

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Daubert Chemical Company  
Attn: Mr. Mark Pawelski  
4700 South Central Avenue  
Chicago, Illinois 60638

Application No.: 07080032

I.D. No.: 031821AAS

Applicant's Designation: PUR PILOT REACTOR

Date Received: August 15, 2007

Subject: PUR Pilot Reactor

Date Issued: February 27, 2008

Location: 4700 South Central Avenue, Chicago, Cook County, 60638

This permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of one (1) 200 gallon PUR pilot reactor with a vacuum pump system pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This permit is issued based on the emission of Hazardous Air Pollutants (HAP) as listed in Section 112(g) of the Clean Air Act being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements of Section 112(g) of the Clean Air Act.
  - b. This permit is issued based on the construction of the one 200 PUR pilot reactor with a vacuum pump system not constituting a new major source or major modification pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification. The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the volatile organic material (VOM) emissions from the two pilot reactors with a vacuum pump system below the levels that would trigger the applicability of these rules.
  - c. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
2. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall apply only to photochemically reactive material.

- 3a. This permit is issued based upon the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing, 40 CFR 63, Subpart HHHHH. This is consequence of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
- b. This permit is issued based upon the source not being subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart QQ (Miscellaneous Formulation Manufacturing Process). This is consequence of the federally enforceable production and operating limitations, which restrict the potential to emit for VOM to less than 25 tons/year.
- 4. 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 nuisance.
- 5a. Total combined emissions and operation of the metal working, industrial coating, V-DAMP process and adhesive manufacturing processes (including one 200 gal PUR pilot reactor with a vacuum pump), including all clean up operations, shall not exceed the following limits:

Production Rate		VOM Emissions		PM emissions	
(Gal/Mo)	(Gal/Yr)	(Tons/Mo)	(Tons/Yr)	(Tons/Mo)	(Tons/Yr)
1,555,000	15,550,000	2.3	22.7	0.45	3.0

These limits are based on emission factors that were derived from formulas and models contained in the Emission Inventory Improvement Program (EIIP), Vol. II, Chapter 8: Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities (i.e., VOM emissions occur from vapor displacement during loading of liquid raw materials into a batch vessel, heating of raw materials in the vessel, mixing of batch material and transfer of batch material from the batch vessel to another container). PM emissions calculated using standard emission factors (Table 6.4-1 "Uncontrolled Emission Factors for Paint and Varnish Manufacturing," AP-42, Fifth Edition, Volume I, May 1983).

- b. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not exceed 0.9 tons/month and 9 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements of Section 112(g) of the Clean Air Act and the NESHAP for Miscellaneous Coating Manufacturing, 40 CFR 63, Subpart HHHHH.
- c. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

6. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
- 7a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the Conditions in this permit:
  - i. Throughput of raw material (tons/month and tons/year); and
  - ii. Monthly and annual VOM emissions from PUR reactors with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) 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.
8. If there is an exceedance of or deviation from 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/deviation. The report shall include the emissions released

in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

9. Pursuant to 35 Ill. Adm. Code 218.990, upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 Ill. Adm. Code 218 Subparts PP, QQ, RR, TT or 35 Ill. Adm. Code 218.208(b) shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements.
10. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
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  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this permit, please contact Jocelyn Stakely at 217/782-2113.

Edwin C. Bakowski, P.E.  
Acting Manager, Permit Section  
Division of Air Pollution Control

Date Signed: \_\_\_\_\_

ECB:JRS:jws

cc: Region 1