

217/785-1705

CONSTRUCTION PERMIT

PERMITTEE

CTI Industries Corporation
Attn: Rahul P. Deshmukh
22160 North Pepper Road
Barrington, Illinois 60010

Application No.: 13050029

I.D. No.: 097803AAB

Applicant's Designation:

Date Received: May 24, 2013

Subject: Laminator

Date Issued: July 9, 2013

Location: 22160 North Pepper Road, Barrington, Lake County, 60010

This permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modification to one (1) laminator 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(b) of the Clean Air Act from the above-listed equipment 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 the above-listed equipment not triggering the requirements of Section 112(g) of the Clean Air Act.
- b. This permit is issued based on the laminator not constituting a new major source or major modification pursuant to Title I of the Clean Air Act, specifically the Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 Ill. Adm. Code Part 203. 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 above-listed equipment below the levels that would trigger the applicability of these rules.
- c. Operation of the equipment listed above is allowed under this permit until final action is taken on the Federally Enforceable State Operation Permit (FESOP) application for this source.
- 2a. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).

- b. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) 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 (Use of Organic Material) shall only apply to photochemically reactive material.
- 3. This permit is issued based upon the source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Paper and Other Web Coating, 40 CFR 63 Subpart JJJJ. Pursuant to 40 CFR 63.3290, the provisions of 40 CFR 63 Subpart JJJJ apply to each new and existing facility that is a major source of HAP, as defined in 40 CFR 63.2, at which web coating lines are operated.
- 4a. Pursuant to 35 Ill. Adm. Code 218.900(b), the requirements of 35 Ill. Adm. Code 218 Subpart JJ shall not apply to miscellaneous industrial adhesive application operations associated with paper, film and foil coatings. Therefore, this subpart is not applicable to the laminator.
- b. This permit is issued based upon the laminator not being subject to the control requirements of 35 Ill. Adm. Code 218 Subpart PP (Miscellaneous Fabricated Product Manufacturing Units). This is a result of the federally enforceable production and operating limitations of this permit, which restrict the maximum theoretical emissions of VOM from this facility to less than 100 tons per year and the potential to emit for VOM emissions to less than 25 tons per year.
- 5a. Pursuant to 35 Ill. Adm. Code 218.187(a)(2)(A) & (B), notwithstanding 35 Ill. Adm. Code 218.187(a)(1): The following cleaning operations shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (e), (f), and (g):
 - i. Janitorial cleaning;
 - ii. Miscellaneous industrial adhesives.
- 6. In the event that the operation of this emission unit 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.
- 7a. Emissions of volatile organic material (VOM) and operation of the laminator shall not exceed the following limits:

VOM Usage		VOM Emissions	
<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
0.8	6.6	0.8	6.6

These limits are based on the maximum material usage and material balance. 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.

- b. The VOM and HAP emissions shall be determined from the following equation on a monthly basis:

$$E = \left[\sum (M_i \times C_i) - W \times C_w \right] / 2,000$$

Where

E = VOM/HAP emissions (tons);

M_i = Raw material usage (gallons/month);

C_i = VOM/HAP content of the raw material (lb/gallon);

W = certified amount of waste shipped-off (gallons/month);

C_w = certified VOM/HAP content of the waste (lb/gallon).

Value of C_w for the reporting period shall be used from the most recent waste shipment. Upon receiving updated C_w for the reporting period emissions shall be recalculated.

- 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).
- 8a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.

- ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
- b. Testing required by Condition 9 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 9. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 10a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. Amount of each adhesive, coating, and clean-up solvent used in the laminator (lb or gal/month and gal or tons/year);
 - ii. VOM and HAP content of each adhesive, coating, and clean-up solvent used in the laminator/coater, plate making operation, and printing lines (percent weight of VOM or lb VOM/gal);
 - iii. The amount of VOM contained in each waste shipment (lb/month); and
 - iv. Monthly and annual emissions of CO, NO_x, PM, SO₂, VOM and HAPs (individual and combined) from the source 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 storage device) 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.
- 11a. If there is an exceedance of or a 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 or 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 or future occurrences.

- b. 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, please call David Hulskotter at 217/785-1705.

Robert W. Bernoteit
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

RWB:DWH:jws

cc: Illinois EPA, FOS Region 1
Lotus Notes