

AIR EMISSION PERMIT NO. 12300718- 001

IS ISSUED TO

HOOD FLEXIBLE PACKAGING - ARDEN HILLS

1887 Gateway Boulevard
Arden Hills, Ramsey County, MN 55112

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date
Total Facility Operating Permit	02/28/2000

This permit authorizes the Permittee to operate and construct the stationary source at the address listed above unless otherwise noted in Table A. The Permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal Part 70/ Limits to avoid NSR

Issue Date: August 30, 2000

Expiration: August 30, 2005
All Title I Conditions do not expire.

Richard J. Sandberg, Manager
Major Facilities Section
Metro District

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

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NOTICE TO THE PERMITTEE:

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	(651) 296-6300
Outside Metro Area	1-800-657-3864
TTY	(651) 282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

PERMIT SHIELD:

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition.

FACILITY DESCRIPTION: The existing facility in St. Paul, MN, to be relocated to Arden Hills, MN

Hood Flexible Packaging produces printed plastic bags and sheets. Rolls of plastic are printed on with one of the four flexographic printing presses at the facility. After being printed, the rolls of plastic are formed into bags by one of the six bag forming lines. The sources of air emissions at the facility are the four printing presses and their associated dryers. The oxidizer controls Volatile Organic Compound (VOC) emissions from the three of the four presses at the facility.

The facility currently operates under a permit that requires the facility to track its inventory of inks and solvents so that it can calculate its volatile organic compound emissions based on a mass balance approach.

The following scenario is considered (as proposed by the Permittee) during the course of the move of this facility from the current location in Roseville to the Arden Hills location:

- Phase 1. Move and install EU 001 and EU 002
- Phase 2. Move and install EU 003 and CE 001 (connect to EU 002 and EU 003)
- Phase 3. Move and install EU 004 (connect to CE 001)

During the transition phase, EU 002 will be operated at this location for a period without the pollution control equipment, while EU 004 will be operated at the old facility for a period without the pollution control equipment. The uncontrolled VOC emissions are accounted for in the limit the Permittee is proposing to be under the federal PSD thresholds.

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.

Subject Item: Total Facility	
What to do	Why to do it
TOTAL FACILITY VOC LIMIT AND RECORDKEEPING REQUIREMENTS	hdr
Volatile Organic Compounds: less than or equal to 221 tons/year using 12-month Rolling Sum	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21
Recordkeeping: by the 15th day of each month, calculate and record the VOC emission calculations for the previous month.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Recordkeeping: by the 15th day of each month, calculate and record the VOC emission calculations for the previous 12-month period (12-month rolling sum).	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Recordkeeping: VOC emissions from the facility shall be calculated monthly by: 1. determining the VOC use and then, 2. taking the control efficiency into consideration for the emission units which are controlled. If the control equipment is bypassed or not operating as required by this permit, a control efficiency of 0% shall be used for those periods.	Title I Condition: To avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Recordkeeping: 1) the total facility VOC use for each month shall be determined as follows; $U = U_i + U_s$ $U_i = 0.70(V_i)$ $U_s = 1(V1s + A_s - V2s)$ where, $U = \text{total facility VOC use per month (lb VOC/mo)}$ $U_i = \text{total facility VOC use per month from inks (lb VOC/mo)}$ $U_s = \text{total facility VOC use per month from solvents (lb VOC/mo)}$ $0.70 = \text{worst case VOC content of the inks (wt \%)}$ $V_i = \text{total volume of inks sent to the four presses for the month (lb ink)}$ $1 = \text{VOC content of the solvents (100 \%)}$ $V1s = \text{total volume of solvents at the facility at the start of the month (lb solvent)}$ $A_s = \text{all additions of solvents received for the month (lb solvent)}$ $V2s = \text{total volume of solvents at the facility at the end of the month (lb solvent)}$	Minn. R. 7007.0800, subp. 5
Recordkeeping: 2) the VOC emissions for the facility shall be determined each month as follows; $E = (P1/Pt)U + (1-CE)U((P2 + P3 + P4)/Pt)$ $P1 = EF1(h1)$ $P2 = EF2(h2)$ $P3 = EF3(h3)$ $P4 = EF4(h4)$ $Pt = P1 + P2 + P3 + P4$ where, $E = \text{total facility VOC emissions, reflecting control equipment operation}$ $P1 = \text{potential emissions of press number 1 (lb VOC/mo)}$ $P2 = \text{potential emissions of press number 2 (lb VOC/mo)}$ $P3 = \text{potential emissions of press number 3 (lb VOC/mo)}$ $P4 = \text{potential emissions of press number 4 (lb VOC/mo)}$ $Pt = \text{potential emissions of all four presses (lb VOC/mo)}$ $U = \text{total facility VOC use (lb VOC/mo), see previous requirement}$ $CE = \text{control efficiency of the catalytic oxidizer (61\%)}$ (continued)	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

Recordkeeping: 2) continued EF1 = press specific emission factor for press 1 (31 lb VOC/hr) EF2 = press specific emission factor for press 2 (39 lb VOC/hr) EF3 = press specific emission factor for press 3 (45 lb VOC/hr) EF4 = press specific emission factor for press 4 (52 lb VOC/hr) h1 = hours press 1 ran for the month (hr/mo) h2 = hours press 2 ran for the month (hr/mo) h3 = hours press 3 ran for the month (hr/mo) h4 = hours press 4 ran for the month (hr/mo)	Minn. R. 7007.0800, subp. 5
Recordkeeping: During the first week of each calendar month, the Permittee shall 1) take and record the reading from the hour meter on each press; 2) calculate the number of hours each press was operated for the previous month.	Minn. R. 7007.0800, subp. 5
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. Include in the plan corrective actions to be taken if the destruction efficiency of the catalyst is less than 95%, as indicated by the testing of a representative sample of the catalyst. This O and M plan must also contain the details of what "a representative sample" of the catalyst is.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.	Minn. R. ch. 7017
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.	Minn. R. 7017.2025
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020
Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3. At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.	Minn. R. 7019.1000, subp. 3
Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2. At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.	Minn. R. 7019.1000, subp. 2
Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.	Minn. R. 7019.1000, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description: 1. the cause of the deviation; 2. the exact dates of the period of the deviation, if the deviation has been corrected; 3. whether or not the deviation has been corrected; 4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and 5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.	Minn. R. 7019.1000, subp. 1
Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
Emissions Inventory Report: due 91 days after end of each calendar year following 8/30/2000 (April 1). To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

Subject Item: GP 001 Presses & Catalytic Oxidizer**Associated Items:** CE 001 Catalytic Afterburner w/Heat Exchanger

EU 001 Press K3

EU 002 Press 10DF8CNC

EU 003 Press 34DFCNC

EU 004 Press 34DF8CNC

What to do	Why to do it
There is no Total Particulate Matter limit for the presses in this permit as the particulate emissions from the presses are very insignificant.	Minn. R. 7011.0715, subp. 1(A)
There is no Opacity limit for the presses in this permit as the particulate emissions from the presses are very insignificant.	Minn. R. 7011.0715, subp. 1(B)

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

Subject Item: EU 002 Press 10DF8CNC**Associated Items:** CE 001 Catalytic Afterburner w/Heat Exchanger

GP 001 Presses & Catalytic Oxidizer

SV 002 VOC emissions EUs 2,3,4

What to do	Why to do it
During the transition period when EU 002 is operated at this location, the number of days of operation of EU 002 without pollution control equipment is limited to 30.	Minn. R. 7007.0800, subp. 2
Recordkeeping: The number of days of operation of EU 002 without pollution control equipment.	Minn. R. 7007.0800, subp. 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

Subject Item: CE 001 Catalytic Afterburner w/Heat Exchanger**Associated Items:** EU 002 Press 10DF8CNC

EU 003 Press 34DFCNC

EU 004 Press 34DF8CNC

GP 001 Presses & Catalytic Oxidizer

What to do	Why to do it
EMISSION LIMITS	hdr
Volatile Organic Compounds: greater than or equal to 64 percent capture efficiency demonstrated during the most recent performance test	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Volatile Organic Compounds: greater than or equal to 95 percent destruction efficiency demonstrated during the most recent performance test.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
General: Route all emissions from EU 002, EU 003, and EU 004 to the catalytic oxidizer at all times except during the transition phase (as identified in this permit), and emergencies.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735.	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
TEMPERATURE AND MONITORING REQUIREMENTS	hdr
Temperature: greater than or equal to 559 degrees F as measured at the inlet to, and outlet of, the catalyst bed until a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the average temperature recorded during the most recent performance test where compliance for VOC emissions was demonstrated. If at any time the measured inlet temperature drops below the minimum temperature requirement established during the most recent performance test, calculate 3-hour average inlet temperatures for each 3-hour block during the 12 hours immediately prior to and the 12 hours immediately following the time that the inlet temperature dropped below the minimum temperature requirement. If any of the calculated 3-hour average inlet temperatures is below the minimum temperature requirement, this incident shall be considered a deviation, reportable as described elsewhere in this permit.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Monitoring: The Permittee shall install the necessary monitoring equipment for measuring the temperature as required by this permit. The monitoring equipment must be installed, in use, and properly maintained when the process is in operation.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Monitoring QA/QC: Conduct a test of the inlet and outlet temperature monitors at least annually. The temperature monitor must be within +/- 5 degrees Fahrenheit of the reference temperature monitor. Verify the accuracy of the temperature monitor with a reference temperature monitor (traceable to National Institute of Standards and Technology (NIST) standards or an independent temperature measurement device dedicated for this purpose). During accuracy checking, the probe of the reference device shall be placed as close physically practicable to the location as that of the temperature monitor being tested, such that representative temperature measurements are obtained.	Minn. R. 7007.0800, subp. 4
STACK TESTING REQUIREMENTS	hdr
Initial Performance Test: due 180 days after Equipment Installation and start-up of all of these emission units: EU 002, EU 003, and EU 004 to measure VOC capture and destruction efficiency.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7017.2020, subp. 1; Minn. R. 7017.2030, subp. 4

TABLE A: LIMITS AND OTHER REQUIREMENTS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

Performance Notifications and Submittals: Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements. Performance Test Notification (written): due 30 days before each Performance Test to measure VOC capture and destruction efficiency Performance Test Plan: due 30 days before each Performance Test to measure VOC capture and destruction efficiency Performance Test Pre-test Meeting: due 7 days before each Performance Test to measure VOC capture and destruction efficiency Performance Test Report: due 45 days after each Performance Test to measure VOC capture and destruction efficiency Performance Test Report - Microfiche Copy: due 105 days after each Performance Test to measure VOC capture and destruction efficiency	Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2
CATALYST SAMPLING AND ANALYSIS	hdr
Sample Analysis: due before the end of each 24 months following Permit Issuance of catalytic oxidizer operation. The Permittee must send a representative sample of the catalyst to a laboratory, as designated by the manufacturer, to test the catalyst's destruction efficiency. For test results showing a destruction efficiency of less than 95% follow the corrective actions contained in the facility operation and maintenance plan.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Quarterly Inspections: Once per calendar quarter, the Permittee shall complete a quarterly inspection form following visual inspection of the following components of the oxidizer: duct work, access doors, fan and motor assembly, burner, exhaust stack, observation port, temperature recording device, and inspection of entire perimeter for damage or extreme wear. If a problem is noted during an inspection, the Permittee shall follow corrective actions as specified in the Operation and Maintenance Plan. The inspection records shall be kept as a permanent record at the source.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Annual Inspections: Once annually, during oxidizer shutdown, the Permittee shall record inspection of the oxidizer components as described under the annual inspection guidelines in the equipment Operation and Maintenance Manual provided by the manufacturer. If a problem is noted during an inspection, the Permittee shall follow corrective actions as specified in the Operation and Maintenance Plan. The inspection records shall be kept as a permanent record at the source.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
RECORDKEEPING/REPORTING REQUIREMENTS	hdr
Control Equipment Bypasses: Record the date and time of each catalytic oxidizer bypass period.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Control Equipment Bypasses: Report all catalytic oxidizer bypasses in the facility's semiannual deviation report.	Minn. R. 7007.0800, subp. 6
Recordkeeping: The Permittee shall maintain either a continuous hard copy readout of the inlet and outlet temperatures, or maintain a hard copy of manual readings taken at least every 15 minutes.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000
Recordkeeping: The Permittee shall maintain records of the catalyst bed temperatures and catalyst destruction efficiency tests at the facility for a period of 5 years from the time the records were created.	Title I Condition: Limit taken to avoid classification as a major source under 40 CFR Section 52.21; Minn. R. 7007.3000

TABLE B: SUBMITTALS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills
Permit Number: 12300718 - 001

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

Permit Technical Advisor
Permit Section
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

Supervisor
Compliance Determination Unit
Air Quality Division
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak
Air and Radiation Branch
EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency
Clean Air Markets Division
1200 Pennsylvania Avenue NW (6204N)
Washington, D.C. 20460

TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup of each of the presses, and the catalytic oxidizer.	GP001
Testing Frequency Plan	due 60 days after Initial Performance Test to measure VOC capture and destruction efficiency. The plan shall specify a testing frequency based on the testing data and MPCA guidance. Future performance tests based on one-year (12 month), 36 month, and 60 month intervals, or as applicable, shall be required upon written approval of MPCA.	CE001

TABLE B: RECURRENT SUBMITTALS

08/30/00

Facility Name: Hood Flexible Packaging - Arden Hills

Permit Number: 12300718 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 31 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility
Report	due before end of each 24 months following Sample Analysis. Include in this report the results of the catalyst destruction efficiency test.	CE001

APPENDIX MATERIAL

Facility Name: Hood Flexible Packaging – Arden Hills

Permit Number: 12300718-001

Insignificant Activities required to be listed in the permit

The table below lists the insignificant activities that are currently at the facility and their associated general applicable requirements.

Minn. R. 7007.1300, subp.	Rule Description of the Activity	General Applicable Requirement
3(A)	Fuel Use:	
	Space heaters fueled by kerosene, natural gas, or propane	
	One space heater (natural gas fuel): 200,000 Btu/hr	Minn. R. 7011.0515
3(B)(2)	Furnaces and boilers:	
	Fuel burning equipment of less than 500,000 Btu/hr capacity except where total capacity of equipment exceeds 2,000,000 Btu/hr when operated by one stationary source.	Minn. R. 7011.0515
3(E)(2)	Storage tanks:	
	Non-hazardous air pollutant VOC storage tanks with a combined total tank capacity of not more than 10,000 gallons of non-hazardous air pollutant VOCs and with a vapor pressure of not more than 1.0 psia at 60 degrees Fahrenheit.	
	Tank ID #001 1,000 gallon Solvent Storage Tank Tank ID #002 3,000 gallon Solvent Storage Tank Tank ID #003 30 gallon Solvent Storage Tank Tank ID #004 30 gallon Solvent Storage Tank	Minn. R. 7011.0715
3(F)	Cleaning operations:	
	Centrifuge – used to extract excess clean-up solvent from cleaning rags	Minn. R. 7011.0715
3(H)(4)	Miscellaneous:	
	Brazing, soldering, or welding equipment	Minn. R. 7011.0715
3(I)	Individual emission units at a stationary source which each have a potential to emit for each of the following pollutants less than : (1) 2 tons per year of CO; (2) 1 ton per year of each of NO _x , SO ₂ , PM, PM ₁₀ , VOCs, and ozone.	
	Dryer at a rated capacity of 0.36 MM Btu/hr	Minn. R. 7011.0610
4	Emission units with emissions less than A. 5.7 lbs/hr of CO B. potential emissions of 2.28 lbs/hr or actual emissions of 1 ton per year for each of NO _x , SO ₂ , PM, PM ₁₀ , VOCs	
	Dryers at a rated capacity of 2.3 MM Btu/hr, 1.6 MM Btu/hr, 2.4 MM Btu/hr, and 3.5 MM Btu/hr	Minn. R. 7011.0610

TECHNICAL SUPPORT DOCUMENT
For
DRAFT AIR EMISSION PERMIT NO. 12300718-001

This technical support document is for all the interested parties of the draft permit. The purpose of this document is to set forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions.

1. General Information

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number	Facility Address (SIC Code: 3081/2759)
Southern Bag Corporation P.O. Box 2310 Madison, MS 39130-2310	Hood Flexible Packaging 1887 Gateway Boulevard Arden Hills, MN 55112 Ramsey County Mr. Gary Hilliard, (651) 636-2500

1.2. Description of the facility

This is a new location for the facility (currently in Roseville, MN) and hence the following information is a description of the existing facility, to be relocated. Hood Flexible Packaging produces printed plastic bags and sheets. Rolls of plastic are printed on with one of the four flexographic printing presses at the facility. After being printed, the rolls of plastic are formed into bags by one of the six bag forming lines. The sources of air emissions at the facility are the four printing presses and their associated dryers.

The existing facility currently operates under a permit that requires the facility to track its inventory of inks and solvents so that it can calculate its Volatile Organic Compound (VOC) emissions based on a mass balance approach. The same facility in their new location will follow the similar approach to calculate VOC emissions.

MPCA prepared an Environmental Assessment Worksheet for relocation and consolidation of Hood Flexible Packaging's office and manufacturing sites into one location.

1.3. Description of any changes allowed with this permit issuance

The following scenario is considered (as proposed by the Permittee) during the course of the move of this facility from the current location in St. Paul to the Arden Hills location:

Phase 1. Move and install EU 001 and EU 002 (operate without control)

Phase 2. Move and install EU 003 and CE 001 (connect to EU 002 and EU 003)

Phase 3. Move and install EU 004 (connect to CE 001)

During the transition phase EU 002 will be operated at this location for a period without the pollution control equipment, while EU 004 will be operated at the old facility for a period without the pollution control equipment. The uncontrolled VOC emissions are accounted for in the limit the Permittee is proposing to be under the federal PSD thresholds.

This is a federal Part 70 Permit that authorizes the Permittee to operate and construct at 1887 Gateway Boulevard, Arden Hills, Minnesota.

1.4. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

EU CE #	SV#	Emission Unit Description	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
001	001	Press K3	<1	<1	0.0	0.98	<1	81.1	0.0	0.0	0.0
002	002	Press 10DF8CNC	<1	<1	0.0	0.15	<1	39.9	0.0	0.0	0.0
003	002	Press 34DFCNC	<1	<1	0.0	0.68	<1	46.5	0.0	0.0	0.0
004	002	Press 34DF8CNC	<1	<1	0.0	1.02	<1	53.2	0.0	0.0	0.0
CE 001	002	Catalytic Oxidizer	<1	<1	0.0	2.37	<1	0.0	0.0	0.0	0.0

Total Facility	PM tpy	PM ₁₀ tpy	SO ₂ tpy	NO _x tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Limited Potential Emissions	0.2	0.2	0.0	5.2	0.7	220.7	0.0	0.0	0.0

Note: This is a new facility and hence there are no actual emissions included in the table above

Table 2. Facility(TF) and Permit Classification

Classification (list pollutant)	Major/Affected Source	*Synthetic Minor	*Minor
PSD		VOC	PM, PM ₁₀ , SO _x , NO _x , CO
NAAR	None	None	None
Part 70 Permit Program	VOC		PM ₁₀ , SO _x , NO _x , CO

* Refers to potential emissions that are less than those specified as major by 40 CFR § 52.21, 40 CFR pt. 51 Appendix S, and 40 CFR pt. 70.

2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

Regulatory Overview of Facility

FC or CE	Applicable Regulations	Comments:
FC	40 CFR § 52.21	Title I Condition: VOC emissions limited to 221.0 tons per year, calculated using 12-month Rolling Sum
CE 001	40 CFR § 52.21	Title I Condition: Capture and destruction efficiency for VOC emissions; Temperature and Monitoring requirements; Recordkeeping/Reporting requirements.

FC = Facility, CE = Control Equipment

3. Technical Information

The only pollutant to be emitted in a significant amount at this facility is VOC. The Permittee tracks its VOC emissions by monitoring the use of VOC-containing materials. This is accomplished through direct measurement and the use of a mass balance approach. Under the mass balance approach, the amount of materials used in a process can be calculated from measurements of the total volume of VOC containing materials at the start and end of each month, and the volume of any additional materials received. All VOC used at the facility is assumed to be emitted.

Materials to be used at the facility that contain VOC are the solvents and inks. The solvents will be used in the facility's presses to thin the inks and also for cleanup. These solvents will be stored both outside the facility in bulk tanks and inside in barrels. The total facility monthly solvent use will be calculated based on the mass balance approach. The inks will be stored in individual containers in an ink storage room. The amount of ink taken to each press is measured directly by an in-house ink service each time ink is taken from the ink storage room. Every month, the total ink used at the facility can be calculated by adding up the individual amounts measured by the ink service. Based on the use calculations for both the inks and solvents (and a knowledge of the VOC content of these materials), the total VOC use at the facility will be known for each month. In the emission calculations, the Permittee doesn't account for the VOC contained in waste shipped off-site (even though it would be to their advantage) because it is deemed too time intensive to do so.

The next step is to determine the fraction of the total VOC used for the month that was used in the three presses, which are controlled so that the control efficiency of the oxidizer can be accounted for. Instead of simply assuming 3/4 of the total VOC used for the month is controlled, a more rigorous approach is utilized based on the physical differences between the presses. An equation, which calculates the potential emissions of each press, based on the differing physical factors affecting emissions at each press (e.g. maximum web speeds and web widths) is used for this purpose. The result of this equation is an emission factor for each press in units of pounds VOC per hour (see the attachment for the full development of the emission factors). Using these emission factors, along with the hours each press was run for the month (determined from hour meters on each press), the potential emissions of each press can be calculated.

The total monthly VOC use for the facility can be partitioned to each press in proportion to the monthly potential emissions of each press. Once the total monthly VOC use is partitioned to each press, the control efficiency can be used for the three presses that are controlled. The equations in the permit express these relationships mathematically. The Permittee must keep the total facility VOC emissions below 240 tons per year based on a monthly rolling sum. Historical records show that the facility typically has actual emissions of about 130 tons per year.

The catalytic oxidizer used at the facility is connected electronically to the controllers of the presses so that if the temperature in the catalyst bed drops below the minimum, the presses will be automatically shut down. The oxidizer also has a bypass stack but the damper is locked out and is only used in the case of emergency/maintenance. Under such a scenario the proper notifications would be made to MPCA.

The printing inks and solvents do not contain any listed hazardous air pollutants, so the facility is not subject to 40 CFR pt. 63, subp. KK - National Emission Standards for the Printing and Publishing Industry (see attached material safety data sheets).

The emission units at this facility are subject to Standards of Performance for Industrial Process Equipment. However, the particulate emissions from these units are very insignificant and hence the requirements for Standards of Performance for Industrial Process Equipment are not incorporated in this permit.

Note: Emission calculations are in the following pages enclosed

4. Conclusion

Based on the information provided by the Hood Flexible Packaging, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 12300718-002, and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Rhonda Land, Steve Sommer, and John Chikkala

Attachment: CD-01 Forms
Others specified in section 3