Statement of Basis

Permit to Construct No. P-2011.0070
Project ID 62067

Inventive LLC dba In The Ditch Towing Products
Mountain Home, Idaho

Facility ID 039-00036

Final

September 27, 2018
Tom Burnham
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
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
Btu	British thermal units
CAA	Clean Air Act
CAS No.	Chemical Abstracts Service registry number
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CMS	continuous monitoring systems
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
GACT	Generally Available Control Technology
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
hr/yr	hours per consecutive 12 calendar month period
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
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
O_2	oxygen
PAH	polyaromatic hydrocarbons
PC	permit condition
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
POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge

PTC	permit to construct
PTE	potential to emit
Rules	*Rules for the Control of Air Pollution in Idaho*
scf	standard cubic feet
SCL	significant contribution limits
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
SO_x	sulfur oxides
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
U.S.C.	United States Code
VOC	volatile organic compounds
$\mu g/m^3$	micrograms per cubic meter

FACILITY INFORMATION

Description

In the Ditch Towing Products operates a facility manufacturing transportation equipment and towing products at 3195 Industrial Way, Mountain Home, Idaho. This facility is used for offices and manufacturing. The facility is located north of the intersection of Interstate 84 and Sun Valley Hwy.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

March 4, 2011	P-2011.0070, the initial permit to construct for an automobile body repair and refinishing facility, Permit status (A, but will become S upon issuance of this permit)

Application Scope

This PTC is for a minor modification at an existing minor facility.

The applicant has proposed to:

- Install and operate a new paintbooth,
- Increase paint usage,
- Add Welding wire limits, and
- Permit existing fabrication equipment

Application Chronology

May 24, 2018	DEQ received an application and an application fee.
July 30 – August 14, 2018	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
June 18, 2018	DEQ determined that the application was incomplete.
July 16, 2018	DEQ received supplemental information from the applicant.
July 24, 2018	DEQ determined that the application was complete.
August 6, 2018	DEQ made available the draft permit and statement of basis for peer and regional office review.
August 16, 2018	DEQ made available the draft permit and statement of basis for applicant review.
September 24, 2018	DEQ received the permit processing fee.
September 27, 2018	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 ID No.	Sources	Control Equipment	Emission Point ID No.
1	H1 Shop bathroom heater Manufacturer: Modine Model: HD125 Maximum Capacity: 0.125 MMBtu/hr	None	H1 Exhaust (Roof)
2	H2 Heater Manufacturer: Advanced Distributor Product Model: FSA N 75 Maximum Capacity: 0.075 MMBtu/hr	None	H2 Exhaust (Roof)
3	H3 Mill heater Manufacturer: Renzor Model: V3 T-COR2 UDAP 60 Maximum Capacity: 0.06 MMBtu/hr	None	H3 Exhaust (Roof)
4, 5	H4-5 Welding room heaters Manufacturer: Infrasave and Renzor Model: X-IL 50-N and UDAP250 Maximum Capacity: 0.05, 0.25 MMBtu/hr	None	H4, H5 Exhausts (Roof)
6,7,8	H6-8 Heaters Manufacturer: Infrasave Model: X-IL 50-N, X-IL 100-N, X-IL 37-N Maximum Capacity: 0.05, 0.1, 0.037 MMBtu/hr	None	Breezeway Room doors, windows and vents
9	H9 – Paint room heater Manufacturer: Advanced Distributor Product Model: SEP-230A-4 Maximum Capacity: 0.23 MMBtu/hr	None	H9 Exhaust (Roof)
10,11	H10-11 Shipping room heaters Manufacturer: Advanced Distributor Product Model: SEP-175A-5, SEP-300A-5 Maximum Capacity: 0.175, 0.30 MMBtu/hr	None	H10, H11 Exhausts (Roof)
12	H12- Powder coating oven Manufacturer: Steelman Industries Inc Model: 8810 GSP-OB Maximum Capacity: 0.5 MMBtu/hr	None	H12 Exhaust (Roof)

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION (continued)

Source ID No.	Sources	Control Equipment	Emission Point ID No.
13,14	Paint spray booth: Manufacturer: Unknown Manufacture date: Pre-2013 Model: Unknown Powder coating booth: Manufacturer: Steelman Industries Inc Manufacture date: 2018 Model: 8810 GSP-OB	Pre-2013 Paint spray booth filter system: Booth Type(s): Side Draft Particulate filtration method: Dry Filters Manufacturer(s): Viledon or equivalent Model(s): Series 400 or equivalent PM/PM_{10} Control Efficiency: 98% or greater Coating spray gun(s): Manufacturer(s): Anesta Iwata Model(s): LPH-101, LPH-400-LVB/-LVC/-LVX or equivalent Type: HVLP or equivalent Transfer Efficiency: 65% or greater Steelman powder coating booth filter system: Booth Type(s): Side Draft Particulate filtration method: Dry Filters Manufacturer(s): Apel or equivalent Model(s): C106B2 or equivalent PM/PM_{10} Control Efficiency: 90% or greater Coating spray gun(s): Manufacturer(s): Gema or equivalent Model(s): OptiFlex 2F or equivalent Type: HVLP or equivalent Transfer Efficiency: 65% or greater	PB-1, PB-2 exhausts (roof)
15	(13) welders: Manufacturer: Lincoln Electric and Millermatic Model: 300P, 251, 252 Manufacture Dates: Unknown	None	Welding Shop Vents (three on south wall)
16, 17	Laser Cutters Manufacturer: TRUMPF Model: 2030 and 3030 Manufacture Dates: Unknown	TRUMPF Micropore Fileter PM/PM_{10} Control Efficiency: 99.998	Laser Cutter Room Door 1 Laser Cutter Room Door 2 (east side)
18	Plasma Cutter Manufacturer: Hypertherm Model: 65 Manufacture Date: Unknown	None	P1 vent
19-21	Metal Saws Manufacturer: Marvel Model: 380A PC3360 and PA10/3EPC Manufacture Dates: Unknown Manufacturer: Ellis Model: 1600 Manufacture Date: Unknown	None	Mill room vents, doors, and windows

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 of Potential to Emit an emission inventory was developed for the combustion, coating, and fabrication operations at the facility (see Appendix A) associated with this proposed project. Emissions estimates of criteria pollutant, HAP PTE were based on emission factors from AP-42, operation of 8,760 hours per year, and process information specific to the facility for this proposed project.

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined 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 **not** be treated as part of its design **since** the limitation or the effect it would have on emissions **is not** state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a "Synthetic Minor" source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or HAP above the applicable Major Source threshold without permit limits.

The following table presents the uncontrolled Potential to Emit for regulated air pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. Uncontrolled annual emissions were calculated by scaling up the coating operation from normal business annual operations of 2,080 hrs/yr (8 hrs/day x 260 days/yr, normal business hours) to uncontrolled annual operation of 8,760 hrs/yr (24 hrs/day x 365 days/yr).

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$	SO_2	NO_X	CO	VOC
	T/yr	T/yr	T/yr	T/yr	T/yr
Point Sources					
Heaters	0.06	0.01	0.84	0.70	0.05
Welding	0.74	0.00	0.00	0.00	0.00
Laser Cutting	32.09	0.00	0.00	0.00	0.00
Plasma Cutting	3.48	0.00	0.00	0.00	0.00
Coatings	63.16	0.00	0.00	0.00	45.37
Metal Saws	0.01	0.00	0.00	0.00	0.00
Total, Point Sources	**99.54**	**0.01**	**0.84**	**0.70**	**45.42**

The following table presents the uncontrolled Potential to Emit for HAP pollutants as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations and the assumptions used to determine emissions for each emissions unit. Uncontrolled annual emissions were calculated by scaling up the coating operation from normal business annual operations of 2,080 hrs/yr (8 hrs/day x 260 days/yr, normal business hours) to uncontrolled annual operation of 8,760 hrs/yr (24 hrs/day x 365 days/yr). Then, the worst-case maximum HAP Potential to Emit was determined for this manufacturing operation.

Table 3 UNCONTROLLED POTENTIAL TO EMIT FOR HAZARDOUS AIR POLLUTANTS

Hazardous Air Pollutants	PTE (T/yr)
Arsenic	1.7E-06
Benzene	1.8E-05
Beryllium	1.4E-07
Cadmium	9.2E-06
Chromium	7.6E-01
Cobalt	7.0E-07
Dichlorobenzene	1.0E-05
Formaldehyde	6.3E-04
Hexane	1.5E-02
HMDI	6.5E-03
Lead	4.2E-06
Manganese	4.5E-01

Mercury	2.2E-06
Naphthalene	5.1E-06
Nickel	3.1E-01
Polycyclic Organic Matter (PAH MAX.)	9.5E-08
Selenium	2.0E-07
Total	**1.54**

Pre-Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

The following table presents the pre-project potential to emit for all criteria pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 4 PRE-PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	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]
Heaters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Laser Cutting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plasma Cutting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coatings	0.02	0.09	0.00	0.00	0.00	0.00	0.00	0.00	2.79	12.20
Metal Saws	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pre-Project Totals	**0.02**	**0.09**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.79**	**12.20**

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.

Post Project Potential to Emit

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria pollutants from all emissions units at the facility as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 5 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	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]
Heaters	0.01	0.06	0.00	0.01	0.19	0.84	0.16	0.70	0.01	0.05
Welding	0.03	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Laser Cutting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plasma Cutting	0.08	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coatings	0.07	0.30	0.00	0.00	0.00	0.00	0.00	0.00	2.89	10.80
Metal Saws	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Post Project Totals	**0.19**	**0.89**	**0.00**	**0.01**	**0.19**	**0.84**	**0.16**	**0.70**	**2.90**	**10.85**

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.

Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants.

Table 6 CHANGES IN POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Pre-Project Potential to Emit	0.02	0.09	0.00	0.00	0.00	0.00	0.00	0.00	2.79	12.20
Post Project Potential to Emit	0.19	0.89	0.00	0.01	0.19	0.84	0.16	0.70	2.90	10.85
Changes in Potential to Emit	**0.17**	**0.80**	**0.00**	**0.01**	**0.19**	**0.84**	**0.16**	**0.70**	**0.11**	**-1.35**

Non-Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of non-carcinogenic toxic air pollutants (TAP) is provided in the following table.

Pre- and post-project, as well as the change in, non-carcinogenic TAP emissions are presented in the following table:

Table 7 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR NON-CARCINOGENIC TOXIC AIR POLLUTANTS

Non-Carcinogenic Toxic Air Pollutants	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)
Aluminum orthophosphate	0	2.63E-01	2.63E-01	3.33E-01	No
Barium	0	8.41E-06	8.41E-06	3.30E-02	No
Barium sulfate	0	1.50E-02	1.50E-02	3.30E-02	No
Butyl Acetate	0	1.05E+00	1.05E+00	4.73E+01	No
Carbon Black	0	1.00E-03	1.00E-03	2.30E-01	No
Silica - amorphous	0	4.21E-04	4.21E-04	6.67E-01	No
Chromium	0	8.23E-05	8.23E-05	3.30E-02	No
Cobalt	0	1.60E-07	1.60E-07	3.30E-03	No
Copper	0	1.08E-03	1.08E-03	6.70E-02	No
Dichlorobenezene	0	2.29E-06	2.29E-06	2.00E+01	No
Ethanol	0	2.63E-01	2.63E-01	1.25E+02	No
HMDI	0	1.55E-03	1.55E-03	2.00E-03	No
Iron Oxide Fume	0	1.32E-01	1.32E-01	3.33E-01	No
Manganese	0	1.99E-03	1.99E-03	6.70E-02	No
Mercury	0	4.97E-07	4.97E-07	3.00E-03	No
Methyl n-Amyl Ketone	0	1.04E+00	1.04E+00	1.57E+01	No
Molybdenum	0	9.98E-04	9.98E-04	3.33E-01	No
Naphthalene	0	1.17E-06	1.17E-06	3.33E+00	No
Phosphorous	0	9.95E-04	9.95E-04	7.00E-03	No
Selenium	0	4.58E-08	4.58E-08	1.30E-02	No
Silicon	0	1.52E-03	1.52E-03	6.67E-01	No
Vanadium	0	8.05E-06	8.05E-06	3.00E-03	No
Zinc	0	5.54E-05	5.54E-05	6.67E-01	No

All changes in emissions rates for non-carcinogenic TAP were below EL (screening emissions level) as a result of this project. Therefore, modeling is not required for any non-carcinogenic TAP because none of the 24-hour average non-carcinogenic screening ELs identified in IDAPA 58.01.01.585 were exceeded.

Carcinogenic TAP Emissions

A summary of the estimated PTE for emissions increase of carcinogenic toxic air pollutants (TAP) is provided in the following table.

Table 8 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR CARCINOGENIC TOXIC AIR POLLUTANTS

Carcinogenic Toxic Air Pollutants	Pre-Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Post Project Annual Average Emissions Rates for Units at the Facility (lb/hr)	Change in Annual Average Emissions Rates for Units at the Facility (lb/hr)	Carcinogenic Screening Emission Level (lb/hr)	Exceeds Screening Level? (Y/N)
Arsenic	0	3.8E-07	3.8E-07	1.5E-06	No
Benzene	0	4.0E-06	4.0E-06	8.0E-04	No
Beryllium	0	3.2E-08	3.2E-08	2.8E-05	No
Cadmium	0	2.1E-06	2.1E-06	3.7E-06	No
Chromium+6	0	1.4E-06	1.4E-06	5.6E-07	Yes
Formaldehyde	0	1.4E-04	1.4E-04	5.1E-04	No
3-Methylchloranthene	0	3.4E-09	3.4E-09	2.5E-06	No
Nickel	0	5.1E-05	5.14E-05	2.7E-05	Yes
Polyaromatic Hydrocarbon	0	1.3E-06	1.3E-06	9.1E-05	No
Polycyclic Organics: 7-PAH	0	2.2E-08	2.2E-08	2.0E-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.

Some of the PTEs for carcinogenic TAP were exceeded as a result of this project. Therefore, modeling is required for nickel and chromium+6 because the annual average carcinogenic screening ELs identified in IDAPA 58.01.01.586 were exceeded.

Post Project HAP Emissions

The following table presents the post project potential to emit for HAP pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 9 HAZARDOUS AIR POLLUTANTS EMISSIONS POTENTIAL TO EMIT SUMMARY

Hazardous Air Pollutants	PTE (lb/hr)	PTE (T/yr)
Arsenic	4E-07	0.00
Benzene	4E-06	0.00
Beryllium	3E-08	0.00
Cadmium	2E-06	0.00
Chromium	7E-05	0.00
Cobalt	2E-07	0.00
Dichlorobenzene	2E-06	0.00
Formaldehyde	0.0001	0.00
Hexane	0.0034	0.02
HMDI	0.0015	0.01
Lead	1E-06	0.00
Manganese	0.0017	0.01
Mercury	5E-07	0.00
Naphthalene	1E-06	0.00
Nickel	5E-05	0.00
Polycyclic Organic Matter (PAH MAX.)	2E-08	0.00
Selenium	5E-08	0.00
Totals	**0.00**	**0.04**

Ambient Air Quality Impact Analyses

The applicant has demonstrated pre-construction 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 pre-construction 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). A summary of the Ambient Air Impact Analysis for TAP is provided in Appendix B.

An ambient air quality impact analyses document has been crafted by DEQ based on a review of the modeling analysis submitted in the application. That document is part of the final permit package for this permitting action (see Appendix B).

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Elmore 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 HAPs (Hazardous Air Pollutants) Only:

A = Use when any one HAP has actual or potential emissions ≥ 10 T/yr or if the aggregate of all HAPS (Total HAPs) 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 10 REGULATED AIR POLLUTANT FACILITY CLASSIFICATION

Pollutant	Uncontrolled PTE (T/yr)	Permitted PTE (T/yr)	Major Source Thresholds (T/yr)	AIRS/AFS Classification
PM	99.54	0.89	**100**	B
PM_{10}	99.54	0.89	**100**	B
$PM_{2.5}$	99.54	0.89	**100**	B
SO_2	0.01	0.01	**100**	B
NO_X	0.84	0.84	**100**	B
CO	0.70	0.70	**100**	B
VOC	45.42	10.85	**100**	B
HAP (single)	0.02	0.02	**10**	B
HAP (total)	1.54	0.04	**25**	B
Pb	0	0	**100**	B

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 ..... Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the proposed new emissions source. Therefore, a permit to construct is required to be 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)

IDAPA 58.01.01.401 ..... Tier II Operating Permit

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.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 ..... Visible Emissions

The sources of PM emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Condition 2.4.

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

IDAPA 58.01.01.301 ..... Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM_{10}, SO_2, NO_X, CO, VOC, and HAP or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of this analysis. 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 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 ..... Prevention of Significant Deterioration of Air Quality

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)

The facility is not subject to any NSPS requirements 40 CFR Part 60.

NESHAP Applicability (40 CFR 61)

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

MACT/GACT Applicability (40 CFR 63)

The facility is not subject to any MACT standards in 40 CFR Part 63.

Because the facility produces trailer hitches, it may be subject the requirements of 40 CFR 63, Subpart HHHHHH–National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. The following breakdown provided by the applicant demonstrates, however, that they are not subject:

§ 63.11170 Am I subject to this subpart?

(a) You are subject to this subpart if you operate an area source of HAP as defined in paragraph (b) of ts section, including sources that are part of a tribal, local, State, or Federal facility and you perform one or more of the activities in paragraphs (a)(1) through (3) of this section:
~~*(1) Perform paint stripping using MeCl for the removal of dried paint (including, but not limited to, paint, enamel, varnish, shellac, and lacquer) from wood, metal, plastic, and other substrates.*~~

~~*(2) Perform spray application of coatings, as defined in §63.11180, to motor vehicles and mobile equipment including operations that are located in stationary structures at fixed locations, and mobile repair and refinishing operations that travel to the customer's location, except spray coating applications that meet the definition of facility maintenance in §63.11180. However, if you are the owner or operator of a motor vehicle or mobile equipment surface coating operation, you may petition the Administrator for an exemption from this subpart if you can demonstrate, to the satisfaction of the Administrator, that you spray apply no coatings that contain the target HAP, as defined in §63.11180. Petitions must include a description of the coatings that you spray apply and your certification that you do not spray apply any coatings containing the target HAP. If circumstances change such that you intend to spray apply coatings containing the target HAP, you must submit the initial notification required by 63.11175 and comply with the requirements of this subpart.*~~

~~*(3) Perform spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product, except spray coating applications that meet the definition of facility maintenance or space vehicle in §63.11180.*~~

(b) An area source of HAP is a source of HAP that is not a major source of HAP, is not located at a major source, and is not part of a major source of HAP emissions. A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year, or emit any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

Categories and entities potentially subject to this subpart are paint stripping operations using methylene chloride (MeCl)-containing paint strippers, motor vehicle and mobile equipment surface coating operations, and miscellaneous surface coating operations located at area sources. Based on the applicability requirements listed in 40 CFR§ 63.11170, In the Ditch is not subject to 40 CFR Part 63, Subpart HHHHHH due to the following reasons:

1) In the Ditch does not perform paint stripping using methylene chloride, §63.11170(a)1;

2) In the Ditch does not perform spray application of coatings, as defined in §63.11180, to motor vehicles or mobile equipment, §63.11170(a)2. According to 40 CFR§ 63.11180, motor vehicle means any self-

propelled vehicle, including, but not limited to, automobiles, light duty trucks, golf carts, vans, and motorcycles. Mobile equipment refers any device that may be drawn and/or driven on a roadway including, but not limited to, heavy-duty trucks, truck trailers, fleet delivery trucks, buses, mobile cranes, bulldozers, street cleaners, agriculture equipment, motor homes, and other recreational vehicles (including camping trailers and fifth wheels). In the Ditch only manufactures towing products and accessories such as hitches, axle mounts, and tool boxes. Its products do not match any definitions for motor vehicles or mobile equipment.

3) The Final Rule Part 63 National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources (Federal Register Vol. 73, No. 6, January 9, 2008) lists facilities and entities and their North American Industrial Classification System (NAICS) codes and examples of potentially regulated entities affected by some or all of the rule. The NAICS code for In the Ditch is 336999, which is one of the NAICS "Other Transportation Equipment" codes potentially covered by the Final Rule.

   However, in addition to paint stripping §63.11170(a)(1) and spray coating of motor vehicle and mobile equipment §63.11170(a)(2), the third type of activity—

   "...spray application of coatings that contain the target HAP, as defined in §63.11180, to a plastic and/or metal substrate on a part or product...." §63.11170(a)(3)

   applies to target HAPs (Cd, Cr, Mn, Ni, Pb) sprayed on plastic or metal parts. The coatings used at In the Ditch are sprayed on metal parts but do not contain any of the target HAP. Therefore, In the Ditch, which is not located at a major source, is not subject to the CFR 40 Part 63, Subpart HHHHHH.

Because the facility produces metal components, it may be subject the requirements of 40 CFR 63, Subpart XXXXXX– National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories. The following breakdown provided by the applicant demonstrates, however, that they are not subject:

40 CFR Part 63, Subpart XXXXXX NESHAP: National Emission Standards For Hazardous Air

Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories

§63.11514 Am I subject to the subpart?

(a) You are subject to this subpart if you own or operate an area source that is primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through (9) of this section. Descriptions of these source categories are shown in Table 1 of this subpart. "Primarily engaged" is defined in §63.11522, "What definitions apply to this subpart?"

(1)Electrical and Electronic Equipment Finishing Operations;

(2) Fabricated Metal Products;

(3) Fabricated Plate Work (Boiler Shops);

(4) Fabricated Structural Metal Manufacturing;

(5) Heating Equipment, except Electric;

(6) Industrial Machinery and Equipment Finishing Operations;

(7) Iron and Steel Forging;

(8) Primary Metal Products Manufacturing; and

(9) Valves and Pipe Fittings.

An applicability analysis indicates that operations at In the Ditch are not included in any of the Subpart XXXXXX 9-specified source categories.

EPA guidance indicates that a facility covered by Subpart XXXXXX would have the combinations of SIC (Standard Industrial Classification) and NAICS (North American Industrial Classification System) listed in Chart 1 SIC/NAICS Code Applicability Charts for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63 subpart XXXXXX),13. The potentially similar subcategory and the applicable SIC/NAICS code combination are described below:

The subcategory Fabricated Metal Products (SIC 3499/NAICS 332117; SIC 3499/NAICS 332999) is defined as:

"Establishments primarily engaged in manufacturing fabricated metal products, such as fire or burglary resistive steel safes and vaults and similar fire or burglary resistive products; and collapsible tubes of thin flexible metal. Also, establishments primarily engaged in manufacturing powder metallurgy products, metal boxes; metal ladders; metal household articles, such as ice cream freezers and ironing boards; and other fabricated metal products not elsewhere classified." (Table 1 to Subpart XXXXXX of Part 63—Description of Source Categories Affected by This Subpart)

Since In the Ditch does not manufacture these types of products and the SIC/NAICS code combination does not apply, In the Ditch is not engaged in manufacturing fabricated metal products subject to Subpart XXXXXX.

The subcategory Fabricated Structural Metal Manufacturing (SIC 34419/NAICS 332312) is defined as:

"Establishments primarily engaged in fabricating iron and steel or other metal for structural purposes, such as bridges, buildings, and sections for ships, boats, and barges." (Table 1 to Subpart XXXXXX of Part 63—Description of Source Categories Affected by This Subpart)

Since In the Ditch does not manufacture these types of products and the SIC/NAICS code combination does not apply, In the Ditch is not engaged in fabricated structural metal manufacturing subject to Subpart XXXXXX.

The subcategory Industrial Machinery and Equipment Finishing Operations (SIC 3531/NAICS 333120; SIC 3533/NAICS 333132; SIC 3561/NAICS 333911) is defined as:

Establishments primarily engaged in construction machinery manufacturing; oil and gas field machinery manufacturing; and pumps and pumping equipment manufacturing. The construction machinery manufacturing industry sector of this source category includes establishments primarily engaged in manufacturing heavy machinery and equipment of types used primarily by the construction industries, such as bulldozers; concrete mixers; cranes, except industrial plant overhead and truck-type cranes; dredging machinery; pavers; and power shovels. Also establishments primarily engaged in manufacturing forestry equipment and certain specialized equipment, not elsewhere classified, similar to that used by the construction industries, such as elevating platforms, ship cranes, and capstans, aerial work platforms, and automobile wrecker hoists. The oil and gas field machinery manufacturing industry sector of this source category includes establishments primarily engaged in manufacturing machinery and equipment for use in oil and gas fields or for drilling water wells, including portable drilling rigs. The pumps and pumping equipment manufacturing sector of this source category includes establishments primarily engaged in manufacturing pumps and pumping equipment for general industrial, commercial, or household use, except fluid power pumps and motors. This category includes establishments primarily engaged in manufacturing domestic water and sump pumps.

Since In the Ditch does not manufacture these types of products and the SIC/NAICS code combination does not apply, In the Ditch is not engaged in industrial machinery and equipment finishing operations subject to Subpart XXXXXX.

The subcategory Primary Metal Products Manufacturing (SIC 3399/NAICS 332618) is defined as: Establishments primarily engaged in manufacturing products such as fabricated wire products (except springs) made from purchased wire. These facilities also manufacture steel balls; nonferrous metal brads and nails; nonferrous metal spikes, staples, and tacks; and other primary metals products not elsewhere classified.

Since In the Ditch does not manufacture these types of products and the SIC/NAICS code combination does not apply, In the Ditch is not engaged in primary metal products manufacturing subject to Subpart XXXXXX

Permit Conditions Review

Combustion sources

Permit conditions 2.1 through 2.4

There are 12 natural gas heaters located throughout the facility. The heat input ratings are combined for total emissions limits for criteria pollutants based on AP-42 factors. Opacity limits are for all the combustion emission points, as well as all other sources at the site.

Permit conditions 2.5 and 2.6

EI was calculated for all heaters operating for 8760 hours using AP-42 factors. Since these emissions are well below BRC for 8760 hours, the only requirements are the fuel burning IDAPA 58.01.01.677and a requirement that the heaters combust natural gas only.

Painting

Permit Condition 3.2

The control device description was updated to include the new powder coating booth and powder coating applicator.

Initial Permit Condition 3.3

Emission limits were added for criteria pollutants emitted monthly from the coatings already in use at the facility along with the new coating, as demonstrated in the EI.

Initial Permit Conditions 3.4 and 3.5

Daily and annual usage limits of each coating material ensure the current materials, as well as alternative coating materials meet the levels of the current application.

Permit Condition 3.6

This permit condition specifying efficiencies of the spray guns and filters was added at the request of the regional office.

Initial Permit Conditions 3.7 through 3.14
These permit conditions are the DEQ approved approach to regulating coatings in such a way that IDAPA 58.01.01.585 and 586 TAPs screening levels (EL)or modeling concentrations (AAC or AACC0 are not exceeded as demonstrated in the application emissions inventory. In this case, the applicant requested to keep their monthly usage for paints used under the old permit. This was accommodated by using monthly usage limits to meet monthly criteria pollutant emissions and a daily limit for the new coating to meet the silica TAP daily EL. Additionally, alternative coatings can be used after a demonstration that the alternative coating scenario also meets the regulations on a pound per day basis. Using MSDS data for any of the new coating materials, the analysis should use the higher values for ranges listed in section 3 – "Composition/information on ingredients" section of the MSDS only. Compounds listed in this section are the only TAPs or HAPs to be considered in the analysis of the alternative coating scenario.

Fabrication

Permit Conditions 4.1 through 4.8

Emission limits were established using AP-42 factors as presented by the applicant. The TAP/HAPs nickel and chromium limits were put in place because a level II modeling assumption was made to meet the EL. Beside the requested limits for welding rod type, operations limits are included for laser cutting and plasma cutting because these activities contribute to the nickel and chromium emissions. Weekly monitoring ensures welding rod usage and cutting operating hours limits are met. The aluminum metal saw and grinding operations with water controls were to have negligible emissions potential and therefore are not regulated.

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 or IDAPA 58.01.01.404.01.c. During this time, there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – EMISSIONS INVENTORIES

Table 3-1(a)
Natural Gas Combustion - Criteria Pollutants
In the Ditch Towing Products, Mountain Home, ID

Sources	Unit Code	No. of units	Input Rate (MMBtu/hr)	Estimated Criteria Unrestricted Emissions (lb/yr)						
				PM_{10}	$PM_{2.5}$	SO_2	NO_x	CO	VOC	Lead
Modine, Hot Dawg, HDC125	H1	1	0.125	9.31E-04	9.31E-04	7.35E-05	1.23E-02	1.03E-02	6.74E-04	6.13E-08
Advanced Distributor Products, Cayenne Heater, FSAN75	H2	1	0.075	5.59E-04	5.59E-04	4.41E-05	7.35E-03	6.18E-03	4.04E-04	3.68E-08
Reznor, V3 T-cor2 UDAP 60	H3	1	0.06	4.47E-04	4.47E-04	3.53E-05	5.88E-03	4.94E-03	3.24E-04	2.94E-08
Infrasave, X-IL 50-N	H4	1	0.05	3.73E-04	3.73E-04	2.94E-05	4.90E-03	4.12E-03	2.70E-04	2.45E-08
Renor, UDAP250	H5	1	0.25	1.86E-03	1.86E-03	1.47E-04	2.45E-02	2.06E-02	1.35E-03	1.23E-07
Infrasave, X-IL 50-N	H6	1	0.05	3.73E-04	3.73E-04	2.94E-05	4.90E-03	4.12E-03	2.70E-04	2.45E-08
Infrasave, X-IL 100-N	H7	1	0.1	7.45E-04	7.45E-04	5.88E-05	9.80E-03	8.24E-03	5.39E-04	4.90E-08
Infrasave, X-IL 37-N	H8	1	0.036	2.68E-04	2.68E-04	2.12E-05	3.53E-03	2.96E-03	1.94E-04	1.76E-08
Advanced Distributor Products, SEP-230A-4	H9	1	0.23	1.71E-03	1.71E-03	1.35E-04	2.25E-02	1.89E-02	1.24E-03	1.13E-07
Advanced Distributor Products, SEP-175A-5	H10	1	0.1725	1.29E-03	1.29E-03	1.01E-04	1.69E-02	1.42E-02	9.30E-04	8.46E-08
Advanced Distributor Products, SEP-300A-5	H11	1	0.3	2.24E-03	2.24E-03	1.76E-04	2.94E-02	2.47E-02	1.62E-03	1.47E-07
Steelman Industries Inc 8810 GSP-OB Spray Booth Oven	H12	1	0.5	3.73E-03	3.73E-03	2.94E-04	4.90E-02	4.12E-02	2.70E-03	2.45E-07
Combined Unrestricted Emission (lb/hr)				0.015	0.015	0.001	0.191	0.160	0.011	9.55E-07
Combined Unrestricted Emission (ton/yr)				0.06	0.06	0.01	0.84	0.70	0.05	4.18E-06

Notes:
Natural gas heat value = 1020 MMBtu/MMscf
Emission factors taken from AP-42, Section 1.4 Natural Gas Combustion (7/98)

	PM10	PM2.5	SO2	Nox	CO	VOC	Lead
Emission Factor (lb/MMscf)	7.6	7.6	0.6	100	84	5.5	0.0005

Greenhouse Gas Emission: Greenhouse gas emission factors taken from Table A-1, EPA Greenhouse Gas Inventory Guidance Direct Emissions from Stationary Combustion Sources.

Greenhouse Gas Emissions		
CO_2 = 0.054 kg/scf Natural Gas		
CO_2 =	9.9E+02	Tons/year
CH_4 = 0.00103 g/scf Natural Gas		
CH_4 =	1.9E-02	Tons/year
N_2O = 0.0001 g/scf Natural Gas		
N_2O =	1.9E-02	Tons/year
Total $CO_2e = CO_2 + (CH_4 * 25) * (N2O * 298)$		
CO_2e =	**1000**	**Tons/year**

Table 3-1(b)
Natural Gas Combustion - HAP and TAP
In the Ditch Towing Products, Mountain Home, ID

Hazardous & Toxic Air Pollutants (HAP & TAP)	Emission Factor[1]	Unrestricted Emissions		Modeling Threshold / TAP Screening Emission Level	Modeling Required?
	lb/MMscf	lb/hr[2]	T/yr		
PAH HAPs					
2-Methylnaphthalene	2.40E-05	4.58E-08	2.0E-07	9.1E-05 lb/hr	No
3-Methylchloranthrene	1.80E-06	3.44E-09	1.5E-08	2.5E-06 lb/hr	No
Acenaphthene	1.80E-06	3.44E-09	1.5E-08	9.1E-05 lb/hr	No
Acenaphthylene	1.80E-06	3.44E-09	1.5E-08	9.1E-05 lb/hr	No
Anthracene	2.40E-06	4.58E-09	2.0E-08	9.1E-05 lb/hr	No
Benzo(a)anthracene	1.80E-06	3.44E-09	1.5E-08		See POM
Benzo(a)pyrene	1.20E-06	2.29E-09	1.0E-08	2.0E-06 lb/hr	See POM
Benzo(b)fluoranthene	1.80E-06	3.44E-09	1.5E-08		See POM
Benzo(g,h,i)perylene	1.20E-06	2.29E-09	1.0E-08	9.1E-05 lb/hr	No
Benzo(k)fluoranthene	1.80E-06	3.44E-09	1.5E-08		See POM
Chrysene	1.80E-06	3.44E-09	1.5E-08		See POM
Dibenzo(a,h)anthracene	1.20E-06	2.29E-09	1.0E-08		See POM
Fluoranthene	3.00E-06	5.73E-09	2.5E-08	9.1E-05 lb/hr	No
Fluorene	2.80E-06	5.35E-09	2.3E-08	9.1E-05 lb/hr	No
Indeno(1,2,3-cd)pyrene	1.80E-06	3.44E-09	1.5E-08		See POM
Naphthalene	6.10E-04	1.17E-06	5.1E-06	3.33 lb/hr	No
Phenanathrene	1.70E-05	3.25E-08	1.4E-07	9.1E-05 lb/hr	No
Pyrene	5.00E-06	9.55E-09	4.2E-08	9.1E-05 lb/hr	No
PAH Max. total		1.30E-06	5.7E-06		
Polycyclic Org. Matter (POM, 7-PAH Group)		2.18E-08	9.5E-08	2.0E-06 lb/hr	No
Non-PAH HAPs					
Benzene	2.10E-03	4.01E-06	1.8E-05	8.0E-04 lb/hr	No
Dichlorobenzene	1.20E-03	2.29E-06	1.0E-05	20 lb/hr	No
Formaldehyde	7.50E-02	1.43E-04	6.3E-04	5.1E-04 lb/hr	No
Hexane	1.80E+00	3.44E-03	1.5E-02	12 lb/hr	No
Toluene	3.40E-03	6.50E-06	2.8E-05	25 lb/hr	No
Non-HAP Organic Compounds					
Pentane	2.60E+00	4.97E-03	2.2E-02	118 lb/hr	No
Metal HAPs					
Arsenic	2.00E-04	3.82E-07	1.7E-06	1.5E-06 lb/hr	No
Beryllium	1.20E-05	2.29E-08	1.0E-07	2.8E-05 lb/hr	No
Cadmium	1.10E-03	2.10E-06	9.2E-06	3.7E-06 lb/hr	No
Chromium	1.40E-03	2.67E-06	1.2E-05	0.033 lb/hr	No
Cobalt	8.40E-05	1.60E-07	7.0E-07	0.0033 lb/hr	No
Manganese	3.80E-04	7.26E-07	3.2E-06	0.067 lb/hr	No
Mercury	2.60E-04	4.97E-07	2.2E-06	0.003 lb/hr	No
Nickel	2.10E-03	4.01E-06	1.8E-05	2.7E-05 lb/hr	No
Selenium	2.40E-05	4.58E-08	2.0E-07	0.013 lb/hr	No
Non-HAP Metals					
Barium	4.40E-03	8.41E-06	3.7E-05	0.033 lb/hr	No
Copper	8.50E-04	1.62E-06	7.1E-06	0.013 lb/hr	No
Molybdenum	1.10E-03	2.10E-06	9.2E-06	0.333 lb/hr	No
Vanadium	2.30E-03	4.39E-06	1.9E-05	0.003 lb/hr	No
Zinc	2.90E-02	5.54E-05	2.4E-04	0.667 lb/hr	No
Total HAP		3.61E-03	1.58E-02		
Total TAP		8.65E-03	3.79E-02		

Notes:

1. Emission factors taken from AP-42, Section 1.4 *Natural Gas Combustion* (7/98)
2. TAPs lb/hr emissions are 24-hour averages unless shown in bold. Bold emissions are annual averages for carcinogens.
3. Booth Make-up Air heater is used only during cold weather, so actual on-line rating is significantly less.

Table 3-2
Welding Process - HAP and TAP
In the Ditch Towing Products, Mountain Home, ID

Electrode	Restricted Daily Use (lbs.)[1]	Restricted Annual Use (lbs.)	Al	Cr	Cr+6	Cu	Fe	Mg	Mn	Molyb	Ni	Titanium	P	Silica Fume Amorhous	Zirconium	Vanadium
			7440-47-3	7440-47-3		7440-50-8	7439-89-6	7439-96-5	7439-96-5	7439-98-7	7440-21-3			69012-64-2	7440-67-7	1314-62-1
Hobart ER4043, 404304712P, 3/64", 12 lb. spool2	10.0	3,120	99.7%	0.01%		0.3%	0.8%	0.05%	0.05%		0.05%			6%		
Hobart ER4043, 404304723L, 3/64", 100 lb. drum2	6.2	1,934	99.7%	0.01%		0.3%	0.8%	0.05%	0.05%		0.05%			6%		
Hobart Premier Arc 6, ER70S-6, PA6035X45, 0.035 inch, 45 lbs. spool2	114.2	35,630	0.1%	0.10%		0.20%	90.0%		1.41%	0.01%	0.11%	0.2%	0.007%		0.1%	0.01%
Lincoln Electric SuperArc L56, ER70S-6, ED029915, 0.045 inch, 250 lb. drum2	46.2	14,414		0.05%		0.22%	97.06%		1.60%	0.01%	0.04%		0.010%			0.01%
TAP			X	X	X	X	X	X	X	X	X		X	X	X	X
HAP			585	585 X	586 X	585	585	585	585 X	585	586 X		585 X	585	585	585

Restricted Emissions	PM	Al	Cr	Cr+6	Cu	Fe	Mg	Mn	Molyb	Ni	Titanium	P	Silica Fume Amorhous	Zirconium	Vanadium
Restricted Uncontrolled PM and TAP Fume (lbs/day)	9.65E-01	8.9E-02	7.2E-04	3.80E-05	2.1E-03	8.1E-01	4.4E-05	1.3E-02	8.8E-05	8.3E-04	1.2E-03	6.9E-05	5.3E-03	6.2E-04	8.8E-05
Restricted Uncontrolled PM and TAP Fume (lb/yr)	3.01E+02	2.77E+01	2.25E-01	1.18E-02	6.45E-01	2.52E+02	1.38E-02	4.02E+00	2.73E-02	2.59E-01	3.89E-01	2.15E-02	1.66E+00	1.95E-01	2.73E-02
Restricted Uncontrolled PM and TAP Hourly (24-hour average 585 TAPs, annual-average 586 TAPs) Fume Emissions lbs/hr	4.02E-02	3.70E-03	3.00E-05	1.35E-06	8.62E-05	3.36E-02	1.84E-06	5.37E-04	3.65E-06	2.96E-05	5.20E-05	2.87E-06	2.21E-04	2.60E-05	3.65E-06
Restricted Controlled PM and TAP Fume lbs/day	9.65E-01	8.89E-02	7.21E-04	3.8E-05	2.07E-03	8.07E-01	4.43E-05	1.29E-02	8.76E-05	8.32E-04	1.25E-03	6.89E-05	5.31E-03	6.24E-04	8.76E-05
Restricted Controlled PM and TAP Fume lbs/yr	3.01E+02	2.77E+01	2.25E-01	1.18E-02	6.45E-01	2.52E+02	1.38E-02	4.02E+00	2.73E-02	2.59E-01	3.89E-01	2.15E-02	1.66E+00	1.95E-01	2.73E-02
Restricted Controlled PM and TAP Hourly (24-hour average 585 TAPs, annual-average 586 TAPs) Fume Emissions lbs/hr	4.02E-02	3.70E-03	3.00E-05	1.35E-06	8.62E-05	3.36E-02	1.84E-06	5.37E-04	3.65E-06	2.96E-05	5.20E-05	2.87E-06	2.21E-04	2.60E-05	3.65E-06
EL		6.67E-01	3.30E-02	5.60E-07	1.30E-02	3.33E-01	6.70E-02	6.67E-01	3.33E-01	2.75E-05		7.00E-03	6.67E-01	3.33E-01	3.00E-03

Notes:

[1] Restricted daily consumption of electrode estimated based on usage data and future production increase at In the Ditch. Annual usage is estimated based on 5 days a week and 52 weeks a year.

[2] Chemical composition from Test Certificate when listed or from Safety Data Sheet; max. test certificate composition applied; max. chromium Hobart test value not listed, chromium value assumed 10X lot test resul (0.001%);

[3] Hobart ER4043, Hobart Premier Arc 6 ER70S-6, Lincoln Super ARC ER70S-6 not listed in AP-42; apply SDAPCD and NASSCO emission factors.

[4] SDAPCD G99 Gas Metal Arc Weldging (GMAW), Unspecified Electrode, General District-ARB-NASSCO GMAW Emission Estimation Procedure

	GMAW, MIG, TIG	SMAW, FCAW	unspecified
Default fume rates (lbs fume/lbs rod)	1.0%	2.0%	5.0%
Default Fume Correction Factor	54.6%	28.7%	100.0%
Default Cr+6 conversion rates	5.0%	63.0%	10.0%

Table 3-3(a)
Laser Cutting Process - HAP and TAP
In the Ditch Towing Products, Mountain Home, ID

Material	Estimated Max Unrestricted Hours Operation[1]		Estimated Max Restricted Hours Operation[2]		TAP Constituents[3]	CAS Number	Constituent Concentration (max wt%)[3]	Emission Factor (lbs./hr.)[4]	Unrestricted Uncontrolled Emissions		Restricted Uncontrolled Emissions		Cyclone Efficiency (%)	Control Equipment Efficiency (%)[5]	Unrestricted Controlled Emissions		Restricted Controlled Emissions	
	hrs./day	hrs./yr	hrs./day	hrs./yr					lb/hr	lb/yr	lb/hr	lb/yr			lb/hr	lb/yr	lb/hr	lb/yr
Stainless Steel	3.96	1445	2.64	824	Chromium Total	7440-47-3	18.6%	5.29	1.6E-01	1.4E+03	1.1E-01	8.1E+02		99.998%	3.3E-06	2.9E-02	2.2E-06	1.6E-02
					Chromium +6[6]	7440-47-3			3.6E-05	3.1E-01	2.4E-05	1.8E-01			7.2E-10	6.3E-06	4.1E-10	3.6E-06
					Copper	7440-50-8	0.5%		4.6E-03	4.0E+01	3.0E-03	2.3E+01			9.1E-08	8.0E-04	6.1E-08	4.5E-04
					Iron	1309-37-1	70.1%		6.1E-01	5.4E+03	4.1E-01	3.1E+03			1.2E-05	1.1E-01	8.2E-06	6.1E-02
					Manganese	7439-96-5	1.8%		1.6E-02	1.4E+02	1.1E-02	8.0E+01			3.2E-07	2.8E-03	2.1E-07	1.6E-03
					Molybdenum	7439-98-7	0.4%		3.2E-03	2.8E+01	2.1E-03	1.6E+01			6.4E-08	5.6E-04	4.3E-08	3.2E-04
					Nickel	7440-02-0	8.1%		7.0E-02	6.2E+02	4.7E-02	3.5E+02			1.4E-06	1.2E-02	8.0E-07	7.0E-03
					Phosphorus	7723-14-0	0.0%		2.8E-04	2.4E+00	1.9E-04	1.4E+00			5.6E-09	4.9E-05	3.7E-09	2.8E-05
					Silicon		0.3%		2.4E-03	2.1E+01	1.6E-03	1.2E+01			4.9E-08	4.3E-04	3.2E-08	2.4E-04
					Carbon		0.0%		4.1E-04	3.5E+00	2.7E-04	2.0E+00			8.1E-09	7.1E-05	5.4E-09	4.0E-05
					Nitrogen		0.1%		6.9E-04	6.1E+00	4.6E-04	3.5E+00			1.4E-08	1.2E-04	9.2E-09	6.9E-05
					Sulfur		0.0%		1.3E-05	1.1E-01	8.7E-06	6.5E-02			2.6E-10	2.3E-06	1.7E-10	1.3E-06
Steel	7.92	2891	5.28	1647	Chromium Total	7440-47-3	0.05%	3.439	5.7E-04	5.0E+00	3.8E-04	2.8E+00		99.998%	1.1E-08	9.9E-05	7.6E-09	5.7E-05
					Chromium +6[6]	7440-47-3			1.2E-07	1.1E-03	8.3E-08	6.2E-04			2.5E-12	2.2E-08	1.4E-12	1.2E-08
					Copper	7440-50-8	1.0%		1.1E-02	9.9E+01	7.6E-03	5.7E+01			2.3E-07	2.0E-03	1.5E-07	1.1E-03
					Iron	1309-37-1	99.0%		1.1E+00	9.8E+03	7.5E-01	5.6E+03			2.2E-05	2.0E-01	1.5E-05	1.1E-01
					Manganese	7439-96-5	2.0%		2.3E-02	2.0E+02	1.5E-02	1.1E+02			4.5E-07	4.0E-03	3.0E-07	2.3E-03
					Molybdenum	7439-98-7	1.0%		1.1E-02	9.9E+01	7.6E-03	5.7E+01			2.3E-07	2.0E-03	1.5E-07	1.1E-03
					Nickel	7440-02-0	0.02%		2.3E-04	2.0E+00	1.5E-04	1.1E+00			4.5E-09	4.0E-05	3.0E-09	2.3E-05
					Phosphorus	7723-14-0	1.0%		1.1E-02	9.9E+01	7.6E-03	5.7E+01			2.3E-07	2.0E-03	1.5E-07	1.1E-03
					Silicon		1.0%		1.1E-02	9.9E+01	7.6E-03	5.7E+01			2.3E-07	2.0E-03	1.5E-07	1.1E-03
					Carbon		1.0%		1.1E-02	9.9E+01	7.6E-03	5.7E+01			2.3E-07	2.0E-03	1.5E-07	1.1E-03
					Nitrogen				0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Sulfur		1.0%		1.1E-02	9.9E+01	7.6E-03	5.7E+01			2.3E-07	2.0E-03	1.5E-07	1.1E-03
Aluminum	24.12	8804	16.08	5017	Chromium Total	7440-47-3	0.20%	5.29	1.1E-02	9.3E+01	7.1E-03	5.3E+01		99.998%	2.1E-07	1.9E-03	1.4E-07	1.1E-03
					Chromium +6[6]	7440-47-3			2.3E-06	2.0E-02	1.6E-06	1.2E-02			4.7E-11	4.1E-07	2.7E-11	2.3E-07
					Copper	7440-50-8	4.9%		2.6E-01	2.3E+03	1.7E-01	1.3E+03			5.2E-06	4.6E-02	3.5E-06	2.6E-02
					Iron	1309-37-1	0.5%		2.7E-02	2.3E+02	1.8E-02	1.3E+02			5.3E-07	4.7E-03	3.5E-07	2.7E-03
					Manganese	7439-96-5	0.9%		4.8E-02	4.2E+02	3.2E-02	2.4E+02			9.6E-07	8.4E-03	6.4E-07	4.8E-03
					Magnesium		1.8%		9.6E-02	8.4E+02	6.4E-02	4.8E+02			1.9E-06	1.7E-02	1.3E-06	9.6E-03
					Nickel	7440-02-0			0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Phosphorus	7723-14-0			0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Silicon		0.5%		2.7E-02	2.3E+02	1.8E-02	1.3E+02			5.3E-07	4.7E-03	3.5E-07	2.7E-03
					Aluminum		94.7%		5.0E+00	4.4E+04	3.4E+00	2.5E+04			1.0E-04	8.8E-01	6.7E-05	5.0E-01
									0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00	0.0E+00	0.0E+00	0.0E+00
									0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00	0.0E+00	0.0E+00	0.0E+00

Notes:

1. Unrestricted uncontrolled media usage based on 24 hours/day, 356 days/yr of dry cutting.
2. Restricted uncontrolled media usage based on maxium actual daily use rate, two 8-hour shifts using 2 laser cutters approx. 50% of time; (32 hours)=16 hrs, 6 days/week, 52 weeks/yr dry cutting; Materials consist of 11% stainless, 22% steel, 67% aluminum.
3. TAP material compositions are based on material test certificates when listed or from Safety Data Sheet; max. test certificate composition applied.
4. 40 grams/minute dry cutting stainless steel and 26 grams/minute dry cutting steel, EPA AP-42, Chapter 12, Other Emission Factor Documents, "Emission of fume, nitrogen oxides and noise in plasma cutting of stainless and mild steel", Bromssen B. et al, The Swedish Institute of Production Engineering Research, March, 1994, http://www.epa.gov/ttn/chief/efdocs/welding.pdf
5. Dust Control system (POLYESTER NON WOVEN 973995). Efficiency for particle size 0.2 - 2 micrometer = 99.9%
6. Emission Factor 0.00022 lbs Cr+6/lbs per lb Cr, From SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, PAGE 1 of 9, APP. NUMBERS 480171/2, Coating, Printing, Aerospace and Chemical Operations Team, Reviewed by APPLICATION PROCESSING AND CALCULATIONS DATE 07/309/08, AMERICAN SECURITY PRODUCTS, INC., Jul-08.

Table 3-3(b)
Laser Cutting Process - Summary
In the Ditch Towing Products, Mountain Home, ID

TAP Emissions Summary	TAP Type (24 hr or Annual Avgd EL)	EL	Unrestricted Uncontrolled Emissions (lb/hr)	Restricted Uncontrolled Emissions (lb/hr)	Restricted Controlled Emissions (lb/hr)	Unrestricted Uncontrolled TAP Less Than EL?	Restricted Controlled TAP Less Than EL	Restricted Controlled TAP % of EL
Chromium	585 (24 hr)	3.30E-02	1.7E-01	1.2E-01	2.3E-06	No	Yes	0.0%
Chromium+6	586 (Annual)	5.60E-07	3.8E-05	2.6E-05	4.4E-10	No	Yes	0.1%
Copper Fume	585 (24 hr)	1.30E-02	2.8E-01	1.8E-01	3.7E-06	No	Yes	0.03%
Iron Oxide Fume	585 (24 hr)	3.33E-01	1.8E+00	1.2E+00	2.4E-05	No	Yes	0.0%
Manganese Fume	585 (24 hr)	6.70E-02	8.6E-02	5.8E-02	1.2E-06	No	Yes	0.00%
Molybdenum	585 (24 hr)	3.33E-01	1.5E-02	9.7E-03	1.9E-07	Yes	Yes	0.000%
Magnesium	585 (24 hr)	6.67E-01	9.6E-02	6.4E-02	1.3E-06	Yes	Yes	0.000%
Nickel	586 (Annual)	2.75E-05	7.1E-02	4.7E-02	8.0E-07	No	Yes	2.9%
Phosphorus	585 (24 hr)	7.00E-03	1.2E-02	7.8E-03	1.6E-07	No	Yes	0.00%
Silicon	585 (24 hr)	6.67E-01	4.0E-02	2.7E-02	5.4E-07	Yes	Yes	0.000%
Aluminum	585 (24 hr)	6.67E-01	5.0E+00	3.4E+00	6.7E-05	No	Yes	0.0%

HAP Emissions Summary	Restricted Controlled Emissions (lb/yr)	Restricted Controlled Emissions (tons/yr)
Chromium	1.6E-02	8.2E-06
Manganese	3.9E-03	1.9E-06
Nickel	7.0E-03	3.5E-06

Criteria Pollutant Emissions Summary	Unrestricted Uncontrolled Emissions (lbs./hr.)	Unrestricted Uncontrolled Emissions (lbs./yr)	Unrestricted Uncontrolled Emissions (tons/yr)	Restricted Uncontrolled Emissions (lbs./hr)	Restricted Uncontrolled Emissions (lbs./yr)	Restricted Uncontrolled Emissions (tons/yr)	Restricted Controlled Emissions (lbs./hr)	Restricted Controlled Emissions (lbs./yr)	Restricted Controlled Emissions (tons/yr)
$PM_{2.5/10}$	7.325	64171	32	4.88	36569	18	0.000098	0.73	0.00037

Table 3-4(a)
Plasma Cutting Process - HAP and TAP
In the Ditch Towing Products, Mountain Home, ID

Material	Estimated Max Unrestricted Hours Operation[1]		Estimated Max Restricted Hours Operation[2]		TAP Constituents[3]	CAS Number	Constituent Concentration (max wt%)[3]	Emission Factor (lbs./hr.)[4]	Unrestricted Uncontrolled Emissions		Restricted Uncontrolled Emissions		Cyclone Efficiency (%)	Control Equipment Efficiency (%)[5]	Unrestricted Controlled Emissions		Restricted Controlled Emissions	
	hrs./day	hrs./yr	hrs./day	hrs./yr					lb/hr	lb/yr	lb/hr	lb/yr			lb/hr	lb/yr	lb/hr	lb/yr
Steel	36.00	13140	4.50	1404	Chromium Total	7440-47-3	0.05%	0.53	4.0E-04	3.5E+00	5.0E-05	3.7E-01		0.00%	4.0E-04	3.5E+00	5.0E-05	3.7E-01
					Chromium +6[6]	7440-47-3	Not Reported		8.7E-08	7.6E-04	9.3E-09	8.2E-05			8.7E-08	7.6E-04	9.3E-09	8.2E-05
					Copper	7440-50-8	1.0%		7.9E-03	7.0E+01	9.9E-04	7.4E+00			7.9E-03	7.0E+01	9.9E-04	7.4E+00
					Iron	1309-37-1	99.0%		7.9E-01	6.9E+03	9.8E-02	7.4E+02			7.9E-01	6.9E+03	9.8E-02	7.4E+02
					Manganese	7439-96-5	2.0%		1.6E-02	1.4E+02	2.0E-03	1.5E+01			1.6E-02	1.4E+02	2.0E-03	1.5E+01
					Molybdenum	7439-98-7	1.0%		7.9E-03	7.0E+01	9.9E-04	7.4E+00			7.9E-03	7.0E+01	9.9E-04	7.4E+00
					Nickel	7440-02-0	0.02%		1.6E-04	1.4E+00	1.7E-05	1.5E-01			1.6E-04	1.4E+00	1.7E-05	1.5E-01
					Phosphorus	7723-14-0	1.0%		7.9E-03	7.0E+01	9.9E-04	7.4E+00			7.9E-03	7.0E+01	9.9E-04	7.4E+00
					Silicon		1.0%		7.9E-03	7.0E+01	9.9E-04	7.4E+00			7.9E-03	7.0E+01	9.9E-04	7.4E+00
					Carbon		1.0%		7.9E-03	7.0E+01	9.9E-04	7.4E+00			7.9E-03	7.0E+01	9.9E-04	7.4E+00
					Nitrogen		0.0%		0.0E+00	0.0E+00	0.0E+00	0.0E+00			0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Sulfur		1.0%		7.9E-03	7.0E+01	9.9E-04	7.4E+00			7.9E-03	7.0E+01	9.9E-04	7.4E+00

Notes:
1. Unrestricted uncontrolled media usage based on 24 hours/day, 356 days/yr of dry cutting.
2. Based on current estimate and potential growth
3. TAP material compositions are based on material test certificates when listed or from Safety Data Sheet; max. test certificate composition applied.
4. 4 grams/minute dry cutting steel, EPA AP-42, Chapter 12, Other Emission Factor Documents, "Emission of fume, nitrogen oxides and noise in plasma cutting of stainless and mild steel", Bromssen B. et al, The Swedish Institute of Production Engineering Research, March, 1994, http://www.epa.gov/ttn/chief/efdocs/welding.pdf
5. No additional dust control system
6. Emission Factor 0.00022 lbs Cr+6/lbs per lb Cr, From SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, PAGE 1 of 9, APP. NUMBERS 480171/2, Coating, Printing, Aerospace and Chemical Operations Team, Reviewed by APPLICATION PROCESSING AND CALCULATIONS DATE 07/309/08, AMERICAN SECURITY PRODUCTS, INC., Jul-08.

Table 3-4(b)
Plasma Cutting Process - Summary
In the Ditch Towing Products, Mountain Home, ID

TAP Emissions Summary	TAP Type (24 hr or Annual Avgd EL)	EL	Unrestricted Uncontrolled Emissions (lb/hr)	Restricted Uncontrolled Emissions (lb/hr)	Restricted Controlled Emissions (lb/hr)	Unrestricted Uncontrolled TAP Less Than EL?	Restricted Controlled TAP Less Than EL	Restricted Controlled TAP % of EL
Chromium	585 (24 hr)	3.30E-02	4.0E-04	5.0E-05	5.0E-05	Yes	Yes	0.2%
Chromium+6	586 (Annual)	5.60E-07	8.7E-08	9.3E-09	9.3E-09	Yes	Yes	1.7%
Copper Fume	585 (24 hr)	1.30E-02	7.9E-03	9.9E-04	9.9E-04	Yes	Yes	7.63%
Iron Oxide Fume	585 (24 hr)	3.33E-01	7.9E-01	9.8E-02	9.8E-02	No	Yes	29.5%
Manganese Fume	585 (24 hr)	6.70E-02	1.6E-02	2.0E-03	2.0E-03	Yes	Yes	2.96%
Molybdenum	585 (24 hr)	3.33E-01	7.9E-03	9.9E-04	9.9E-04	Yes	Yes	0.298%
Nickel	586 (Annual)	2.75E-05	1.6E-04	1.7E-05	1.7E-05	No	Yes	61.7%
Phosphorus	585 (24 hr)	7.00E-03	7.9E-03	9.9E-04	9.9E-04	No	Yes	14.17%
Silicon	585 (24 hr)	6.67E-01	7.9E-03	9.9E-04	9.9E-04	Yes	Yes	0.149%

HAP Emissions Summary	Restricted Controlled Emissions (lb/yr)	Restricted Controlled Emissions (tons/yr)
Chromium	3.7E-01	1.9E-04
Manganese	1.5E+01	7.4E-03
Nickel	1.5E-01	7.4E-05

Criteria Pollutant Emissions Summary	Unrestricted Uncontrolled Emissions (lbs./hr.)	Unrestricted Uncontrolled Emissions (lbs./yr)	Unrestricted Uncontrolled Emissions (tons/yr)	Restricted Uncontrolled Emissions (lbs./hr)	Restricted Uncontrolled Emissions (lbs./yr)	Restricted Uncontrolled Emissions (tons/yr)	Restricted Controlled Emissions (lbs./hr)	Restricted Controlled Emissions (lbs./yr)	Restricted Controlled Emissions (tons/yr)
$PM_{2.5/10}$	0.794	6952	3	0.0992	743	0	0.0992	743	0.371

Table 3-5(a)
Metal Saw Cutting Process - HAP and TAP
In the Ditch Towing Products, Mountain Home, ID

Material	Estimated Max Cut Mass under Unrestricted Use[1]		Estimated Max Cut Mass under Restricted Use		TAP Constituents[2]	CAS Number	Constituent Concentration (max wt%)	Emission Factor (lb/lb)[3]	Unrestricted Uncontrolled Emissions		Restricted Uncontrolled Emissions		Control Equipment Efficiency (%)[4]	Unrestricted Controlled Emissions		Restricted Controlled Emissions	
	lb/day	lb/yr	lb/day	lb/yr					lb/hr	lb/yr	lb/hr	lb/yr		lb/hr	lb/yr	lb/hr	lb/yr
Aluminum	2.7	856	1.8	571	Chromium Total	7440-47-3	0.20%	0.02	4.6E-06	3.4E-02	3.0E-06	2.3E-02	0.00%	4.6E-06	3.4E-02	3.0E-06	2.3E-02
					Copper	7440-50-8	4.9%		1.1E-04	8.4E-01	7.5E-05	5.6E-01		1.1E-04	8.4E-01	7.5E-05	5.6E-01
					Iron	1309-37-1	0.5%		1.1E-05	8.6E-02	7.6E-06	5.7E-02		1.1E-05	8.6E-02	7.6E-06	5.7E-02
					Manganese	7439-96-5	0.9%		2.1E-05	1.5E-01	1.4E-05	1.0E-01		2.1E-05	1.5E-01	1.4E-05	1.0E-01
					Magnesium		1.8%		4.1E-05	3.1E-01	2.7E-05	2.1E-01		4.1E-05	3.1E-01	2.7E-05	2.1E-01
					Nickel	7440-02-0			0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Phosphorus	7723-14-0			0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00
					Silicon		0.5%		1.1E-05	8.6E-02	7.6E-06	5.7E-02		1.1E-05	8.6E-02	7.6E-06	5.7E-02
					Aluminum		94.7%		2.2E-03	1.6E+01	1.4E-03	1.1E+01		2.2E-03	1.6E+01	1.4E-03	1.1E+01
									0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00
									0.0E+00	0.0E+00	0.0E+00	0.0E+00		0.0E+00	0.0E+00	0.0E+00	0.0E+00

Notes:
Notes:
1. Restricted uncontrolled media usage based on maxium actual use data collected by In the Ditch.
2. TAP material compositions are based on material test certificates when listed or from Safety Data Sheet; max. test certificate composition applied.
3. Assume 0.02 lb/lb emission factor
4. No dust control is in place.

Table 3-5(b)
Metal Saw Cutting Process - Summary
In the Ditch Towing Products, Mountain Home, ID

TAP Emissions Summary	TAP Type (24 hr or Annual Avgd EL)	EL	Unrestricted Uncontrolled Emissions (lb/hr)	Restricted Uncontrolled Emissions (lb/hr)	Restricted Controlled Emissions (lb/hr)	Unrestricted Uncontrolled TAP Less Than EL?	Restricted Controlled TAP Less Than EL	Restricted Controlled TAP % of EL
Aluminum	585 (24 hr)	6.67E-01	2.17E-03	1.44E-03	1.4E-03	Yes	Yes	0%

HAP Emissions Summary	Restricted Uncontrolled Emissions (lb/yr)	Restricted controlled Emissions (tons/yr)

Criteria Pollutant Emissions Summary	Unrestricted Uncontrolled Emissions (lbs./hr.)	Unrestricted Uncontrolled Emissions (lbs./yr)	Unrestricted Uncontrolled Emissions (tons/yr)	Restricted Uncontrolled Emissions (lbs./hr)	Restricted Uncontrolled Emissions (lbs./yr)	Restricted Uncontrolled Emissions (tons/yr)	Restricted Controlled Emissions (lbs./hr)	Restricted Controlled Emissions (lbs./yr)	Restricted Controlled Emissions (tons/yr)
$PM_{2.5/10}$	0.002	17	0.01	0.002	11	0.006	0.002	11	0.006

Table 3-6(a)
Washing Process - TAP
In the Ditch Towing Products, Mountain Home, ID

TAP Composition				sulfuric acid	phosphoric acid	Alcohols C9-C11	Ammonium Bifluoride[1]	sodium hydroxide	2-Aminoethanol, See Ethanolamine
TAP EL lbs./hr.				**0.067**	**0.067**		**0.167**	**0.133**	**0.533**
	Process								
AL-Brite Acid Cleaner	Spray Foam	Gals/day	10	40%	20%	5%	1%		
Assume 5% emission		Gals./hr	0.42	0.008	0.004	0.001	0.0001		
Less than TAP EL?				Yes	Yes		Yes		
DUBOIS OH 50 Alkaline Cleaner	Wastewater neutralization	Gals/day	10					50%	
Assume 5% emission		Gals./hr	0.42					0.01	
Less than TAP EL?								Yes	
RUST PREVENT SYN 3-X	Pressure Washer	Gals/day	10						5%
Assume 5% emission		Gals./hr	0.42						0.001
Less than TAP EL?									Yes

Notes:
1. ammonium bifluoride as Fluorides; F2H5N; fluoride X% of ammonium bifluoride.

F	19	38	67%
H	1	5	9%
N	14	14	25%
	34	57	100%

Table 3-6(b)
Coating/Painting Process Analysis
In the Ditch Towing Products, Mountain Home, ID

Max. PTE Restricted Daily Use (gal/day) or (lb/day)	Max. PTE Restricted Annual Use (gal/year)	Maker	Coating Material (see Notes)	Density	Solids	VOC (non-exempt)	ethanol 64-17-5	methyl n-amyl ketone 110-43-0	butyl acetate 123-86-4	hexa-methylene diisocyanate monomer 822-06-0	BARIUM SULFATE 7727-43-7	AMORPHOUS SILICA 7631-86-9	carbon black 1333-86-4	Aluminum orthophosphate 7784-30-7 (as Al soluble salt) (7429-90-5)	Pentane-2,4-dione 123-54-6	Dibutyltin dilaurate 77-58-7
				lb/gal	Weight Percentage Content Data											
14	4212	PPG	Polyrethane 2,3/2,8 VOC DTM	9.35	58.80%	41.20%	5.0%	5.0%	20.0%					5.0%		
0.014	5	PPG	Urethane Accelerator	8.18	1.69%	98.31%									97.0%	3.0%
14	4212	PPG	Urethane Hardener	9.18	86.16%	13.84%		15.0%		0.2%						
60	18720	TCI	SD FLAT BLACK 9030-90922	12.51	100.00%						30.0%	1.0%	5.0%			
Component Characteristics			If volatile, enter "1" ==>			1	1	1	1	1						

Hourly Spray Calculations (lb/hr) (Based on 24-hr averaging period, see sample calc below)	Maker	Coating Material	Density	Solids	VOC (non-exempt)	ethanol 64-17-5	methyl n-amyl ketone 110-43-0	butyl acetate 123-86-4	HDI Monomer 822-06-0	BARIUM SULFATE 7727-43-7	AMORPHOUS SILICA 7631-86-9	carbon black 1333-86-4	Aluminum orthophosphate 7784-30-7 (as Al soluble salt) (7429-90-5)	Pentane-2,4-dione 123-54-6	Dibutyltin dilaurate 77-58-7
			lb/gal	Pounds per Hour											
	PPG	Polyrethane 2,3/2,8 VOC DTM	9.35	3.09	2.17	0.26297	0.26297	1.05188	0.00000	0.00000	0.00000	0.00000	0.26297	0.00000	0.00000
	PPG	Urethane Accelerator	8.18	0.000083	0.005	0.00000	0.00000	0.00000	0.00000			0.00000	0.00000	0.00477	0.00015
	PPG	Urethane Hardener	9.18	4.45	0.71	0.00000	0.77456	0.00000	0.01033	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	TCI	SD FLAT BLACK 9030-90922	12.51	2.50	0.00	0.00	0.00	0.00	0.00	0.75	0.03	0.13	0.00	0.00	0.00
		Spray Total (lb/hr)		10.042	2.89	0.263	1.038	1.052	0.01033	0.75000	0.02500	0.1250	0.26297	0.00477	0.00015

Annual Spray Calculations (tons/yr) (See sample calc below)	Maker	Coating Material	Density	Solids	VOC (non-exempt)	ethanol 64-17-5	methyl n-amyl ketone 110-43-0	butyl acetate 123-86-4	HDI Monomer 822-06-0	BARIUM SULFATE 7727-43-7	AMORPHOUS SILICA 7631-86-9	carbon black 1333-86-4	Aluminum orthophosphate 7784-30-7 (as Al soluble salt) (7429-90-5)	Pentane-2,4-dione 123-54-6	Dibutyltin dilaurate 77-58-7
			lb/gal	Tons per Year											
	PPG	Polyrethane 2,3/2,8 VOC DTM	9.35	11.58	8.11	0.985	0.985	3.938	0.000	0.000	0.000	0.000	0.985	0.000	0.000
	PPG	Urethane Accelerator	0.13	0.00	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.018	0.001
	PPG	Urethane Hardener	9.18	16.66	2.68	0.000	2.900	0.000	0.039	0.000	0.000	0.000	0.000	0.000	0.000
	TCI	SD FLAT BLACK 9030-90922	12.51	9.36	0.00	0.00	0.00	0.00	0.00	2.81	0.09	0.47	0.00	0.00	0.00
		Spray Total (tons/yr)		37.60	10.80	0.985	3.88	3.94	0.03867	2.80800	0.09360	0.468	0.9846	0.0179	0.0006

Table 3-6(c)
Coating/Painting Emission Summary
In the Ditch Towing Products, Mountain Home, ID

Toxic Air Pollutants	CAS	Restricted Maximum Spray Rate[1] (lb/hr)	Spray Retention Rate[2] (%)	Restricted Potential to Emit (lb/hr)	Paint Filter Efficiency[3] (%)	Controlled Emission Rate (lb/hr)
Ethanol	64-17-5	0.263	0%	0.263	0%	0.263
Barium sulfate	7727-43-7	0.750	0%	0.750	98%	0.015
Butyl acetate	123-86-4	1.052	0%	1.052	0%	1.052
Carbon black	1333-86-4	0.13	60%	0.0500	98%	0.001
Silica - amorphous	7631-86-9	0.03	60%	0.0100	98%	0.0002
HMDI hexa-methylene diisocyanate monomer	822-06-0	0.0103	85%	0.0015	0%	0.0015
Methyl n-amyl ketone	110-43-0	1.038	0%	1.038	0%	1.038
Aluminum orthophosphate	7429-90-5	0.263	0%	0.263	0%	0.263

Criteria Air Pollutants	Maximum Spray Rate[1]		Spray Retention Rate[2]	Potential to Emit		Paint Filter Efficiency[3]	Controlled Emissions	
	lb/hr	ton/yr	%	lb/hr	ton/yr	%	lb/hr	ton/yr
PM_{10}	10.04	37.60	60%	4.02	15.04	98.0%	0.080	0.30
$PM_{2.5}$	10.04	37.60	60%	4.02	15.04	98.0%	0.080	0.30
VOC	2.89	10.80	0%	2.89	10.80	0%	2.89	10.80

Hazardous Air Pollutants (HAP)	CAS	Maximum Spray Rate[1] (ton/yr)	Spray Retention Rate (%)	Potential to Emit (ton/yr)
HMDI (NOTE 4)	822-06-0	0.0387	85%	0.0058

Notes:

1. The maximum hourly or annual Spray Total of the coatings.
2. Non-volatile emissions are calculated using a coating retention rate of 60%.
3. Uncontrolled non-volatile TAP emissions are calculated with a removal efficiency of 0%. Controlled PM emissions are calculated using an exhaust filter removal efficiency of 98%
4. Isocyanate reaction factor (HMI monomer polymerized) = **85%**

Table 3-6(d)
Solvent Recovery System - VOC
In the Ditch Towing Products, Mountain Home, ID

Daily Amount of Solvent Recovered[1] (gal/day)	Annual Amount of Solvent Recovered (gal/year)	Average Solvent Density[2] (lb/gal)	Emission Factor[3] (lb/ton)
5	1560	6.9	3.3

Chemical	CAS #	Composition	Estimated Emission (ton/yr)	Estimated Emission (lb/hr)	EL (lb/hr)	Less than EL?
Toluene	108-88-3	70.0%	6.2E-03	1.7E-03	25.0	Yes
Methyl Alcohol	67-56-1	30.0%	2.7E-03	7.1E-04	17.3	Yes
Acetone	67-64-1	13.0%	1.2E-03	3.1E-04	119	Yes
V.M. and P. Naphtha	8032-32-4	10.0%	8.9E-04	2.4E-04	91.3	Yes

Notes:

[1] Daily amount of solvent recovered is based on daily use of a 5-gallon Sidewinder solvent distillation unit.

[2] Based on the information provided in Omni MS251 SDS, the specific gravity of Omni MS251 = 0.827.

[3] Emission factors taken from AP-42, Section 4.7, Table 4.7-1 condenser vent.

Table 4-1
Facility-Wide Unrestricted Criteria Regulated Pollutant Emissions
In the Ditch Towing Products, Mountain Home, ID

Table 4-1: Pre-Project Potential to Emit

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	VOC	Lead	HAPs	Total[1]
	tons/yr								
Heaters	0	0	0	0	0	0	0	0	
Welding	0	0	0	0	0	0	0	0	
Laser Cutting	0	0	0	0	0	0	0	0	
Plasma Cutting	0	0	0	0	0	0	0	0	
Washing	0	0	0	0	0	0	0	0	
Coatings	0	0	0	0	0	0	0	0	
Metal Saw and Grinding	0	0	0	0	0	0	0	0	
Solvent Reocvery	0	0	0	0	0	0	0	0	
Total =	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Table 4-1b: Post-Project Potential to Emit (based on maximum continuous operations)

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	VOC	Lead	HAPs	Total[1]
	tons/yr								
Heaters	6.36E-02	6.36E-02	5.02E-03	8.37E-01	7.03E-01	4.60E-02	4.18E-06	1.58E-02	
Welding	7.40E-01	7.40E-01						2.37E-01	
Laser Cutting	3.21E+01	3.21E+01						1.45E+00	
Plasma Cutting	3.48E+00	3.48E+00						7.18E-02	
Washing									
Coatings	6.32E+01	6.32E+01				4.54E+01		2.44E-02	
Metal Saw and Grinding	8.56E-03	8.56E-03							
Solvent Reocvery						8.88E-03		8.88E-03	
Total =	**9.95E+01**	**9.95E+01**	**5.02E-03**	**8.37E-01**	**7.03E-01**	**4.54E+01**	**4.18E-06**	**1.80E+00**	

Table 4-1c: Changes in Potential to Emit (based on maximum continuous operations)

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	VOC	Lead	HAPs	Total[1]
	tons/yr								
Heaters	6.36E-02	6.36E-02	5.02E-03	8.37E-01	7.03E-01	4.60E-02	4.18E-06	1.58E-02	
Welding	7.40E-01	7.40E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-01	
Laser Cutting	3.21E+01	3.21E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.45E+00	
Plasma Cutting	3.48E+00	3.48E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.18E-02	
Washing	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Coatings	6.32E+01	6.32E+01	0.00E+00	0.00E+00	0.00E+00	4.54E+01	0.00E+00	2.44E-02	
Metal Saw and Grinding	8.56E-03	8.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	
Solvent Reocvery	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.88E-03	0.00E+00	8.88E-03	
Total =	**9.95E+01**	**9.95E+01**	**5.02E-03**	**8.37E-01**	**7.03E-01**	**4.54E+01**	**4.18E-06**	**1.80E+00**	

Table 4-2
Facility-Wide Restricted Criteria Regulated Pollutant Emissions
In the Ditch Towing Products, Mountain Home, ID

Table 4-2: Pre-Project Potential to Emit

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	VOC	Lead	HAPs	Total[1]	Greenhouse Gases CO_2e
	tons/yr									
Heaters	0	0	0	0	0	0	0	0		0
Welding	0	0	0	0	0	0	0	0		0
Laser Cutting	0	0	0	0	0	0	0	0		0
Plasma Cutting	0	0	0	0	0	0	0	0		0
Washing	0	0	0	0	0	0	0	0		0
Coatings	0	0	0	0	0	0	0	0		0
Metal Saw and Grinding	0	0	0	0	0	0	0	0		0
Solvent Reocvery	0	0	0	0	0	0	0	0		0
Total =	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Table 4-1b: Post-Project Potential to Emit (based on maximum continuous operations)

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	VOC	Lead	HAPs	Total[1]	Greenhouse Gases CO_2e
	tons/yr									
Heaters	6.36E-02	6.36E-02	5.02E-03	8.37E-01	7.03E-01	4.60E-02	4.18E-06	1.58E-02		1.00E+03
Welding	1.51E-01	1.51E-01						2.26E-03		
Laser Cutting	3.66E-04	3.66E-04						1.36E-05		
Plasma Cutting	3.71E-01	3.71E-01						7.69E-03		
Washing										
Coatings	3.01E-01	3.01E-01				1.08E+01		5.80E-03		
Metal Saw and Grinding	5.71E-03	5.71E-03								
Solvent Reocvery						8.88E-03		8.88E-03		
Total =	**8.92E-01**	**8.92E-01**	**5.02E-03**	**8.37E-01**	**7.03E-01**	**1.09E+01**	**4.18E-06**	**4.04E-02**		**1.00E+03**

Table 4-1c: Changes in Potential to Emit (based on maximum continuous operations)

Emissions Unit	$PM_{2.5}$	PM_{10}	SO_2	NO_2	CO	VOC	Lead	HAPs	Total[1]	Greenhouse Gases CO_2e
	tons/yr									
Heaters	6.36E-02	6.36E-02	5.02E-03	8.37E-01	7.03E-01	4.60E-02	4.18E-06	1.58E-02		1.00E+03
Welding	1.51E-01	1.51E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03		0.00E+00
Laser Cutting	3.66E-04	3.66E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-05		0.00E+00
Plasma Cutting	3.71E-01	3.71E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.69E-03		0.00E+00
Washing	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		0.00E+00
Coatings	3.01E-01	3.01E-01	0.00E+00	0.00E+00	0.00E+00	1.08E+01	0.00E+00	5.80E-03		
Metal Saw and Grinding	5.71E-03	5.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
Solvent Reocvery	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.88E-03	0.00E+00	8.88E-03		
Total =	**8.92E-01**	**8.92E-01**	**5.02E-03**	**8.37E-01**	**7.03E-01**	**1.09E+01**	**4.18E-06**	**4.04E-02**		**1.00E+03**

Table 4-3
Criteria Pollutant Restricted Controlled Emissions
In the Ditch Towing Products, Mountain Home, ID

Max Restricted Controlled PTE Criteria Air Pollutants	Estimated Emission Rate (T/yr)	10% Significant Emission Rate (T/yr)	BRC Exemption Below 10% Sig. Rate? (Y/N)
NO_2	2.14	4	Yes
CO	0.70	10	Yes
PM	0.89	2.5	Yes
PM_{10}	0.89	1.5	Yes
$PM_{2.5}$	0.89	1	Yes
SOx	5.02E-03	4	Yes
VOC	10.86	4	No
Lead	4.18E-06	0.06	Yes

IDAPA.58.01.01.221: Catgory 1 Exemption
Below Regulatory Concern. The maximum capacity of a source to emit an air pollutant under its physical and operational design considering limitations on emissions such as air pollution control equipment, restrictions on hours of operation and restrictions on the type and amount of material combusted, stored or processed shall be less than ten percent (10%) of the significant emission rates (State of Idaho Guideline for Performing Air Quality Impact Analyses, Dec. ID AQ-011 [September 2013]).

Table 4-4
Facility-Wide Toxic Air Pollutant Emissions
In the Ditch Towing Products, Mountain Home, ID

Non-Carcinogenic Toxic Air Pollutant (24 hr Average)	Restricted Controlled Hourly Emissions		Controlled Emission Change (lb/hr)	Screening Emission Level (lb/hr)	Controlled Exceeds TAP EL?
	Pre-Project (lb/hr)	Post Project (lb/hr)			
Aluminum orthophosphate	0	2.63E-01	2.63E-01	3.33E-01	No
Barium	0	8.41E-06	8.41E-06	3.30E-02	No
Barium sulfate	0	1.50E-02	1.50E-02	3.30E-02	No
Butyl Acetate	0	1.05E+00	1.05E+00	4.73E+01	No
Carbon Black	0	1.00E-03	1.00E-03	2.30E-01	No
Silica - amorphous	0	4.21E-04	4.21E-04	6.67E-01	No
Chromium	0	8.23E-05	8.23E-05	3.30E-02	No
Cobalt	0	1.60E-07	1.60E-07	3.30E-03	No
Copper	0	1.08E-03	1.08E-03	6.70E-02	No
Dichlorobenezene	0	2.29E-06	2.29E-06	2.00E+01	No
Ethanol	0	2.63E-01	2.63E-01	1.25E+02	No
HMDI	0	1.55E-03	1.55E-03	2.00E-03	No
Iron Oxide Fume	0	1.32E-01	1.32E-01	3.33E-01	No
Manganese	0	1.99E-03	1.99E-03	6.70E-02	No
Mercury	0	4.97E-07	4.97E-07	3.00E-03	No
Methyl n-Amyl Ketone	0	1.04E+00	1.04E+00	1.57E+01	No
Molybdenum	0	9.98E-04	9.98E-04	3.33E-01	No
Naphthalene	0	1.17E-06	1.17E-06	3.33E+00	No
Phosphorous	0	9.95E-04	9.95E-04	7.00E-03	No
Selenium	0	4.58E-08	4.58E-08	1.30E-02	No
Silicon	0	1.52E-03	1.52E-03	6.67E-01	No
Vanadium	0	8.05E-06	8.05E-06	3.00E-03	No
Zinc	0	5.54E-05	5.54E-05	6.67E-01	No
Carcinogenic Toxic Air Pollutant (Annual Average)	**Restricted Controlled Hourly Emissions**		**Emission Change (lb/hr)**	**Screening Emission Level (lb/hr)**	**Controlled Exceeds TAP EL?**
	Pre-Project (lb/hr)	**Post Project (lb/hr)**			
Arsenic	0	3.8E-07	3.8E-07	1.5E-06	No
Benzene	0	4.0E-06	4.0E-06	8.0E-04	No
Beryllium	0	3.2E-08	3.2E-08	2.8E-05	No
Cadmium	0	2.1E-06	2.1E-06	3.7E-06	No
Chromium+6	0	1.4E-06	1.4E-06	5.6E-07	Yes
Formaldehyde	0	1.4E-04	1.4E-04	5.1E-04	No
3-Methylchloranthene	0	3.4E-09	3.4E-09	2.5E-06	No
Nickel	0	5.1E-05	5.14E-05	2.7E-05	Yes
Polyaromatic Hydrocarbon (Max)	0	1.3E-06	1.3E-06	9.1E-05	No
Polycyclic Organics: 7-PAH Group	0	2.2E-08	2.2E-08	2.0E-06	No

Process	Cr+6	Cr+6 % of Total	Ni	Ni % of Total
Heater	0	0%	4.0E-06	8%
welding	1.4E-06	99%	3.0E-05	58%
Laser	4.4E-10	0.03%	8.0E-07	2%
Plasma	9.3E-09	1%	1.7E-05	33%
Coating	0.0E+00	0%	0.0E+00	0%
Washing	0.0E+00	0%	0.0E+00	0%
Coating	0.0E+00	0%	0.0E+00	0%
Metal Saw	0.0E+00	0%	0.0E+00	0%
Solvent Recovery	0.0E+00	0%	0.0E+00	0%
	1.4E-06		5.1E-05	

Table 4-5
Facility-Wide Hazardous Air Pollutant Emissions
In the Ditch Towing Products, Mountain Home, ID

Hazardous Air Pollutant	Unrestricted Uncontrolled Potential to Emit (tons/yr)	Restricted Controlled Potential to Emit (tons/yr)
Arsenic	1.7E-06	1.7E-06
Benzene	1.8E-05	1.8E-05
Beryllium	1.4E-07	1.4E-07
Cadmium	9.2E-06	9.2E-06
Chromium	7.6E-01	3.2E-04
Cobalt	7.0E-07	7.0E-07
Dichlorobenzene	1.0E-05	1.0E-05
Formaldehyde	6.3E-04	6.3E-04
Hexane	1.5E-02	1.5E-02
HMDI	6.5E-03	6.5E-03
Lead	4.2E-06	4.2E-06
Manganese	4.5E-01	7.4E-03
Mercury	2.2E-06	2.2E-06
Naphthalene	5.1E-06	5.1E-06
Nickel	3.1E-01	2.3E-04
Polycyclic Organic Matter (PAH MAX.)	9.5E-08	9.5E-08
Selenium	2.0E-07	2.0E-07
TOTAL =	**1.54**	**0.03**

APPENDIX B – AMBIENT AIR QUALITY IMPACT ANALYSES

MEMORANDUM

DATE: June 18, 2018

TO: Tom Burnham, Permit Writer, Air Program

FROM: Pao Baylon, Modeling Review Analyst, Air Program

PROJECT: P-2011.0070 PROJ 62067, PTC Application from In the Ditch Towing Products, Inventive, LLC

SUBJECT: Demonstration of Compliance with IDAPA 58.01.01.203.02 (NAAQS) and 203.03 (TAPs) as it relates to air quality impact analyses.

Contents

Acronyms, Units, and Chemical Nomenclature

AAC	Acceptable Ambient Concentration of a non-carcinogenic TAP
AACC	Acceptable Ambient Concentration of a Carcinogenic TAP
Appendix W	40 CFR 51, Appendix W – Guideline on Air Quality Models
BPIP	Building Profile Input Program
BRC	Below Regulatory Concern
CFR	Code of Federal Regulations
CMAQ	Community Multi-Scale Air Quality modeling system
CO	Carbon Monoxide
DEQ	Idaho Department of Environmental Quality
EL	Emissions Screening Level of a TAP
EPA	United States Environmental Protection Agency
Idaho Air Rules	Rules for the Control of Air Pollution in Idaho, located in the Idaho Administrative Procedures Act 58.01.01
In the Ditch	In the Ditch Towing Products, Inventive, LLC
lb/hr	Pounds per hour
NAAQS	National Ambient Air Quality Standards
NO_2	Nitrogen Dioxide
NOx	Oxides of Nitrogen
O_3	Ozone
Pb	Lead
PM_{10}	Particulate matter with an aerodynamic particle diameter less than or equal to a nominal 10 micrometers
$PM_{2.5}$	Particulate matter with an aerodynamic particle diameter less than or equal to a nominal 2.5 micrometers
ppb	parts per billion
PTC	Permit to Construct
PTE	Potential to Emit
SIL	Significant Impact Level
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
VOC	Volatile Organic Compounds
$\mu g/m^3$	Micrograms per cubic meter of air

1.0 Summary

In the Ditch Towing Products, Inventive, LLC (In the Ditch) submitted a Permit to Construct (PTC) application for modifications to their existing facility located in Mountain Home, Idaho. The facility has an existing Automotive Coating Operation General Permit (P-2011.0070) issued by IDEQ on March 4, 2011 under a different business name – Idaho Wrecker Sale. The facility pivoted its operation from automotive coating to towing product manufacturing. Project-specific air quality analyses involving atmospheric dispersion modeling of estimated emissions associated with the proposed modification were submitted to DEQ to demonstrate that emissions increases associated with proposed operations would not cause or significantly contribute to a violation of any applicable ambient air quality standard as required by the Idaho Administrative Procedures Act 58.01.01.203.02 and 203.03 (Idaho Air Rules Section 203.02 and 203.03). This memorandum provides a summary of DEQ's review of the ambient air impact analyses submitted with the permit application.

Torf Environmental Management (TEM), on behalf of In the Ditch, prepared the PTC application and performed ambient air impact analyses for this project to demonstrate compliance with applicable National Ambient Air Quality Standards (NAAQS) and Toxic Air Pollutant (TAP) increments. The DEQ review of submitted data and analyses summarized by this memorandum addressed only the rules, policies, methods, and data pertaining to the air impact analyses used to demonstrate that estimated emissions associated with operation of the facility will not cause or significantly contribute to a violation of any applicable air quality standard. This review did not address/evaluate compliance with other rules or analyses not pertaining to the air impact analyses. Evaluation of emissions estimates was the responsibility of the DEQ permit writer and is addressed in the main body of the DEQ Statement of Basis, and emissions calculation methods were not evaluated in this modeling review memorandum.

The submitted information and analyses: 1) showed either a) that estimated potential/allowable emissions are at a level defined as below regulatory concern (BRC) and do not require a NAAQS compliance demonstration, or b) that criteria pollutant emissions increases resulting from the proposed project are below site-specific modeling applicability thresholds, developed to assure that emissions below such levels will not result in ambient air impacts exceeding Significant Impact Levels (SILs); 2) showed that TAP emissions increases associated with the project will not result in increased ambient air impacts exceeding allowable TAP increments.

Table 1 presents key assumptions and results to be considered in the development of the permit.

Idaho Air Rules require air impact analyses be conducted in accordance with methods outlined in 40 CFR 51, Appendix W *Guideline on Air Quality Models* (Appendix W). Appendix W requires that air quality impacts be assessed using atmospheric dispersion models with emissions and operations representative of design capacity or as limited by a federally enforceable permit condition. The submitted information and analyses demonstrated to the satisfaction of the Department that operation of the proposed project will not cause or significantly contribute to a violation of any ambient air quality standard, provided the key conditions in Table 1 are representative of facility design capacity or operations as limited by a federally enforceable permit condition. The DEQ permit writer should use Table 1 and other information presented in this memorandum to generate appropriate permit provisions/restrictions to assure the requirements of Appendix W are met regarding emissions representative of design capacity or permit allowable rates.

Table 1. KEY ASSUMPTIONS USED IN MODELING ANALYSES	
Criteria/Assumption/Result	**Explanation/Consideration**
General Emissions Rates. Emissions rates used in the air impact analyses, as listed in this memorandum, must represent maximum potential emissions as given by design capacity, inherently limited by the nature of the process or configuration of the facility, or as limited by the issued permit for the specific pollutant and averaging period.	Compliance has not been demonstrated for emissions rates greater than those used in the air impact analyses.
TAP Emissions Sources. TAP emissions sources, as constructed and operated, must be accurately represented by the analyses submitted with the PTC application.	Important parameters include release point locations and release height.

Summary of Submittals and Actions

- March 27, 2018 Modeling Protocol submitted to DEQ.
- April 2, 2018 DEQ sent comments to In the Ditch.
- April 13, 2018 In the Ditch responded to DEQ's comments.
- May 24, 2018 Application submitted to DEQ.

2.0 Background Information

Background information on the project and the air impact analyses was provided in the Modeling Analysis Report submitted with the application.

2.1 Air Impact Analyses Required for All Permits to Construct

Idaho Air Rules Sections 203.02 and 203.03:

> *No permit to construct shall be granted for a new or modified stationary source unless the applicant shows to the satisfaction of the Department all of the following:*
>
> ***02. NAAQS.*** *The stationary source or modification would not cause or significantly contribute to a violation of any ambient air quality standard.*
>
> ***03. Toxic Air Pollutants.*** *Using the methods provided in Section 210, the emissions of toxic air pollutants from the stationary source or modification would not injure or unreasonably affect human or animal life or vegetation as required by Section 161. Compliance with all applicable toxic air pollutant carcinogenic increments and toxic air pollutant non-carcinogenic increments will also demonstrate preconstruction compliance with Section 161 with regards to the pollutants listed in Sections 585 and 586.*

Atmospheric dispersion modeling, using computerized simulations, is used to demonstrate compliance with both NAAQS and TAPs. Idaho Air Rules Section 202.02 states:

> ***02. Estimates of Ambient Concentrations.*** *All estimates of ambient concentrations shall be based on the applicable air quality models, data bases, and other requirements specified in 40 CFR 51 Appendix W (Guideline on Air Quality Models).*

2.2 Significant Impact Level and Cumulative NAAQS Impact Analyses

The Significant Impact Level (SIL) analysis for a new facility or proposed modification to a facility involves modeling estimated criteria air pollutant emissions from the facility or modification to determine the potential impacts to ambient air. Air impact analyses are required by Idaho Air Rules to be conducted in accordance with methods outlined in 40 CFR 51, Appendix W *Guideline on Air Quality Model* (Appendix W). Appendix W requires that facilities be modeled using emissions and operations representative of design capacity or as limited by a federally enforceable permit condition.

A facility or modification is considered to have a significant impact on air quality if maximum modeled impacts to ambient air exceed the established SIL listed in Idaho Air Rules Section 006 (referred to as a "significant contribution" in Idaho Air Rules) or as incorporated by reference as per Idaho Air Rules Section 107.03.b. Table 2 lists the applicable SILs.

If modeled maximum pollutant impacts to ambient air from the emissions sources associated with a new facility or modification exceed the SILs, then a cumulative NAAQS impact analysis is necessary to demonstrate compliance with NAAQS and Idaho Air Rules Section 203.02.

A cumulative NAAQS impact analysis for attainment area pollutants involves assessing ambient impacts (typically the design values consistent with the form of the standard) from facility-wide emissions, and emissions from any nearby co-contributing sources, and then adding a DEQ-approved background concentration value to the modeled result that is appropriate for the criteria pollutant/averaging-period at the facility location and the area of significant impact. The resulting pollutant concentrations in ambient air are then compared to the NAAQS listed in Table 2. Table 2 also lists SILs and specifies the modeled design value that must be used for comparison to the NAAQS. NAAQS compliance is evaluated on a receptor-by-receptor basis for the modeling domain.

If the cumulative NAAQS impact analysis indicates a violation of the standard, the permit may not be issued if the proposed project has a significant contribution (exceeding the SIL) to the modeled violation. If project-specific impacts are below the SIL, then the project does not have a significant contribution to the specific violations.

2.3 Toxic Air Pollutant Analyses

Emissions of toxic substances are generally addressed by Idaho Air Rules Section 161:

> *Any contaminant which is by its nature toxic to human or animal life or vegetation shall not be emitted in such quantities or concentrations as to alone, or in combination with other contaminants, injure or unreasonably affect human or animal life or vegetation.*

Permitting requirements for toxic air pollutants (TAPs) from new or modified sources are specifically addressed by Idaho Air Rules Section 203.03 and require the applicant to demonstrate to the satisfaction of DEQ the following:

> *Using the methods provided in Section 210, the emissions of toxic air pollutants from the stationary source or modification would not injure or unreasonably affect human or animal life or vegetation as required by Section 161. Compliance with all applicable toxic air pollutant carcinogenic increments and toxic air pollutant non-carcinogenic increments will also demonstrate preconstruction compliance with Section 161 with regards to the pollutants listed*

in Sections 585 and 586.

Table 2. APPLICABLE REGULATORY LIMITS				
Pollutant	**Averaging Period**	**Significant Impact Levels[a] ($\mu g/m^3$)[b]**	**Regulatory Limit[c] ($\mu g/m^3$)**	**Modeled Design Value Used[d]**
PM_{10}[e]	24-hour	5.0	150[f]	Maximum 6th highest[g]
$PM_{2.5}$[h]	24-hour	1.2	35[i]	Mean of maximum 8th highest[j]
	Annual	0.2	12[k]	Mean of maximum 1st highest[l]
Carbon monoxide (CO)	1-hour	2,000	40,000[m]	Maximum 2nd highest[n]
	8-hour	500	10,000[m]	Maximum 2nd highest[n]
Sulfur Dioxide (SO_2)	1-hour	3 ppb[o] (7.8 $\mu g/m^3$)	75 ppb[p] (196 $\mu g/m^3$)	Mean of maximum 4th highest[q]
	3-hour	25	1,300[m]	Maximum 2nd highest[n]
	24-hour	5	365[m]	Maximum 2nd highest[n]
	Annual	1.0	80[r]	Maximum 1st highest[n]
Nitrogen Dioxide (NO_2)	1-hour	4 ppb (7.5 $\mu g/m^3$)	100 ppb[s] (188 $\mu g/m^3$)	Mean of maximum 8th highest[t]
	Annual	1.0	100[r]	Maximum 1st highest[n]
Lead (Pb)	3-month[u]	NA	0.15[r]	Maximum 1st highest[n]
	Quarterly	NA	1.5[r]	Maximum 1st highest[n]
Ozone (O_3)	8-hour	40 TPY VOC[v]	70 ppb[w]	Not typically modeled

a. Idaho Air Rules Section 006 (definition for significant contribution) or as incorporated by reference as per Idaho Air Rules Section 107.03.b.
b. Micrograms per cubic meter.
c. Incorporated into Idaho Air Rules by reference, as per Idaho Air Rules Section 107.
d. The maximum 1st highest modeled value is always used for the significant impact analysis unless indicated otherwise. Modeled design values are calculated for each ambient air receptor.
e. Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers.
f. Not to be exceeded more than once per year on average over 3 years.
g. Concentration at any modeled receptor when using five years of meteorological data.
h. Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.
i. 3-year mean of the upper 98th percentile of the annual distribution of 24-hour concentrations.
j. 5-year mean of the 8th highest modeled 24-hour concentrations at the modeled receptor for each year of meteorological data modeled. For the SIL analysis, the 5-year mean of the 1st highest modeled 24-hour impacts at the modeled receptor for each year.
k. 3-year mean of annual concentration.
l. 5-year mean of annual averages at the modeled receptor.
m. Not to be exceeded more than once per year.
n. Concentration at any modeled receptor.
o. Interim SIL established by EPA policy memorandum.
p. 3-year mean of the upper 99th percentile of the annual distribution of maximum daily 1-hour concentrations.
q. 5-year mean of the 4th highest daily 1-hour maximum modeled concentrations for each year of meteorological data modeled. For the significant impact analysis, the 5-year mean of 1st highest modeled 1-hour impacts for each year is used.
r. Not to be exceeded in any calendar year.
s. 3-year mean of the upper 98th percentile of the annual distribution of maximum daily 1-hour concentrations.
t. 5-year mean of the 8th highest daily 1-hour maximum modeled concentrations for each year of meteorological data modeled. For the significant impact analysis, the 5-year mean of maximum modeled 1-hour impacts for each year is used.
u. 3-month rolling average.
v. An annual emissions rate of 40 ton/year of VOCs is considered significant for O_3.
w. Annual 4th highest daily maximum 8-hour concentration averaged over three years.

Per Section 210, if the total project-wide emissions increase of any TAP associated with a new source or modification exceeds screening emission levels (ELs) of Idaho Air Rules Section 585 or 586, then the ambient impact of the emissions increase must be estimated. If ambient impacts are less than applicable Acceptable Ambient Concentrations (AACs) for non-carcinogens of Idaho Air Rules Section 585 and Acceptable Ambient Concentrations for Carcinogens (AACCs) of Idaho Air Rules Section 586, then

compliance with TAP requirements has been demonstrated.

Idaho Air Rules Section 210.20 states that if TAP emissions from a specific source are regulated by the Department or EPA under 40 CFR 60, 61, or 63, then a TAP impact analysis under Section 210 is not required for that TAP.

3.0 Analytical Methods and Data

The submitted modeling report provides a detailed discussion of the methods and data used to demonstrate compliance with applicable standards.

3.1 Emission Source Data

Emissions increases of criteria pollutants and TAPs resulting from the proposed modification were estimated by TEM for various applicable averaging periods.

Emissions rates used in the dispersion modeling analyses, as listed in this memorandum, should be reviewed by the DEQ permit writer and compared with those in the final emissions inventory. All modeled criteria air pollutant and TAP emissions rates must be equal to or greater than the modification's potential emissions increase calculated in the PTC emissions inventory or proposed permit allowable emissions rates.

3.1.1 Modeling Applicability and Modeled Criteria Pollutant Emissions Rates

If project-specific emission increases of criteria pollutants would qualify for a below regulatory concern (BRC) permit exemption as per Idaho Air Rules Section 221 if it were not for potential emissions of one or more pollutants exceeding the BRC threshold of 10 percent of emissions defined by Idaho Air Rules as significant, then a NAAQS compliance demonstration may not be required for those pollutants with emissions below BRC levels. DEQ's regulatory interpretation policy of exemption provisions of Idaho Air Rules is that: "A DEQ NAAQS compliance assertion will not be made by the DEQ modeling group for specific criteria pollutants having a project emissions increase below BRC levels, provided the proposed project would have qualified for a Category I Exemption for BRC emissions quantities except for the emissions of another criteria pollutant.[1]" The interpretation policy also states that the exemption criteria of uncontrolled potential to emit (PTE) not to exceed 100 ton/year (Idaho Air Rules Section 220.01.a.i) is not applicable when evaluating whether a NAAQS impact analyses is required. A permit will be issued limiting PTE below 100 ton/year, thereby negating the need to maintain calculated uncontrolled PTE under 100 ton/year. The BRC exemption cannot be used to exempt a project from a pollutant-specific NAAQS compliance demonstration in cases where a PTC is required for the action regardless of emissions quantities, such as the modification of an existing emissions or throughput limit.

A NAAQS compliance demonstration must be performed for pollutant increases that would not qualify for the BRC exemption from the requirement to demonstrate compliance with NAAQS.

Site-specific air impact modeling analyses may not be necessary for some pollutants, even where such emissions do not qualify for the BRC exemption. DEQ has developed modeling applicability thresholds, below which a site-specific modeling analysis is not required. DEQ generic air impact modeling analyses that were used to develop the modeling thresholds provide a conservative SIL analysis for projects with emissions below identified threshold levels. Project-specific modeling applicability thresholds are

provided in the *Idaho Air Modeling Guideline*[1]. These thresholds were based on assuring an ambient impact of less than the established SIL for specific pollutants and averaging periods.

If project-specific total emissions rate increases of a pollutant are below Level I Modeling Applicability Thresholds, then project-specific air impact analyses are not necessary for permitting. Use of Level II Modeling Applicability Thresholds are conditional, requiring DEQ approval. DEQ approval is based on dispersion-affecting characteristics of the emissions sources such as stack height, stack gas exit velocity, stack gas temperature, distance from sources to ambient air, presence of elevated terrain, and potential exposure to sensitive public receptors.

NAAQS compliance demonstrations were not required for this project since the submitted application demonstrated that the project qualified for the BRC NAAQS compliance demonstration exemption. Table 3 provides a comparison between facility-wide allowable emissions and BRC levels.

Table 3. NAAQS COMPLIANCE DEMONSTRATION APPLICABILITY ANALYSIS RESULTS

Pollutant	Annual Allowable Emissions[a] (tons/year)	BRC Level (tons/year)	NAAQS Compliance Demonstration Required
$PM_{2.5}$	0.89	1.0	No
PM_{10}	0.89	1.5	No
NO_2	2.14	4	No
CO	0.70	10	No
SO_2	5.02E-03	4	No
Pb	4.18E-06	0.06	No

[a] As stated in the application materials.

Ozone (O_3) differs from other criteria pollutants in that it is not typically emitted directly into the atmosphere. O_3 is formed in the atmosphere through reactions of VOCs, NOx, and sunlight. Atmospheric dispersion models used in stationary source air permitting analyses cannot be used to estimate O_3 impacts resulting from VOC and NOx emissions from an industrial facility. O_3 concentrations resulting from area-wide emissions are predicted by using more complex airshed models such as the Community Multi-Scale Air Quality (CMAQ) modeling system. Use of the CMAQ model is very resource intensive and DEQ asserts that performing a CMAQ analysis for a particular permit application is not typically a reasonable or necessary requirement for air quality permitting. Addressing secondary formation of O_3 within the context of permitting a new stationary source has been somewhat addressed in EPA regulation and policy. As stated in a letter from Gina McCarthy of EPA to Robert Ukeiley, acting on behalf of the Sierra Club (letter from Gina McCarthy, Assistant Administrator, United States Environmental Protection Agency, to Robert Ukeiley, January 4, 2012):

> *. . . footnote 1 to sections 51.166(I)(5)(I) of the EPA's regulations says the following: "No de minimis air quality level is provided for ozone. However, any net emission increase of 100 tons per year or more of volatile organic compounds or nitrogen oxides subject to PSD would be required to perform an ambient impact analysis, including the gathering of air quality data."*

The EPA believes it unlikely a source emitting below these levels would contribute to such a violation of the 8-hour ozone NAAQS, but consultation with an EPA Regional Office should still be conducted in accordance with section 5.2.1.c. of Appendix W when reviewing an application for sources with emissions of these ozone precursors below 100 TPY."

DEQ determined it was not appropriate or necessary to require a quantitative source specific O_3 impact analysis because allowable emissions estimates of VOCs and NOx are below the 100 tons/year threshold.

Secondary Particulate Formation

The impact from secondary particulate formation resulting from emissions of NOx, SO_2, and/or VOCs was assumed by DEQ to be negligible based on the magnitude of emissions and the short distance from emissions sources to locations where maximum PM_{10} and $PM_{2.5}$ impacts are anticipated.

3.1.2 Toxic Air Pollutant Emissions Rates

TAP emissions regulations under Idaho Air Rules Section 210 are only applicable to new or modified sources constructed after July 1, 1995.

Table 4 provides a summary of TAP emissions increases for the project for those TAPs that had an increase exceeding the ELs of Idaho Air Rules Section 585 or 586. Table 5 lists source-specific emissions of TAPs used in the impact analyses.

Table 4. TAP EMISSIONS INCREASES THAT TRIGGER MODELING

Toxic Air Pollutant	Emissions (lb/hr)[a]	Screening Emissions Level (lb/hr)
Chromium VI[b]	1.4E-06	5.6E-07
Nickel[b]	5.1E-05	2.7E-05

[a] Pounds per hour.
[b] Carcinogenic TAP. ELs are annual maximum emissions expressed as pounds/hour. The emissions rate is the annual emissions divided by 8,760 hours/year.

Table 5. MODELED EMISSIONS RATES FOR TOXIC AIR POLLUTANTS

Source ID		Source Description	Emissions Rates (grams/second)	
			Chromium VI	Nickel
Point Sources	W1	Welding vent 1	1.80E-05	3.88E-06
	W2	Welding vent 2	1.80E-05	3.88E-06
	W3	Welding vent 3	1.80E-05	3.88E-06
	H1	Heater in laser room		3.24E-08
	H2	Heater in machine shop		1.94E-08
	H3	Heater in mill room		1.56E-08
	H4	Heater in prep bay		1.30E-08
	H5	Heater in welding room		6.49E-08
	H9	Heater in paint booth		5.97E-08
	H10	Heater in shipping room		4.47E-08

Table 5. MODELED EMISSIONS RATES FOR TOXIC AIR POLLUTANTS				
Source ID		Source Description	Emissions Rates (grams/second)	
			Chromium VI	Nickel
	H11	Heater in shipping room		7.79E-08
	H12	Dry powder oven burner		1.30E-07
	P1	Plasma cutting vent	4.12E-07	7.50E-06
Volume Sources	H6	Breezeway heater		4.83E-08
	L1	Laser cutting door 1	4.54E-09	8.37E-08
	L2	Laser cutting door 2	4.54E-09	8.37E-08

3.1.3 DEQ Review

DEQ determined the following from review of the Air Modeling Analysis Report submitted with the application:

- The appropriate atmospheric dispersion model was used for the proposed project.
- The facility, as described in the protocol and in the submitted modeling report, was adequately represented in the model, regarding geographical location, terrain, structures, emission point locations, and areas of potential exposure. DEQ notes that while some point sources were incorrectly represented with stack heights that are below the roofline, the facility would still demonstrate compliance as air quality impacts would likely be conservative with downwash considered.
- Appropriate meteorological data were used with the dispersion model.
- Appropriate averaging periods were selected for model output, corresponding to the form of applicable standards.
- The modeling report indicates that all TAPs with project-wide emissions increases above the ELs of Idaho Air Rules Section 585 and 586 were modeled to evaluate compliance with applicable AACs and AACCs.
- Through review of the submitted Air Modeling Analysis Report, it appears that the TAPs air impact analyses were performed using recommended data and methods prescribed in the *Idaho Air Quality Modeling Guideline*[1].

DEQ determined the review of the air impact analyses, as described above, was adequate to provide assurance that the proposed project will not result in increases in ambient air TAP levels that exceeded the specific AACs or AACCs. This conclusion is based on the general type and magnitude of the facility, the types of methods and data used in the analyses, and the modeled results in comparison to applicable AACs/AACCs.

4.0 NAAQS and TAPs Air Impact Modeling Results

4.1 Results for NAAQS Analyses

A NAAQS compliance demonstration was not required for permit issuance because facility-wide emissions of criteria pollutants were below BRC levels.

4.2 Results for TAPs Impact Analyses

Table 6 lists the maximum modeled impacts for specific TAPs. All modeled impacts are below applicable AACs and AACCs.

Table 6. TAP AIR IMPACT ANALYSIS RESULTS

TAP	Maximum Modeled Impact ($\mu g/m^3$)[a]	AACC ($\mu g/m^3$)	Percent of AACC
Chromium VI[b]	0.0000244	0.000083	29.4%
Nickel[b]	0.00291	0.0042	69.3%

[a] Micrograms per cubic meter.

[b] Carcinogenic TAP. Modeled impact and AACC represent annual or period-average concentration.

5.0 Conclusions

The information submitted with the PTC application demonstrated to DEQ's satisfaction that applicable emissions resulting from the proposed modifications at the In the Ditch facility in Mountain Home, Idaho will not cause or significantly contribute to a violation of any ambient air quality standard or TAP increment.

References

1. *State of Idaho Guideline for Performing Air Quality Impact Analyses.* Idaho Department of Environmental Quality. September 2013. State of Idaho DEQ Air Doc. ID AQ-011. Available at http://www.deq.idaho.gov/media/1029/modeling-guideline.pdf.

APPENDIX C – FACILITY DRAFT COMMENTS

The following comments were received from the facility on August 27, 2018:

Facility Comment: According to the emission inventory, the hourly PM10 emission is 0.08 lb/hr and the hourly VOC emission is 2.89 lb/hr/ It appears that they are different from the numbers here in this table. Should we change the hourly PM and VOC numbers here in this table to match the emission inventory?

DEQ Response: This error has been corrected in the final draft.

APPENDIX D – 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: Inventive LLC dba In The Ditch
Address: 3195 Industrial Way
City: Mountain Home
State: Idaho
Zip Code: 83647
Facility Contact: Casey Schmitt
Title: Mecanical Engineer
AIRS No.: 030-00036

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	0.8	0	0.8
SO_2	0.0	0	0.0
CO	0.7	0	0.7
PM10	0.8	0	0.8
VOC	0.0	1.35	-1.4
Total:			**1.0**
Fee Due	**$ 2,500.00**		

Comments: VOC reduced through use of urethane componnents w/hardeners and powder coatings