



State of Ohio Environmental Protection Agency

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**CERTIFIED MAIL**

**RE: PERMIT TO INSTALL \*\*\*CORRECTED COPY 12/30/2004\*\*\*  
CUYAHOGA COUNTY  
Application No:13-04400**

**DATE:** 12/30/2004

Chemical Solvents, Incorporated  
Tony Passalacqua  
3751 Jennings Road  
Cleveland, OH 44109

Attached please find a corrected copy of PTI 13-04400 issued [**Most Recent Issue Date**]. This corrected copy is being sent due to administrative processing errors and does not affect the enforceability or effective date of the Directors final action. Please note, the appearance of the corrected document may have changed due to changing software or printers (e.g., total number of pages, margins, etc.). Areas of the permit that have been substantively affected by the correction(s) are highlighted in the enclosed "Corrected Copy". I urge you to review these areas in relation to the issued permit document. Please replace the copy provided to you on [**most recent issue date**] with the attached corrected Permit To Install document. *Please note:* No payment is required for processing this corrected copy.

Very truly yours,

Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: XXXX

Chemical Solvents  
PTI Application Number: 13-4400

Facility ID: 1318007651

**Ohio EPA Permit to Install Information Form**

Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner, AQM&P, DAPC, Central Office, and electronic files to [airpti@epa.state.oh.us](mailto:airpti@epa.state.oh.us)**

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	<u>Electronic</u>	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	<u>Hard Copy</u>	<u>None</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	1304400c.wpd	<input type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	0000000s.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>

\* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

This emissions unit involves the blending the of isopropyl alcohol (IPA) with solids to make a final product of a heavy paste for shipment to customers. There is no chemical reaction occurring in this process. Consequently, per guidance received from Central Office, the requirements of OAC rule 3745-21-07(G) do not apply to this emissions unit. Allowable emission limits are established pursuant to BAT. Air toxics modeling was performed for IPA to demonstrate compliance with the Air Toxics Policy.

Cleveland Division of Air Quality is recommending Direct Final issuance for this Permit to Install recommendation. The potential to emit for this emissions unit based on the worst case material processed is approximately 52 tpy OC. Chemical Solvents has requested federally enforceable permit restrictions on annual raw material throughput in order to restrict annual OC emissions to 7.3 tpy based on a rolling, 12-month summation of OC emissions and raw material throughput. There are no HAP emissions associated with this emissions unit.

The Cleveland DAQ previously reached agreement with Chemical Solvents on July 8, 2004 regarding facility wide potential to emit for all of the other existing emissions units at this facility. The potential to emit OC emissions for all of the other existing emissions units at this facility was determined to be approximately 77.6 tpy OC. With the addition of this new emissions unit (P013) the potential to emit OC emissions would exceed the 100 tpy threshold. Consequently, Chemical Solvents has requested federally enforceable permit restrictions for this emissions unit which will be established through a FESOP at a

later date.

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Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or  Netting Determination  
Permit To Install ENTER PTI NUMBER HERE

- A. Source Description
- B. Facility Emissions and Attainment Status
- C. Source Emissions
- D. Conclusion

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PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

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Please complete:

SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	7.3

**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P013 - High solids solvent blend unit	OAC rule 3745-31-05(A)(3)  OAC rule 3745-21-07(G)(2)  OAC rule 3745-35-07(B) FESOP to avoid Title V	40 lbs/day of organic compounds (OC)  7.3 TPY OC per rolling, 12-month period  See A.2.a.below  The requirements of this rule include compliance with the requirements of OAC rule 3745-31-05(A)(3).  See B.1 and F.1 below.

**2. Additional Terms and Conditions**

- 2.a The requirements of OAC rule 3745-21-07(G)(2) do not apply since the only operation occurring in this emission unit is mixing without chemical reaction.

**B. Operational Restrictions**

1. The maximum annual raw material throughput for this emissions unit shall not exceed more than 1,460,000 lbs/year, based upon a rolling, 12 month summation of the material usage figures.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the raw materials (pounds / month) levels specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative raw material in pounds/month</u>
1	121,666.67
1-2	243,333.33
1-3	365,000.00
1-4	486,666.67
1-5	608,333.35
1-6	730,000.02
1-7	851,666.70
1-8	973,333.36
1-9	1,095,000.02
1-10	1,216,666.69
1-11	1,338,333.36
1-12	1,460,000.00

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual raw material limitation shall be based upon a rolling, 12-month summation of the material usage figures.

**C. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain monthly records of the following information:
  - a. the company identification for each formulation produced;
  - b. the amount, in pounds, of all raw materials processed for each different formulation;
  - c. the amount of OC lost for each individual formulation (lb OC / lb raw material);
  - d. total OC emissions for all formulations produced, in lbs OC/month (sum of b x c for each formulation processed);
  - e. the number of days the emission unit operated;
  - f. the average daily OC emission rate, in lbs OC/day (d/e);
  - g. beginning after the first 12 calendar months of operation, the rolling 12 month summation for all raw material processed (sum of b for all formulations); also, during the first 12 calendar

months of operation, the permittee shall record the cumulative raw material processed for each month.

- h. beginning after the first 12 calendar month of operation, the rolling 12 month summation of OC emissions(sum of d);
2. The permittee shall maintain records for any new formulation processed that demonstrates the mass balance analysis that was performed to determine the percent OC lost (lb OC/ lb raw material).
3. The permit to install for this emissions unit P013 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the screen 3.0 model ( or other Ohio EPA approved model). The predict 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLIC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isopropyl alcohol (IPA) - synonym isoproponal

TLV (mg/m<sup>3</sup>): 983

Maximum Hourly Emission Rate(lbs/hr): 1.67

Predicted 1-Hour Maximum Ground -Level  
Concentration (ug/m<sup>3</sup>): 491

MAGLC (ug/m<sup>3</sup>): 23,405

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could effect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy"include the following:
  - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicted in the most recent version of the handbook entitled

Emissions Unit ID: **P013**

- " American Conference of Governmental Industrial Hygienists (ACGIH),"than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of a new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased /decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
5. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.
6. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emission unit will satisfy the "Air Toxic Policy:"
- a. a description of the parameters changed ( compositionof materials, new pollutants emitted, changed in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

#### **D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports to the Cleveland Division of Air Quality (Cleveland DAQ) which identify all exceedances of the daily emission limitation (40lbs/day) . Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit deviation (excursion) reports to the Cleveland DAQ which identify all exceedances of the rolling, 12-month raw material usage and, for the first 12 calender months of operation, all exceedances of the maximum allowable cumulative raw material usage levels. Each

report shall be submitted within 30 days after the deviation occurs.

3. The permittee shall submit deviation reports to the Cleveland DAQ which identify any exceedance of the rolling, 12-month OC emission limitation. Each report shall be submitted within 30 days after the deviation occurs.

#### **E. Testing Requirements**

1. Compliance with the emission limitation(s) in section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:  
40 lb OC/day

Applicable Compliance Method

Compliance shall be demonstrated based on the record keeping requirements contained in section C of this permit.

- b. Emission Limitation:  
7.3 TPY OC, per rolling, 12 month period

Applicable Compliance Method

Compliance shall be demonstrated based on the record keeping requirements contained in section C of this permit.

#### **F. Miscellaneous Requirements**

1. The following terms and conditions shall be established as federally enforceable through a FESOP that will be processed at a later date: A.1, B.1, C.1, D.1, D.2, D.3, E.1, and E.2.

**NEW SOURCE REVIEW FORM B**

PTI Number: 13-04400 Facility ID: 1318007651

FACILITY NAME Chemical Solvents

FACILITY DESCRIPTION solvent blend CITY/TWP Cleveland

SIC CODE 2869 SCC CODE 3-01-001-01 EMISSIONS UNIT ID P013  
 EMISSIONS UNIT DESCRIPTION High Solids solvent Blend unit  
 DATE INSTALLED 10/04

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	Attainment		0.51	40 lbs/day	7.3
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Compliance with the applicable terms and conditions and BAT limitations.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ n/a

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? X YES        NO

IDENTIFY THE AIR CONTAMINANTS: isopropyl alcohol (aka isopropanol)