

Statement of Basis

**Permit to Construct No. P-2013.0058
Project ID 61300**

**Double L
Heyburn, Idaho**

Facility ID 067-00042

Final

**December 12, 2014
Harbi Elshafei
Permit Writer**

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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.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	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
GHG	greenhouse gases
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
MMscf	million standard cubic feet
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PC	permit condition
PTE	potential to emit
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SIP	State Implementation Plan
SO ₂	sulfur dioxide
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
VOC	volatile organic compounds
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

Double L is a design and manufacturing facility located at 307 Warm Springs in Heyburn, Idaho. Double L specializes in designing, repairing, and manufacturing farm machinery and harvesting equipment at the Heyburn location. The Manufacturing process involves painting of equipment, welding, natural gas heaters, and intermittent hand grinding and the use abrasive media to prepare metals for painting. These manufacturing processes are the main sources of emissions at the facility.

Permitting History

This is the initial PTC for an existing facility that was constructed in June 2012 thus there is no permitting history.

Application Scope

This permit is the initial PTC for an existing facility.

The applicant has submitted an application to obtain a permit to construct (PTC) for the following existing processes at the facility:

- Painting inside a paint spray booth, controlled to collect particulate matter (PM).
- Abrasive blasting inside a fully enclosed blast booth controlled to collect PM.
- Grinding – hand-held grinders to prepare metals for painting
- Welding inside a building.
- Area heaters burning natural gas to provide heat to the facility.

Application Chronology

December 4, 2013	DEQ received an application and an application fee.
Dec. 9 – Dec. 24, 2013	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.
December 27, 2013	DEQ determined that the application was incomplete.
January 9, 2014	DEQ received supplemental information from the applicant.
February 7, 2014	DEQ determined that the application was complete.
February 13, 2014	DEQ sent a notice of violation to the facility, which included notification that a PTC was required (Enforcement Case No. E-2012.0011).
March 19, 2014	DEQ received supplemental information from the applicant.
November 13, 2014	DEQ made available the draft permit and statement of basis for peer and regional office review.
November 24, 2014	DEQ made available the draft permit and statement of basis for applicant review.
December 8, 2014	DEQ received the permit processing fee.
December 10, 2014	The permittee contacted DEQ via phone and indicated that no comments are needed on the draft permit and requested to issue the permit as final.
December 22, 2014	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Sources	Control Equipment	Emission Point ID No.
<p><u>Spray paint booth</u> Manufacturer: SprayLine Manufacturing Company, or equivalent Model: Sprayline Semi Down Draft-SDD- 264417 w/ MR-6168, or equivalent Construction date: 2012</p> <p><u>Spray gun</u> Manufacturer: Graco Type: Graco 395 Ultra Electric Airless Sprayer; FTx Contractor Model 238350 series A, or equivalent Transfer efficiency: 65% Rated capacity: 0.31 gallons/min</p>	Filter system with PM capture efficiency of 98% (minimum)	The paint booth has two exhaust stacks
<p><u>Abrasive blasting booth (fully enclosed)</u> Manufacturer: SprayLine, or equivalent Model: SI-BR-264415-DT, or equivalent Construction date: 2012</p>	Industrial Dust Collector Air Filtration units with PM capture efficiency of 99.8%. Filtered air is recycled back into adjacent work area.	None
Hand grinding	Larger than PM ₁₀ particles are settled on the floor and are vacuumed-up. Particles that do not settle on the floor are captured and filtered through the Clark Air Rotation Systems.	Venting inside building
Welding	Four Clark Air Rotation Systems. Each Clark Air Rotation System is fitted with a 2-stage filter system with PM control efficiency of 92% for particles 3 microns or larger. Particles then pass through a second filter which is 98% efficient in capturing particles 1 micron in size. Welding emissions are captured and are re-circulated back into the welding north bay of the building.	Venting inside building. Welding emissions are captured, filtered and are re-circulated back into the welding area
15 natural gas space heaters	None	Various

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.

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 hazardous air pollutants (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 on 12/2/2013 and verified by DEQ staff. (see Appendix A).

Table 2 UNCONTROLLED POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀		PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	T/yr
Spray Paint Booth	32.82	49.24	32.82	49.24	0.00	0.00	0.00	0.00	0.00	0.00	15.36	23.1	0.00
Abrasive Blast Booth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grinding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding	0.024	0.034	0.024	0.034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural gas combustion	0.062	0.27	0.062	0.27	0.005	0.021	0.812	3.56	0.682	2.99	0.005	0.196	4,255
Post Project Totals	32.91	49.54	32.91	49.54	0.005	0.021	0.812	3.56	0.682	2.99	15.37	23.30	4,255

Using this definition of Potential to Emit an emission inventory was developed for the spray paint booth, abrasive blast booth, hand grinding, welding operation, and the 15 natural gas space heaters existing at the facility (see Appendix A) associated with this project. Emissions estimates of criteria pollutant, greenhouse gases (GHG), hazardous air pollutants (HAP), and toxic air pollutants (TAP) were based on emission factors from AP-42, hours of operation, manufacturer data, and process information specific to the facility for this proposed project.

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

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 and GHG pollutants from all emissions units at the facility as submitted by the applicant on 12/2/2013 and reviewed by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

Table 3 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀		PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)										
Spray Paint Booth	0.11	0.17	0.11	0.17	0.00	0.00	0.00	0.00	0.00	0.00	15.36	23.1	0.00
Abrasive Blast Booth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grinding	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding	0.0005	0.0007	0.0005	0.0007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural gas combustion	0.062	0.093	0.062	0.093	0.005	0.0073	0.812	1.22	0.682	1.02	0.0446	0.067	4,255
Post Project Totals	0.173	0.264	0.173	0.264	0.005	0.021	0.812	1.22	0.682	1.02	15.40	23.17	4,255

- 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 4 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Source	PM ₁₀		PM _{2.5}		SO ₂		NO _x		CO		VOC		CO ₂ e
	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)										
Pre-Project Potential to Emit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Post Project Potential to Emit	0.173	0.264	0.173	0.264	0.005	0.021	0.812	1.22	0.682	1.02	15.40	23.17	4,255
Changes in Potential to Emit	0.173	0.264	0.173	0.264	0.005	0.021	0.812	1.22	0.682	1.02	15.40	23.17	4,255

It should be noted that the PTC emissions processing fee calculation are shown in Appendix C.

TAP Emissions

The TAP and HAP emission rates are included in Appendix A of this statement of basis. All controlled TAP emissions were below the screening emissions level (EL) identified in IDAPA 58.01.01.585- 586. Therefore, no TAP emissions modeling were required for this permitting action.

Post Project HAP Emissions

The total HAP emissions are 2.31 tons per year. See Appendix A for a detailed presentation of the calculations of the HAP emissions for each emissions unit.

Ambient Air Quality Impact Analyses

Modeling is not required because the emissions are below the respective modeling thresholds.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Minidoka County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀,

SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification

The facility is a minor source because its uncontrolled PTE is below major source thresholds. Refer to Table 2 and Appendix A of this memorandum.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201Permit to Construct Required

The permittee has requested that a PTC be issued to the facility. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.200. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

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.

Standards for New Sources (IDAPA 58.01.01.676)

IDAPA 58.01.01.677Standards for New Sources

The fuel burning equipment located at this facility, with a maximum rated input of less than ten (10) million BTU per hour, are subject to a particulate matter limitation of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume when combusting gaseous fuels. Fuel-Burning Equipment is defined as any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer. These requirements apply to space heaters using indirect heat transfer. Compliance with this requirement is assured by combusting only natural gas fuel.

Particulate Matter – New Equipment Process Weight Limitations (IDAPA 58.01.01.701)

IDAPA 58.01.01.701Particulate Matter – New Equipment Process Weight Limitations

IDAPA 58.01.01.700 through 703 set PM emission limits for process equipment based on when the piece of equipment commenced operation and the piece of equipment’s process weight (PW) in pounds per hour (lb/hr). IDAPA 58.01.01.701 and IDAPA 58.01.01.702 establish PM emission limits for equipment that commenced operation on or after October 1, 1979 and for equipment operating prior to October 1, 1979, respectively.

Double L’s 12/2/2013 EI has shown that none of the processes exceed process weight limitations.

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

IDAPA 58.01.01.301Requirement 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 all regulated pollutants 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 52.21Prevention 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/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 in 40 CFR Part 60.

NESHAP Applicability (40 CFR 61)

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

MACT Applicability (40 CFR 63)

The facility has proposed to operate as a minor source of HAP emissions and may be subject to the requirements of 40 CFR 63, Subpart HHHHHH.

40 CFR 63, Subpart HHHHHHNational Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources

40 CFR 63.11169 What is the purpose of this subpart?

In accordance with §63.11169, subpart HHHHHH establishes national emission standards for hazardous air pollutants (HAP) for area sources involved in auto body refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations.

40 CFR 63.11170 Am I subject to this subpart?

In accordance with §63.11170(a), this automotive coating operation is subject to this subpart because the facility will be operated as an area source of HAP. The facility 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. In addition, the facility will perform one or more activities listed in this section, including 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.

40 CFR 63.11171 How do I know if my source is considered a new source or an existing source?

In accordance with §63.11171(b), the automotive coating operation is the collection of mixing rooms and equipment; spray booths, curing ovens, and associated equipment; spray guns and associated equipment; spray gun cleaning equipment; and equipment used for storage, handling, recovery, or recycling of cleaning solvent or waste paint. Paint stripping was not proposed as a business activity.

In accordance with §63.11171(c)(1), this automotive and mobile equipment coating operation is an existing source because it commenced construction after September 17, 2007, by installing new paint stripping or surface coating equipment, and the new surface coating equipment will be used at a source that was actively engaged in paint stripping and/or miscellaneous surface coating after September 17, 2007.

40 CFR 63.11172 When do I have to comply with this subpart?

In accordance with §63.11172(a)(1), because the initial startup of the facility occurred after January 9, 2008, the compliance date is the initial startup of your affected source.

40 CFR 63.11173 What are my general requirements for complying with this subpart?

Because the facility has not proposed paint-stripping activities, the requirements of §63.11173(a) through (f) are not applicable. Because the facility is an automotive coating operation, in accordance with §63.11173(e), the permittee must meet the requirements in paragraphs (e)(1) through (e)(5) of this section.

In accordance with §63.11173(f), each owner or operator of an affected automotive coating operation must ensure and certify that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in §63.11180, are trained in the proper application of surface coatings as required by paragraph (e)(1) of this section. The training program must include, at a minimum, the items listed in paragraphs (f)(1) through (f)(3) of this section.

In accordance with §63.11173(g), as required by paragraph (e)(1) of this section, all new and existing personnel at an affected motor vehicle and mobile equipment or miscellaneous surface coating source, including contract personnel, who spray apply surface coatings, as defined in §63.11180, must be trained by the dates specified in paragraphs (g)(1) and (2) of this section. Employees who transfer within a company to a position as a painter are subject to the same requirements as a new hire.

Compliance with these requirements is assured by Permit Condition 3.13.

40 CFR 63.11174 What parts of the General Provisions apply to me?

In accordance with §63.11174(a), Table 1 of this subpart shows which parts of the general provisions in Subpart A apply. Compliance with these requirements is assured by Permit Condition 3.12.

In accordance with §63.11174(b), an owner or operator of an area source subject to this subpart is exempt from the obligation to obtain a permit under 40 CFR part 70 or 71 provided that a permit under 40 CFR 70.3(a) or 71.3(a) is not required for a reason other than becoming area source subject to this subpart. This permit application and permitting action involve a permit to construct, and will not utilize the requirements and procedures in IDAPA 58.01.01.300-399 for the issuance of Tier I operating permits.

40 CFR 63.11175 What notifications must I submit?

In accordance with §63.11175(a), because the facility is a surface coating operation subject to this subpart, the initial notification required by §63.9(b) must be submitted. For this new operation, the initial notification must be submitted no later than 180 days after initial startup or July 7, 2008, whichever is later.

In accordance with §63.11175(b), because the facility is a source, the permittee is not required to submit a separate notification of compliance status in addition to the initial notification specified in paragraph (a) of this subpart provided the permittee was able to certify compliance on the date of the initial notification, as part of the initial notification, and the permittee's compliance status has not since changed.

Compliance with these requirements is assured by Permit Condition 3.14.

40 CFR 63.11176 What reports must I submit?

In accordance with §63.11176(a), because the permittee is an owner or operator of a paint stripping, motor vehicle or mobile equipment, or miscellaneous surface coating affected source, the permittee is required to submit a report in each calendar year in which information previously submitted in either the initial notification required by §63.11175(a), notification of compliance, or a previous annual notification of changes report submitted under this paragraph, has changed. Deviations from the relevant requirements in §63.11173(a) through (d) or §63.11173(e) through (g) on the date of the report will be deemed to be a change. The annual notification of changes report must be submitted prior to March 1 of each calendar year when reportable changes have occurred and must include the information specified in paragraphs (a)(1) through (2) of this section.

Compliance with these requirements is assured by Permit Condition 3.15.

Because the facility has not proposed to conduct paint stripping operations, the MeCl minimization plan requirements are not applicable (see Permit Condition 3.5).

40 CFR 63.11177 What records must I keep?

In accordance with §63.11177, because the permittee is the owner or operator of a surface coating operation, the permittee must keep the records specified in paragraphs (a) through (d) and (g) of this section. Because the permittee has not proposed to conduct paint stripping operations, the requirements of paragraphs (e) and (f) of this section are not applicable. Compliance with these requirements is assured by Permit Condition 3.13.

40 CFR 63.11178 In what form and for how long must I keep my records?

In accordance with 40 CFR 63.11178(a) because the permittee is the owner or operator of an affected source, the permittee must maintain copies of the records specified in §63.11177 for a period of at least five years after the date of each record. Copies of records must be kept on site and in a printed or electronic form that is readily accessible for inspection for at least the first two years after their date, and may be kept off-site after that two year period. Compliance with these requirements is assured by Permit Condition 3.13.

40 CFR 63.11179 Who implements and enforces this subpart?

In accordance with §63.11179(a), this subpart can be implemented and enforced by the U.S. Environmental Protection Agency (EPA), or a delegated authority. At the time of this permitting action, the EPA has not delegated authority to the State of Idaho. However, IDAPA 58.01.01.107.03.i incorporates by reference all Federal Clean Air Act requirements including 40 CFR 63, Subpart HHHHHH. Therefore, the requirements of this subpart have been placed in the permit.

40 CFR 63.11180 What definitions do I need to know?

Terms used in this subpart are defined in accordance with §63.11180.

40 CFR 63, Subpart XXXXXX National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories

40 CFR 63.11514 Am I subject to this 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.

(b) The provisions of this subpart apply to each new and existing affected source listed and defined in paragraphs (b)(1) through (5) of this section if you use materials that contain or have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of cadmium, chromium, lead, manganese, and nickel, or any of these metals in the elemental form with the exception of lead. Materials that contain MFHAP are defined to be materials that contain greater than 0.1 percent for carcinogens, as defined by OSHA at 29 CFR 1910.1200(d)(4), and greater than 1.0 percent for noncarcinogens. For the MFHAP, this corresponds to materials that contain cadmium, chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (of the metal), and materials that contain manganese in amounts greater than or equal to 1.0 percent by weight (of the

metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material.

(1) A dry abrasive blasting affected source is the collection of all equipment and activities necessary to perform dry abrasive blasting operations which use materials that contain MFHAP or that have the potential to emit MFHAP.

(2) A machining affected source is the collection of all equipment and activities necessary to perform machining operations which use materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or that have the potential to emit MFHAP.

(3) A dry grinding and dry polishing with machines affected source is the collection of all equipment and activities necessary to perform dry grinding and dry polishing with machines operations which use materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or have the potential to emit MFHAP.

(4) A spray painting affected source is the collection of all equipment and activities necessary to perform spray-applied painting operations using paints which contain MFHAP. A spray painting affected source includes all equipment used to apply cleaning materials to a substrate to prepare it for paint application (surface preparation) or to remove dried paint; to apply a paint to a substrate (paint application) and to dry or cure the paint after application; or to clean paint operation equipment (equipment cleaning). Affected source(s) subject to the requirements of this paragraph are not subject to the miscellaneous surface coating provisions of subpart HHHHHH of this part, "National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources."

(5) A welding affected source is the collection of all equipment and activities necessary to perform welding operations which use materials that contain MFHAP, as defined in §63.11522, "What definitions apply to this subpart?", or have the potential to emit MFHAP.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source, as defined in §63.2, "General Provisions" to part 63, before April 3, 2008.

(d) An affected source is new if you commenced construction or reconstruction of the affected source, as defined in §63.2, "General Provisions" to part 63, on or after April 3, 2008.

(e) This subpart does not apply to research or laboratory facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(f) This subpart does not apply to tool or equipment repair operations, facility maintenance, or quality control activities as defined in §63.11522, "What definitions apply to this subpart?"

(g) This subpart does not apply to operations performed on site at installations owned or operated by the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), the National Aeronautics and Space Administration, or the National Nuclear Security Administration.

(h) This subpart does not apply to operations that produce military munitions, as defined in §63.11522, "What definitions apply to this subpart?", manufactured by or for the Armed Forces of the United States (including the Coast Guard and the National Guard of any such state), or equipment directly and exclusively used for the purposes of transporting military munitions.

(i) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

Double L is engaged in grinding, welding, blasting but it is not subject to MACT Subpart XXXXXX. To be subject to this subpart a facility is primarily engaged in the operations in one of the nine source categories listed in paragraphs (a)(1) through 9 of Section 63.11514. The descriptions of these sources categories are shown in Table 1 of this subpart. "Primarily engaged is defined in 40 CFR 63.11522."

The Double L SIC code is 3523 and NAICS code is 333111 - *Farm Machining and Equipment Manufacturing*. Appendix B of this statement of basis contains a chart in which it shows the SIC and NAICS codes "Applicability Charts for the Nine Metal Fabrication and Finishing Source Categories (40 CFR Subpart XXXXXX)." The Double L facility's SIC and NAICS codes are not included in the chart shown in Appendix B; therefore, the MACT Subpart XXXXXX is not applicable to the facility. For more information about the applicability of Subpart XXXXXX to the Source Categories the reader can refer to the following link:

http://www.epa.gov/ttn/atw/6x/metal_fabrication_q_a_nov-2011-rev3.pdf

Permit Conditions Review

This section describes the permit conditions for this initial permit.

Permit Scope; Permit Section 1

This section states that this is the initial permit for this facility and provides a list of regulated sources.

Facility-Wide Permit Conditions; Permit Section 2

Unless specified, permit conditions in this section apply to all emissions units at the facility.

Permit Conditions 2.1 - 2.4, Fugitive Dust

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651. Compliance with the fugitive requirements is assured by following the operating, monitoring and recordkeeping requirements listed in Permit Conditions 2.1 - 2.4 (fugitive dust monitoring).

Permit Conditions 2.5 - 2.6, Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution per IDAPA 58.01.01.775-776. Compliance with this requirement is demonstrated by maintaining records of all odor complaints received and the corrective action taken in response to the complaint.

Permit Conditions 2.7 - 2.9, Visible Emissions

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section. Compliance with this requirement is demonstrated by conducting a periodic (i.e., quarterly) facility-wide inspection of potential sources of visible emissions to determine if visible emissions are present, and maintaining records of the inspections and any corrective actions taken.

Permit Condition 2.10, Open Burning

This is a standard permit condition. The open burning rules apply to all facilities throughout the state at all times. No specific monitoring or recordkeeping is necessary to demonstrate compliance with this requirement for this facility.

Permit Condition 2.11, Reports and Certifications

This permit condition establishes generally applicable requirements for submittal of reports, certifications, and notifications to DEQ and/or EPA as specified.

Permit Condition 2.12, Fuel Burning Equipment

This is a standard permit condition that DEQ includes in the Facility-wide conditions to address the fuel-burning equipment in accordance with IDAPA 58.01.01.676-677 of the Rules.

Permit Condition 2.14, Material Purchase Records and Safety Data Sheet (SDS)

The analysis in the application and for this permitting action has been based on the specific materials and their quantities used or to be used in the facility. Permit Condition 2.14 is a recordkeeping requirement documenting

that the materials and quantities used at the facility are consistent with what has been used for analyses and permitting.

Permit Condition 2.15, Obligation to Comply and New TAP or HAP

Permit Condition 2.15 states that receiving a PTC shall not relieve any owner or operator of the responsibility to comply with all applicable local, state, and federal rules and regulations.

The permittee is allowed to use equivalent new materials as defined in the permit. If a new material contains new TAP or HAP, it is not an equivalent new material as defined in the permit. The permittee is required to document compliance with the Rules when using new materials containing new TAP or HAP. That could mean permits, or exemption documents.

Painting Operations and 40 CFR 63 Subpart HHHHHH, Permit Section 3

Permit Conditions 3.1, 3.2 and Table 3.1

Permit Conditions 3.1 and 3.2 and Table 3.1 describe the painting operation and its emissions control.

Permit Condition 3.3 and Table 3.2

Permit Condition 3.3 sets emission limits in Table 3.2 for the $PM_{2.5}/PM_{10}$ and VOC from the painting operations and the heater.

Permit Condition 3.4, the only fuel that is allowed to be burned in the paint booth is natural gas.

Permit Condition 3.5 Prohibits the permittee from using methylene chloride (MeCl) to remove paint at the facility.

Permit Condition 3.6, Sherwin-Williams and Sunnyside Corp Coatings Materials Use Limit. The Sherwin-Williams and Sunnyside Corp coatings (as listed in PC 3.6) use in the paint booth shall not exceed 93.00 gallons per calendar day.

The daily throughput limit in PC 3.6 is calculated based on the maximum spray gun capacity of 0.31 gal/min and operating the spray guns for five hours per day based on the information submitted to DEQ in the PTC application received on December 2, 2013. PC 3.6 also specifies the paint types. These limits ensure that PM PTE stays below modeling thresholds to avoid modeling and that TAP emissions stay below all ELs.

Permit Condition 3.6 allows Double L to use paint materials that generate same $PM_{2.5}/PM_{10}$, VOC, TAP, and HAP emissions or less than what are proposed and listed in this permit condition. Any paint materials with new TAP or HAP are not allowed under this permit condition.

Permit Condition 3.7, Spray Gun and Spray Booth(s) Filter System

Permit Condition 3.7 requires all painting operations to be conducted in the paint booth with filter systems; painting will be conducted with an airless spray gun, or equivalent technology, with a minimum 65% transfer efficiency as documented by the spray gun manufacturer; and the permittee will install, maintain, and operate a spray booth filter system with a minimum control efficiency of 98% for $PM_{2.5}/PM_{10}$ emissions as documented by the filter manufacturer.

Permit Condition 3.8, Material Purchase Records and Material Data Safety Sheet

The permittee will keep record of paint type, paint materials purchased, the paint MSDS, and the daily throughput at the site to demonstrate compliance with PC 3.6.

Permit Condition 3.11 is a standard language for filter system procedures.

This permit condition requires the permittee to develop a baghouse/filter system procedures document for the inspection and operation of the filter system. The document must be a permittee developed document independent of the manufacturer supplied operating manual but may include summaries of procedures included in the manufacturer supplied operating manual.

Baghouses/Filter systems are expected to be highly effective in controlling particulates from this process, provided they are operated and maintained according to manufacturer specifications and periodically inspected. If any visible emissions were present from the baghouse/filter system stack, the permittee must realize that a corrective action must be taken to fix the filter system and a description of the correction action must be taken. At a minimum the baghouse/filter system procedures document must include procedures to determine if the bags/filters are ruptured and procedures to determine if bags/filters are not appropriately secured in place.

Permit Condition 3.12, 40 CFR 63, Subpart HHHHHH – MACT Standards and Management Practices for Paint Stripping and Miscellaneous Surface Coating Operations, General Compliance Requirements

Requirements of Subpart HHHHHH are addressed in the MACT Applicability (40 CFR 63) section of this statement of basis.

Permit Condition 3.16, Incorporation of Federal Requirements by Reference

This is a standard permit condition to make it clear that the federal regulations take precedence over text presented in a DEQ-issued permit condition. Often times federal regulations are paraphrased in order to fit them into a permit, and there is a chance that the meaning of the regulation might be altered. In the event that this occurs, the text, as printed in the federal regulations, must be followed.

Abrasive Blast Booth, Welding, Grinding, and Heaters; Permit Section 4

Permit Conditions 4.1, 4.2, and Table 4.1

Permit Conditions 4.1 and 4.2 and Table 4.1 describe the welding, grinding, and machining operations at the facility. The control devices and emission points are described in Table 4.1.

Permit Condition 4.3

Permit Condition 4.3 includes welding wire and grinding wheels/grinding discs usage limit. The usage limits were proposed by the permittee in the application to insure that the PM PTE stays below the modeling thresholds to avoid modeling and that TAP emissions stay below all the ELs of IDAPA 58.01.01.585-586.

Permit Condition 4.3 bullet #3 allows Double L to use equivalent welding wires and grinding discs that generate same PM, VOC, TAP, and HAP emissions as or less than what are proposed and listed permit condition bullets #1 and 2 of the permit. Any welding wires with new TAP or HAP are not allowed under this permit condition.

Permit Conditions 4.3 bullet nos. 4 and 5 specifies that the door of the welding bay area at Double L must be closed during welding operation. This permit condition is included in the permit to control fugitive welding fume emissions from escaping from the welding bay area during operation. According to the PTC application of 12/3/2013, the welding emissions are captured, filtered and are re-circulated back into the welding bay. In addition, the application submitted by Double L indicates that the regular man door used at the welding bay area at the facility remains closed during welding operation.

Permit Conditions 4.4 and 4.5 limits the fuel type and annual natural gas consumption to not exceed 24.4 MMscf. The fuel consumption limit is to control the TAP emissions to below the EL in IDAPA 58.01.01.586. The limit was proposed by the permittee

Permit Conditions 4.6 and 4.7 are monitoring and recordkeeping requirements for welding wires, grinding wheels, grinding discs, and natural gas throughput monitoring to determine compliance with PCs 4.3, 4.4, and 4.5

General Provisions; Permit Section 5

General provisions are taken from current PTC template.

General Provision 5.1

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

General Provision 5.2

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

General Provision 5.3

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

General Provision 5.4

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

General Provision 5.5

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

General Provision 5.6

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

General Provision 5.7

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

General Provision 5.8

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

General Provision 5.9

The performance test report provision requires that the permittee report any performance test results to DEQ within 30 days of completion, in accordance with IDAPA 58.01.01.157.04-05.

General Provision 5.10

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

General Provision 5.11

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

General Provision 5.12

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

General Provision 5.13

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

General Provision 5.14

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

General Provision 5.15

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

General Provision 5.16

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

PUBLIC REVIEW

Public Comment Opportunity

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

APPENDIX A – EMISSIONS INVENTORIES

VOC Emissions

Manufacturer	Product No.	Product Name	Density lb/gal	VOC lb/gal
Sherwin-Williams	K119-SW	R7K119 Lacquer Thinner	6.64	5.25
Sherwin-Williams	F75RV2	SILICONE ALKYD DTM ENAMEL, Flame Red	8.09	3.96
Sherwin-Williams	E61A00705	KEM Flash Ultrabond Gray	11.78	3.32
Sherwin-Williams	F75BV2	SILICONE ALKYD DTM ENAMEL, Black Hi-Bld	8.09	3.96
Sherwin-Williams	F75WV1	SILICONE ALKYD DTM ENAMEL, White	9.96	3.72
Sherwin-Williams	F75VY0001	SILICONE ALKYD DTM ENAMEL-EQUI, Yellow	8.81	3.81
Sunnyside Corp	Solvent 100	Petroleum Solvent 100	7.28	7.28
Totals				

VOC
lb/hr 15.36
TPY 23.05

Spray Gun Capacity 0.31 gal/min
 Spray Gun Maximum Capacity = 0.31 gal/min * 60 min/hr = 18.6 gal/hr
 18.6 gal/hr * 5 hrs painting per day / 24 hrs per day = 3.89 gal/hr (daily average)
 Maximum Operating Hours = 3,000 per year
 Solvents and thinners are used intermittently are not used in the spray gun, they are used for thinning and clean-up. Therefore, the highest sprayed VOC that are used in the spray gun

PM10 / PM2.5 Emissions ¹

Manufacturer	Product No.	Product Name	Density lb/gal	Solids ³ lb/gal
Sherwin-Williams	K119-SW	R7K119 Lacquer Thinner	6.64	1.39
Sherwin-Williams	F75RV2	SILICONE ALKYD DTM ENAMEL, Flame Red	8.09	3.96
Sherwin-Williams	E61A00705	KEM Flash Ultrabond Gray	11.78	3.46
Sherwin-Williams	F75BV2	SILICONE ALKYD DTM ENAMEL, Black Hi-Bld	8.09	3.96
Sherwin-Williams	F75WV1	SILICONE ALKYD DTM ENAMEL, White	9.96	6.24
Sherwin-Williams	F75VY0001	SILICONE ALKYD DTM ENAMEL-EQUI, Yellow	8.81	5.00
Sunnyside Corp	Solvent 100	Petroleum Solvent 100	7.28	7.28
Totals				

Controlled PM10 - PM2.5
 lb/hr 0.11
 TPY 0.17
 Uncontrolled
 lb/hr 32.82
 TPY 49.24

¹ Assume PM₁₀ and PM_{2.5} emissions are equal
² Solid content not provided by manufacturer, therefore to calculate solids = solids lb/gal = weight of product (lb/gal) subtracted by the VOC lb/gal of product
³ Spray Booth Filter Control Efficiency - 99.03%
 Spray gun transfer efficiency = 65 %
 The highest solid content among paint products was used to calculate emissions

Manufacturer: Sunnyside Corp
 Product No.: Solvent 100
 Product Name: Petroleum Solvent 100

Weight/Gallon Product: 7.28 lb/gal
 Annual Usage: 20 gal/yr
 Annual Painting: 3000 hr/yr
 Daily Painting: 5 hr/day

For Solvent assumed gallons per year equal gallons per day
 20 gal/yr * 7.28 lb/gal * 6 % wt Cumene/100 /24 hr/day

Spray Gun Capacity: 0.31 gal/min
 Spray Gun Capacity: 18.6 gal/hr
 Max Gal/hr Avg: 3.875 gal/hr
 Maximum Painting: 5 hrs/day

Solvent Composition

CAS No.	TAP	% Weight	24-hr Avg EL (lb/hr)
1330-20-7	Cumene	6	3.64E-01
95-63-6	1,2,4 Trimethylbenzene ¹	22	1.33E+00
1330-20-7	Xylene	3	1.82E-01

¹ 1,2,4- Trimethylbenzene and 1,3,5-Trimethylbenzene considered mixed and individual Trimethylbenzene Isomers

Manufacturer Shenwin-Williams
 Product No. F75BV2
 Product Name SILICONE ALKYD DTM ENAMEL, Black Hi-Bid

Weight/Gallon Product 8.09 lb/gal
 Annual Usage 490 gal/yr
 Annual Painting 3000 hr/yr
 Daily Painting 5 hr/day
 Spray Gun Capacity 0.31 gal/min
 Spray Gun Capacity 18.6 gal/hr
 Max Gal/hr Avg 3.875 gal/hr
 Maximum Painting 5 hrs/day

That calculation assumption of gal/yr equals gal/day is unrealistic and assumes throughput scenarios that have instead of equating annual emissions to daily emissions, Double L is proposing to divide the annual emission r
 Under the assumption that daily emissions are equal to weekly emissions for each TAP, the maximum 24-hour
 $(490 \text{ gals/yr}) \times (8.09 \text{ lb/gal}) \times (2 \% \text{ Carbon Black}) = 79.28 \text{ lb/yr}$
 $(79.28 \text{ lb/yr}) / (52 \text{ weeks/yr}) = 1.52 \text{ lbs/wk}$
 Assume weekly emissions are equal to daily emissions
 $(1.52 \text{ lbs/day}) / 24 \text{ hrs/day} = 0.064 \text{ lb/hr}$

Solvent Composition

CAS No.	TAP	% Weight	24-hr Avg EL (lb/hr)
108-67-8	1,3,5-Trimethylbenzene ¹	2	6.35E-02
95-63-6	1,2,4-Trimethylbenzene ¹	7	2.22E-01
1333-86-4	Carbon Black	2	6.35E-02

¹ 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene considered mixed and individual Trimethylbenzene isomers

Manufacturer Sherwin-Williams
 Product No. F75WV1
 Product Name SILICONE ALKYD DTM ENAMEL, White

Weight/Gallon Product 9.96 lb/gal
 Annual Usage 960 gal/yr
 Annual Painting 3000 hr/yr
 Daily Painting 5 hr/day
 Spray Gun Capacity 0.31 gal/min
 Spray Gun Capacity 18.6 gal/hr
 Max Gal/hr Avg 3.875 gal/hr
 Maximum Painting 5 hrs/day

That calculation assumption of gal/yr equals gal/day is unrealistic and assumes throughput scenarios that have no
 Instead of equating annual emissions to daily emissions, Double L is proposing to divide the annual emission rate
 Under the assumption that daily emissions are equal to weekly emissions for each TAP, the maximum 24-hour emission rate
 $(960 \text{ gals/yr}) \times (9.96 \text{ lb/gal}) \times (6\% \text{ 1,2,4 Trimethylbenzene}) = 574 \text{ lb/yr}$
 $(574 \text{ lb/yr}) / (52 \text{ weeks/yr}) = 11.04 \text{ lbs/wk}$
 Assume weekly emissions are equal to daily emissions
 $(11.04 \text{ lbs/day}) / 24 \text{ hrs/day} = 0.46 \text{ lb/hr}$

Solvent Composition

CAS No.	TAP	% Weight	24-hr Avg EL (lb/hr)
108-67-8	1,3,5 Trimethylbenzene ¹	1	7.66E-02
95-63-6	1,2,4 Trimethylbenzene ¹	6	4.60E-01

¹ 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene considered mixed and individual Trimethylbenzene isomers

Manufacturer: Sherwin-Williams
 Product No.: F75YV0001
 Product Name: SILICONE ALKYD DTM ENAMEL-EQUI, Yellow

Weight/Gallon Product: 8.81 lb/gal
 Annual Usage: 1700 gal/yr
 Annual Painting: 3000 hr/yr
 Daily Painting: 5 hr/day
 Spray Gun Capacity: 0.31 gal/min
 Spray Gun Capacity: 18.6 gal/hr
 Max Gal/hr Avg: 3.875 gal/hr
 Maximum Painting: 5 hrs/day

That calculation assumption of gal/yr equals gal/day is unrealistic and assumes throughput scenarios that have never occurred. Instead of equating annual emissions to daily emissions, Double L is proposing to divide the annual emission rate for each TAP by the number of days in a year to get a daily emission rate. Under the assumption that daily emissions are equal to weekly emissions for each TAP, the maximum 24-hour emission rate is calculated as follows:
 $(1700 \text{ gals/yr}) \times (8.81 \text{ lb/gal}) \times (5\% \text{ 1,2,4-Trimethylbenzene}) = 749 \text{ lb/yr}$
 $(749 \text{ lb/yr}) / (52 \text{ weeks/yr}) = 14.40 \text{ lbs/wk}$
 Assume weekly emissions are equal to daily emissions
 $(14.40 \text{ lbs/day}) / 24 \text{ hrs/day} = 0.60 \text{ lb/hr}$

Solvent Composition

CAS No.	TAP	% Weight	24-hr Avg EL (lb/hr)
108-67-8	1,3,5-Trimethylbenzene ¹	1	1.20E-01
95-63-6	1,2,4-Trimethylbenzene ¹	5	6.00E-01
136-52-7	Cobalt 2-Ethylhexanoate	0.1	1.20E-02

¹ 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene considered mixed and individual Trimethylbenzene isomers

Manufacturer Sunnyside Corp
 Product No. K119-SW
 Product Name RTK119 Lacquer Thinner

Weight/Gallon Product 6.64 lb/gal
 Annual Usage 275 gal/yr
 Annual Painting 3000 hr/yr
 Daily Painting 5 hr/day

Spray Gun Capacity 0.31 gal/min
 Spray Gun Capacity 18.6 gal/hr
 Max Gal/hr Avg 3.875 gal/hr
 Maximum Painting 5 hrs/day

Under the assumption that daily emissions are equal to weekly emissions for each TAP, the maximum 24-hour emission rate
 $(275 \text{ gals/yr}) \times (6.64 \text{ lb/gal}) \times (5\% \text{ Xylene}) = 91.3 \text{ lb/yr}$
 $(91.3 \text{ lb/yr}) / (52 \text{ weeks/yr}) = 1.76 \text{ lbs/wk}$
 Assume weekly emissions are equal to daily emissions
 $(1.76 \text{ lbs/day}) / 24 \text{ hrs/day} = 0.07 \text{ lb/hr}$

Solvent Composition

CAS No.	TAP	% Weight	24-hr Avg El (lb/hr)
108-88-3	Toluene	33	4.83E-01
100-41-4	Ethylbenzene	0.8	1.17E-02
1330-20-7	Xylene	5	7.32E-02
67-56-1	Methanol	4	5.85E-02
67-64-1	Acetone	21	3.07E-01
112-87-2	2-Butoxyethyl Acetate ¹	1	1.46E-02

¹ Glycol Ethers

Manufacturer Sherwin-Williams
 Product No. E61A00705
 Product Name KEM Flash Ultrabond Gray

Weight/Gallon Product 11.78 lb/gal
 Annual Usage 340 gal/yr
 Annual Painting 3000 hr/yr
 Maximum Usage 1 gal/day

Spray Gun Capacity 0.31 gal/min
 Spray Gun Capacity 18.6 gal/hr
 Max Gal/hr Avg 0.775 gal/hr
 Maximum Priming 1 hrs/day

Solvent Composition

CAS No.	TAP	% Weight	24-hr Avg lb/hr
100-41-4	Ethylbenzene	0.1	9.44E-06
108-10-1	Methyl Isobutyl Ketone	10	9.44E-04
123-86-4	n-Butyl Acetate	16	1.51E-03
112926-00-8	Amorphous Precipitated Silica	1	9.44E-05
471-34-1	Calcium Carbonate	33	3.11E-03
NA	Zinc Compound	6	5.66E-04
1314-13-2	Zinc Oxide Fume	3	2.83E-04

KEM Flash Ultrabond Gray Primer is only used once per every 3 months. Emissions are conservatively estimated on primer usage of 1 hour per day

United Abrasive, Inc
Grinding Wheels ¹

Air Revolver CE	98	%
Maximum Grind Hours Per Day	10	hrs/day
Maximum Operating Hours	3000	hrs/yr
Max Grinding Wheel Per Hour	10	wheels/hr

Composition			24 hr	Annual
CAS No.	Ingredient	% Weight	lb/hr	Avg
1334-28-1	Aluminum Oxide	95	7.92E-03	
1314-23-4	Zirconium Compounds	80	6.67E-03	
1317-65-3	Calcium Carbonate	25	2.08E-03	
1332-58-7	Kaolin	5	4.17E-04	
14808-60-7	Crystalline Silica (Quartz)	1	8.33E-05	
1309-48-4	Magnesium Oxide	5	4.17E-04	
1309-37-1	Iron Oxide	5	4.17E-04	
NA	Fluoride Compounds	15	1.25E-03	
409-21-2	Silicon Carbide	95	7.92E-03	
1314-23-4	Zirconium Compounds ²	80	6.67E-03	
7778-19-9	Calcium Sulfate	5	4.17E-04	
7727-43-7	Barium Sulfate ³	15	1.25E-03	
1314-98-3	Zinc Sulfide ⁴	15	1.25E-03	
557-05-1	Zinc Stearate ⁴	10	8.33E-04	
NA	Urea Formaldehyde Resin ⁵	40		9.13E-06

The highest % TAP from grinding wheels was used to calculate emissions

Grinding Particulates are larger than PM₁₀ and PM_{2.5}. Grinding particles fall onto the floor after grinding and are than swept and disposed of by Double L and therefore are not considered a particulate emission

Grinding particles and fumes that do not fall onto the floor are captured and recirculated by the Clark air revolvers which have a 98 % filter efficiency

² Zirconium Oxide conservatively estimated as Zirconium Compounds

³ Conservatively estimated as Soluble BA

⁴ Conservatively estimated as Zinc Oxide Dust

⁵ Conservatively estimated as Formaldehyde

Prostar S6
 Electrode Type - ER-70S-6
 Gas Metal Arc Welding

Maximum Daily Welding Wire Usage	11	lbs/hr
Air Revolver Filter CE	98	%
PM10-PM2.5 Emission Factor ¹	5.2	1000 lbs/wire consumed
Maximum Weld Hours Per Day	10	hrs/day
Maximum Weld Hours Per Year	3000	hrs/yr
Maximum Annual Wire Usage	28072	lbs/yr

CAS No.	Ingredient	% Weight	lb/hr	TYP	TAP	
					24 hr/avg	annual avg
NA	PM10-PM2.5	NA	4.77E-04	7.15E-04	NA	NA
7440-47-3	Chromium	0.1	4.77E-07	7.15E-07	4.77E-07	NA
7440-50-8	Copper	1	4.77E-06	7.15E-06	4.77E-06	NA
7439-96-5	Manganese	10	4.77E-05	7.15E-05	4.77E-05	NA
7440-02-0	Nickel	0.1	1.31E-09	1.96E-09	NA	3.33E-07
7440-21-3	Silicon	5	2.38E-05	3.58E-05	2.38E-05	NA
7439-92-1	Lead ³	0.2	2.29E-05	3.43E-05	NA	NA
7439-89-6	Iron	60	2.86E-04	4.29E-04	2.86E-04	NA
7439-98-7	Molybdenum	1	4.77E-06	7.15E-06	4.77E-06	NA

¹ Emission factors from AP-42, Table 12.19.1 - PM¹⁰ emission factors for welding operations

² Welding Wire is a Solid Wire. Emissions Based on Fume Composition from MSDS Section 10

³ Not a TAP, Included in the overall HAP and criteria pollutant emissions

NATURAL GAS COMBUSTION, AP-42 SECTION 1.4 (7/98)
8.28 MMBtu/hr / 1,020 MMBtu/MMscf = 8.12E-03
24 hr/day
3,000 hr/yr

Operating Assumptions:

Criteria Air Pollutants	Emission Factor	Combustion Emissions		
		lb/MMscf	lb/hr	T/yr
PM10 24-hour	7.6	6.17E-02	9.25E-02	
PM2.5 24-hour	7.6	6.17E-02	---	
PM2.5 annual	7.6	6.17E-02	9.25E-02	
CO 3-hr, 8-hr	84	6.82E-01	1.02E+00	
NOx	100	8.12E-01	---	
NOx	100	---	1.22E+00	
SO2 1hr	0.6	4.87E-03	---	
SO2 24hr	0.6	4.87E-03	---	
SO2 annual	0.6	4.87E-03	7.31E-03	
VOC	5.5	4.46E-02	6.70E-02	
Lead rolling 3-month	0.0005	4.06E-06	6.09E-06	8.89E-03
		TOTAL	1.28E+00	T/yr

Hazardous Air Pollutants (HAPs) and Toxic Air Pollutants (TAPs)				Exceeds EL/ Modeling Required
	lb/MMscf	lb/hr	EL (lb/hr)	
PAH HAPs				
2-Methylnaphthalene	2.40E-05	6.67E-08	9.10E-05	No
3-Methylchloranthrene	1.80E-06	5.00E-09	2.50E-06	No
Acenaphthene	1.80E-06	5.00E-09	9.10E-05	No
Acenaphthylene	1.80E-06	5.00E-09	9.10E-05	No
Anthracene	2.40E-06	6.67E-09	9.10E-05	No
Benzo(a)anthracene	1.80E-06	5.00E-09	9.10E-05	See POM
Benzo(a)pyrene	1.20E-06	3.34E-09	2.00E-06	See POM
Benzo(b)fluoranthene	1.80E-06	5.00E-09		See POM
Benzo(g,h,i)perylene	1.20E-06	3.34E-09	9.10E-05	No
Benzo(k)fluoranthene	1.80E-06	5.00E-09		See POM
Chrysene	1.80E-06	5.00E-09		See POM
Dibenzo(a,h)anthracene	1.20E-06	3.34E-09		See POM
Dichlorobenzene	1.20E-03	3.34E-06	9.10E-05	No
Fluoranthene	3.00E-06	8.34E-09	9.10E-05	No
Fluorene	2.80E-06	7.78E-09	9.10E-05	No
Indeno(1,2,3-cd)pyrene	1.80E-06	5.00E-09		See POM
Naphthalene	6.10E-04	4.95E-06	3.33	No
Naphthalene (as carcinogen)	6.10E-04	1.70E-06	9.10E-05	No
Phenanathrene	1.70E-05	4.73E-08	9.10E-05	No
Pyrene	5.00E-06	1.39E-08	9.10E-05	No
Polycyclic Organic Matter (POM) 7-PAH Group		3.17E-08	2.00E-06	No
Non-PAH HAPs				
Benzene	2.10E-03	5.84E-06	8.00E-04	No
Formaldehyde	7.50E-02	2.09E-04	5.10E-04	No
Hexane	1.80E+00	1.46E-02	12	No
Toluene	3.40E-03	2.76E-05	25	No
Non-HAP Organic Compounds				
7,12-Dimethylbenz(a)anthracene	1.60E-05	1.30E-07		

Butane	2.10E+00	1.70E-02		
Ethane	3.10E+00	2.52E-02		
Pentane	2.60E+00	2.11E-02	118	No
Propane	1.60E+00	1.30E-02		
Metals (HAPs)				
Arsenic	2.00E-04	5.56E-07	1.50E-06	No
Barium	4.40E-03	3.57E-05	0.033	No
Beryllium	1.20E-05	3.34E-08	2.80E-05	No
Cadmium	1.10E-03	3.06E-06	3.70E-06	No
Chromium	1.40E-03	1.14E-05	0.033	No
Cobalt	8.40E-05	6.82E-07	0.0033	No
Copper	8.50E-04	6.90E-06	0.013	No
Manganese	3.80E-04	3.08E-06	0.067	No
Mercury	2.60E-04	2.11E-06	0.003	No
Molybdenum	1.10E-03	8.93E-06	0.333	No
Nickel	2.10E-03	5.84E-06	2.70E-05	No
Selenium	2.40E-05	1.95E-07	0.013	No
Vanadium	2.30E-03	1.87E-05	0.003	No
Zinc	2.90E-02	2.35E-04	0.667	No

Facility-Wide Criteria Pollutants

Emission Source	PM ₁₀		PM _{2.5}		SO ₂		NO _x		CO		VOC		Lead	
	lb/hr	TYR	lb/hr	TYR	lb/hr	TYR	lb/hr	TYR	lb/hr	TYR	lb/hr	TYR	lb/hr	TYR
Grinding - Insignificant	4.77E-04	7.15E-04	4.77E-04	7.15E-04										
Welding	0.11	0.17	0.11	0.17							15.36	23.05	2.29E-05	3.43E-05
Painting/Coating														
Natural Gas Combustion (6.28 MMBtu)	6.17E-02	9.28E-02	6.17E-02	9.28E-02	4.87E-03	7.31E-03	8.12E-01	1.22E+00	6.82E-01	1.02E+00	4.46E-02	6.70E-02	4.08E-06	6.08E-06
Post Project Totals	0.18	0.26	0.18	0.26	4.87E-03	7.31E-03	8.12E-01	1.22E+00	6.82E-01	1.02E+00	1.54E+01	2.31E+01	2.69E-05	4.04E-05

Below Regulatory Concern (BRC) IDAPA 58.01.01, Section 22.1.02

Criteria Pollutant	Significant Emission Rate (TYR)	Emission Rate Below Regulatory Concern		Facility PTE Tyr	PTE Greater Than BRC
		TYR	TYR		
PM10	15	1.5	1.5	0.26	NO
PM2.5	10	1.00	1.00	0.26	NO
CO	100	10	10	1.0	NO
NOx	40	4.00	4.00	1.22E+00	NO
SO2	40	4.00	4.00	7.31E-03	NO
Lead	0.6	0.06	0.06	4.04E-05	Yes ¹
Ozone (VOC)	40		4.00	23.1	Yes ¹

¹ Ozone modeling is conducted an air shed basis; photochemical modeling for VOC emissions is not required for individual minor sources

TAP Summary

TAP	lb/hr	EL (lb/hr)	Exceeds EL
Ethylbenzene	1.17E-02	2.90E+01	No
Cumene	3.64E-01	1.63E+01	No
Trimethylbenzenes ¹	2.96E+00	8.30E+00	No
Toluene	8.47E-01	2.50E+01	No
Xylene	2.55E-01	2.90E+01	No
Methanol	5.85E-02	1.73E+01	No
Acetone	3.07E-01	1.18E+02	No
2-Butoxyethyl Acetate	1.46E-02	8.33E+00	No
Carbon Black	8.17E-02	2.30E-01	No
Methyl Isobutyl Ketone	9.44E-04	1.37E+01	No
n-Butyl Acetate	1.51E-03	4.73E+01	No
Amorphous Precipitated Silica	9.44E-05	6.67E-01	No
Calcium Carbonate	5.20E-03	6.67E-01	No
Zinc Oxide Fume	2.83E-04	3.33E-01	No
Chromium	1.18E-05	3.30E-02	No
Copper	1.17E-05	1.30E-02	No
Manganese	5.08E-05	6.70E-02	No
Nickel	6.17E-06	2.70E-05	No
Silicon	2.38E-05	6.67E-01	No
Aluminum Oxide	7.92E-03	6.67E-01	No
Zirconium Compounds	6.67E-03	3.33E-01	No
Kaolin	4.17E-04	1.33E-01	No
Crystalline Silica (Quartz)	8.33E-05	6.70E-03	No
Magnesium Oxide	4.17E-04	6.67E-01	No
Iron Oxide	4.17E-04	3.33E-01	No
Fluoride Compounds	1.25E-03	1.67E-01	No
2-Methylnaphthalene	6.67E-08	9.10E-05	No
3-Methylchloranthrene	5.00E-09	2.50E-06	No
Acenaphthene	5.00E-09	9.10E-05	No
Acenaphthylene	5.00E-09	9.10E-05	No
Anthracene	6.67E-09	9.10E-05	No
Benzo(a)anthracene	5.00E-09	9.10E-05	See POM
Benzo(a)pyrene	3.34E-09	2.00E-06	See POM
Benzo(b)fluoranthene	5.00E-09		See POM
Benzo(g,h,i)perylene	3.34E-09	9.10E-05	No
Benzo(k)fluoranthene	5.00E-09		See POM
Chrysene	5.00E-09		See POM
Dibenzo(a,h)anthracene	3.34E-09		See POM
Dichlorobenzene	3.34E-06	9.10E-05	No
Fluoranthene	8.34E-09	9.10E-05	No

Fluorene	7.78E-09	9.10E-05	No
Indeno(1,2,3-cd)pyrene	5.00E-09		See POM
Naphthalene	4.95E-06	3.33	No
Naphthalene (as carcinogen)	1.70E-06	9.10E-05	No
Phenanathrene	4.73E-08	9.10E-05	No
Pyrene	1.39E-08	9.10E-05	No
Polycyclic Organic Matter (POM) 7-PAH Group	3.17E-08	2.00E-06	No
Benzene	5.84E-06	8.00E-04	No
Formaldehyde	2.18E-04	5.10E-04	No
Hexane	1.46E-02	12	No
7,12-Dimethylbenz(a)anthracene	1.30E-07		
Butane	1.70E-02		
Ethane	2.52E-02		
Pentane	2.11E-02	118	No
Propane	1.30E-02		
Arsenic	5.56E-07	1.50E-06	No
Barium	3.57E-05	0.033	No
Beryllium	3.34E-08	2.80E-05	No
Cadmium	3.06E-06	3.70E-06	No
Cobalt	6.82E-07	0.0033	No
Mercury	2.11E-06	0.003	No
Molybdenum	1.37E-05	0.333	No
Selenium	1.95E-07	0.013	No
Vanadium	1.87E-05	0.003	No
Zinc Metal	8.02E-04	0.667	No
Iron Salts	2.86E-04	0.067	No
Silicon Carbide	7.92E-03	0.667	No
Calcium Sulfate	4.17E-04	0.667	No
Barium (Soluble Compounds)	1.25E-03	0.033	No
Zinc Oxide Fume	2.37E-03	0.333	No

Pollutant	Lb/hr	TPY
Ethylbenzene	1.17E-02	1.76E-02
Cumene	3.64E-01	5.46E-01
Toluene	8.47E-01	1.27E+00
Xylene	2.55E-01	3.83E-01
Methanol	5.85E-02	8.78E-02
Methyl Isobutyl Ketone	9.44E-04	1.42E-03
Chromium	1.18E-05	1.78E-05
Arsenic	5.56E-07	8.34E-07
Manganese	5.08E-05	7.61E-05
Nickel	5.84E-06	8.76E-06
Lead	2.29E-05	3.43E-05
Beryllium	3.34E-08	5.00E-08
Cadmium	3.06E-06	4.59E-06
Chromium	1.18E-05	1.78E-05
Cobalt	6.82E-07	1.02E-06
Formaldehyde	2.18E-04	3.26E-04
Selenium	1.95E-07	2.92E-07
Mercury	2.11E-06	3.17E-06
Total HAP		2.31E+00
Toluene Highest Individual HAP		1.27E+00

Double L, Apache River, LLC GHG Emissions

Emission Factors

From California Climate Action Registry - General Reporting Protocol, Version 2.2, March 2007

CO2 emission factor for natural gas =	53.06 Kg CO2/MMBTU	Table C.5
CH4 emission factor for natural gas =	0.0059 Kg CO2/MMBTU	Table C.6
N2O emission factor for natural gas =	0.0001 Kg CO2/MMBTU	Table C.6

Double L's combustion sources =

8 Furnaces	0.9 MMBTU/hr
3 Heaters	0.6 MMBTU/hr
1 Drying Oven	5.13 MMBTU/hr
3 Air Handling	1.65 MMBTU/hr
Total	8.28 MMBTU/hr

Total CO2 Emissions =	439,3368 Kg CO2/hr =	0.4393368 metric tons/hr
Total CH4 Emissions =	0.048852 Kg CH4/hr =	4.8852E-05 metric tons/hr
total N2O Emissions =	0.000828 Kg N2O/hr =	8.28E-07 metric tons/hr

Global Warming Potential (GWP) factor are from Table III.6.1 of California Climate Action Registry, Version 2.2 March 2007

GWP factor for CH4 =	21
GWP factor for N2O =	310

Total CO2 equivalent = 0.44 metric tons/hr CO2 equivalent CO2e

Maximum operating hours/yr = 3000

Annual CO2e emissions = 1321.86 metric tons per year

metric ton = 2204.62 lbs.

Annual CO2e = 1457 Tons per year **Potential Emissions of CO2e**

APPENDIX B – SIC/NAICS APPLICABILITY TO 40 CFR 63 SUBPART XXXXX

<http://www.epa.gov/ttn/atw/area/arearules.html#mfg>

Note: While these questions and answers constitute the best available information at this time, EPA recommends that you consult your State or local air pollution control agency for any final determinations. State and local agencies may implement provisions that are more stringent than those contained in this NESHAP.

Chart 1 - SIC/NAICS Code Applicability Charts for Nine Metal Fabrication and Finishing Source Categories (40 CFR 63 subpart XXXXXX) ¹

	EPA Source Category	SIC Description	SIC Code	NAICS Code	NAICS Description
1	Electrical & Electronic Equipment Finishing Ops	Motors and Generators Manufacturing	3621	335312	Motor and Generator Manufacturing
		Electrical Machinery, Equipment, & Supplies, NEC	3699	335999	All Other Misc. Electrical Equipment & Component Mfg.
2	Fabricated Metal Products, NEC	Fabricated Metal Products, NEC	3499	332117	Powder Metallurgy Part Manufacturing
		Fabricated Metal Products, NEC	3499	332999	All Other Miscellaneous Fabricated Metal Product Mfg.
3	Fabricated Plate Work (Boiler Shops)	Fabricated Plate Work and Boiler Shops	3443	332313	Plate Work Manufacturing
		Fabricated Plate Work and Boiler Shops	3443	332410	Power Boiler and Heat Exchanger Manufacturing
		Fabricated Plate Work and Boiler Shops	3443	332420	Metal Tank (Heavy Gauge) Manufacturing
4	Fabricated Structural Metal Manufacturing	Fabricated Structural Metal Fabrication	3441	332312	Fabricated Structural Metal Manufacturing
5	Heating Equipment, except Electric	Heating Equipment, except electric	3433	333414	Heating Equipment (except Warm Air Furnaces) Mfg.
6	Industrial Machinery & Equipment: Finishing Ops	Construction Machinery Manufacturing	3531	333120	Construction Machinery Manufacturing
		Oil and Gas Field Machinery Equipment Mfg.	3533	333132	Oil and Gas Field Machinery and Equipment Mfg.
		Pumps and Pumping Equipment Mfg.	3561	333911	Pump and Pumping Equipment Manufacturing
7	Iron and Steel Forging	Iron and Steel Forging	3462	332111	Iron and Steel Forging
8	Primary Metals Products Manufacturing	Primary Metals Products Manufacturing	3399	332618	Other Fabricated Wire Product Manufacturing
9	Valves and Pipe Fittings, NEC	Valves and Pipe Fittings, NEC	3494	332919	Other Metal Valve and Pipe Fitting Manufacturing

¹ This chart can also be found on the EPA website at: <http://www.epa.gov/ttn/atw/area/arearules.html#metal>.

APPENDIX C – PROCESSING FEE

PTC Fee Calculation

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: Double L
Address: 307 Warm Springs Way
City: Heyburn
State: Idaho
Zip Code: 83336
Facility Contact: Ron Scott
Title: Human Resource Manager
AIRS No.: 067-00042

- 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	1.2	0	1.2
SO ₂	0.0	0	0.0
CO	0.7	0	0.7
PM10	0.2	0	0.2
VOC	23.2	0	23.2
TAPS/HAPS	0.0	0	0.0
Total:	25.3	0	25.3
Fee Due	\$5,000.00		

Comments:

