

217/782-2113

CONSTRUCTION PERMIT - REVISED

PERMITTEE

Crown Cork and Seal Company, Inc.
Attn: David Sieroty
3737 East Exchange Avenue
Aurora, Illinois 60504

Application No.: 98070069

I.D. No.: 089407AAB

Applicant's Designation: COATER1&2

Date Received: July 31, 2001

Subject: Can Sheet Coaters #1 & #2

Date Issued: April 23, 2002

Location: 3737 East Exchange Avenue, Aurora

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modification to existing two Can Sheet Coaters #1 (replacement) and #2 each controlled by an afterburner, and modify operations of 6-color, and 4-color offset lithographic printing presses each with can sheet coater previously constructed under the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1. This permit is issued based upon construction of the Can Sheet Coaters #1 and #2 do not constitute a new major source and do not trigger an applicability of 35 Ill. Adm. Code, Part 203, Subpart B. It is consequence of the federally enforceable limitations of this permit which limit source-wide emissions of volatile organic material (VOM) from the source to less than major threshold level (i.e., 25 tons/year of VOM). As a result, the source is also excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit.
2. The sheet coating lines are subject to and shall comply with the VOM emission limitations of 35 Ill. Adm. Code Part 218 Subpart F: Coating Operations. Compliance with the requirements of this subpart shall be achieved through the use of a capture system and control device that provides a minimum of 81 percent reduction in the overall emissions of VOM from the coating line and a control device that provides a minimum of 90 percent efficiency pursuant to 35 Ill. Adm. Code 218.207(b)(1).
3. The sheet varnish coaters associated with the printing presses are subject to and shall comply with the VOM emission limitations of 35 Ill. Adm. Code Part 218 Subpart F: Coating Operations. Compliance with the requirements of this subpart shall be achieved through the use of compliance coating containing no more than 2.8 lb of VOM per gallon of coating pursuant to 35 Ill. Adm. Code 218.204(b)(1).

4. The sheet-fed offset lithographic printing presses are subject to and shall comply with the VOM emission limitations of 35 Ill. Adm. Code Part 218 Subpart H: Printing and Publishing. Compliance with the requirements of this subpart shall be achieved through the use of fountain solution containing 5% or less of VOM by volume and cleaning solution with composite partial vapor pressure less than 10 mmHg at 20°C (68°F) pursuant to 35 Ill. Adm. Code 218.407(a)(3) and (4). VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line shall be kept, stored or disposed in closed containers (Section 218.407(a)(5)).
5. Emissions and operation of Sheet Coaters #1 and #2 shall not exceed the following limits:

VOM Usage		VOM Emissions	
(Tons/Month)	(Tons/Year)	(Tons/Month)	(Tons/Year)
90.7	907.5	0.72	7.26

The VOM emissions shall be determined from the following equation:

$$E = \dot{O} [(P_i \times C_i) + (S_j \times C_j) - (W_k \times C_k)] \times (1 - C_{ef}) / 2,000$$

Where:

E - VOM emissions (ton)

P_i - Coating usage (gal)

C_i - VOM content of the coating (lb/gal)

S_j - Clean-up solvent usage (gal)

C_j - VOM content of the solvent (lb/gal)

W_k - Amount of waste solvent shipped off (gal)

C_k - VOM content of the waste (lb/gal)

C_{ef} - Actual efficiency of the control system which was demonstrated during the most recent stack test (fraction)

These limits are based on the maximum material usage, a 60% recovery of solvent used collected as waste and shipped off-site, and minimum 98% overall control efficiency for the afterburner. Compliance with the annual limits shall be determined from a running total of 12 months of data.

- 6a. i. The afterburners shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.

- ii. Notwithstanding 35 Ill. Adm. Code 218.107, seasonal shutdown of the afterburners from November 1 through March 31 of the following year is not allowed.
 - b. The afterburner combustion chamber shall be preheated to the manufacturer's recommended temperature but not lower than 1400°F, before the coating process is begun; this temperature shall be maintained during the coating process.
 - c. The afterburners shall be equipped with a continuous monitoring devices which are installed, calibrated, maintained, and operated according to vendor's specifications at all times that the afterburners are in use. These devices shall monitor the afterburner combustion chambers temperature.
7. Operations and emissions of lithographic printing presses shall not exceed the following limits:

<u>Material</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Fountain Solution	0.12	0.74	0.12	0.74
Cleanup Solvent	4.55	41.75	1.82	16.7

These limits are based on the maximum material usage and minimum 60% recovery of solvent used collected as waste and shipped off-site. Compliance with the annual limits shall be determined from a running total of 12 months of data.

8. 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 in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.
9. Emissions and operation of natural gas in the afterburners shall not exceed the following limits:

<u>Total Firing Rate</u>		<u>PM₁₀</u>		<u>SO₂</u>	
<u>(mmBtu/Hour)</u>	<u>(Lb/Hr)</u>	<u>(Lb/Hr)</u>	<u>(Tons/Yr)</u>	<u>(Lb/Hr)</u>	<u>(Tons/Yr)</u>
11.2	0.09	0.31	0.007	0.024	
<u>NO_x</u>		<u>CO</u>		<u>VOM</u>	
<u>(Lb/Hr)</u>	<u>(Tons/Yr)</u>	<u>(Lb/Hr)</u>	<u>(Tons/Yr)</u>	<u>(Lb/Hr)</u>	<u>(Tons/Yr)</u>
1.12	4.03	0.94	3.39	0.06	0.22

These limits are based on standard emissions (AP-42) and continuous operation. Compliance with annual limits shall be determined from a running total of 12 months of data.

10. The VOM concentration in the effluent stream of the coaters with afterburners shall be measured by an approved independent testing service, within 45 days of a written request by the Illinois EPA for such a test. The Illinois EPA will require this test if, based on observations by Field personnel, the coaters or control is poorly maintained or operated so as to make compliance with Section 207(b)(1) uncertain.
11. The Permittee shall maintain daily records of the following items:
 - a. The records required by 35 Ill. Adm. Code 218.211(e) to demonstrate compliance of sheet coaters #1 and #2 with requirements of 35 Ill. Adm. Code 218.207(b)(1):
 - i. Afterburner combustion chamber monitoring data;
 - ii. A log of operating time for the capture system, afterburner, monitoring device, and the associated emission unit(s); and
 - iii. A maintenance log for the capture system, afterburner, and monitoring device detailing all routine and non-routine maintenance performed including dates and duration of any outages.
 - b. The records required by 35 Ill. Adm. Code 218.211(c) to demonstrate compliance of sheet coaters associated with printing presses with 35 Ill. Adm. Code 218.204(b)(1):
 - i. The name and identification number of each coating as applied on each coating line;
 - ii. The 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 day on each coating line.
 - c. The records required by 35 Ill. Adm. Code 218.411(c)(2)(C) to demonstrate compliance of fountain solution used on non-heatset sheet-fed offset lithographic printing presses with requirements of 35 Ill. Adm. Code 218.407(a)(3):
 - i. Date and time of preparation and each subsequent modification of the batch;
 - ii. Volume and VOM content of each component used in, or subsequently added to, the fountain solution batch;

- iii. Calculated VOM content of the as-applied fountain solution.
- d. The records required by 35 Ill. Adm. Code 218.411(d)(2)(C) to demonstrate compliance of cleaning solution used on non-heatset sheet-fed offset lithographic printing presses with requirements of 35 Ill. Adm. Code 218.407(a)(4):
 - i. The name and identification of each cleaning solution;
 - ii. Date and time of preparation, and each subsequent modification, of the batch;
 - iii. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Section 218.409(e);
 - iv. The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
 - v. The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with Section 218.409(e).
- 12. The Permittee shall maintain monthly record of the following items separately for two coaters and two printing lines with associated coaters:
 - a. Coatings and inks usage (gal/mo and gal/yr);
 - b. Cleanup and fountain solution usage (gal/mo and gal/yr);
 - c. VOM content of materials in items (a) and (b) (lb/gal);
 - d. Certified amount of waste solvent collected and shipped offsite (gal/mo and gal/yr);
 - e. Certified VOM content of solvents shipped offsite (lb/gal or wt.%);
 - f. VOM emissions (tons/mo and ton/yr).
- 13. Any record showing a violation of the conditions of this permit or 35 Ill. Adm. Code 218.204, 218.207 or 218.407 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.
- 14. 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 respond to an Illinois EPA request for records during the course of a source inspection.

15. 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 exceedances or violation and efforts to reduce emissions and future occurrences.
16. Two (2) copies of required reports and notifications concerning equipment operation on 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
9511 West Harrison
Des Plaines, Illinois 60016

Please note that this permit is revised to change the allowed material usages in Conditions 5 and 7.

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

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

DES:JPB:psj

cc: Region 1