

Statement of Basis

**Permit to Construct No. P-2017.0017
Project ID 61925**

**Young's Heavy Equipment
Boise, Idaho**

Facility ID 001-00279

Final

CB

**August 9, 2017
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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.

FACILITY INFORMATION 3
Description 3
Permitting History 3
Application Scope 3
Application Chronology 3
TECHNICAL DISCUSSION 4
Reason for Re-issuance 4
Permit Conditions Review 4
Change in Emissions and Facility Classification 6
PUBLIC REVIEW 7
Public Comment Opportunity 7

FACILITY INFORMATION

Description

Young's Heavy Equipment (YHE) is a heavy equipment painting facility. Primary activities at the YHE facility are abrasive blasting for paint and dirt removal and repainting of heavy equipment, such as cranes and trucks for heavy equipment dealers and fleet vehicles such as gravel trucks for commercial clients.

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 Permit status is noted as active and in effect (A) or superseded (S).

July 10, 2017 P-2017.2017, Initial PTC for a heavy equipment refinishing facility, Permit status (A, but will become S upon issuance of this permit)

Application Scope

This is a revised permit to construct (PTC) permit reissuance to correct errors in the recently issued initial permit.

Application Chronology

July 19, 2017	DEQ received notification of errors in the recently issued PTC.
July 26, 2017	DEQ initiated a revision to the recently issued permit, using the correspondence as an application.
July 27, 2017	DEQ administratively completed the application.
July 27, 2017	DEQ made available the draft permit and statement of basis for applicant review.
August 9, 2017	DEQ issued the final permit and statement of basis.

TECHNICAL DISCUSSION

Reason for Re-issuance

Nine days after issuing Young's Heavy Equipment PTC P-2017.0017 the consultant contacted DEQ regarding two errors that he did not comment on during facility draft review:

- 1.) There is currently a filter requirement associated with the media blasting. This was due to a misunderstanding of the text in the application on page 3-6 about painting not occurring on the same day as blasting, leading me to falsely conclude that blasting is done in the same booth. Earlier, on the same page of the text, it clearly states that blasting is done outdoors.
- 2.) On application page 5-1 in the text, there a request for a "composite finish limit" for the top coat paints. This was understood to be an additional limit for all paints combined. But, the consultant stated that the limit was intended to be "The" daily limit for top coats combined, as the 15 gallons was derived from the worst case TAP content to represent all top coats. Checking the EI substantiates the consultant's statement.

Permit Conditions Review

This section describes the permit conditions for only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Abrasive blasting

The abrasive blasting media emissions are considered fugitive since all blasting is done outdoors and the emissions cannot reasonably pass through a stack or vent. Therefore, the filter requirements in the permit relating to the media blasting were removed:

Permit Condition 1.1

Changed Table 1.1 to "None" for the CLEMCO Media Blast control equipment.

Permit Condition 3.2

Changed Table 3.1 to "None" for the CLEMCO Media Blast control equipment and "Fugitive" for emission point.

Permit Condition 3.3

Removed permit condition, as the limit was previously enforceable by limiting amounts through the filter. As fugitives, the emissions no longer count toward PTE and are neither measureable nor enforceable.

Permit Condition 3.4 (now PC 3.3)

Removed MB1 stack from the opacity requirement because the stack does not exist.

Permit Condition 3.7 (now PC 3.6)

Removed annual abrasive media usage limit and added abrasive blasting hours limit and type of media allowed. This follows the development of the emissions estimates presented in the application. Media type is limited to crushed glass or equivalent and hours are limited to 12 hours of blasting summed for all blasting guns and compressors.

Permit Condition 3.8 (now PC 3.7)

This was changed from monthly monitoring to daily monitoring and recording. Blasting hours for each media blasting gun that are used during any day blasting is done shall be totaled and that total shall not exceed 12 hours for any 24 hour period.

Permit Condition 3.9

This permit condition was removed because the filter is not present on the blasting system.

Permit Condition 3.10 (now PC 3.8)

The current O&M manual was amended to include Best Management Practices for outdoor abrasive blasting.

Composite Finish Limit

For the composite finish limit footnotes were added to the usage limit tables to denote what paints to include in the composite finish total for the day, and then, limits for the individual top coats were removed. This is supported in the application emissions inventory as all top coats worst case TAP were consolidated in the usage of the Composite Finish Paint.

Permit Condition 4.5

A footnote was added to Table 4.3 to denote what paints to include in the composite finish total for the day and the individual top coats were removed. The final table appearing as:

Table 4.3 Approved Daily Usage Scenario

Coating Material	Daily Usage Limit (gal/day) ^(a)
Kem Flash 500 Primer Gray	15.00
Kem Flash 500 Primer White	15.00
Polyurethane LIC40	15.00
Urethane Activator LK40	15.00
Xylene thinner for Paint	5.00
Valspar recycled lacquer thinner for primer Like: Uni-Solvent Reducer/Thinner 171/172/173	5.00
Composite Finish Paint ^(b)	15.00

a) Gallons per calendar day

b) Composite Finish Paint shall include the summation of daily usage for High Gloss Enamel White Base F75WC7, Raven Black BC14, Safety Yellow B54Y37, Equipment Yellow F75YC19 (John Deere yellow), Gray F75WC7, Safety Red B54 R38, and F75CC2 Yellow (CAT yellow).

Permit Condition 4.6

Top coats in the annual paint inventory were combined in Table 4.4 in the same manner as Permit Condition 4.5.

Change in Emissions and Facility Classification

The particulate matter emissions from abrasive blasting were previously included in the emission as passing through the paint booth filter. However, since the emissions don't pass through the filter and are considered fugitive, they have been removed from the post project emissions for this re-issuance, as demonstrated in Tables 1-3 below, resulting in a reduction of emissions:

Table 1 PRE 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)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)
Heater 1	0.001	0.002	0.00	0.00	0.012	0.035	0.003	0.01	0.00	0.001	45.7
Heater 2	0.001	0.002	0.00	0.00	0.012	0.036	0.003	0.01	0.00	0.001	46.6
Solvent Recycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.005	0.016	0.00
Abrasive Blasting	0.008	0.437	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Compressor	0.092	0.203	0.009	0.019	1.312	2.886	0.283	0.622	0.104	0.229	106.9
Paint Booth	0.185	0.554	0.00	0.00	0.00	0.00	0.00	0.00	14.68	44.05	0.00
Pre Project Totals	0.29	1.20	0.01	0.02	1.34	2.96	0.29	0.64	14.79	44.30	199

Table 2 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)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	lb/hr ^(a)	T/yr ^(b)	T/yr ^(b)
Heater 1	0.001	0.002	0.00	0.00	0.012	0.035	0.003	0.01	0.00	0.001	45.7
Heater 2	0.001	0.002	0.00	0.00	0.012	0.036	0.003	0.01	0.00	0.001	46.6
Solvent Recycle	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.005	0.016	0.00
Compressor	0.092	0.203	0.009	0.019	1.312	2.886	0.283	0.622	0.104	0.229	106.9
Paint Booth	0.185	0.554	0.00	0.00	0.00	0.00	0.00	0.00	14.68	44.05	0.00
Post Project Totals	0.28	0.76	0.01	0.02	1.34	2.96	0.29	0.64	14.79	44.30	199

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 3 CHANGES IN 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	T/yr
Pre-Project Potential to Emit	0.29	1.20	0.01	0.02	1.34	2.96	0.29	0.64	14.79	44.30	199
Post Project Potential to Emit	0.28	0.76	0.01	0.02	1.34	2.96	0.29	0.64	14.79	44.30	199
Changes in Potential to Emit	-0.01	-0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

This reduction in particulate matter changes the classification for that pollutant, but the facility still remains a “Synthetic Minor” source for VOC as shown in Table 4 below:

Table 4 REGULATED AIR POLLUTANT FACILITY CLASSIFICATION

Pollutant	Uncontrolled PTE (T/yr)	Permitted PTE (T/yr)	Major Source Thresholds (T/yr)	AIRS/AFS Classification
PM	29.35	0.76	100	B
PM ₁₀	29.35	0.76	100	B
PM _{2.5}	29.35	0.76	100	B
SO ₂	0.15	0.0	100	B
NO _x	23.2	2.96	100	B
CO	5.0	0.64	100	B
VOC	195	44.3	100	SM
HAP (single)	7.65	7.65	10	B
HAP (total)	17.5	17.5	25	B
Pb	0.00	0.00	100	B

PUBLIC REVIEW

Public Comment Opportunity

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04.