissions Inventories section and Appendix A for additional information concerning the emission inventories.

With the exception of VOC, the estimated emission rates of criteria pollutants ($PM_{2.5}$, PM_{10}, SO_2, NO_x, and CO) from this project were below BRC and/or published DEQ modeling thresholds.[2] Annual usage of 15.8 MMscf/yr for combustion units (Permit Condition 3.7) and daily and annual usage limits and formulation requirements for welding and coating operations (Permit Conditions 2.5, 3.6, and 3.8) were established to limit criteria pollutant emissions to below BRC threshold levels. Fugitive emissions from cutting and welding activities were not included in each pollutant-by-pollutant BRC determination.[3]

The estimated emission rates of TAP from this project were below applicable EL in IDAPA 58.01.01.585-586. Estimated emission increases of TAP demonstrated preconstruction compliance with TAP standards in accordance with IDAPA 58.01.01.210.08 for controlled average emission rates (TAP from coating operations. Modeling analyses conducted in the development of TAP rules indicates that if a controlled average emission rate is below the applicable EL, controlled ambient concentrations are expected to be below the applicable acceptable ambient concentration. Daily and annual usage limits for coating operations (Permit Condition 3.6) were established in accordance with IDAPA 58.01.01.210.08.c to limit controlled TAP emissions from coating operations; required control equipment includes the use of HVLP or reduced pressure (RP) or HVLP spray guns.

The applicant has demonstrated preconstruction compliance to DEQ's satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The applicant has also demonstrated preconstruction compliance to DEQ's satisfaction that the emissions increase due to this permitting action will not exceed any acceptable ambient concentration (AAC) or acceptable ambient concentration for carcinogens (AACC) for toxic air pollutants (TAP).

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[2] Criteria pollutant thresholds in Table 2, State of Idaho Guideline for Performing Air Quality Impact Analyses, Doc ID AQ-011 (September 2013), September 2013, criteria pollutant BRC thresholds as provided in IDAPA 58.01.01.221.01, and DEQ guidance pertaining to BRC (2009ACF12).

[3] Fugitive emissions are defined at IDAPA 58.01.01.006.47, 40 CFR 52.21(b)(20), and 40 CFR 70.2 (2008AAF237).

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Canyon County, which is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification

The AIRS/AFS facility classification codes are as follows:

For THAP (Total Hazardous Air Pollutants) Only:

A = Use when any one HAP has actual or potential emissions ≥ 10 T/yr or if the aggregate of all HAP (Total HAP) has actual or potential emissions ≥ 25 T/yr.

SM80 = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the permit sets limits ≥ 8 T/yr of a single HAP or ≥ 20 T/yr of THAP.

SM = Use if a synthetic minor (potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable limitations) and the potential HAP emissions are limited to < 8 T/yr of a single HAP and/or < 20 T/yr of THAP.

B = Use when the potential to emit without permit restrictions is below the 10 and 25 T/yr major source threshold

UNK = Class is unknown

For All Other Pollutants:

A = Actual or potential emissions of a pollutant are ≥ 100 T/yr.

SM80 = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the pollutant are ≥ 80 T/yr.

SM = Use if a synthetic minor for the applicable pollutant (potential emissions fall below 100 T/yr if and only if the source complies with federally enforceable limitations) and potential emissions of the pollutant are < 80 T/yr.

B = Actual and potential emissions are < 100 T/yr without permit restrictions.

UNK = Class is unknown.

Table 3 REGULATED AIR POLLUTANT FACILITY CLASSIFICATION

Pollutant	Uncontrolled PTE (T/yr)	Permitted PTE (T/yr)	Major Source Thresholds (T/yr)	AIRS/AFS Classification
PM	0.76	0.63	**100**	B
$PM_{10}/PM_{2.5}$	0.76	0.63	**100**	B
SO_2	0.009	0.003	**100**	B
NO_x	1.54	0.49	**100**	B
CO	1.29	0.40	**100**	B
VOC	≥ 81.35	81.30	**100**	SM80
HAP (single)	≥ 7.13	9.49	**10**	SM80
HAP (Total)	≥ 16.20	15.0	**25**	SM

Permit to Construct (IDAPA 58.01.01.201)

The permittee requested that a PTC be issued to the facility for the proposed emissions sources (Application Scope). Therefore, a permit to construct is issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Particulate Matter – Process Weight Limitations (IDAPA 58.01.01.700-703)

In accordance with IDAPA 58.01.01.700.02, no source shall be required to meet an emission limit of less than 1 lb/hr as determined based on process weight rate.

Reasonable control of fugitive emissions and compliance with emission limits for coating operations (Permit Conditions 2.4, 3.9, and 3.3) were considered adequate to ensure compliance with the facility-wide process weight-based PM emission limitation. The BRC threshold for $PM_{2.5}$ was more stringent than the minimum allowable process weight-based PM emission limit specified in IDAPA 58.01.01.700.02

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

The facility does not have a potential to emit greater than 100 tons per year for any criteria pollutant (e.g., $PM_{2.5}$, PM_{10}, SO_2, NO_x, CO, and VOC), or 10 tons per year for any one HAP, or 25 tons per year for all HAP combined (e.g., cadmium, nickel, formaldehyde, arsenic, etc.) as demonstrated in the Emissions Inventories section and in Appendix A. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 were not applicable.

PSD Classification (40 CFR 52.21)

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

Because organic coatings are applied in Spray Booths, which are metal furniture surface coating operations – these are affected facilities subject to 40 CFR 60, Subpart EE–Standards of Performance for Surface Coating of Metal Furniture. DEQ has been delegated regulatory authority for Subpart EE.

Refer to Appendix B for a detailed regulatory analysis of applicable requirements for Subpart EE.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

The facility is not subject to any NESHAP requirements in 40 CFR 63.

Permit Conditions Review

This section describes those permit conditions that have been added as a result of this permitting action.

Permit Conditions 1.1

This permit condition describes the scope of this permitting action.

Permit Condition 1.2

This permit condition describes the emission sources and control equipment regulated by this permit.

Permit Conditions 2.1 and 2.2

These permit conditions describe cutting and welding operations and associated control equipment.

Permit Condition 2.3

This permit condition incorporates opacity limits for heating unit stacks in accordance with IDAPA 58.01.01.625.

Permit Condition 2.4

This permit condition incorporates fugitive emission requirements for cutting and welding operations in accordance with IDAPA 58.01.01.650-651.

Permit Conditions 2.5 and 2.6

These permit conditions limit usage of electrode consumed in the welding machines. Emission estimates used in development of the emission inventories are limited below regulatory concern based on the specified electrode type and assuming that annual electrode usage does not exceed these limits. Compliance is assured by monthly monitoring and recordkeeping of electrode usage (Permit Condition 2.6).

The applicant has requested compliance with coating and welding usage limits (Permit Conditions 2.5 and 3.6) in lieu of establishing limits on production, and has indicated that these limits will inherently limit other emission-generating activities (i.e., curing and cutting) because all products are coated.

Permit Conditions 3.1 and 3.2

These permit conditions describe the coating and curing operations and the control equipment associated with these operations.

Permit Conditions 3.3, 3.6, 3.8, 3.10, 3.12, and 3.15

These permit conditions limit emissions of $PM_{2.5}$, VOC, HAP, and TAP from coating operations. These limits were relied upon to demonstrate preconstruction compliance with relevant TAP screening emission levels (EL); to limit HAP and VOC emissions to below major source thresholds, and to demonstrate preconstruction compliance with BRC levels for $PM_{2.5}$ and PM_{10}

Compliance is assured by limiting coating material usage (Permit Condition 3.6), use of approved coating materials (Permit Condition 3.8), monitoring and recordkeeping daily and monthly coating material usage (Permit Condition 3.12), use of spray guns certified to achieve at least 65% transfer efficiency (Permit Condition 3.10), and recordkeeping of safety data sheets and purchase records (Permit Condition 3.15). The coating transfer efficiency for spray guns was used in developing the particulate HAP, TAP, $PM_{2.5}$, and PM_{10} emission inventories, and was relied upon to demonstrate preconstruction compliance with BRC levels for $PM_{2.5}$ and PM_{10}.

Use of alternative coating materials or alternative control equipment is permitted as long as ongoing compliance with TAP EL is demonstrated; emission calculation monitoring and recordkeeping requirements (Permit Condition 3.14) are required in lieu of complying with coating usage and formulation monitoring and recordkeeping requirements (Permit Conditions 3.6, 3.8, and 3.12) when reformulated coating materials or "equivalent" process and control equipment are used. Refer to additional discussion provided regarding Permit Condition 3.14 (below).

The applicant has requested compliance with coating and welding usage limits (Permit Conditions 2.5 and 3.6) in lieu of establishing limits on production, and has indicated that these limits will inherently limit other emission-generating activities (i.e., curing and cutting) because all products are coated.

Refer to the Emissions Inventories and Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70) sections for additional information.

Permit Conditions 3.4 and 3.11

These permit conditions incorporate odor emission limits for the facility in accordance with IDAPA 58.01.01.77-776. Compliance is assured by monitoring and responding to odor complaints (Permit Condition 3.11).

Permit Condition 3.5

This permit condition incorporates opacity limits for heating unit stacks in accordance with IDAPA 58.01.01.625.

Permit Conditions 3.7 and 3.13

These permit conditions limit annual fuel combusted in the spray booth heaters and the curing oven. These operating limits were used in developing TAP, HAP, and criteria pollutant emission inventories resulting from fuel combustion; were relied upon to limit criteria pollutant emissions below regulatory concern; were relied upon to demonstrate preconstruction compliance with all TAP EL; and were relied upon to limit HAP and VOC emissions below major source thresholds. Compliance is assured by monthly monitoring of fuel usage rates (Permit Condition 3.13).

Permit Condition 3.9

This permit condition incorporates fugitive emission requirements for coating and curing operations in accordance with IDAPA 58.01.01.650-651.

Permit Conditions 3.14

As provided above, the use of alternative coating materials or alternative control equipment is permitted as long as ongoing compliance with TAP EL is demonstrated; emission calculation monitoring and recordkeeping requirements (Permit Condition 3.14) is required in lieu of complying with coating usage and formulation monitoring and recordkeeping requirements (Permit Conditions 3.6, 3.8, and 3.12) when reformulated coating materials are used. Refer to additional discussion provided for Permit Condition 3.8 (below).

When alternative coating materials are in use, monitoring of emission calculations is required to assure compliance with emission limits (Permit Condition 3.3).

The applicant has proposed compliance with Subpart EE emission limits without relying upon the use of a capture system and a control device or VOC recovery device, and has requested exclusion of these compliance options and requirements from the permit. For this reason, monitoring requirements related to control devices were not established in the permit (e.g., O&M manual requirements).

Permit Condition 3.16 through 3.22

These permit conditions incorporate general compliance, notification, recordkeeping, reporting, applicable general provisions, and other requirements from NSPS Subparts A and EE. Refer to the NSPS Applicability (40 CFR 60) section and Appendix B for additional information. Because these requirements were relied upon to demonstrate preconstruction compliance with HAP TAP in accordance with IDAPA 58.01.01.210.20, these requirements should not be removed without evaluation of HAP TAP EL compliance.

The applicant has proposed compliance with emission limits without relying upon the use of a capture system and a control device or VOC recovery device, and has requested exclusion of these compliance options and requirements from the permit. Requirements not incorporated related to thermal or catalytic incineration include 40 CFR 60.313(c)(2), 40 CFR 60.314(a), and 40 CFR 60.315(a)(3), and 40 CFR 60.315(c); requirements not incorporated related to VOC recovery include 40 CFR 60.314(b), 40 CFR 60.313(c)(3), and 40 CFR 60.315(a)(4); and reference test methods 24 and 25 were also incorporated only by reference.

General Provision 4.1

The duty to comply general compliance provision requires that the permittee comply with all of the permit terms and conditions pursuant to Idaho Code §39-101.

General Provision 4.2

The maintenance and operation general compliance provision requires that the permittee maintain and operate all treatment and control facilities at the facility in accordance with IDAPA 58.01.01.211.

General Provision 4.3

The obligation to comply general compliance provision specifies that no permit condition is intended to relieve or exempt the permittee from compliance with applicable state and federal requirements, in accordance with IDAPA 58.01.01.212.01.

General Provision 4.4

The inspection and entry provision requires that the permittee allow DEQ inspection and entry pursuant to Idaho Code §39-108.

General Provision 4.5

The permit expiration construction and operation provision specifies that the permit expires if construction has not begun within two years of permit issuance or if construction has been suspended for a year in accordance with IDAPA 58.01.01.211.02.

General Provision 4.6

The notification of construction and operation provision requires that the permittee notify DEQ of the dates of construction and operation, in accordance with IDAPA 58.01.01.211.03.

General Provision 4.7

The performance testing notification of intent provision requires that the permittee notify DEQ at least 15 days prior to any performance test to provide DEQ the option to have an observer present, in accordance with IDAPA 58.01.01.157.03.

General Provision 4.8

The performance test protocol provision requires that any performance testing be conducted in accordance with the procedures of IDAPA 58.01.01.157, and encourages the permittee to submit a protocol to DEQ for approval prior to testing.

General Provision 4.9

The performance test report provision requires that the permittee report any performance test results to DEQ within 60 days of completion, in accordance with IDAPA 58.01.01.157.04-05.

General Provision 4.10

The monitoring and recordkeeping provision requires that the permittee maintain sufficient records to ensure compliance with permit conditions, in accordance with IDAPA 58.01.01.211.

General Provision 4.11

The excess emissions provision requires that the permittee follow the procedures required for excess emissions events, in accordance with IDAPA 58.01.01.130-136.

General Provision 4.12

The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.

General Provision 4.13

The false statement provision requires that no person make false statements, representations, or certifications, in accordance with IDAPA 58.01.01.125.

General Provision 4.14

The tampering provision requires that no person render inaccurate any required monitoring device or method, in accordance with IDAPA 58.01.01.126.

General Provision 4.15

The transferability provision specifies that this permit to construct is transferable, in accordance with the procedures of IDAPA 58.01.01.209.06.

General Provision 4.16

The severability provision specifies that permit conditions are severable, in accordance with IDAPA 58.01.01.211.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the Application Chronology section for public comment opportunity dates.

APPENDIX A – EMISSION INVENTORIES

3.6. POTENTIAL TO EMIT

The Rhino Metals facility will be a minor source of criteria pollutants and HAPs/TAPs. The facility-wide potential to emit is shown in Error! Reference source not found., **Table 3-2** and **Table 3-3** below.

The facility will operate (at most) two (2) 10 hours-shifts, 4 days a week, 52 weeks a year (or approximately 4,160 hours per year) due to equipment limitations and inherent limitations in the process. Annual emission rates are based on a maximum of 4,500 hours per year. Per discussion with IDEQ, annual emissions from the spray booth heaters will be based on 2,250 hours per year due to the fact that during material preparation work and spraying, the heater burners are not operated. Because the facility will only operate 20 hours per day, for pollutants with a 24-hour standard, the maximum lb/hr emission rate will be multiplied by a ratio of 20/24. For spray coating operations, the hourly emission rates are based on the maximum material throughputs and equipment capacities. Individual emission source calculations are provided in **Appendix A.**

Air dispersion modeling was not conducted for the facility; justification is provided in Section 5.

Table 3-1. Facility-wide Potential to Emit (lb/hr)

Emission Sources	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	Lead	HAPs
Spray Booth #1 Combustion	0.12	0.14	0.01	0.01	0.01	0.001	0.01	6.95E-07	0.003
Spray Booth #2 Combustion	0.12	0.14	0.01	0.01	0.01	0.001	0.01	6.95E-07	0.003
Curing Oven	0.06	0.07	0.0005	0.0005	0.0005	0.0004	0.004	3.68E-07	0.001
Rhino Coatings/Prep	---	---	6.43E-05	6.43E-05	6.43E-05	---	18.55	---	3.11
Welding	---	---	0.02	0.02	0.02	---	---	---	0.001
Total	0.30	0.35	0.04	0.04	0.04	0.002	18.6	1.76E-06	3.11

Table 3-2. Facility-wide Potential to Emit (tpy)

Emission Sources	CO	NO_X	PM	PM_{10}	$PM_{2.5}$	SO_2	VOC	Lead	HAPs
Spray Booth #1 Combustion	0.13	0.16	0.01	0.01	0.01	0.001	0.01	7.82E-07	0.01
Spray Booth #2 Combustion	0.13	0.16	0.01	0.01	0.01	0.001	0.01	7.82E-07	0.01
Curing Oven	0.14	0.17	0.01	0.01	0.01	0.001	0.01	8.27E-07	0.00
Rhino Coatings/Prep	---	---	0.56	0.56	0.56	---	81.27	---	13.60
Welding	---	---	0.04	0.04	0.04	---	---	---	0.003
Total	0.40	0.48	0.64	0.64	0.64	0.003	81.3	2.39E-06	13.6

Table 3-3. Facility-wide Potential to Emit (TAPs)

Pollutant	HAP?	Non-Carcinogenic TAP?	Carcinogenic TAP?	Potential TAP Emissions	
				lb/hr	tpy
Benzene	Yes	No	Yes	3.79E-06	1.66E-05
Formaldehyde	Yes	No	Yes	1.35E-04	5.93E-04
Toluene	Yes	Yes	No	1.10E+00	4.83E+00
2-Methylnaphthalene	Yes	No	Yes	4.33E-08	1.90E-07
Xylene	Yes	Yes	No	1.63E+00	7.13E+00
3-Methylchloranthrene	Yes	No	Yes	3.25E-09	1.42E-08
7,12-Dimethylbenz(a)anthracene	Yes	No	Yes	2.89E-08	1.27E-07
Acenaphthylene	Yes	No	Yes	3.25E-09	1.42E-08
Benzo(a)pyrene	Yes	No	Yes	2.17E-09	9.49E-09
Benzo(b)fluoranthene	Yes	No	Yes	3.25E-09	1.42E-08
Benzo(k)fluoranthene	Yes	No	Yes	3.25E-09	1.42E-08
Dibenzo(a,h)anthracene	Yes	No	Yes	2.17E-09	9.49E-09
Dichlorobenzene	Yes	Yes	No	3.51E-06	9.49E-06
Hexane	Yes	Yes	No	5.27E-03	1.42E-02
Naphthalene	Yes	Yes	No	1.79E-06	4.82E-06
Acenaphthene	Yes	No	Yes	3.25E-09	1.42E-08
Anthracene	Yes	No	Yes	4.33E-09	1.90E-08
Benzo(a)anthracene	Yes	No	Yes	3.25E-09	1.42E-08
Benzo(g,h,i)perylene	Yes	No	Yes	2.17E-09	9.49E-09
Chrysene	Yes	No	Yes	3.25E-09	1.42E-08
Fluoranthene	Yes	No	Yes	5.42E-09	2.37E-08
Fluorene	Yes	No	Yes	5.06E-09	2.21E-08
Indeno(1,2,3-cd)pyrene	Yes	No	Yes	3.25E-09	1.42E-08
Phenanthrene	Yes	No	Yes	3.07E-08	1.34E-07
Pentane	No	Yes	No	7.62E-03	2.06E-02
Pyrene	Yes	No	Yes	9.03E-09	3.95E-08
1,2,4 TMB	No	Yes	No	7.63E-01	3.34E+00
Acetone	No	Yes	No	1.11E+01	4.84E+01
Amyl acetate	No	Yes	No	0.00E+00	0.00E+00
n-Butyl acetate	No	Yes	No	2.26E+00	9.90E+00
Carbon Black	No	Yes	No	9.88E-02	4.33E-01

Pollutant	HAP?	Non-Carcinogenic TAP?	Carcinogenic TAP?	Potential TAP Emissions	
				lb/hr	tpy
Cyclohexane	No	Yes	No	0.00E+00	0.00E+00
Ethyl acetate	No	Yes	No	0.00E+00	0.00E+00
Ethyl alcohol	No	Yes	No	0.00E+00	0.00E+00
Ethyl benzene	Yes	Yes	No	8.51E-01	3.73E+00
Ethylene glycol monobutyl ether acetate	No	Yes	No	0.00E+00	0.00E+00
Heptane	No	Yes	No	0.00E+00	0.00E+00
Hexamethylene diisocyanate	Yes	Yes	No	0.00E+00	0.00E+00
Isophorone diisocyanate	No	Yes	No	0.00E+00	0.00E+00
Isopropyl alcohol	No	Yes	No	0.00E+00	0.00E+00
Methyl amyl ketone	No	Yes	No	7.96E+00	3.48E+01
MEK	Yes	Yes	No	0.00E+00	0.00E+00
Methyl Isobutyl Ketone	Yes	Yes	No	9.53E-02	4.17E-01
n-Butyl alcohol	No	Yes	No	6.45E-01	2.82E+00
Phosphoric acid	No	Yes	No	0.00E+00	0.00E+00
Propionic acid	No	Yes	No	0.00E+00	0.00E+00
Propylene glycol monomethyl ether acetate	No	Yes	No	0.00E+00	0.00E+00
Silica	No	Yes	No	5.59E-01	2.45E+00
Methyl Acetate	No	Yes	No	7.13E+00	3.12E+01
Stoddard Solvent	No	Yes	No	5.19E-02	2.27E-01
VM & P naphtha	No	Yes	No	0.00E+00	0.00E+00
1-Methoxy-2-proanol acetate	No	Yes	No	5.46E-02	2.39E-01
Dipropylene Glycol Methyl Ether	No	Yes	No	1.30E-02	5.69E-02
Butoxyethyl Acetate	No	Yes	No	5.16E-01	2.26E+00
Methyl Isobutyl Carbinol	No	Yes	No	3.87E-01	1.69E+00
Aluminum	No	Yes	No	5.45E-02	2.39E-01
Antimony and Compounds	Yes	Yes	No	0.00E+00	0.00E+00
Arsenic	Yes	No	Yes	3.61E-07	1.58E-06
Barium	No	Yes	No	1.29E-05	3.48E-05
Beryllium	Yes	No	Yes	2.17E-08	9.49E-08
Cadmium	Yes	No	Yes	1.99E-06	8.70E-06

Pollutant	HAP?	Non-Carcinogenic TAP?	Carcinogenic TAP?	Potential TAP Emissions	
				lb/hr	tpy
Chromium	Yes	Yes	Yes	3.33E-05	8.98E-05
Chromium(VI)	Yes	No	Yes	0.00E+00	0.00E+00
Cobalt	Yes	Yes	No	2.94E-05	7.94E-05
Copper	No	Yes	No	2.49E-06	6.72E-06
Manganese	Yes	Yes	No	9.28E-03	2.50E-02
Molybdenum	No	Yes	No	3.22E-06	8.70E-06
Nickel	Yes	No	Yes	2.18E-05	9.54E-05
Selenium	Yes	Yes	No	7.03E-08	1.90E-07
Vanadium	No	Yes	No	6.74E-06	1.82E-05
POM	Yes	No	Yes	2.06E-08	9.02E-08

Table 5-2 Emission Source Stack Parameters

Emission Source	Stack Orientation	Stack Height (ft)	Stack Diameter (in)	Flow Rate (cfm)	Flow Rate (ft/s)	Temperature (F)
Spray Booth #1 Stack 1	Vertical	15	24	12,600	66	70-160
Spray Booth #1 Stack 2	Vertical	15	24	12,600	66	70-160
Spray Booth #2 Stack 1	Vertical	15	24	12,600	66	70-160
Spray Booth #2 Stack 2	Vertical	15	24	12,600	66	70-160
Curing Oven Stack	Vertical	24	12	Not available	Not available	400

NO_x emissions exceed the Level I modeling threshold by 0.15 lb/hr, and are 2.0 lb/hr less than the Level II threshold. Justification for exclusion of air dispersion modeling is based on the emission source stack parameters, as described above. NOx PTE estimates are based on the maximum operation of all combustion sources concurrently. However, the production process does not typically utilize all three combustion sources at the same time.

Table 5-3 presents the facility-wide TAPs PTE, IDAPA 58.01.01.585 and 586 Emissions Levels (ELs), and modeling applicability.

Table 5-3 TAPs PTE vs. Modeling Thresholds

Pollutant	HAP?	Non-Carc. TAP?	Carc. TAP?	Potential Emissions		IDAPA EL	Exceeds EL?
				lb/hr	tpy	lb/hr	
Benzene	Yes	No	Yes	3.79E-06	1.66E-05	8.00E-04	No
Formaldehyde	Yes	No	Yes	1.35E-04	5.93E-04	5.10E-04	No
Toluene	Yes	Yes	No	1.10E+00	4.83E+00	2.50E+01	No
2-Methylnaphthalene	Yes	No	Yes	4.33E-08	1.90E-07	9.10E-05	No
Xylene	Yes	Yes	No	1.63E+00	7.13E+00	2.90E+01	No
3-Methylchloranthrene	Yes	No	Yes	3.25E-09	1.42E-08	9.10E-05	No
7,12-Dimethylbenz(a)anthracene	Yes	No	Yes	2.89E-08	1.27E-07	9.10E-05	No
Acenaphthylene	Yes	No	Yes	3.25E-09	1.42E-08	9.10E-05	No
Benzo(a)pyrene	Yes	No	Yes	2.17E-09	9.49E-09	2.00E-06	No
Benzo(b)fluoranthene	Yes	No	Yes	3.25E-09	1.42E-08	2.00E-06	No

Pollutant	HAP?	Non-Carc. TAP?	Carc. TAP?	Potential Emissions		IDAPA EL	Exceeds EL?
				lb/hr	tpy	lb/hr	
Benzo(k)fluoranthene	Yes	No	Yes	3.25E-09	1.42E-08	2.00E-06	No
Dibenzo(a,h)anthracene	Yes	No	Yes	2.17E-09	9.49E-09	2.00E-06	No
Dichlorobenzene	Yes	Yes	No	3.51E-06	9.49E-06	3.00E+01	No
Hexane	Yes	Yes	No	5.27E-03	1.42E-02	1.20E+01	No
Naphthalene	Yes	Yes	No	1.79E-06	4.82E-06	3.33E+00	No
Acenaphthene	Yes	No	Yes	3.25E-09	1.42E-08	9.10E-05	No
Anthracene	Yes	No	Yes	4.33E-09	1.90E-08	9.10E-05	No
Benzo(a)anthracene	Yes	No	Yes	3.25E-09	1.42E-08	2.00E-06	No
Benzo(g,h,i)perylene	Yes	No	Yes	2.17E-09	9.49E-09	9.10E-05	No
Chrysene	Yes	No	Yes	3.25E-09	1.42E-08	2.00E-06	No
Fluoranthene	Yes	No	Yes	5.42E-09	2.37E-08	9.10E-05	No
Fluorene	Yes	No	Yes	5.06E-09	2.21E-08	9.10E-05	No
Indeno(1,2,3-cd)pyrene	Yes	No	Yes	3.25E-09	1.42E-08	2.00E-06	No
Phenanthrene	Yes	No	Yes	3.07E-08	1.34E-07	9.10E-05	No
Pentane	No	Yes	No	7.62E-03	2.06E-02	1.18E+02	No
Pyrene	Yes	No	Yes	9.03E-09	3.95E-08	9.10E-05	No
1,2,4 TMB	No	Yes	No	7.63E-01	3.34E+00	8.20E+00	No
Acetone	No	Yes	No	1.11E+01	4.84E+01	1.19E+02	No
Amyl acetate	No	Yes	No	0.00E+00	0.00E+00	3.53E+01	No
n-Butyl acetate	No	Yes	No	2.26E+00	9.90E+00	4.73E+01	No
Carbon Black	No	Yes	No	9.88E-02	4.33E-01	2.30E-01	No
Cyclohexane	No	Yes	No	0.00E+00	0.00E+00	7.00E+01	No
Ethyl acetate	No	Yes	No	0.00E+00	0.00E+00	9.33E+01	No
Ethyl alcohol	No	Yes	No	0.00E+00	0.00E+00	1.25E+02	No
Ethyl benzene	Yes	Yes	No	8.51E-01	3.73E+00	2.90E+01	No
Ethylene glycol monobutyl ether acetate	No	Yes	No	0.00E+00	0.00E+00	1.60E+00	No
Heptane	No	Yes	No	0.00E+00	0.00E+00	1.09E+02	No
Hexamethylene diisocyanate	Yes	Yes	No	0.00E+00	0.00E+00	2.00E-03	No
Isophorone diisocyanate	No	Yes	No	0.00E+00	0.00E+00	6.00E-03	No
Isopropyl alcohol	No	Yes	No	0.00E+00	0.00E+00	6.53E+01	No
Methyl amyl ketone	No	Yes	No	7.96E+00	3.48E+01	1.57E+01	No
MEK	Yes	Yes	No	0.00E+00	0.00E+00	3.93E+01	No
Methyl Isobutyl Ketone	Yes	Yes	No	9.53E-02	4.17E-01	1.37E+01	No

Pollutant	HAP?	Non-Carc. TAP?	Carc. TAP?	Potential Emissions		IDAPA EL	Exceeds EL?
				lb/hr	tpy	lb/hr	
n-Butyl alcohol	No	Yes	No	6.45E-01	2.82E+00	1.00E+01	No
Phosphoric acid	No	Yes	No	0.00E+00	0.00E+00	6.70E-02	No
Propionic acid	No	Yes	No	0.00E+00	0.00E+00	2.00E+00	No
Propylene glycol monomethyl ether acetate	No	Yes	No	0.00E+00	0.00E+00	2.40E+01	No
Silica	No	Yes	No	5.59E-01	2.45E+00	6.67E-01	No
Methyl Acetate	No	Yes	No	7.13E+00	3.12E+01	4.07E+01	No
Stoddard Solvent	No	Yes	No	5.19E-02	2.27E-01	3.50E+01	No
VM & P naphtha	No	Yes	No	0.00E+00	0.00E+00	9.13E+01	No
1-Methoxy-2-proanol acetate	No	Yes	No	5.46E-02	2.39E-01	2.40E+01	No
Dipropylene Glycol Methyl Ether	No	Yes	No	1.30E-02	5.69E-02	4.00E+01	No
Butoxyethyl Acetate	No	Yes	No	5.16E-01	2.26E+00	8.33E+00	No
Methyl Isobutyl Carbinol	No	Yes	No	3.87E-01	1.69E+00	6.93E+00	No
Aluminum	No	Yes	No	5.45E-02	2.39E-01	1.33E-01	No
Antimony and Compounds	Yes	Yes	No	0.00E+00	0.00E+00	3.30E-02	No
Arsenic	Yes	No	Yes	3.61E-07	1.58E-06	1.50E-06	No
Barium	No	Yes	No	1.29E-05	3.48E-05	3.30E-02	No
Beryllium	Yes	No	Yes	2.17E-08	9.49E-08	2.80E-05	No
Cadmium	Yes	No	Yes	1.99E-06	8.70E-06	3.70E-06	No
Chromium	Yes	Yes	Yes	3.33E-05	8.98E-05	3.30E-02	No
Chromium(VI)	Yes			0.00E+00	0.00E+00	5.60E-07	No
Cobalt	Yes	Yes	No	2.94E-05	7.94E-05	3.30E-03	No
Copper	No	Yes	No	2.49E-06	6.72E-06	6.70E-02	No
Manganese	Yes	Yes	No	9.28E-03	2.50E-02	3.33E-01	No
Molybdenum	No	Yes	No	3.22E-06	8.70E-06	3.33E-01	No
Nickel	Yes	No	Yes	2.18E-05	9.54E-05	2.70E-05	No
Selenium	Yes	Yes	No	7.03E-08	1.90E-07	1.30E-02	No
Vanadium	No	Yes	No	6.74E-06	1.82E-05	3.00E-03	No
POM	Yes	No	Yes	2.06E-08	9.02E-08	2.00E-06	No

APPENDIX A: EMISSIONS CALCULATIONS

Facility-wide Emissions (lb/hr)

Emission Sources	CO	NO_X	PM/PM10/PM2.5	SO_2	VOC	Lead	HAPs	CH_4	N_2O	CO_2	CO_2e
Spray Booth #1 Combustion	0.12	0.14	0.01	0.001	0.01	6.95E-07	0.003	0.003	0.003	167	168
Spray Booth #2 Combustion	0.12	0.14	0.01	0.001	0.01	6.95E-07	0.003	0.003	0.003	167	168
Curing Oven	0.06	0.07	0.005	0.0004	0.004	3.68E-07	0.001	0.002	0.002	88	89
Rhino Coatings/Prep	---	---	6.43E-05	---	18.55	---	3.11	---	---	---	---
Welding	---	---	0.02	---	---	---	0.001	---	---	---	---
TOTAL	0.30	0.35	0.04	0.002	18.6	1.76E-06	3.1	0.0	0.0	421.8	424.3
Modeling Threshold	15.0	0.2 (Level II - 2.4 lb/hr)	PM2.5 - 0.054 (Level II - 0.63) PM10 - 0.22		0.21	n/a	14 (lb/month)				

Facility-wide Emissions (tpy)

Emission Sources	CO	NO_X	PM/PM10/PM2.5	SO_2	VOC	Lead	HAPs	CH_4	N_2O	CO_2	CO_2e
Spray Booth #1 Combustion	0.13	0.16	0.01	0.001	0.01	7.82E-07	0.01	0.00	0.00	188	189
Spray Booth #2 Combustion	0.13	0.16	0.01	0.001	0.01	7.82E-07	0.01	0.00	0.00	188	189
Curing Oven	0.14	0.17	0.01	0.001	0.01	8.27E-07	0.00	0.00	0.00	199	200
Rhino Coatings/Prep	---	---	0.56	---	81.27	---	13.60	---	---	---	---
Welding	---	---	0.04	---	---	---	0.003	---	---	---	---
TOTAL	0.40	0.48	0.64	0.003	81.30	2.39E-06	13.6	0.0	0.0	573.8	577.2
Modeling Threshold	n/a	1.2 (Level II - 14 tpy)	PM2.5 - 0.35 (Level II - 4.1 tpy) PM10 - n/a		1.2	n/a	14 (lb/month)				

Pollutant	Potential TAP Emissions (lb/hr)	Potential TAP Emissions (tpy)	IDAPA EL (lb/hr)	Exceeds IDAPA EL (Yes/No)
Benzene	3.79E-06	1.66E-05	8.00E-04	No
Formaldehyde	1.35E-04	5.93E-04	5.10E-04	No
Toluene	1.10E+00	4.83E+00	2.50E+01	No
2-Methylnaphthalene	4.33E-08	1.90E-07	9.10E-05	No
Xylene	1.63E+00	7.13E+00	2.90E+01	No
3-Methylchloranthrene	3.25E-09	1.42E-08	9.10E-05	No
7,12-Dimethylbenz(a)anthracene	2.89E-08	1.27E-07	9.10E-05	No
Acenaphthylene	3.25E-09	1.42E-08	9.10E-05	No
Benzo(a)pyrene	2.17E-09	9.49E-09	2.00E-06	No
Benzo(b)fluoranthene	3.25E-09	1.42E-08	2.00E-06	No
Benzo(k)fluoranthene	3.25E-09	1.42E-08	2.00E-06	No
Dibenzo(a,h)anthracene	2.17E-09	9.49E-09	2.00E-06	No
Dichlorobenzene	3.51E-06	9.49E-06	3.00E+01	No
Hexane	5.27E-03	1.42E-02	1.20E+01	No
Naphthalene	1.79E-06	4.82E-06	3.33E+00	No
Acenaphthene	3.25E-09	1.42E-08	9.10E-05	No
Anthracene	4.33E-09	1.90E-08	9.10E-05	No
Benzo(a)anthracene	3.25E-09	1.42E-08	2.00E-06	No
Benzo(g,h,i)perylene	2.17E-09	9.49E-09	9.10E-05	No
Chrysene	3.25E-09	1.42E-08	2.00E-06	No
Fluoranthene	5.42E-09	2.37E-08	9.10E-05	No
Fluorene	5.06E-09	2.21E-08	9.10E-05	No
Indeno(1,2,3-cd)pyrene	3.25E-09	1.42E-08	2.00E-06	No
Phenanthrene	3.07E-08	1.34E-07	9.10E-05	No
Pentane	7.62E-03	2.06E-02	1.18E+02	No
Pyrene	9.03E-09	3.95E-08	9.10E-05	No
1,2,4 TMB	7.63E-01	3.34E+00	8.20E+00	No
Acetone	1.11E+01	4.84E+01	1.19E+02	No
Amyl acetate	0.00E+00	0.00E+00	3.53E+01	No
n-Butyl acetate	2.26E+00	9.90E+00	4.73E+01	No
Carbon Black	9.88E-02	4.33E-01	2.30E-01	No
Cyclohexane	0.00E+00	0.00E+00	7.00E+01	No
Ethyl acetate	0.00E+00	0.00E+00	9.33E+01	No
Ethyl alcohol	0.00E+00	0.00E+00	1.25E+02	No
Ethyl benzene	8.51E-01	3.73E+00	2.90E+01	No
Ethylene glycol monobutyl ether acetate	0.00E+00	0.00E+00	1.60E+00	No
Heptane	0.00E+00	0.00E+00	1.09E+02	No
Hexamethylene diisocyanate	0.00E+00	0.00E+00	2.00E-03	No
Isophorone diisocyanate	0.00E+00	0.00E+00	6.00E-03	No
Isopropyl alcohol	0.00E+00	0.00E+00	6.53E+01	No
Methyl amyl ketone	7.96E+00	3.48E+01	1.57E+01	No
MEK	0.00E+00	0.00E+00	3.93E+01	No
Methyl Isobutyl Ketone	9.53E-02	4.17E-01	1.37E+01	No
n-Butyl alcohol	6.45E-01	2.82E+00	1.00E+01	No
Phosphoric acid	0.00E+00	0.00E+00	6.70E-02	No
Propionic acid	0.00E+00	0.00E+00	2.00E+00	No
Propylene glycol monomethyl ether acetate	0.00E+00	0.00E+00	2.40E+01	No
Silica (112926-00-8)	5.59E-01	2.45E+00	6.67E-01	No
Methyl Acetate	7.13E+00	3.12E+01	4.07E+01	No
Stoddard Solvent	5.19E-02	2.27E-01	3.50E+01	No
VM & P naphtha	0.00E+00	0.00E+00	9.13E+01	No
1-Methoxy-2-proanol acetate	5.46E-02	2.39E-01	2.40E+01	No
Dipropylene Glycol Methyl Ether	1.30E-02	5.69E-02	4.00E+01	No
Butoxyethyl Acetate	5.16E-01	2.26E+00	8.33E+00	No
Methyl Isobutyl Carbinol	3.87E-01	1.69E+00	6.93E+00	No
Aluminum	5.45E-02	2.39E-01	1.33E-01	No
Antimony and Compounds	0.00E+00	0.00E+00	3.30E-02	No
Arsenic	3.61E-07	1.58E-06	1.50E-06	No
Barium	1.29E-05	3.48E-05	3.30E-02	No
Beryllium	2.17E-08	9.49E-08	2.80E-05	No
Cadmium	1.99E-06	8.70E-06	3.70E-06	No
Chromium	3.33E-05	8.98E-05	3.30E-02	No
Chromium(VI)	0.00E+00	0.00E+00	5.60E-07	No
Cobalt	2.94E-05	7.94E-05	3.30E-03	No
Copper	2.49E-06	6.72E-06	6.70E-02	No
Manganese	9.28E-03	2.50E-02	3.33E-01	No
Molybdenum	3.22E-06	8.70E-06	3.33E-01	No
Nickel	2.18E-05	9.54E-05	2.70E-05	No
Selenium	7.03E-08	1.90E-07	1.30E-02	No
Vanadium	6.74E-06	1.82E-05	3.00E-03	No
POM	2.06E-08	9.02E-08	2.00E-06	No

Heater Emission Factors

Pollutant	Emission Factor lb/MMscf	EF Source
CO	84	AP-42 Table 1.4-1 (Small Boilers <100 MMBtu/hr)
NOx	100	AP-42 Table 1.4-1 (Small Boilers <100 MMBtu/hr)
Lead	0.0005	AP-42 Table 1.4-2
SOx	0.6	AP-42 Table 1.4-2
VOCs	5.5	AP-42 Table 1.4-2
PM	7.6	AP-42 Table 1.4-2
CO2	120,000	AP-42 Table 1.4-2
N20	2.2	AP-42 Table 1.4-2
Methane	2.3	AP-42 Table 1.4-2

Heater PTE

	Heater Capacity	Operating Hours	CO		NO_x		Lead		SO_x		VOC		$PM/PM_{10}/PM_{2.5}$		CO_2		N_2O		CH_4		CO_2e	
Heater ID	MMscf/hr	(hours/year)	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Spray Booth #1	0.0014	2250	0.117	0.131	0.139	0.156	6.95E-07	7.82E-07	8.34E-04	9.38E-04	7.64E-03	0.009	0.0088	0.012	166.8	187.610	3.06E-03	3.44E-03	3.20E-03	3.60E-03	167.8	188.725
Spray Booth #2	0.0014	2250	0.117	0.131	0.139	0.156	6.95E-07	7.82E-07	8.34E-04	9.38E-04	7.64E-03	0.009	0.0088	0.012	166.8	187.610	3.06E-03	3.44E-03	3.20E-03	3.60E-03	167.8	188.725
Total			**0.233**	**0.263**	**0.278**	**0.313**	**1.39E-06**	**1.56E-06**	**0.0017**	**0.002**	**0.015**	**0.017**	**0.018**	**0.024**	**333.5**	**375**	**6.11E-03**	**6.88E-03**	**6.39E-03**	**7.19E-03**	**335.5**	**377**

*Facility will operate two (2) 10-hour shifts per day/4 days per week. Therefore, for pollutants with a 24-hour standard, the maximum lb/hr emission rate will be multiplied by a ratio of 20/24.

**Facility will operate a maximum of 4500 hrs/year usage. Per DEQ policy, it is normal to assume (roughly) half the duration of the paint booths because there will always be time for spraying and prep work when the burners are not going.

Natural Gas Heaters Potential HAP and TAP Emissions

Fuel Usage (Total All Heaters)	0.0028 MMscf/hr
Hours of Operation Per Year	4,500 hours/year

Pollutant	HAP?	Non-Carcinogenic TAP?	Carcinogenic TAP?	Natural Gas Combustion Emission Factor[1] (lb/MMscf)	Potential HAP Emissions (lb/hr)	Potential HAP Emissions (tpy)	Potential TAP Emissions (lb/hr)	Potential TAP Emissions (tpy)
Benzene	Yes	No	Yes	2.10E-03	5.84E-06	1.31E-05	3.00E-06	1.31E-05
Formaldehyde	Yes	No	Yes	7.50E-02	2.08E-04	4.69E-04	1.07E-04	4.69E-04
Toluene	Yes	Yes	No	3.40E-03	9.45E-06	2.13E-05	7.88E-06	2.13E-05
2-Methylnaphthalene	Yes	No	Yes	2.40E-05	6.67E-08	1.50E-07	3.43E-08	1.50E-07
3-Methylchloranthrene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
7,12-Dimethylbenz(a)anthracene	Yes	No	Yes	1.60E-05	4.45E-08	1.00E-07	2.28E-08	1.00E-07
Acenaphthylene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
Benzo(a)pyrene	Yes	No	Yes	1.20E-06	3.34E-09	7.50E-09	1.71E-09	7.50E-09
Benzo(b)fluoranthene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
Benzo(k)fluoranthene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
Dibenzo(a,h)anthracene	Yes	No	Yes	1.20E-06	3.34E-09	7.50E-09	1.71E-09	7.50E-09
Dichlorobenzene	Yes	Yes	No	1.20E-03	3.34E-06	7.50E-06	2.78E-06	7.50E-06
Hexane	Yes	Yes	No	1.80E+00	5.00E-03	1.13E-02	4.17E-03	1.13E-02
Naphthalene	Yes	Yes	No	6.10E-04	1.70E-06	3.81E-06	1.41E-06	3.81E-06
Acenaphthene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
Anthracene	Yes	No	Yes	2.40E-06	6.67E-09	1.50E-08	3.43E-09	1.50E-08
Benzo(a)anthracene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
Benzo(g,h,i)perylene	Yes	No	Yes	1.20E-06	3.34E-09	7.50E-09	1.71E-09	7.50E-09
Chrysene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
Fluoranthene	Yes	No	Yes	3.00E-06	8.34E-09	1.88E-08	4.28E-09	1.88E-08
Fluorene	Yes	No	Yes	2.80E-06	7.78E-09	1.75E-08	4.00E-09	1.75E-08
Indeno(1,2,3-cd)pyrene	Yes	No	Yes	1.80E-06	5.00E-09	1.13E-08	2.57E-09	1.13E-08
Phenanthrene	Yes	No	Yes	1.70E-05	4.73E-08	1.06E-07	2.43E-08	1.06E-07
Pentane	No	Yes	No	2.60E+00	-	-	6.02E-03	1.63E-02
Pyrene	Yes	No	Yes	5.00E-06	1.39E-08	3.13E-08	7.14E-09	3.13E-08
Arsenic	Yes	No	Yes	2.00E-04	5.56E-07	1.25E-06	2.86E-07	1.25E-06
Barium	No	Yes	No	4.40E-03	-	-	1.02E-05	2.75E-05
Beryllium	Yes	No	Yes	1.20E-05	3.34E-08	7.50E-08	1.71E-08	7.50E-08
Cadmium	Yes	No	Yes	1.10E-03	3.06E-06	6.88E-06	1.57E-06	6.88E-06
Chromium	Yes	Yes	Yes	1.40E-03	3.89E-06	8.76E-06	3.24E-06	8.76E-06
Cobalt	Yes	Yes	No	8.40E-05	2.33E-07	5.25E-07	1.95E-07	5.25E-07
Copper	No	Yes	No	8.50E-04	-	-	1.97E-06	5.32E-06
Lead	Yes	No	No	5.00E-04	1.39E-06	3.13E-06	-	-
Manganese	Yes	Yes	No	3.80E-04	1.06E-06	2.38E-06	8.80E-07	2.38E-06
Mercury	Yes	No	No	2.60E-04	7.23E-07	1.63E-06	-	-
Molybdenum	No	Yes	No	1.10E-03	-	-	2.55E-06	6.88E-06
Nickel	Yes	No	Yes	2.10E-03	5.84E-06	1.31E-05	3.00E-06	1.31E-05
Selenium	Yes	Yes	No	2.40E-05	6.67E-08	1.50E-07	5.56E-08	1.50E-07
Vanadium	No	Yes	No	2.30E-03	-	-	5.33E-06	1.44E-05
POM	Yes	No	Yes	n/a	3.17E-08	7.13E-08	1.63E-08	7.13E-08
Maximum Individual HAP					**0.01**	**0.01**	**0.01**	**0.02**
Total HAP					**0.005**	**0.01**	**0.01**	**0.03**

[1] AP-42 Section 1.4 Natural Gas Combustion, Tables 1.4-3 and 1.4-4 (7/98).

* Facility will operate two (2) 10-hour shifts per day/4 days per week. Therefore, for TAPs with a 24-hour standard, the maximum lb/hr emission rate will be multiplied by a ratio of 20/24.

** Facility will operate a maximum of 4500 hrs/year usage. Per DEQ policy, it is normal to assume (roughly) half the duration of the paint booths because there will always be time for spraying and prep work when the burners are not going. Therefore, for TAPs with an annual ambient standard, the maximum lb/hr emission rate will be multiplied by a ratio of 2250/8760.

Heater Emission Factors

Pollutant	Emission Factor lb/MMscf	EF Source
CO	84	AP-42 Table 1.4-1 (Small Boilers <100 MMBtu/hr)
NOx	100	AP-42 Table 1.4-1 (Small Boilers <100 MMBtu/hr)
Lead	0.0005	AP-42 Table 1.4-2
SOx	0.6	AP-42 Table 1.4-2
VOCs	5.5	AP-42 Table 1.4-2
PM	7.6	AP-42 Table 1.4-2
CO2	120,000	AP-42 Table 1.4-2
N20	2.2	AP-42 Table 1.4-2
Methane	2.3	AP-42 Table 1.4-2

Heater PTE

Heater ID	Heater Capacity	Operating Hours	CO		NO_x		Lead		SO_x		VOC		$PM/PM_{10}/PM_{2.5}$		CO_2		N_2O		CH_4		CO_2e	
	MMscf/hr	(hours/year)	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Curing Oven	0.0007	4500	0.062	0.139	0.074	0.165	3.68E-07	8.27E-07	4.41E-04	9.93E-04	4.04E-03	9.10E-03	0.0047	0.013	88.2	198.529	1.62E-03	3.64E-03	1.69E-03	3.81E-03	88.8	199.709
Total			0.062	0.139	0.074	0.165	3.68E-07	8.27E-07	0.0004	0.001	0.004	0.009	0.005	0.013	88.2	199	1.62E-03	3.64E-03	1.69E-03	3.81E-03	88.8	200

Curing oven is 750 MBH
*Facility will operate two (2) 10-hour shifts per day/4 days per week. Therefore, for pollutants with a 24-hour standard, the maximum lb/hr emission rate will be multiplied by a ratio of 20/24.
**Facility will operate a maximum of 4500 hrs/year usage.

Curing Oven Potential HAP and TAP Emissions

Fuel Usage (Total All Heaters)	0.0007 MMscf/hr
Hours of Operation Per Year	4,500 hours/year

Pollutant	HAP?	Non-Carcinogenic TAP?	Carcinogenic TAP?	Natural Gas Combustion Emission Factor[1] (lb/MMscf)	Potential HAP Emissions (lb/hr)	Potential HAP Emissions (tpy)	Potential TAP Emissions (lb/hr)	Potential TAP Emissions (tpy)
Benzene	Yes	No	Yes	2.10E-03	1.54E-06	3.47E-06	7.93E-07	3.47E-06
Formaldehyde	Yes	No	Yes	7.50E-02	5.51E-05	1.24E-04	2.83E-05	1.24E-04
Toluene	Yes	Yes	No	3.40E-03	2.50E-06	5.63E-06	2.08E-06	5.63E-06
2-Methylnaphthalene	Yes	No	Yes	2.40E-05	1.76E-08	3.97E-08	9.07E-09	3.97E-08
3-Methylchloranthrene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
7,12-Dimethylbenz(a)anthracene	Yes	No	Yes	1.60E-05	1.18E-08	2.65E-08	6.04E-09	2.65E-08
Acenaphthylene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
Benzo(a)pyrene	Yes	No	Yes	1.20E-06	8.82E-10	1.99E-09	4.53E-10	1.99E-09
Benzo(b)fluoranthene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
Benzo(k)fluoranthene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
Dibenzo(a,h)anthracene	Yes	No	Yes	1.20E-06	8.82E-10	1.99E-09	4.53E-10	1.99E-09
Dichlorobenzene	Yes	Yes	No	1.20E-03	8.82E-07	1.99E-06	7.35E-07	1.99E-06
Hexane	Yes	Yes	No	1.80E+00	1.32E-03	2.98E-03	1.10E-03	2.98E-03
Naphthalene	Yes	Yes	No	6.10E-04	4.49E-07	1.01E-06	3.74E-07	1.01E-06
Acenaphthene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
Anthracene	Yes	No	Yes	2.40E-06	1.76E-09	3.97E-09	9.07E-10	3.97E-09
Benzo(a)anthracene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
Benzo(g,h,i)perylene	Yes	No	Yes	1.20E-06	8.82E-10	1.99E-09	4.53E-10	1.99E-09
Chrysene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
Fluoranthene	Yes	No	Yes	3.00E-06	2.21E-09	4.96E-09	1.13E-09	4.96E-09
Fluorene	Yes	No	Yes	2.80E-06	2.06E-09	4.63E-09	1.06E-09	4.63E-09
Indeno(1,2,3-cd)pyrene	Yes	No	Yes	1.80E-06	1.32E-09	2.98E-09	6.80E-10	2.98E-09
Phenanthrene	Yes	No	Yes	1.70E-05	1.25E-08	2.81E-08	6.42E-09	2.81E-08
Pentane	No	Yes	No	2.60E+00	-	-	1.59E-03	4.30E-03
Pyrene	Yes	No	Yes	5.00E-06	3.68E-09	8.27E-09	1.89E-09	8.27E-09
Arsenic	Yes	No	Yes	2.00E-04	1.47E-07	3.31E-07	7.55E-08	3.31E-07
Barium	No	Yes	No	4.40E-03	-	-	2.70E-06	7.28E-06
Beryllium	Yes	No	Yes	1.20E-05	8.82E-09	1.99E-08	4.53E-09	1.99E-08
Cadmium	Yes	No	Yes	1.10E-03	8.09E-07	1.82E-06	4.15E-07	1.82E-06
Chromium	Yes	Yes	Yes	1.40E-03	1.03E-06	2.32E-06	8.58E-07	2.32E-06
Cobalt	Yes	Yes	No	8.40E-05	6.18E-08	1.39E-07	5.15E-08	1.39E-07
Copper	No	Yes	No	8.50E-04	-	-	5.21E-07	1.41E-06
Lead	Yes	No	No	5.00E-04	3.68E-07	8.27E-07	-	-
Manganese	Yes	Yes	No	3.80E-04	2.79E-07	6.29E-07	2.33E-07	6.29E-07
Mercury	Yes	No	No	2.60E-04	1.91E-07	4.30E-07	-	-
Molybdenum	No	Yes	No	1.10E-03	-	-	6.74E-07	1.82E-06
Nickel	Yes	No	Yes	2.10E-03	1.54E-06	3.47E-06	7.93E-07	3.47E-06
Selenium	Yes	Yes	No	2.40E-05	1.76E-08	3.97E-08	1.47E-08	3.97E-08
Vanadium	No	Yes	No	2.30E-03	-	-	1.41E-06	3.81E-06
POM	Yes	No	Yes	n/a	8.38E-09	1.89E-08	4.31E-09	1.89E-08
Maximum Individual HAP					**0.00**	**0.00**	**0.00**	**0.00**
Total HAP					**0.001**	**0.00**	**0.00**	**0.01**

[1] AP-42 Section 1.4 Natural Gas Combustion, Tables 1.4-3 and 1.4-4 (7/98).

* Facility will operate two (2) 10-hour shifts per day/4 days per week. Therefore, for TAPs with a 24-hour standard, the maximum lb/hr emission rate will be multiplied by a ratio of 20/24.

** Facility will operate a maximum of 4500 hrs/year usage. Therefore, for TAPs with an annual ambient standard, the maximum lb/hr emission rate will be multiplied by a ratio of 4500/8760.

Welding Emission Factors

Pollutant	Emission Factor lb/10^3 lb	EF Source
PM10	5.2	AP-42 Table 12.19-1 (GMAW, E70S Electrode)

Welding PTE

Welder ID	Electrode Usage	PM10	
	10^3 lb/hr	lb/hr	tpy
Welder (All)	0.0035	0.015	0.041
Total	**0.0035**	**0.015**	**0.041**

*Facility will operate two (2) 10-hour shifts per day/4 days per week. Therefore, for pollutants with a 24-hour standard, the maximum lb/hr emission rate will be multiplied by a ratio of 20/24.

**Facility will operate a maximum of 4500 hrs/year usage.

Welding emissions exhaust inside the building, and are therefore considered fugitive emissions. Each welding unit is equipped with a downdraft system with internal baghouse; however the emissions calculations presented do not include control from the baghouse.

Welding Potential HAP and TAP Emissions

Electrode Usage (Total All Welding)	0.0035 10^3 lb/hr
Hours of Operation Per Year	4,500 hours/year

Pollutant	HAP?	Non-Carcinogenic TAP?	Carcinogenic TAP?	Welding Emission Factor[1] (10^{-1} lb/10^3 lb)	Potential HAP Emissions (lb/hr)	Potential HAP Emissions (tpy)	Potential TAP Emissions (lb/hr)	Potential TAP Emissions (tpy)
Chromium	Yes	Yes	Yes	1.00E-02	3.50E-06	7.88E-06	2.92E-05	7.88E-05
Chromium(VI)	Yes	Yes	Yes	ND				
Cobalt	Yes	Yes	No	1.00E-02	3.50E-06	7.88E-06	2.92E-05	7.88E-05
Lead	Yes	No	No	ND				
Manganese	Yes	Yes	No	3.18E+00	1.11E-03	2.50E-03	9.28E-03	2.50E-02
Nickel	Yes	No	Yes	1.00E-02	3.50E-06	7.88E-06	1.80E-05	7.88E-05
Maximum Individual HAP					**1.11E-03**	**2.50E-03**	**9.28E-03**	**2.50E-02**
Total HAP					**1.12E-03**	**2.53E-03**	**9.35E-03**	**2.53E-02**

[1] AP-42 Section 12.19-2 Electric Arc Welding, Tables 12.19-2 (1/95).

* Facility will operate two (2) 10-hour shifts per day/4 days per week. Therefore, for TAPs with a 24-hour standard, the maximum lb/hr emission rate will be multiplied by a ratio of 20/24.

** Facility will operate a maximum of 4500 hrs/year usage. Therefore, for TAPs with an annual ambient standard, the maximum lb/hr emission rate will be multiplied by a ratio of 4500/8760.

Welding emissions exhaust inside the building, and are therefore considered fugitive emissions. Each welding unit is equipped with a downdraft system with internal baghouse; however the emissions calculations presented do not include control from the baghouse.

Rhino Master Sheet - Calculations

Weight Percentage Content Data				TAP & HAP INDICATOR	T	T	T	T		T,H	T	T	T	T,H	T		T	T	T, H	T	T	T, H	T	T	T	T	T	T, H	T	T	T	T	T	T, H	T	T	T	T	T
Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids	1,2,4 TMB	acetone	Aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol	hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	Tetraethoxy Propanetal acetate	xylene	Dipropylene Glycol Methyl Ether	Butoxyethyl Acetate	Methyl Isobutyl Carbinol
						75151-1-2-7	67-64-1	7429-90-5	628-63-7		7440-36-0	7440-39-3	123-86-4	1333-86-4	18665-8-3-1	110-82-7		141-78-6	64-17-5	100-41-4	110-49-6	142-82-5	822-06-0	4098-7-1-9	67-63-0	110-43-0	78-93-3	108-10-1		71-36-3	110-54-3	91-20-3	7664-38-2	79-09-4	107-98-2	8179-5-3-2	108-88-3	79-20-9	9052-41-2	8032-32-4	108-65-6	123-35-3-7	26185-96-8	112-07-2	108-11-2
				Hours/day			Factor of Safety				Filter Control Efficiency																															
				24			1.25				0.00%																															
							Paint Gun Transfer Efficiency																																				
							65.00%																																		
Daily Use Rates		Process		Calculated Emissions Rate (lb/hr)																																					
0.15625	gal/hr	Surface Prep TAPs		0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
1.875	gal/hr	Primer TAPs		0.2000000	6.3437500	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0916719	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.8543750	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0246094	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
1.5625	gal/hr	Basecoat TAPs		0.7828221	4.5769227	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.6449125	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2288466	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.5266442	0.0000000	0.0000000	0.0000000	0.6449125	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5339765	1.0317000	7.1328125	0.0000000	0.0000000	0.0000000	0.2288466	0.0000000	0.3668876
0.117188	gal/hr	Liquid Additives TAPs		0.0000000	0.0000000	0.0546098	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.4763672	0.0172676	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0713672	0.0000000	0.0519141	0.0000000	0.0546094	0.2695703	0.0000000	0.0000000	0.0000000
0.117188	gal/hr	Pigment Additives TAPs		0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.2656250	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
1.25	gal/hr	Clearcoat TAPs		0.0000000	1.1400000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.1400000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5700000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3700000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	1.1400000	0.0000000	0.0000000	0.0000000
		Calculated Emissions Rate Total (lb/hr)		0.78282211	11.84068268	0.0546098	0	0	0	0	0	2.3611797	0.0688294453	0	0	0	0	0	0	0.8557667	0	0	0	0	0	7.855618	0	0.095273438	0	0.6449813	0	0	0	0	0	0.5595964853	1.1030673	7.1328125	0.0519141	0	0.0546094	1.6784169	0.013	0.31585	0.3668875
		IDAPA TAP EL (lb/hr)		8.2	110	0.667	36.3		0.033	0.033	47.3	0.23	0.033	70		0	0	83.3	125	20	1.6	100	0.082	0.056	65.3	15.7	39.3	13.7		10	12	3.33	0.067	2	24	0.667	25	40.7	35	91.3	24	29	40	8.33	6.93
	Days Worked	Total Meets the EL?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	365																																											
	Yearly Use Rates			HAP Emissions (Tlyr)			VOC Emissions (Tlyr)			PM (10) Calculation (Tlyr)			All ELs Are Met																																
				13.80053			81.26963			0.68360			TRUE																															
Surface Prep	1389.75	gal/yr																																									
Primer	16425	gal/yr																																									
Basecoat	13687.5	gal/yr																																									
Liquid Additives	1026.563	gal/yr		HAP Emissions (lb/hr)			VOC Emissions (lb/hr)			PM (10) Calculation (lb/hr)																																		
Pigment Additives	1026.563	gal/yr		3.108116			18.55408			0.00000																																	
Clearcoat	10950	gal/yr																																									

Notes:
If no percentage of TAP was listed in the MSDS, then 1.0% was assumed.
For uncontrolled, set filter control efficiency to 0.00%, days worked to 365
PM (10) Calculation uses the actual filter control efficiency of 68.81 regardless of filter control effiency value because this is always a controlled value

Worst Case Scenario Usage Calculator			
	Clean and Prime		Paint and Clear
Max # of biggest sales possible in a 10 hour shift	36		36
Usage per process for biggest sale	gal		gal/hr
Cleaner	0.3625		0.18625
Primer	0.75		1.875
Base	0.625		1.5625
Tint	0.046875		0.1171875
Clear	0.5		1.25

*Usage numbers based on a 10 hour shift

Worst Case Scenario Usage			
Usage per process for biggest sale			
Process	gal		Conversion
Cleaner	4	qt	0.0078125
Primer	7	qt	0.25
Base	2.5	qt	0.25
Tint	6	oz	0.0078125
Clear	2	qt	0.25

*Based on information gathered as of 10/10/2018

Rhino Basecoats

Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-propanol acetate	xylene	Dipropylene Glycol Methyl Ether	Butoxyethyl Acetate	Methyl Isobutyl Carbinol	
Weight Percentage Content Data				TAP & HAP INDICATOR		T	T	T	T		T, H	T	T	T	T, H	T		T	T	T, H	T	T	T, H	T	T	T	T, H	T, H		T	T, H	T, H	T	T	T	T	T, H	T	T	T	T	T, H	T	T	T	
						25551-13-7	67-64-1	7429-90-5	628-63-7		7440-36-0	7440-39-3	123-86-4	1333-86-4	16065-83-1	110-82-7		141-78-6	64-17-5	100-41-4	110-49-6	142-82-5	822-06-0	4098-71-9	67-63-0	110-43-0	78-93-3	108-10-1		71-36-3	110-54-3	91-20-3	7664-38-2	79-09-4	107-98-2	61790-53-2	108-88-3	79-20-9	8052-41-3	8032-32-4	108-65-6	1330-20-7	34590-94-8	112-07-2	108-11-2	
Basecoat Binder Low VOC	LVBB100	2.5		8.11	50.00%		10.00%																															58.00%								
Zelstone	Z1-20-72	5.615		8.25	77.00%								5.00%																	5.00%							8.00%							4.00%	3.00%	
Matte Clear	CP-3020	0.86		9.76	5.00%	5.00%	30.00%													1.50%						10.00%										10.00%						1.50%				
lb/gal Calculations																																														HAPS
Basecoat Binder Low VOC	LVBB100				2.74	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zelstone	Z1-20-72				8.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.25	0.66
Matte Clear	CP-3020				0.00	0.49	2.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.29
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum VOC Content (lb/gal)	5.615		Maximum Density (lb/gal)	9.76	8.42	0.49	2.93	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.98	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.98	0.66	4.67	0.00	0.00	0.00	0.15	0.00	0.33	0.25	0.66
			Weighted Avg wt %		0.71	0.05	0.33	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.11	0.07	0.51	0.00	0.00	0.00	0.02	0.00	0.04	0.03	0.07
			Minimum Density (lb/gal)	8.25																																										

Daily Use Rates	
1.5625	gal/hr
24	hr/day
37.5	gal/day
24	hr/day (averaging period)

Factor of Safety
1.00

Paint Gun Transfer Efficiency
65.00%

Filter Control Efficiency
[illegible]

	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-propanol acetate	xylene	Dipropylene Glycol Methyl Ether	Butoxyethyl Acetate	Methyl Isobutyl Carbinol
Calculated Emissions Rate (lb/hr)	10.833283	0.7629321	4.576833	0	0	0	0	0	0.6448120	0	0	0	0	0	0	0.22894463	0	0	0	0	0	1.33364	0	0	0	0.6449	0	0	0	0	0	0.533875477	1.0317	7.132813	0	0	0	0.228847	0	0.61588	0.3868875
IDAPA TAP EL (lb/hr)		8.2	119	0.667	35.3		0.033	0.033	47.3	0.23	0.033	70		93.3	126	29	1.8	109	0.002	0.006	65.3	16.7	39.3	13.7		10	12	3.33	0.067	2	24	0.667	25	40.7	35	91.3	24	29	40	8.33	6.83
Meets the EL?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Annual Use Rate (gal/yr)
13687.5

HAP Emissions (T/yr)
4.51869

VOC Emissions (T/yr)
38.47759

PM (10) Calculation (T/yr)
0.19303

All ELs Are Met
TRUE

HAP Emissions
1.03176

VOC Emissions
8.77344

PM (10) Calculation
0.00012

Rhino Clearcoats

Weight Percentage Content Data				TAP & HAP INDICATOR	
Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids
2.1 VOC Euro Clearcoat	EC21	1.2		9.12	42.85%
lb/gal Calculations					
2.1 VOC Euro Clearcoat	EC21				3.91
0	0				0.00
0	0				0.00
0	0				0.00
Maximum VOC Content (lb/gal)	1.2		Maximum Density (lb/gal)	9.12	3.91
			Weighted Avg wt %		0.43
			Minimum Density (lb/gal)	9.12	
			Calculated Emissions Rate (lb/hr)		4.8849
			IDAPA TAP EL (lb/hr)		
			Meets the EL?		

	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III
TAP & HAP INDICATOR	T	T	T	T		T, H	T	T	T	T, H
	25551-13-7	67-64-1	7429-90-5	628-63-7		7440-36-0	7440-39-3	123-86-4	1333-86-4	16065-83-1
2.1 VOC Euro Clearcoat		10.00%						10.00%		
lb/gal Calculations										
2.1 VOC Euro Clearcoat	0.00	0.91	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Density (lb/gal)	0.00	0.91	0.00	0.00	0.00	0.00	0.00	0.91	0.00	0.00
Weighted Avg wt %	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00
Calculated Emissions Rate (lb/hr)	0	1.14	0	0	0	0	0	1.14	0	0
IDAPA TAP EL (lb/hr)	8.2	119	0.667	35.3		0.033	0.033	47.3	0.23	0.033
Meets the EL?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol
TAP & HAP INDICATOR	T		T	T	T, H	T	T	T, H	T	T
	110-82-7		141-78-6	64-17-5	100-41-4	112-07-2	142-82-5	822-06-0	4098-71-9	67-63-0
2.1 VOC Euro Clearcoat					5.00%					
lb/gal Calculations										
2.1 VOC Euro Clearcoat	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Density (lb/gal)	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.00	0.00
Weighted Avg wt %	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Calculated Emissions Rate (lb/hr)	0	0	0	0	0.57	0	0	0	0	0
IDAPA TAP EL (lb/hr)	70		93.3	125	29	1.6	109	0.002	0.006	65.3
Meets the EL?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	methyl amyl ketone	MEK	Methyl isobutyl Ketone	mineral spirits	n-butyl alcohol	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate
TAP & HAP INDICATOR	T	T, H	T, H		T	T, H	T, H	T	T	T
	110-43-0	78-93-3	108-10-1		71-36-3	110-54-3	91-20-3	7664-38-2	79-09-4	107-98-2
2.1 VOC Euro Clearcoat	5.00%									
lb/gal Calculations										
2.1 VOC Euro Clearcoat	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Density (lb/gal)	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Avg wt %	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Calculated Emissions Rate (lb/hr)	0.57	0	0	0	0	0	0	0	0	0
IDAPA TAP EL (lb/hr)	15.7	39.3	13.7		10	12	3.33	0.067	2	24
Meets the EL?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-propanol acetate	xylene	Dipropylene Glycol Methyl Ether	HAPS
TAP & HAP INDICATOR	T	T, H	T	T	T	T	T, H	T	
	61790-53-2	108-88-3	79-20-9	8052-41-3	8032-32-4	108-65-6	1330-20-7	34590-94-8	
2.1 VOC Euro Clearcoat							10.00%		
lb/gal Calculations									
2.1 VOC Euro Clearcoat	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.00	1.37
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Density (lb/gal)	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.00	1.37
Weighted Avg wt %	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.15
Calculated Emissions Rate (lb/hr)	0	0	0	0	0	0	1.14	0	
IDAPA TAP EL (lb/hr)	0.667	25	40.7	35	91.3	24	29	40	
Meets the EL?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Daily Use Rates	
1.25	gal/hr
24	hr/day
30	gal/day
24	hr/day (averaging period)

Factor of Safety
1.00

Filter Control Efficiency
0.00%

Paint Gun Transfer Efficiency
65.00%

Annual Use Rate (gal/yr)	HAP Emissions (T/yr)	VOC Emissions (T/yr)	PM (10) Calculation (T/yr)	All ELs Are Met
10950	7.48980	6.57000	0.00011	TRUE

HAP Emissions (lb/hr)	VOC Emissions (lb/hr)	PM (10) Calculation (lb/hr)
1.71000	1.50000	0.00003

Rhino Liquid Additives

Weight Percentage Content Data

Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black
TAP & HAP INDICATOR						T	T	T	T		T, H	T	T	T
						25551-13-7	67-64-1	7429-90-5	628-63-7		7440-36-0	7440-39-3	123-86-4	1333-86-4
Effect Additive	FX01.Q01			8.13	30.00%								50.00%	
X	Q59.Q01			8.97	30.00%								35.00%	
Black Solar System Tint Base	K54.G02			8.42	30.00%								35.00%	5.00%
Jet Black	K73.G02			8.39	30.00%								25.00%	5.00%
Red Shade Blue II	L60.Q01			8.43	30.00%								40.00%	
Carbizole Violet Solar System	L66.Q01			8.33	30.00%								40.00%	
Sapphire Blue	L113.Q01			8.47	30.00%								40.00%	
X	R52.Q01			9.88	30.00%								30.00%	
Magenta Solar System Tint Base	R60.Q01			8.56	30.00%								35.00%	
Quindo Violet Solar System Tin	R81.Q01			8.46	30.00%								35.00%	
Fast Maroon Solar System Tint	R101.Q01			8.50	30.00%								35.00%	
Scarlet Intermix Tint	R115.Q01			8.67	30.00%								35.00%	
Medium Aluminum	S61.Q01			8.82	30.00%			15.00%					15.00%	
Bright Coarse Aluminum	S99.Q01			8.75	30.00%			15.00%					20.00%	
Fine Bright Aluminum	S105.Q01			8.86	30.00%			15.00%					20.00%	
White Solar System Tint Base	W51.G02			12.18	30.00%								10.00%	
Micro White Solar System Tint	W95.Q01			9.00	30.00%								35.00%	
Red Shade Yellow	Y69.Q01			8.56	30.00%								35.00%	
Red Shade Gold Solar System Ti	Y78.Q01			9.32	30.00%								35.00%	

Product Name	Product Code	chromium III	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone
TAP & HAP INDICATOR		T, H	T		T	T	T, H	T	T	T, H	T	T	T	T, H	T, H
		16065-83-1	110-82-7		141-78-6	64-17-5	100-41-4	110-49-6	142-82-5	822-06-0	4098-71-9	67-63-0	110-43-0	78-93-3	108-10-1
Effect Additive	FX01.Q01						5.00%								10.00%
X	Q59.Q01						1.00%								
Black Solar System Tint Base	K54.G02						1.00%								
Jet Black	K73.G02						5.00%								
Red Shade Blue II	L60.Q01						1.00%								
Carbizole Violet Solar System	L66.Q01						5.00%								
Sapphire Blue	L113.Q01						1.00%								
X	R52.Q01						1.00%								
Magenta Solar System Tint Base	R60.Q01						1.00%								
Quindo Violet Solar System Tin	R81.Q01						1.00%								
Fast Maroon Solar System Tint	R101.Q01						1.00%								
Scarlet Intermix Tint	R115.Q01						1.00%								
Medium Aluminum	S61.Q01						5.00%								
Bright Coarse Aluminum	S99.Q01						5.00%								
Fine Bright Aluminum	S105.Q01						5.00%								
White Solar System Tint Base	W51.G02														
Micro White Solar System Tint	W95.Q01						1.00%								
Red Shade Yellow	Y69.Q01						1.00%								
Red Shade Gold Solar System Ti	Y78.Q01						1.00%								

Product Name	Product Code	mineral spirits	n-butyl alcohol	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-proanol acetate	xylene	Dipropylene Glycol Methyl Ether
TAP & HAP INDICATOR			T	T, H	T, H	T	T	T	T	T, H	T	T	T	T	T, H	T
			71-36-3	110-54-3	91-20-3	7664-38-2	79-09-4	107-98-2	61790-53-2	108-88-3	79-20-9	8052-41-3	8032-32-4	108-65-6	1330-20-7	34590-94-8
Effect Additive	FX01.Q01									5.00%					10.00%	
X	Q59.Q01									5.00%					5.00%	
Black Solar System Tint Base	K54.G02									5.00%					5.00%	
Jet Black	K73.G02									5.00%					20.00%	
Red Shade Blue II	L60.Q01														5.00%	
Carbizole Violet Solar System	L66.Q01									5.00%					10.00%	
Sapphire Blue	L113.Q01									5.00%					5.00%	
X	R52.Q01									5.00%					5.00%	
Magenta Solar System Tint Base	R60.Q01									5.00%				5.00%	5.00%	
Quindo Violet Solar System Tin	R81.Q01									5.00%					5.00%	
Fast Maroon Solar System Tint	R101.Q01									5.00%					5.00%	
Scarlet Intermix Tint	R115.Q01									5.00%				5.00%	5.00%	
Medium Aluminum	S61.Q01									5.00%					25.00%	
Bright Coarse Aluminum	S99.Q01									5.00%		5.00%			25.00%	
Fine Bright Aluminum	S105.Q01									5.00%		5.00%			25.00%	
White Solar System Tint Base	W51.G02									5.00%					15.00%	
Micro White Solar System Tint	W95.Q01									5.00%					5.00%	
Red Shade Yellow	Y69.Q01									5.00%				5.00%	5.00%	
Red Shade Gold Solar System Ti	Y78.Q01									5.00%				5.00%	5.00%	

lb/gal Calculations

Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black
Effect Additive	FX01.Q01				2.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.07	0.00
X	Q59.Q01				2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.14	0.00
Black Solar System Tint Base	K54.G02				2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0.42
Jet Black	K73.G02				2.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	0.42
Red Shade Blue II	L60.Q01				2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.37	0.00
Carbizole Violet Solar System	L66.Q01				2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.33	0.00
Sapphire Blue	L113.Q01				2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.39	0.00
X	R52.Q01				2.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	0.00
Magenta Solar System Tint Base	R60.Q01				2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00
Quindo Violet Solar System Tin	R81.Q01				2.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	0.00
Fast Maroon Solar System Tint	R101.Q01				2.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.98	0.00
Scarlet Intermix Tint	R115.Q01				2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.03	0.00
Medium Aluminum	S61.Q01				2.65	0.00	0.00	1.32	0.00	0.00	0.00	0.00	1.32	0.00
Bright Coarse Aluminum	S99.Q01				2.63	0.00	0.00	1.31	0.00	0.00	0.00	0.00	1.75	0.00
Fine Bright Aluminum	S105.Q01				2.66	0.00	0.00	1.33	0.00	0.00	0.00	0.00	1.77	0.00
White Solar System Tint Base	W51.G02				3.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	0.00
Micro White Solar System Tint	W95.Q01				2.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.15	0.00
Red Shade Yellow	Y69.Q01				2.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00
Red Shade Gold Solar System Ti	Y78.Q01				2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.26	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum VOC Content (lb/gal)	0		Maximum Density (lb/gal)	12.18	3.65	0.00	0.00	1.33	0.00	0.00	0.00	0.00	4.07	0.42
			Weighted Avg wt %		0.36	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.40	0.04
			Minimum Density (lb/gal)	8.13										
			Calculated Emissions Rate (lb/hr)		0.42820313	0	0	0.054509766	0	0	0	0	0.4763672	0.017207578
			IDAPA TAP EL (lb/hr)			8.2	119	0.667	35.3		0.033	0.033	47.3	0.23
			Meets the EL?			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Product Name	Product Code	chromium III	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone
Effect Additive	FX01.Q01	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
X	Q59.Q01	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Black Solar System Tint Base	K54.G02	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jet Black	K73.G02	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Red Shade Blue II	L60.Q01	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Carbizole Violet Solar System	L66.Q01	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sapphire Blue	L113.Q01	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
X	R52.Q01	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Magenta Solar System Tint Base	R60.Q01	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quindo Violet Solar System Tin	R81.Q01	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fast Maroon Solar System Tint	R101.Q01	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Scarlet Intermix Tint	R115.Q01	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium Aluminum	S61.Q01	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bright Coarse Aluminum	S99.Q01	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Bright Aluminum	S105.Q01	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
White Solar System Tint Base	W51.G02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Micro White Solar System Tint	W95.Q01	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Red Shade Yellow	Y69.Q01	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Red Shade Gold Solar System Ti	Y78.Q01	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum		0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
Weighted Avg wt %		0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Calculated Emissions Rate (lb/hr)		0	0	0	0	0	0.05191406	0	0	0	0	0	0	0	0.095273438
IDAPA TAP EL (lb/hr)		0.033	70		93.3	125	29	1.6	109	0.002	0.006	65.3	15.7	39.3	13.7
Meets the EL?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Product Name	Product Code	mineral spirits	n-butyl alcohol	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-proanol acetate	xylene	Dipropylene Glycol Methyl Ether	HAPS
Effect Additive	FX01.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.81	0.00	2.44
X	Q59.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.90
Black Solar System Tint Base	K54.G02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.42	0.00	0.93
Jet Black	K73.G02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	1.68	0.00	2.52
Red Shade Blue II	L60.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.51
Carbizole Violet Solar System	L66.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.83	0.00	1.67
Sapphire Blue	L113.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.42	0.00	0.93
X	R52.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	0.00	0.00	0.00	0.00	0.49	0.00	1.09
Magenta Solar System Tint Base	R60.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.43	0.43	0.00	0.94
Quindo Violet Solar System Tin	R81.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.00	0.00	0.42	0.00	0.93
Fast Maroon Solar System Tint	R101.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.43	0.00	0.94
Scarlet Intermix Tint	R115.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.43	0.43	0.00	0.95
Medium Aluminum	S61.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	2.21	0.00	3.09
Bright Coarse Aluminum	S99.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.44	0.00	0.00	2.19	0.00	3.06
Fine Bright Aluminum	S105.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.44	0.00	0.00	2.22	0.00	3.10
White Solar System Tint Base	W51.G02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.00	0.00	0.00	1.83	0.00	2.44
Micro White Solar System Tint	W95.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	0.45	0.00	0.99
Red Shade Yellow	Y69.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.43	0.43	0.00	0.94
Red Shade Gold Solar System Ti	Y78.Q01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	0.47	0.47	0.00	1.03
0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.00	0.44	0.00	0.47	2.22	0.00	3.10
Weighted Avg wt %		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.04	0.00	0.05	0.22	0.00	0.31
Calculated Emissions Rate (lb/hr)		0	0	0	0	0	0	0	0	0.0713672	0	0.051914	0	0.054609	0.25957	0	
IDAPA TAP EL (lb/hr)			10	12	3.33	0.067	2	24	0.667	25	40.7	35	91.3	24	29	40	
Meets the EL?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Daily Use Rates	
0.1171875	gal/hr
24	hr/day
2.8125	gal/day
24	hr/day (averaging period)

Factor of Safety
1.00

Filter Control Efficiency
0.00%

Paint Gun Transfer Efficiency
65.00%

Annual Use Rate (gal/yr)	HAP Emissions (T/yr)	VOC Emissions (T/yr)	PM (10) Calculation (T/yr)	All ELs Are Met
1026.5625	1.59169	0.00000	0.00781	TRUE

HAP Emissions	VOC Emissions	PM (10) Calculation
0.36340	0.00000	0.00000

Rhino Pigment Additives

Weight Percentage Content Data				TAP & HAP INDICATOR	
Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids
Blue	P02,807			19.70	0.00%
Russett	P03,807			21.80	0.00%
Gold	P06,807			19.19	0.00%
P11 Copper	P11,808			21.54	0.00%
P17 Fine Blue	P17,808			20.62	0.00%
Galaxy Blue	P23,808			22.49	0.00%

Product Name	T	T	T	T		T, H	T	T	T	T, H	T	
	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III	cyclohexane	ethyl 3-ethoxy propionate
	25551-13-7	67-64-1	7429-90-5	628-63-7		7440-36-0	7440-39-3	123-86-4	1333-86-4	16065-83-1	110-82-7	
Blue												
Russett												
Gold												
P11 Copper												
P17 Fine Blue												
Galaxy Blue												

Product Name	T	T	T, H	T	T	T, H	T	T	T	T, H	T, H		T
	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol
	141-78-6	64-17-5	100-41-4	110-49-6	142-82-5	822-06-0	4098-71-9	67-63-0	110-43-0	78-93-3	108-10-1		71-36-3
Blue													
Russett													
Gold													
P11 Copper													
P17 Fine Blue													
Galaxy Blue													

Product Name	T, H	T, H	T	T	T	T	T, H	T	T	T	T	T, H	T
	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-propanol acetate	xylene	Dipropylene Glycol Methyl Ether
	110-54-3	91-20-3	7664-38-2	79-09-4	107-98-2	61790-53-2	108-88-3	79-20-9	8052-41-3	8032-32-4	108-65-6	1330-20-7	34590-94-8
Blue													
Russett													
Gold													
P11 Copper													
P17 Fine Blue													
Galaxy Blue													

lb/gal Calculations

Product Name	Product Code			Density (lb/gal)	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III	cyclohexane	ethyl 3-ethoxy propionate
Blue	P02,807				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Russett	P03,807				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gold	P06,807				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P11 Copper	P11,808				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P17 Fine Blue	P17,808				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Galaxy Blue	P23,808				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum VOC Content (lb/gal)	0		Maximum Density (lb/gal)	22.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Weighted Avg wt %		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Minimum Density (lb/gal)	19.19													

Product Name	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol
Blue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Russett	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P11 Copper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P17 Fine Blue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Galaxy Blue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Density (lb/gal)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Avg wt %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Product Name	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-propanol acetate	xylene	Dipropylene Glycol Methyl Ether	HAPS
Blue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Russett	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gold	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P11 Copper	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P17 Fine Blue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Galaxy Blue	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Density (lb/gal)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Weighted Avg wt %	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily Use Rates	
0.1171875	gal/hr
24	hr/day
2.8125	gal/day
24	hr/day (averaging period)

Factor of Safety
1.00

Paint Gun Transfer Efficiency
65.00%

Filter Control Efficiency
0.00%

	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III	cyclohexane	ethyl 3-ethoxy propionate
Calculated Emissions Rate (lb/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAPA TAP EL (lb/hr)		8.2	119	0.667	35.3		0.033	0.033	47.3	0.23	0.033	70	
Meets the EL?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol
Calculated Emissions Rate (lb/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAPA TAP EL (lb/hr)	93.3	125	29	1.8	109	0.002	0.006	65.3	15.7	39.3	13.7		10
Meets the EL?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-propanol acetate	xylene	Dipropylene Glycol Methyl Ether
Calculated Emissions Rate (lb/hr)	0	0	0	0	0	0	0	0	0	0	0	0	0
IDAPA TAP EL (lb/hr)	12	3.33	0.067	2	24	0.667	25	40.7	35	91.3	24	29	40
Meets the EL?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Annual Use Rate (gal/yr)
1026.5625

HAP Emissions (T/yr)	VOC Emissions (T/yr)	PM (10) Calculation (T/yr)
0.00000	0.00000	0.00000

All ELs Are Met
TRUE

HAP Emissions (lb/hr)	VOC Emissions (lb/hr)	PM (10) Calculation (lb/hr)
0.00000	0.00000	0.00000

Rhino Primers

Weight Percentage Content Data				TAP & HAP INDICATOR		T	T	T	T		T, H	T	T	T	T, H	T		T	T	T, H	T	T	T, H	T	T	T	T, H	T, H		T	T, H	T, H	T	T	T	T	T, H	T	T	T	T	T, H	T
Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-proanol acetate	xylene	Dipropylene Glycol Methyl Ether
						25551-13-7	67-64-1	7429-90-5	628-63-7		7440-36-0	7440-39-3	123-86-4	1333-86-4	16065-83-1	110-82-7		141-78-6	64-17-5	100-41-4	110-49-6	142-82-5	822-06-0	4098-71-9	67-63-0	110-43-0	78-93-3	108-10-1		71-36-3	110-54-3	91-20-3	7664-38-2	79-09-4	107-98-2	61790-53-2	108-88-3	79-20-9	8052-41-3	8032-32-4	108-65-6	1330-20-7	34590-94-8
CPS DTM Primer Base Neutral	999DTM	4.4		11.40	60.00%		25.00%																			25.00%										0.30%							
Direct to Metal 2K Primer - White	DTM2001	3.9		12.00	65.00%		10.00%																			26.00%										0.30%							
DTM Surfacer/Sealer Gray	DTM2004	3.9		12.48	63.50%		10.00%							0.30%												25.00%										0.30%							
DTM Surfacer/Sealer Black	DTM2008	3.9		12.43	65.10%		10.00%							1.00%												10.00%										0.30%							
DTM Surfacer/ Sealer Easy Sanding Gray	DTM2024	3.10		13.01	60.00%		5.00%							0.30%												10.00%																	

lb/gal Calculations																																												HAPS
CPS DTM Primer Base Neutral	999DTM				8.84	0.00	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Direct to Metal 2K Primer - White	DTM2001				8.13	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DTM Surfacer/Sealer Gray	DTM2004				8.11	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DTM Surfacer/Sealer Black	DTM2008				8.08	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DTM Surfacer/ Sealer Easy Sanding Gray	DTM2024				8.29	0.00	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum VOC Content (lb/gal)	4.4		Maximum Density (lb/gal)	13.01	8.29	0.00	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Weighted Avg wt %		8.66	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Minimum Density (lb/gal)	11.40																																								

Daily Use Rates	
1.875	gal/hr
24	hr/day
45	gal/day
24	hr/day (averaging period)

Factor of Safety
1.00

Paint Gun Transfer Efficiency
65.00%

Filter Control Efficiency
0.00%

Calculated Emissions Rate (lb/hr)	15.53825	0	5.34375	0	0	0	0	0	0	0.001571875	0	0	0	0	0	0	0	0	0	0	0	5.86930	0	0	0	0	0	0	0	0	0	0.024609375	0	0	0	0	0	0	0
IDAPA TAP EL (lb/hr)		8.7	119	0.667	35.3		0.033	0.033	47.3	0.23	0.033	70		93.3	125	29	1.6	109	0.002	0.006	65.3	15.7	39.3	13.7		10	12	3.33	0.067	2	24	0.667	25	40.7	35	91.3	24	29	40
Meets the EL?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Annual Use Rate (gal/yr)
16425

HAP Emissions (T/yr)
0.00000

VOC Emissions (T/yr)
36.13500

PM (10) Calculation (T/yr)
0.28242

All ELs Are Met
TRUE

HAP Emissions (lb/hr)
0.00000

VOC Emissions (lb/hr)
8.25000

PM (10) Calculation (lb/hr)
0.00000

Rhino Surface Prep Chemicals

Weight Percentage Content Data				TAP & HAP INDICATOR	T	T	T	T		T, H	T	T	T	T, H	T		T	T	T, H	T	T, H	T	T	T, H	T, H		T	T, H	T, H	T	T	T	T	T, H	T
Product Name	Product Code	VOC Content (lb/gal)		Density (lb/gal)	Wt. % Solids	1,2,4 TMB	acetone	aluminum	amyl acetate	aromatic hydrocarbon	antimony and compounds	barium	n-butyl acetate	carbon black	chromium III	cyclohexane	ethyl 3-ethoxy propionate	ethyl acetate	ethyl alcohol	ethyl benzene	ethylene glycol monobutyl ether acetate	heptane	hexamethylene diisocyanate	isophorone diisocyanate	isopropyl alcohol	methyl amyl ketone	MEK	Methyl Isobutyl Ketone	mineral spirits	n-butyl alcohol	n-hexane	naphthalene	phosphoric acid	propionic acid	propylene glycol monomethyl ether acetate	silica (112926-00-8)	toluene	Methyl Acetate	Stoddard Solvent	VM & P naphtha	1-methoxy-2-propanol acetate	xylene	Dipropylene Glycol Methyl Ether
						75551-14-7	67-64-1	7429-90-5	628-63-7		7440-36-0	7440-39-3	123-86-4	1333-86-4	16065-83-1	110-82-7		141-78-6	64-17-5	100-41-4	111-98-6	142-82-5	822-06-0	4098-71-9	67-63-0	110-43-0	78-93-3	108-10-1		71-36-3	110-54-3	91-20-3	7664-38-2	79-09-4	107-98-2	61790-53-2	108-88-3	79-20-9	8032-32-4	64742-95-6	1330-20-7	34590-94-8
Low Voc Waterbased Cleaner	170	0.2		8.32	0.56%																																					1.00%

lb/gal Calculations																																									HAPS
Low Voc Waterbased Cleaner	170				0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0	0				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maximum VOC Content (lb/gal)	0.2	Maximum Density (lb/gal)		8.32	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Weighted Avg wt %			0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
		Minimum Density (lb/gal)		8.32																																							

Daily Use Rates	
0.10639	gal/hr
24	hr/day
3.75	gal/day
24	hr/day (Averaging period)

Factor of Safety
1.00

Filter Control Efficiency
0.00 %

Paint Gun Transfer Efficiency
30.00%

Calculated Emissions Rate (lb/hr)	0.0085	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.013
ISAPA TAP EL (lb/hr)		8.2	110	0.857	36.3		0.033	0.033	47.3	0.23	0.033	70		93.3	125	29	1.6	100	0.002	0.006	65.3	15.7	39.2	13.7		10	17	3.33	0.667	7	24	0.667	25	40.7	35	61.3	24	29	40				
Meets the EL?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Annual Use Rate (gal/yr)
1368.75

HAP Emissions (T/yr)
0.00000

VOC Emissions (T/yr)
0.73188

PM (10) Calculation (T/yr)
0.00017

All ELs Are Met
TRUE

HAP Emissions (lb/hr)
0.00000

VOC Emissions (lb/hr)
0.27100

PM (10) Calculation (lb/hr)
0.00063

Table 1. POTENTIAL TO EMIT FOR NSR REGULATED POLLUTANTS

Emissions Unit	CO[a]	NOx[a]	PM/PM10/PM2.5[a]	SO2[a]	VOC[a]	CH4[a]	N2O[a]	CO2[a]	CO2e[a]
	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources									
Spray Booth #1 Combustion	0.13	0.16	0.01	0.0009	0.01	0.00	0.00	187.61	188.73
Spray Booth #2 Combustion	0.13	0.16	0.01	0.0009	0.01	0.00	0.00	187.61	188.73
Curing Oven	0.14	0.17	0.01	0.0010	0.01	0.00	0.00	198.53	199.71
Rhino Coatings/Prep	---	---	0.56	---	81.27	---	---	---	---
Fugitive Sources *{For listed source categories only, see item 3 below in the instructions}*									
N/A	---	---	---	---	---	---	---	---	---
Totals	**0.40**	**0.48**	**0.60**	**0.00**	**81.30**	**0.01**	**0.01**	**573.75**	**577.16**

a) NSR Regulated air Pollutants are defined[1] as: Particulate Matter (PM, PM-10, PM-2.5), Carbon Monoxide, Lead, Nitrogen Dioxide, Ozone (VOC), Sulfur Dioxide, CO_2e[2], Green House Gases (GHG) mass, all pollutants regulated by NSPS (40 CFR 60)(i.e. TRS, fluoride, sulfuric acid mist) & Class I & Class II Ozone Depleting Substances (40 CFR 82)(i.e. CFC, HCFC, Halon, etc.)

[1] 40 CFR 52.21(b)(50), as incorporated by reference at IDAPA 58.01.01.107.03.d

[2] Multiply each green house gas (GHG) by the global warming potential (GWP) listed at 40 CFR 98, Table A- 1 of Subpart A then sum all values to determine CO2e (GHGs are carbon dioxide, nitrous oxide, methane, hydrofluorcarbons, perfluorcarbons, sulfur hexafluoride). Be sure to show all calculations as described in the instructions.

*Does not include fugitive welding emissions.

Table 2. HAP POTENTIAL TO EMIT EMISSIONS SUMMARY

HAP Pollutants	PTE (T/yr)
Benzene	1.66E-05
Formaldehyde	5.93E-04
Toluene	4.83E+00
2-Methylnaphthalene	1.90E-07
Xylene*	7.13E+00
3-Methylchloranthrene	1.42E-08
7,12-Dimethylbenz(a)anthracene	1.27E-07
Acenaphthylene	1.42E-08
Benzo(a)pyrene	9.49E-09
Benzo(b)fluoranthene	1.42E-08
Benzo(k)fluoranthene	1.42E-08
Dibenzo(a,h)anthracene	9.49E-09
Dichlorobenzene	9.49E-06
Hexane	1.42E-02
Naphthalene	4.82E-06
Acenaphthene	1.42E-08
Anthracene	1.90E-08
Benzo(a)anthracene	1.42E-08
Benzo(g,h,i)perylene	9.49E-09
Chrysene	1.42E-08
Fluoranthene	2.37E-08
Fluorene	2.21E-08
Indeno(1,2,3-cd)pyrene	1.42E-08
Phenanthrene	1.34E-07
Pyrene	3.95E-08
Ethyl benzene	3.73E+00
Methyl Isobutyl Ketone	4.17E-01
Arsenic	1.58E-06
Beryllium	9.49E-08
Cadmium	8.70E-06
Chromium	8.98E-05
Cobalt	7.94E-05
Manganese	2.50E-02
Nickel	9.54E-05
Selenium	1.90E-07
POM	9.02E-08

* Maximum Individual HAP
**Fugitive welding emissions included

Table 3. PRE- AND POST PROJECT NON-CARCINOGENIC TAP EMISSIONS SUMMARY
POTENTIAL TO EMIT

Non-Carcinogenic Toxic Air Pollutants (sum of all emissions)	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Non-Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Toluene	0.00E+00	1.10E+00	1.10E+00	25	No
Xylene	0.00E+00	1.63E+00	1.63E+00	29	No
Dichlorobenzene	0.00E+00	3.51E-06	3.51E-06	30	No
Hexane	0.00E+00	5.27E-03	5.27E-03	12	No
Naphthalene	0.00E+00	1.79E-06	1.79E-06	3.33	No
Pentane	0.00E+00	7.62E-03	7.62E-03	118	No
1,2,4 TMB	0.00E+00	7.63E-01	7.63E-01	8.2	No
Acetone	0.00E+00	1.11E+01	1.11E+01	119	No
n-Butyl acetate	0.00E+00	2.26E+00	2.26E+00	47.3	No
Carbon Black	0.00E+00	9.88E-02	9.88E-02	0.23	No
Ethyl benzene	0.00E+00	8.51E-01	8.51E-01	29	No
Methyl amyl ketone	0.00E+00	7.96E+00	7.96E+00	15.7	No
Methyl Isobutyl Ketone	0.00E+00	9.53E-02	9.53E-02	13.7	No
n-Butyl alcohol	0.00E+00	6.45E-01	6.45E-01	10	No
Silica	0.00E+00	5.59E-01	5.59E-01	0.667	No
Methyl Acetate	0.00E+00	7.13E+00	7.13E+00	40.7	No
Stoddard Solvent	0.00E+00	5.19E-02	5.19E-02	35	No
1-Methoxy-2-proanol acetate	0.00E+00	5.46E-02	5.46E-02	24	No
Dipropylene Glycol Methyl Ether	0.00E+00	1.30E-02	1.30E-02	40	No
Butoxyethyl Acetate	0.00E+00	5.16E-01	5.16E-01	8.33	No
Methyl Isobutyl Carbinol	0.00E+00	3.87E-01	3.87E-01	6.93	No
Aluminum	0.00E+00	5.45E-02	5.45E-02	0.133	No
Barium	0.00E+00	1.29E-05	1.29E-05	0.033	No
Chromium	0.00E+00	3.33E-05	3.33E-05	0.033	No
Cobalt	0.00E+00	2.94E-05	2.94E-05	0.0033	No
Copper	0.00E+00	2.49E-06	2.49E-06	0.067	No
Manganese	0.00E+00	9.28E-03	9.28E-03	0.333	No
Molybdenum	0.00E+00	3.22E-06	3.22E-06	0.333	No
Selenium	0.00E+00	7.03E-08	7.03E-08	0.013	No
Vanadium	0.00E+00	6.74E-06	6.74E-06	0.003	No

**Fugitive welding emissions included

Table 4. PRE- AND POST PROJECT CARCINOGENIC TAP EMISSIONS SUMMARY
POTENTIAL TO EMIT

Carcinogenic Toxic Air Pollutants (sum of all emissions)	Pre-Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Post Project 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Change in 24-hour Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Benzene	0.00E+00	3.79E-06	3.79E-06	8.00E-04	No
Formaldehyde	0.00E+00	1.35E-04	1.35E-04	5.10E-04	No
2-Methylnaphthalene	0.00E+00	4.33E-08	4.33E-08	9.10E-05	No
3-Methylchloranthrene	0.00E+00	3.25E-09	3.25E-09	9.10E-05	No
7,12-Dimethylbenz(a)anthracene	0.00E+00	2.89E-08	2.89E-08	9.10E-05	No
Acenaphthylene	0.00E+00	3.25E-09	3.25E-09	9.10E-05	No
Benzo(a)pyrene	0.00E+00	2.17E-09	2.17E-09	2.00E-06	No
Benzo(b)fluoranthene	0.00E+00	3.25E-09	3.25E-09	2.00E-06	No
Benzo(k)fluoranthene	0.00E+00	3.25E-09	3.25E-09	2.00E-06	No
Dibenzo(a,h)anthracene	0.00E+00	2.17E-09	2.17E-09	2.00E-06	No
Acenaphthene	0.00E+00	3.25E-09	3.25E-09	9.10E-05	No
Anthracene	0.00E+00	4.33E-09	4.33E-09	9.10E-05	No
Benzo(a)anthracene	0.00E+00	3.25E-09	3.25E-09	2.00E-06	No
Benzo(g,h,i)perylene	0.00E+00	2.17E-09	2.17E-09	9.10E-05	No
Chrysene	0.00E+00	3.25E-09	3.25E-09	2.00E-06	No
Fluoranthene	0.00E+00	5.42E-09	5.42E-09	9.10E-05	No
Fluorene	0.00E+00	5.06E-09	5.06E-09	9.10E-05	No
Indeno(1,2,3-cd)pyrene	0.00E+00	3.25E-09	3.25E-09	2.00E-06	No
Phenanthrene	0.00E+00	3.07E-08	3.07E-08	9.10E-05	No
Pyrene	0.00E+00	9.03E-09	9.03E-09	9.10E-05	No
Arsenic	0.00E+00	3.61E-07	3.61E-07	1.50E-06	No
Beryllium	0.00E+00	2.17E-08	2.17E-08	2.80E-05	No
Nickel	0.00E+00	2.18E-05	2.18E-05	2.70E-05	No
POM	0.00E+00	2.06E-08	2.06E-08	2.00E-06	No

a) Polycyclic Organic Matter (POM) is considered as one TAP comprised of: benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, chrysene, indeno(1,2,3-cd)pyrene, benzo(a)pyrene. The total is compared to benzo(a)pyrene.

**Fugitive welding emissions included

APPENDIX B – NESHAP REGULATORY APPLICABILITY

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

Subpart EE—Standards of Performance for Surface Coating of Metal Furniture

Contents

SOURCE: 47 FR 49287, Oct. 29, 1982, unless otherwise noted.

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§60.310 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each metal furniture surface coating operation in which organic coatings are applied.

(b) This subpart applies to each affected facility identified in paragraph (a) of this section on which construction, modification, or reconstruction is commenced after November 28, 1980.

(c) Any owner or operator of a metal furniture surface coating operation that uses less than 3,842 liters of coating (as applied) per year and keeps purchase or inventory records or other data necessary to substantiate annual coating usage shall be exempt from all other provisions of this subpart. These records shall be maintained at the source for a period of at least 2 years.

Rhino Metals is the Original Equipment Manufacturer (OEM) of parts for companies in a wide variety of industries. The Rhino Metals facility located in Caldwell, Idaho produces metal parts used in equipment and buildings. Their process includes application of organic coatings to the metal parts. The facility began operation in 1995. Total coating usage is greater than 3,842 liters per year.

[47 FR 49287, Oct. 29, 1982, as amended at 50 FR 18248, Apr. 30, 1985]

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§60.311 Definitions and symbols.

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

Bake oven means a device which uses heat to dry or cure coatings.

Dip coating means a method of applying coatings in which the part is submerged in a tank filled with the coatings.

Electrodeposition (EDP) means a method of applying coatings in which the part is submerged in a tank filled with the coatings and in which an electrical potential is used to enhance deposition of the coatings on the part.

Electrostatic spray application means a spray application method that uses an electrical potential to increase the transfer efficiency of the coatings.

Flash-off area means the portion of a surface coating operation between the coating application area and bake oven.

Flow coating means a method of applying coatings in which the part is carried through a chamber containing numerous nozzles which direct unatomized streams of coatings from many different angles onto the surface of the part.

Organic coating means any coating used in a surface coating operation, including dilution solvents, from which volatile organic compound emissions occur during the application or the curing process. For the purpose of this regulation, powder coatings are not included in this definition.

Powder coating means any surface coating which is applied as a dry powder and is fused into a continuous coating film through the use of heat.

Spray application means a method of applying coatings by atomizing and directing the atomized spray toward the part to be coated.

Surface coating operation means the system on a metal furniture surface coating line used to apply and dry or cure an organic coating on the surface of the metal furniture part or product. The surface coating operation may be a prime coat or a top coat operation and includes the coating application station(s), flash-off area, and curing oven.

Transfer efficiency means the ratio of the amount of coating solids deposited onto the surface of a part or product to the total amount of coating solids used.

VOC content means the proportion of a coating that is volatile organic compounds (VOC's), expressed as kilograms of VOC's per liter of coating solids.

VOC emissions means the mass of volatile organic compounds (VOC's), expressed as kilograms of VOC's per liter of applied coating solids, emitted from a metal furniture surface coating operation.

(b) All symbols used in this subpart not defined below are given the meaning 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 stream 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 diluent VOC-solvent (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 = the 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 diluent 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 diluent VOC-solvent consumed (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 stream emitted directly to the atmosphere (dry standard cubic meters per hour)

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

T = the transfer efficiency (fraction)

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

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

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§60.312 Standard for volatile organic compounds (VOC).

(a) On and after the date on which the initial performance test required to be conducted by §60.8(a) is completed, no owner or operator subject to the provisions of this subpart shall cause the discharge into the atmosphere of VOC emissions from any metal furniture surface coating operation in excess of 0.90 kilogram of VOC per liter of coating solids applied.

VOC emissions from the Rhino Metals facility have been calculated to be less than 0.90 kg VOC/L or coating applied.

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§60.313 Performance tests and compliance provisions.

(a) Section 60.8(d) and (f) do not apply to the performance test procedures required by this subpart.

(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 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 kilograms per liter of coating solids applied (G).

(1) An owner or operator shall use the following procedures for any affected facility which does not use a capture system and control device to comply with the emissions limit specified under §60.312. The owner or operator shall determine the composition of the coatings by formulation data supplied by the manufacturer of the coating or by an analysis of 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 coating to determine the VOC content of coatings using Method 24. The owner or operator shall determine the volume of coating and the mass of VOC-solvent used for thinning purposes 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 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 (G) during each calendar month for each affected facility, except as provided under §60.313(c)(2) and (c)(3). Each monthly calculation is considered a performance test. Except as provided in paragraph (c)(1)(iv) of this section, the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied (G) each calendar month will be determined by the following procedures.

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

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

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($\Sigma L_{dj} D_{dj}$ 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 diluent VOC-solvents 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:

$$L_s = \sum_{i=1}^{n} L_{ai} V_{si}$$

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

Select the appropriate transfer efficiency from table 1. If the owner or operator can demonstrate to the satisfaction of the Administrator that transfer efficiencies other than those shown are appropriate, the Administrator will approve their use on a case-by-case basis. Transfer efficiency values for application methods not listed below shall be determined by the Administrator on a case-by-case basis. An owner or operator must submit sufficient data for the Administrator to judge the accuracy of the transfer efficiency claims.

TABLE 1—TRANSFER EFFICIENCIES

Application methods	Transfer efficiency (T)
Air atomized spray	0.25
Airless spray	.25
Manual electrostatic spray	.60
Nonrotational automatic electrostatic spray	.70
Rotating head electrostatic spray (manual and automatic)	.80
Dip coat and flow coat	.90
Electrodeposition	.95

Where more than one application method is used within a single surface coating operation, the owner or operator shall determine the composition and volume of each coating applied by each method through a means acceptable to the Administrator and compute the weighted average transfer efficiency by the following equation:

$$T = \frac{\sum_{i=1}^{n} L_{ai} V_{si} T_i}{\sum_{k=1}^{p} L_s}$$

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Where n is the number of coatings used and p is the number of application methods used.

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

$$G = \frac{M_o + M_d}{L_s T}$$

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(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

(iii) Where the volume-weighted average mass of VOC discharged to the atmosphere per unit volume of coating solids applied (N) is less than or equal to 0.90 kilogram per liter, the affected facility is in compliance.

Rhino Metals does not use a VOC capture system and control device and therefore will use the procedures under (c)(1)(i) to determine monthly volume-weighted average emissions of VOC's in kilograms per liter of coating solids applied.

(iv) If each individual coating used by an affected facility has a VOC content, as received, which when divided by the lowest transfer efficiency at which the coating is applied, results in a value equal to or less than 0.90 kilogram per liter, 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 any affected facility that uses a capture system and a control device that destroys VOC's (e.g., incinerator) to comply with the emission limit specified under §60.312.

(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:

$$F = \frac{\sum_{i=1}^{n} C_{ai} Q_{ai}}{\sum_{i=1}^{n} C_{ai} Q_{ai} + \sum_{j=1}^{m} C_{aj} Q_{aj}}$$

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Where

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

m 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:

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

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Where:

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

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

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

$R = EF$

(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:

$N = G(1-R)$

(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 0.90 kilogram per liter 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 any affected facility which uses a control device that recovers the VOC's (e.g., carbon adsorber) to comply with the applicable emission limit specified under §60.312.

(i) Calculate the total mass of VOC's consumed ($M_o + M_d$) 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 paragraph (c)(1)(i) (A), (B), and (C) of this section.

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

$M_r = L_r D_r$

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

$$R = \frac{M_r}{M_o + M_d}$$

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(iv) Calculate the volume-weighted average mass of VOC's emitted to the atmosphere (N) for each calendar month for each affected facility using equation in paragraph (c)(2)(iii) of this section.

(v) If the weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.90 kilogram per liter of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.

[47 FR 49287, Oct. 29, 1982, as amended at 65 FR 61759, Oct. 17, 2000]

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§60.314 Monitoring of emissions and operations.

(a) The owner or operator of an affected facility which uses a capture system and an incinerator to comply with the emission limits specified under §60.312 shall install, calibrate, maintain, and operate temperature measurement devices according to the following procedures:

(1) Where thermal incineration is used, a temperature measurement device shall be installed in the firebox. Where catalytic incineration is used, a temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed.

(2) Each temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of 0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5 °C.

(3) Each temperature measurement device shall be equipped with a recording device so that a permanent continuous record is produced.

(b) The owner or operator of an affected facility which uses a capture system and a solvent recovery system to comply with the emission limits specified under §60.312 shall install the equipment necessary to determine the total volume of VOC-solvent recovered daily.

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§60.315 Reporting and recordkeeping requirements.

(a) The reporting requirements of §60.8(a) apply only to the initial performance test. Each owner or operator subject to the provisions of this subpart shall include the following data in the report of the initial performance test required under §60.8(a):

(1) Except as provided in paragraph (a)(2) of this section, the volume-weighted average mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) for a period of one calendar month from each affected facility.

Rhino Metals will include the volume-weighted average mass of average mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) for a period of one calendar month in the initial performance test report.

(2) For each affected facility where compliance is determined under the provisions of §60.313(c)(1)(iv), a list of the coatings used during a period of one calendar month, the VOC content of each coating calculated from data determined using Method 24 or supplied by the manufacturer of the coating, and the minimum transfer efficiency of any coating application equipment used during the month.

(3) For each affected facility where compliance is achieved through the use of an incineration system, the following additional information will be reported:

(i) The proportion of total VOC's emitted that enters the control device (F),

(ii) The VOC reduction efficiency of the control device (E),

(iii) The average combustion temperature (or the average temperature upstream and downstream of the catalyst bed), and

(iv) A description of the method used to establish the amount of VOC's captured and sent to the incinerator.

(4) For each affected facility where compliance is achieved through the use of a solvent recovery system, the following additional information will be reported:

(i) The volume of VOC-solvent recovered (L_r), and

(ii) The overall VOC emission reduction achieved (R).

(b) 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 total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.312. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

Rhino Metals will identify, record, and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under §60.312. If no such instances have occurred during a particular quarter, Rhino will submit a report stating this to the Administrator semiannually.

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit at the frequency specified in §60.7(c) the following:

(1) Where compliance with §60.312 is achieved through the use of thermal incineration, each 3-hour period when metal furniture is being coated during which the average temperature of the device was more than 28 °C below the average temperature of the device during the most recent performance test at which destruction efficiency was determined as specified under §60.313.

(2) Where compliance with §60.312 is achieved through the use of catalytic incineration, each 3-hour period when metal furniture is being coated during which the average temperature of the device immediately before the catalyst bed is more than 28 °C below the average temperature of the device immediately before the catalyst bed during the most recent performance test at which destruction efficiency was determined as specified under §60.313. Additionally, when metal furniture is being coated, all 3-hour periods during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference across the catalyst bed during the most recent performance test at which destruction efficiency was determined as specified under §60.313 will be recorded.

(3) For thermal and catalytic incinerators, if no such periods as described in paragraphs (c)(1) and (c)(2) of this section occur, the owner or operator shall state this in the report.

(d) 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 VOC emissions from each affected facility. 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 chamber 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. Where compliance is achieved through the use of a solvent recovery system, the owner or operator shall maintain at the source daily records of the amount of solvent recovered by the system for each affected facility.

Rhino Metals will retain records of all data and calculations used to determine VOC emissions from the facility for a period of at least 2 years.

[47 FR 49287, Oct. 29, 1982, as amended at 55 FR 51383, Dec. 13, 1990; 65 FR 61759, Oct. 17, 2000]

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§60.316 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 §60.312 as follows:

(1) Method 24, or coating manufacturer's formulation data, for use in the determination of VOC content of each batch of coating as applied to the surface of the metal parts. In case of an inconsistency between the Method 24 results and the formulation data, the Method 24 results will govern.

Rhino Metals will use coating manufacturer formulation data in the determination of VOC content in each batch of coating. In case of inconsistency between Method 24 results and formulation data, the Method 24 results will be used.

(2) Method 25 for the measurement of VOC concentration.

(3) Method 1 for sample and velocity traverses.

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

(5) Method 3 for gas analysis.

(6) Method 4 for stack gas moisture.

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

If Method 24 is required to be used, Rhino Metals will ensure that the coating sample will be at least a 1 liter sample in a 1 liter container taken at a point where the sample will be representative of the coating material as applied to the surface of the metal part.

(c) For Method 25, the minimum sampling time for each of 3 runs is 60 minutes and the minimum sample volume is 0.003 dry standard cubic meters except that 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.

APPENDIX C – PROCESSING FEE

PTC Processing Fee Calculation Worksheet

Instructions:
Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company:	**Rhino Metals, Inc.**
Address:	**607 Garber St.**
City:	**Caldwell**
State:	**Idaho**
Zip Code:	**83605**
Facility Contact:	**Cory Woody**
Title:	**Mechanical Engineer**
AIRS No.:	**027-00179**

N	Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
Y	Did this permit require engineering analysis? Y/N
N	Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_X	0.48	0	0.5
SO_2	0.003	0	0.0
CO	0.40	0	0.4
PM10	0.64	0	0.6
VOC	81.30	0	81.3
TAPS/HAPS	15.0	0	15.0
Total:	*97.8*	*0*	***97.8***
Fee Due	$ 5,000.00		

Comments: