

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- RENEWAL

PERMITTEE

Tech Finishers, Incorporated  
Attn: Charles Coxé  
208 Fay Avenue  
Addison, Illinois 60101

Application No.: 93030001

I.D. No.: 043005AJX

Applicant's Designation:

Date Received: April 4, 2002

Subject: Coating Plant

Date Issued:

Expiration Date:

Location: 208 Fay Avenue and 136 Commercial Avenue, Addison

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of six parts washers with six dry-off ovens, fifteen liquid paint booths controlled by filters with six paint cure ovens, twelve powder coating booths controlled by three filters, two burn-off ovens and solvent clean-up operations pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the two above-referenced locations constituting single source to less than major source thresholds (i.e., 25 tons/yr for volatile organic material (VOM), 10 tons per year of any single Hazardous Air Pollutant (HAP) and 25 tons per year of any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.
  - b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
  - c. This permit supersedes all operating permit(s) for this location.
2. Pursuant to 35 Ill. Adm. Code 218.205(b)(1), the daily-weighted average VOM content shall not exceed the coating VOM content limit corresponding to 218.204(j)(4)(B) of 2.8 pounds of VOM per gallon of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator.
  3. Emissions and operation of each of the 4 batch paint booths (B2, B3, B4 and B5) controlled by an over spray collection filter (APC-1) shall not exceed the following limits:

<u>Coating Usage (Gallons/Hr)</u>	<u>Maximum VOM Content (Lb/Gallon)</u>	<u>Maximum Operating Hours (Hr/Yr)</u>	<u>VOM Emissions (Lb/Hr) (Ton/Yr)</u>	
0.75 Each Booth	2.8	2,600	2.1	2.73

These limits are based on maximum coating usage, maximum VOM content and maximum operating hours per year. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Combined operations and emissions from the four batch paint booths (B2, B3, B4 and B5) controlled by over spray collection filters and the fifteen paint booths (E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W6, DL1, DL2, DL5, and DL6) controlled by over spray collection filters shall not exceed the following limits:

3,833.3 pounds VOM per month not to exceed 23.0 tons VOM per year

- c. Compliance with the monthly limit shall be demonstrated by the following calculations:

$$T_e = \sum_{j=1}^m \sum_{i=1}^n (A_i B_i)_j$$

Where:

$T_e$  = Total VOM emissions from coating lines each month (lbs/month);

$m$  = Number of coating lines at the source subject;

$j$  = Subscript denoting an individual coating line;

$n$  = Number of different coatings as applied each month on each coating line;

$i$  = Subscript denoting an individual coating;

$A_i$  = Weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each month on each coating line in units of lbs VOM/gal; and

$B_i$  = Volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each month on each coating line in units of gal/day. The instrument or method by which the owner or operator accurately measured or calculated the volume of each coating as applied on each coating line each day shall be described in a certification to the Illinois EPA.

- d. Compliance with the annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.
  - e. Compliance with the annual limits immediately following the issuance date of this permit shall be determined using available data from the previous months.
4. Emissions and operation of silk screening operation shall not exceed the following limits:

	Maximum	
Coating Usage	VOM Content	VOM Emissions

<u>(Gallons/Month)</u>	<u>(Lb/Gallon)</u>	<u>(Lb/Month)</u>	<u>(Ton/Year)</u>
1	5.5	5.5	0.033

These limits are based on maximum material usage and maximum VOM content. Compliance with annual limits shall be determined from a running total of 12 months of data.

- 5a. Emissions and operation of the solvent clean-up operations at 136 Commercial Avenue location shall not exceed the following limits:

166.7 lbs of VOM emissions per month not to exceed 1 ton of VOM emissions per year.

- b. Combined emissions and operation of solvent clean-up operations at the 136 Commercial Avenue location and the 208 Fay Avenue location shall not exceed the following limits:

166.7 lbs of VOM emissions per month not to exceed 1 ton of VOM emissions per year.

- c. Emissions in Conditions 5a and 5b above shall be calculated by the following formula:

$$U = V - (W \times P)$$

Where:

U = Solvent emissions for compliance determinations (lb).

V = Virgin Solvent<sup>A</sup> added to the equipment (lb), as determined by daily addition log sheets.

W = Waste Solvent<sup>B</sup> removed from the equipment and sent off-site for reclamation or disposal, as determined by monthly manifests (lb).

P = Percent concentration of VOM and HAPs in waste, as determined by analysis/testing<sup>C</sup> (percent by weight).

<sup>A</sup> For purposes of this permit, virgin solvent is defined as unused lubricant.

<sup>B</sup> For purposes of this permit, waste solvent is defined as used lubricant.

<sup>C</sup> The percent concentration of VOM and HAPs in waste (P) shall be determined in accordance with USEPA Test Methods for Evaluation of Solid Waste, Physical/Chemical Methods (SW-846), Test Method 8260.

- d. Compliance with the annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.
- e. Compliance with the annual limits immediately following the issuance date of this permit shall be determined using available data from the previous months.
- 6a. Non-VOM containing material shall be the only material used in or processed by the 6 part washers (A/B Line, C/D Line, EW1, EW2, WW1, and WW2).

- b. Non-VOM containing material shall be the only material used in or processed by batch powder coating booth (B1) controlled by a bag/cartridge filter and the part washer.

- 7. This permit is based upon negligible emissions of volatile organic material from all twelve powder paint booths (AL-1, AL-2, AL-3, AL-4, BL-1, BL-2, CL-1, CL-2, CL-3, CL-4, DL-3, and DL-4). For this purpose emissions from all twelve powder paint booths shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr.
- 8a. Total combined usage and emissions of any single HAP<sup>1</sup> from all emission units and activities shall not exceed the following limits:

<u>Single HAP<sup>1</sup> Usage (Tons/Yr)</u>	<u>Single HAP<sup>1</sup> Emissions (Tons/Yr)</u>
9.9	9.9

<sup>1</sup> Single HAP means any individual HAP listed in Section 112(b) of the Clean Air Act as amended in 1990 (e.g., xylene, toluene).

These limits are based on a material balance and assume 100% of the HAPs used are emitted.

- b. Note that there is a "nested" limit on the emissions of the combination of HAPs as a result of the limit on VOM emissions. The HAPs emitted at this source have been determined to be VOMs and therefore limiting VOM emissions also limits HAP emissions.
  - c. The emissions of hazardous air pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a Clean Air Act Permit Program permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAPs from this source not triggering the requirement to obtain a Clean Air Act Permit Program permit from the Illinois EPA.
- 9. The Permittee shall collect and record all of the following:
    - a. For each day for each coating line:
      - i. The name and identification number of each coating as applied on each coating line.
      - ii. The weight of VOM per volume and the volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.
      - iii. The daily-weighted average VOM content of all coatings as applied on each coating line as defined in 35 Ill. Adm. Code 218.104.

- b. For each month and year:
  - i. A list of HAPs present and the weight percent content of each HAP for each coating and any other material used containing any HAPs.
  - ii. Usage and emissions of each HAP (lbs/month and tons/year).
  - iii. The usage and emissions of VOM from the coating lines (lbs/month and ton/yr) for each location and the combined total from the two locations.
  - iv. The clean-up solvent usage and emissions (lbs/month and tons/yr) for each location and the combined total from the two locations.
  - v. Name, identification number and VOM content of each VOM containing material used at the silk screening operation.
  - vi. The usage and emissions of VOM containing material used in the silk screen operation (lbs/month and tons/yr).
- 10. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 11. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, a description of the exceedances or violation, and efforts to reduce emissions and future occurrences.
- 12. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
1340 North Ninth Street  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
 Division of Air Pollution Control  
 Eisenhower Tower  
 1701 South First Avenue  
 Maywood, Illinois 60153

- 13a. Natural gas shall be the only fuel fired in the combustion units.
- b. Total natural gas usage, nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) emissions from the combustion units shall not exceed the following limits:

Natural Gas Usage		NO <sub>x</sub> Emissions		CO Emissions	
(Therms/Month)	(Therms/Yr)	(Lb/Mo)	(Tons/Yr)	(Lb/Mo)	(Tons/Yr)
142,012	1,704,144	1,420	8.52	568.3	3.41

These limits are based upon the maximum total natural gas usage and standard emission factors (100 lb NO<sub>x</sub>/million scf and 40 lb CO/million scf of natural gas burned). Conversion factors used were 1,000 Btu/scf, 1 Therm/100,000 Btu, and 2000 lb/ton.

- c. Compliance with annual limits shall be determined on a monthly basis from the sum of the data from the previous month plus the preceding 11 months (i.e., a 12 month running total).
- 14a. Pursuant to 35 Ill. Adm. Code 212.321 an allowable emission rate from each of the two burn-off ovens (HBO-1 and HBO-2) shall not exceed 0.55 lb of PM/hr and 2.41 tons of PM/year based on a maximum process weight rate of 0.05 tons/hr for each of the burn-off ovens.
- b. Material insulated with polyvinyl chloride or asbestos, or scrap containing the fuming metals tin, zinc, or lead shall not be charged to this oven.
- c. The afterburner shall be heated to an operating temperature of 1400°F before charging and this temperature shall be maintained during operation.
- d. The oven shall be equipped with an afterburner temperature indicator.
15. This permit is based upon negligible emissions of particulate matter from the all five part washers (EW-1, EW-2, WW-1, WW-2 and A/B Line), all four dry-off ovens (EDO, WPO, DO-A and DO-B), all four cure ovens (ECO, WCO, CO-A and CO-B), all twelve powder paint booths (WW1, WW2, WW3, WW4, WW5, WW6, AL-1, AL-2, AL-3, AL-4, BL-1 and BL-2), all three batch cure ovens (BCO-1, BCO-2 and BCO-3), all ten paint booth coating lines (B2, B3, B4, B5, E1, E2, E3, E4, E5 and E6), silk screen operation, both silk screen ovens (SSO-1 and SSO-2), batch paint booth (B1), one part washer (C/D Line), two dry-off ovens (DO-C and DO-D), two cure ovens (CO-C and CO-D), six powder booths (CL-1, CL-2, CL-3, CL-4, DL-3 and DL-4), four paint booths (DL-1, DL-2, DL-5 and DL-6),

and a Spindle Conveyor System (SCS). For this purpose emissions from each source shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 ton/yr from each emission unit.

16. The Permittee shall maintain records of the following items boiler:
  - a. Total natural gas usage (therms/month and therms/yr).
  - b. Maximum process weight rate of each burn-off oven (ton/hr).
17. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
  - a. VOM containing material usage (ton/yr).
  - b. VOM content of each VOM containing material (wt. % VOM).
  - c. HAP containing material usage (ton/yr).
  - d. HAP content of each HAP containing material (wt. % HAP).
  - e. Total natural gas usage (therms/yr).
  - f. Maximum process weight rate of each burn-off oven (ton/hr).
  - g. Emissions of VOM and each HAPs (tons/year).

If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

18. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source, pursuant to 35 Ill. Adm. Code 212.301.
19. In the event that the operation of this source results in an odor nuisance the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

Please note that this permit is revised to include the equipment described in construction permit 98090080. Also note that the following equipment is removed:

- 5 - Powder Coating Booth (W1, W2, W3, W4 and W6) with Bag/Cartridge Filters
- 1 - Powder Recovery Booth (W5) Controlled by a Cyclone and Down Draft Filters

If you have any questions on this permit, please call John Blazis at 217/782-2113.

Donald E. Sutton, P. E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:JPB:jar

cc: Illinois EPA, FOS Region 1  
Illinois EPA, Compliance Section  
USEPA

Attachment A

This attachment provides a summary of the maximum emission from the facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from the plant. This is a maximum VOM emission from the coating lines, clean-up operations, and other units of 24.473 tons/yr. The resulting maximum emissions are below the threshold levels (e.g., 25 tons/yr for VOM) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program(CAAPP). Actual emissions from this source will be less than predicted in this summary to the extent that VOM emissions are less than that required in this permit.

1. Emissions from the four batch paint booths (B2, B3, B4 and B5) controlled by over spray collection filters and the Spindle Conveyor System and fifteen paint booths (E1, E2, E3, E4, E5, E6, W1, W2, W3, W4, W6, DL-1, DL-2, DL-5 and D1-6) controlled by over spray collection filters are as follows:

3,833.3 pounds VOM per month not to exceed 23.0 tons VOM per year

2. Emissions from the silk screening operation are 5.5 lbs of VOM per month and 0.033 tons of VOM per year.

3. Combined emissions from the clean-up operation at the 136 Commercial Avenue and 208 Fay Avenue are as follows:

166.7 lbs of VOM emissions per month not to exceed 1 ton of VOM emissions per year.

4. This permit is based upon negligible emissions of volatile organic material from all twelve powder paint booths (AL-1, AL-2, AL-3, AL-4, BL-1, BL-2, CL-1, CL-2, CL-3, CL-4, DL-3 and DL-4), in total. For this purpose emissions are 0.1 lb/hr and 0.44 ton/yr.

5. Total natural gas usage, nitrogen oxides (NO<sub>x</sub>), and carbon monoxide (CO) emissions from the combustion units are as follows:

<u>Natural Gas Usage</u>		<u>NO<sub>x</sub> Emissions</u>		<u>CO Emissions</u>	
<u>(Therms/Month)</u>	<u>(Therms/Yr)</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
142,012	1,704,144	1,420	8.52	568.3	3.41

6. Pursuant to 35 Ill. Adm. Code 212.321 an allowable emission rate from each of the two burn-off ovens (HBO-1 and HBO-2) are 0.55 lb of PM/hr and 2.41 tons of PM/year based on a maximum process weight rate of 0.05 tons/hr for each of the burn-off ovens.

7. This permit is based upon negligible emissions of particulate matter from the all five part washers (EW-1, EW-2, WW-1, WW-2 and A/B Line), all four dry-off ovens (EDO, WPO, DO-A and DO-B), all four cure ovens (ECO, WCO, CO-A and CO-B), all twelve powder paint booths (WW1, WW2, WW3, WW4, WW5, WW6, AL-1, AL-2, AL-3, AL-4, BL-1 and BL-2), all three batch cure ovens (BCO-1, BCO-2 and BCO-3), all ten paint booth coating lines (B2, B3, B4, B5, E1, E2, E3, E4, E5 and E6), the silk screen operation, both silk screen ovens (SSO-1 and SSO-2), batch paint booth (B1), one part washer (C/D Line), two dry-off ovens (DO-C and DO-D),

two cure ovens (CO-C and CO-D), six powder booths (CL-1, CL-2, CL-3, CL-4, DL-3 and DL-4), four paint booths (DL-1, DL-2, DL-5 and DL-6), and a Spindle Conveyor System (SCS). For this purpose emissions from each source are 0.1 lb/hr and 0.44 ton/yr.

8. As a consequence of the requirements of this permit, the emissions of hazardous air pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from this source will be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs so that HAP emissions do not trigger the requirements to obtain a Clean Air Act Permit Program permit from the Illinois EPA.