PTI # 01-6812
Modern Welding

Special Terms and Conditions

I.Operational Restrictions

A. The maximum resin coating usage for emissions unit K001 and P001 shall not exceed 20,500 gallons per rolling 12 month period.

B. The maximum non resin coating usage for emissions unit K001 and P001 shall not exceed 18,000 gallons per rolling 12 month period.

C. The maximum clean up material usage for emissions unit K001 and P001 shall not exceed 770 gallons per rolling 12 month period.

D. The VOC content of each non resin coating material employed in emissions units K001 shall not exceed 3.5 pounds of VOC per gallon of coating, excluding water and exempt solvents, as calculated on a daily volume weighted average basis.

E. The VOC content of each clean up material employed in emissions units K001 shall not exceed 7.26 pounds of VOC per gallon of clean up material.

F. The maximum VOC emission rate from any resin coating material employed in emissions units K001 shall not exceed .87 pounds of VOC per gallon of resin coating.

G. The total HAP emissions for emissions units K001 and P001 combined shall not exceed the 24 Tons HAP per year based upon a rolling 12 month summation.

H. The total annual emissions of any single HAP for emissions units K001 and P001 combined shall not exceed the 9.0 Tons per year based upon a rolling 12 month summation.

I. The totalVOC emissions for emissions units K001 and P001 combined shall not exceed the 40.7 Tons VOC per year based upon a rolling 12 month summation.

II. Additional terms and conditions

A. The potential emissions [as defined by OAC 3745-77-01(BB)] of Hazardous Air Pollutants (HAPs) as identified in Section 112(b) of Title III of the Clean Air Act from this facility shall be less than 10 TPY for any single HAP and 25 TPY for any combination of HAPs, based upon rolling, 12-month summations.

B. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the following emission levels specified in the following table for emissions units K001 and P001

Month(s)	Maximum Allowable Emissions of any single HAP(Tons)
0-6	4.5
1-7	5.25
1-8	6.0
1-9	6.75
1-10	7.5
1-11	8.25
1-12	9.0

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emissions limitation shall be based upon a rolling, 12 month summation of emissions from K001 and P001.

C. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the following emission levels specified in the following table for emissions units K001 and P001 combined.

Month(s)	Maximum Allowable Emissions of Total HAPs(Tons)
0-6	12.0
1-7	14.0
1-8	16.0
1-9	18.0
1-10	20.0
1-11	22.0
1-12	24.0

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emissions limitation shall be based upon a rolling, 12 month summation of emissions from K001 and P001.

D. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the following emission levels specified in the following table for emissions units K001 and P001 combined.

Month(s)	Maximum Allowable Emissions of VOCs(Tons)
0-6	20.4
1-7	23.8
1-8	27.2
1-9	30.6
1-10	34.0
1-11	37.4
1-12	40.7

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual emissions limitation shall be based upon a rolling, 12 month summation of emissions from K001 and P001.

III. Ohio EPA Air Toxics Policy

A. This permit allows the use of the coatings and cleanup materials specified by the permittee in the application for this PTI. In conjunction with the best available technology requirements of OAC rule 3745-31-05, the hourly VOC] emission limitation(s) specified in this permit was (were) established in accordance with the Ohio EPA's "Air Toxics Policy" and is (are) based on both the coating and cleanup material formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for each pollutant based on the ISCST3 model and a comparison of the predicted 1 hour maximum ground-level concentration to the MAGLC. The following summarizes the results of the modeling for each pollutant:

Pollutant: Toluene

TLV (mg/m3): 188
Maximum Hourly Emission Rate (lbs/hr): .93
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 146
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 4476

Pollutant: Ethylbenzene

TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): .95

Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3):149
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3): 10,333

Pollutant: xylene

TLV (mg/m3): 434
Maximum Hourly Emission Rate (lbs/hr): 3.62
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 570
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):10333
Pollutant: styrene

TLV (mg/m3):213
Maximum Hourly Emission Rate (lbs/hr): 16.35
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 2571
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):5071

Pollutant: methyl ethyl ketone

TLV (mg/m3): 590
Maximum Hourly Emission Rate (lbs/hr): 3.5
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 550
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):14048

Pollutant: methanol

TLV (mg/m3): 262
Maximum Hourly Emission Rate (lbs/hr): .02
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 3
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):6,238

Pollutant: methyl isobutyl ketone

TLV (mg/m3): 205
Maximum Hourly Emission Rate (lbs/hr): 1.63
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 257
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):4881

Pollutant: glycol ethers

TLV (mg/m3): 121
Maximum Hourly Emission Rate (lbs/hr): 2.04
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 321
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):2881

Pollutant: benzene

TLV (mg/m3): 32
Maximum Hourly Emission Rate (lbs/hr): .02
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 3
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):762

Pollutant: naphthalene

TLV (mg/m3): 52
Maximum Hourly Emission Rate (lbs/hr): 1.13
Predicted 1 Hour Maximum Ground-Level Concentration at the Fenceline (ug/m3): 178
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):1,238

Note: The above stated lb/hr emission rates do not constitute a limit for emission units K001 and P001 provided that compliance with the Air Toxics Policy is maintained.

B. Any of the following changes may be deemed a “modification” to the emissions unit and, as such, prior notification to and approval from the Ohio EPA Central District Office is required, including the possible issuance of modifications to this permit:

(a)Any changes in the composition of the coatings or cleanup materials, or the use of new coatings or cleanup materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled “American Conference of Governmental Industrial Hygienists (ACGIH),” than the lowest TLV value specified in the above table.

(b)Any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table.

(c)Any change to the emissions unit or its method of operation that would either

require an increase in the emission limitation(s) established by this permit or would otherwise be considered a “modification” as defined in OAC rule 3745-31-01.

(d)Any change in the composition of the coatings or cleanup materials, or use of new coatings or cleanup materials, that would result in the emission of any of the exempted organic compounds included in the definition of “VOC” [OAC rule 3745-21-01(B)(6)].

(e)Any change in the composition of the coatings or cleanup materials, or use of new coatings or cleanup materials, that would result in an increase in emissions of any “ Hazardous Air Pollutants” (HAPS) as defined in OAC rule 3745-77-01(V).

C. The permittee shall notify the Ohio EPA Central District Office in writing and at least 10 days prior to the use of any coating(resin or non resin) not identified in the PTI application or in a previous notification made pursuant to this term and condition. This notification shall include a demonstration of compliance with the Ohio EPA Air Toxics Policy.

IV. Record Keeping

A. The permittee shall maintain the following daily records for each surface coating employed in emission unit K001:

(a)The name and identification number of each coating, as applied.

(b)The VOC content (excluding water and exempt solvents) and the number of gallons (excluding water and exempt solvents) of each coating, as applied.

(c)The daily volume-weighted average VOC content of all coatings, as applied, calculated in accordance with the equation specified in paragraph (B)(9) of OAC rule 3745-21-10 for $C_{VOC,2}$.

B. The permittee shall collect and record the following information on a monthly basis for the purpose of determining annual VOC emissions:

(a)The name and identification of each cleanup material employed.

(b)The number of gallons of each cleanup material employed.

(c)The VOC content of each cleanup material, in pounds per gallon.

(d)The total VOC emissions from all coatings and cleanup materials, in pounds or tons .

C. The permittee shall collect and record the following information for each day for emission unit P001:

(a)The company identification for each coating and photochemically reactive cleanup material employed.

(b)The number of gallons of each coating and photochemically reactive cleanup material employed.

(c)The organic compound content of each coating and photochemically reactive cleanup material, in pounds per gallon.

(d)For each day during which a photochemically reactive material is employed, the total organic compound emission rate for all coatings and photochemically reactive cleanup materials, in pounds per day.

(e)For each day during which a photochemically reactive material is employed, the total number of hours the emissions unit was in operation.

(f)For each day during which a photochemically reactive material is employed, the average hourly organic compound emission rate for all coatings and photochemically reactive cleanup materials, i.e., (d)/(e), in pounds per hour (average).

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the definitions of “photochemically reactive” and “nonphotochemically reactive” are based upon OAC rule 3745-21-01(C)(5).]

D. The permittee shall collect and record the following information each month for each coating(resin and non resin) and cleanup material employed in emission units K001 and P001:

a. the name and identification number of each coating, as applied;
b. the individual Hazardous Air Pollutant (HAP) content for each HAP of each coating, in pounds of individual HAP per pound of coating, as applied;
c. the total combined HAP content of each coating, in pounds of combined HAPs per pound of coating, as applied (sum all the individual HAP contents from (b));
d. the number of pounds of each coating employed;
e. the name and identification of each cleanup material employed;
f. the individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per pound of cleanup material, as applied;
g. the total combined HAP content of each cleanup material, in pounds of combined HAPs per pound of cleanup material, as applied (sum all the individual HAP contents from (f));
h. the number of pounds of each cleanup material employed. This value shall be calculated by subtracting the amount of recovered clean up material from the amount of clean up material employed.

i. the total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month (for each HAP, the sum of (b) times (d) for all of the coatings plus the sum of (f) times (h) for all of the cleanup materials);
j. the total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month (the sum of (c) times (d) for all of the coatings plus the sum of (g) times (h) for all of the cleanup materials);
k. the rolling, 12-month summation of individual HAP emissions from all coatings and cleanup materials employed, in pounds or tons per year (the sum of (i) for the previous 12 calendar months); and
l. the rolling, 12-month summation of the total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per year (the sum of (j) for the previous 12 calendar months).
m. number of hours of operation
n. the rolling, 12-month volatile organic compound emissions summation for all coatings all cleanup materials, in pounds or tons per year.

E. During the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative organic compound, single HAP, and Total HAP emissions , in tons , for each calendar month. Note: the purpose of this term is to demonstrate compliance with the emission limitations specified in section II(A-D) of this permit.

F. The permittee shall collect and record the following information for the purpose of determining annual organic compound emissions from emission unit P001::

(a)The company identification for each nonphotochemically reactive cleanup material employed.

(b)The number of gallons of each nonphotochemically reactive cleanup material employed.

(c)The organic compound content of each nonphotochemically reactive cleanup material, in pounds per gallon.

(d)The total organic compound emission rate for all nonphotochemically reactive cleanup materials, in pounds.

(e)For all days during which photochemically reactive materials are not employed, the total organic compound emission rate for all coatings, in pounds.

V. Reporting

A. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitations and, for the first 12

calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable emission levels. Additionally, the permittee shall submit quarterly deviation reports which summarize any exceedance of the following: VOC content limits, VOC emission limits, coating usage limits (for all coatings and all cleanup materials employed in emission units K001and P001), and the individual and combined HAP emission limits. If no exceedances occurred during the calendar quarter, then the report shall state that there were no exceedances.

These reports shall be submitted by February 15, May 15, August 15, and November 15 of each year and cover the previous calendar quarter (October through December, January through March, April through June, and July through September, respectively).

B. The permittee shall submit annual reports which summarize the following:

a. the total VOC emissions from all coatings and cleanup materials employed in emission units K001 and P001, combined and individually;

b. the total HAP emissions for each individual HAP and for all combined HAPS from emission units K001 and P001, combined; and

The permittee shall submit annual reports which identify any exceedances of the coating usage limitations, as well as the corrective actions that were taken to achieve compliance.

The annual reports required by this permit shall be submitted by January 31 of each year.

C. The permittee shall notify the Ohio EPA Central District Office in writing of any daily record showing that the daily volume-weighted average VOC content exceeds the applicable limitation. The notification shall include a copy of such record and shall be sent to the Ohio EPA Central District Office within 45 days after the exceedance occurs.

The permittee shall also submit annual reports which specify the total VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Compliance determination

A. U.S. EPA Method 24 shall be used to determine the VOC and HAP contents for coatings and cleanup materials. If, pursuant to section 4.3 of Method 24, 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 cannot be used for a

particular coating or cleanup material, the owner or operator shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or cleanup material to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24. Note: Method 24 data may be supplied by the coating manufacturer.

B. Compliance with the VOC emission limits in this permit shall be demonstrated by the recordkeeping requirements in section IV of these terms and conditions.

C. Compliance with the usage limits in this permit shall be determined by the recordkeeping requirements in section IV of these terms and conditions.

D. Compliance with the HAP emission limits in this permit shall be demonstrated by the recordkeeping requirements in section IV of these terms and conditions.

E. Compliance with the applicable emission limits in this permit for P001 shall be calculated using an emission factor of .02 lb VOC emitted/lb VOC mixed.

F. Compliance with the .87 pound VOC/pound of styrene emission limit in this permit for each resin coating employed by K001 shall be calculated using an emission factor of .2 lb Styrene emitted/lb Styrene contained in the resin.

G. Compliance with the PM emission limitations in this permit is based upon the actual worst case emission rate for PM, which is based upon the following equation:

E= maximum coating solids usage rate(in pounds per hour) X (1-TE) X (1-CE)

where TE = transfer efficiency(ratio of the amount of coating solids deposited on the coated part to the amount of coating solids used, 40% for purposes of this permit)

and CE= Control efficiency for the particulate filters, 98% for purposes of this permit.

H. OAC rule 3745-17-03(B)(1) shall be used to determine compliance with the opacity limit specified in this permit(Visible particulate emissions shall not exceed twenty per cent opacity, as a six-minute average, except as provided by rule.).