

217/782-2113

CONSTRUCTION PERMIT

PERMITTEE

Sun Chemical
Attn: Eldon Fink
7315 North St. Louis Avenue
Skokie, Illinois 60077

Application No.: 01050093 I.D. No.: 031288AGH
Applicant's Designation: 89090080 Date Received: May 30, 2001
Subject: Pigment, Toner, Ink-Base, and Ink Manufacturing
Date Issued: October 4, 2001
Location: 7315 North St. Louis Avenue, Skokie

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modification to the existing pigment (series), toner, ink-base, ink and vizi-tek pigment manufacturing equipment to increase the throughput and change the product formulation as described in the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. These conditions effectively limit the potential emissions of air pollutants from the source to less than major source thresholds (i.e., volatile organic material (VOM) to less than 25 tons per year, individual hazardous air pollutant (HAP) to less than 10 tons per year, and a combination of all HAPs to less than 25 tons per year). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit.
- b. Prior to issuance, a draft of this permit had undergone a public notice and comment period.
2. Sourcewide emissions of volatile organic material (VOM) and formaldehyde (FORM) and operation of the existing pigment (series), toner, ink-base, ink, and vizi-tek pigment process shall not exceed the following limits:

<u>Process</u>	<u>Material Usage</u>		<u>Emission</u>	<u>VOM Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>Factor</u> <u>(%)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Ink Bases	11.0	106	10.6	1.2	11.24
Inks (Oven & Mixer)	9.0	45	0.5	0.05	0.23
Vizi-tek Pigment	9.0	83	0.42	0.04	0.35
Pigments & Toners (Series)	46.0	455	0.8	<u>0.4</u>	<u>3.64</u>
			Total	1.69	15.46

<u>Process</u>	<u>Material Usage</u>		<u>Emission</u>	<u>FORM Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>Factor</u> <u>(%)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Ink Bases	11.0	106	5.7	0.63	6.04
Inks (Oven & Mixer)	9.0	45	0.25	0.03	0.11
Pigments & Toners (Series)	46.0	455	0.8	0.4	3.64
			Total	*1.06	*9.79

* The formaldehyde emissions are included in the VOM emissions.

These limits are define the potential emissions of VOM and are based on maximum material usage and emission factors as established by the company. Compliance with annual limits shall be determined from a running total of 12 months of data.

- 3a. Emissions and operation of all existing fuel combustion emission sources shall not exceed the following limits:

<u>Material</u>	<u>(mmscf/mo)</u>	<u>(mmscf/yr)</u>	<u>Pollutant</u>	<u>Emission</u>	<u>Emissions</u>	
				<u>Factor</u> <u>(Lb/mmscf)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Natural Gas	15	102	NO _x	100	0.75	5.1
			CO	84	0.63	4.3
			TSP	7.6	0.1	0.4
			VOM	5.5	0.1	0.3

These limits define the potential emissions of NO_x, CO, TSP, and VOM and are based on maximum fuel usage and standard emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- b. Natural gas shall be the only fuel used in all the fuel combustion sources. Use of any other fuel other than natural gas requires a permit revision.
- 4a. This permit is issued based on negligible emissions of particulate matter from the existing pigment (series), toner, ink-base, ink, and vizi-tek pigment process. For this purpose emissions from each process shall not exceed nominal emission rates of 0.2 lb/hour and 0.44 ton/yr.
- b. This permit is issued based on negligible emissions of particulate matter and volatile organic material from the existing R & D equipment. For this purpose emissions of each contaminant, shall not exceed nominal emission rates of 1.0 lb/hr and 0.44 ton/yr.
5. This permit is issued based on the facility using cleanup solutions that do not contain any volatile organic material.
6. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any

single HAP and 25 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 to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

7. Pursuant to 35 IAC 218.624, no person shall operate an open-top mill, tank, vat or vessel with a volume of more than 45 (12 gal) for the production of paint or ink unless:
 - a. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim.
 - b. The cover remains closed except when production, sampling, maintenance or inspection procedures require access.
 - c. The cover is maintained in good condition such that, when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim.
8. All grinding mills are subject to 35 IAC 218.625 which states:
 - a. No person shall operate a grinding mill for the production of paint or ink which is not maintained in accordance with the manufacturer's specifications.
 - b. No person shall operate a grinding mill fabricated or modified after the effective date of this Subpart which is not equipped with fully enclosed screens.
 - c. The manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours.
9. All clean-up operations are subject to 35 IAC 218.630 which states:
 - a. No person shall clean paint or ink manufacturing equipment with organic solvent unless the equipment being cleaned to completely covered or enclosed except for an opening no larger than necessary to allow safe clearance for proper operation of the cleaning equipment, considering the method and materials being used.
 - b. No person shall store organic wash solvent in other than closed containers, unless closed containers are demonstrated to be a safety hazard, or dispose of organic wash solvent in a manner such that more than 20 percent by weight is allowed to evaporate into the atmosphere.

10. The Permittee shall maintain monthly records of the following items:
 - a. Identification and usage of the raw materials for the pigment (series), toner, ink-base, ink, and vizi-tek pigment process (ton/mo and ton/yr);
 - b. VOM and HAP content of each material used in the pigment (series), toner, ink-base, ink, and vizi-tek pigment process (wt. % or lb/gal);
 - c. Detailed calculations of VOM and individual HAP emissions for the pigment (series), toner, ink-base, ink, and vizi-tek pigment process (ton/mo and ton/yr); and
 - d. Plantwide natural gas usage (mmscf/mo and mmscf/yr).
11. 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 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 request for records during the course of a source inspection.
12. 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, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
13. 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)
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 Tara T. Nguyen-Ede at 217/782-2113.

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

DES:TNE:psj

cc: Region 1