

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Aargus Plastics, Inc.
Attn: Scott Starr
540 Allendale Drive
Wheeling, Illinois 60090

Application No.: 03020085
Applicant's Designation: FLEX01
Subject: Flexographic Printing Process
Date Issued:
Location: 540 Allendale Drive, Wheeling

I.D. No.: 031497AAN
Date Received: February 6, 2003
Expiration Date:

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of eight plastic pellet storage silos and seventeen flexographic printing units with natural gas-fired dryers, pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
 - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., VOM less than 100 tons/year, individual HAP less than 10 tons/year and combined HAPs less than 25 tons/year). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - ii. To establish area source status under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Printing and Publishing Industry, 40 CFR 63 Subpart KK. This is consequence of the federally enforceable production and operating limitations, which restrict a 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.
 - iii. To limit the potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirement of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - iv. This permit is issued based upon the plant not being subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart H: Printing and Publishing. This is consequence of the federally enforceable production and operating limitations, 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.

- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) for this location.
- 2a. The wide-web flexographic printing presses at this source are subject to a National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Printing and Publishing Industry, 40 CFR 63, Subparts A and KK. The Illinois EPA is administering the NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.
- b. Pursuant to 40 CFR 63.820(a)(2), each new and existing facility at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated for which the owner or operator chooses to commit to and meets the criteria of 40 CFR 63.820(a)(2)(i) and (ii) for purposes of establishing the facility to be an area source of HAP with respect to 40 CFR 63 Subpart KK. A facility which establishes area source status through some other mechanism, as described in 40 CFR 63.820(a)(7), is not subject to the provisions of 40 CFR 63 Subpart KK.
 - i. Use less than 9.1 Mg (10 tons) per each rolling 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing, and
 - ii. Use less than 22.7 Mg (25 tons) per each rolling 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.
- c. Pursuant to 40 CFR 63.820(a)(3), each facility for which the owner or operator chooses to commit to and meets the criteria stated in 40 CFR 63.820(a)(2) shall be considered an area source, and is subject only to the provisions of 40 CFR 63.829(d) and 40 CFR 63.830(b)(1) of this subpart.
- d. Pursuant to 40 CFR 63.820(a)(4), each facility for which the owner or operator commits to the conditions in 40 CFR 63.820(a)(2) may exclude material used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining electric, propane, gasoline and diesel powered motor vehicles operated by the facility, and the use of HAP contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion).
- e. Pursuant to 40 CFR 63.820(a)(5), each facility for which the owner or operator commits to the conditions in 40 CFR 63.820(a)(2) to become an area source, but subsequently exceeds either of the thresholds in 40 CFR 63.820(a)(2) for any rolling 12-month period (without first obtaining and complying with other limits that keep its potential to emit HAP below major source levels), shall be considered in violation of its commitment for that 12-month period and shall be considered a

major source of HAP beginning the first month after the end of the 12-month period in which either of the HAP-use thresholds was exceeded. As a major source of HAP, each such facility would be subject to the provisions of this subpart as noted in 40 CFR 63.820(a)(1) and would no longer be eligible to use the provisions of 40 CFR 63.820(a)(2), even if in subsequent 12-month periods the facility uses less HAP than the thresholds in 40 CFR 63.820(a)(2).

- f. Pursuant to 40 CFR 63.820(a)(6), an owner or operator of an affected source subject to 40 CFR 63.820(a)(2) who chooses to no longer be subject to 40 CFR 63.820(a)(2) shall notify the Illinois EPA or USEPA of such change. If, by no longer being subject to 40 CFR 63.820(a)(2), the facility at which the affected source is located becomes a major source:
 - i. The owner or operator of an existing source must continue to comply with the HAP usage provisions of 40 CFR 63.820(a)(2) until the source is in compliance with all relevant requirements for existing affected sources under 40 CFR 63 Subpart KK;
 - ii. The owner or operator of a new source must continue to comply with the HAP usage provisions of 40 CFR 63.820(a)(2) until the source is in compliance with all relevant requirements for new affected sources under 40 CFR 63 Subpart KK.
- 3a. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 Ill. Adm. Code 212.122, pursuant to 35 Ill. Adm. Code 212.123(a), except as allowed by 35 Ill. Adm. Code 212.123(b) and 212.124.
- b. Pursuant to 35 Ill. Adm. Code 212.301 and 212.314, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour).
- c. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
 - i. All normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be

cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.

- ii. All unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.
- d. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
- i. The name and address of the source;
 - ii. The name and address of the owner or operator responsible for execution of the operating program;
 - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;
 - iv. Location of unloading and transporting operations with pollution control equipment;
 - v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
 - vi. Estimated frequency of application of dust suppressants by location of materials; and
 - vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- e. Pursuant to 35 Ill. Adm. Code 212.321(a), 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 subsection (c) of 35 Ill. Adm. Code 212.321.
4. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm.

- 5. 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, 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.
- 6. 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.
- 7a. Emissions and operation of all printing shall not exceed the following limits:

- i. Volatile Organic Material (VOM) emissions from all printing operations shall not exceed the following limits:

| <u>Material</u> | <u>VOM Usage</u> | | <u>VOM Emissions</u> | |
|--------------------------------|------------------|------------------|----------------------|------------------|
| | <u>(lbs/Day)</u> | <u>(Tons/Yr)</u> | <u>(lbs/Day)</u> | <u>(Tons/Yr)</u> |
| Inks (As Applied) | 124.47 | 18.67 | 124.47 | 18.67 |
| Other Solvents (Cleanup, Etc.) | 34.00 | 10.10 | 34.00 | 5.10 |
| | | | Total: | 23.77 |

- ii. Hazardous Air Pollutants (HAP) emissions from all printing operations shall not exceed the following limits:

| <u>Individual HAP Usage</u> | | <u>Individual HAP Emissions</u> | |
|-----------------------------|--------------------|---------------------------------|--------------------|
| <u>(lbs/Day)</u> | <u>(Tons/Year)</u> | <u>(lbs/Day)</u> | <u>(Tons/Year)</u> |
| 52.67 | 7.9 | 52.67 | 7.9 |
| <u>Combined HAP Usage</u> | | <u>Combined HAP Emissions</u> | |
| <u>(lbs/Day)</u> | <u>(Tons/Year)</u> | <u>(lbs/Day)</u> | <u>(Tons/Year)</u> |
| 1.75 | 17.5 | 1.75 | 17.5 |

- iii. These limits are based on the maximum material usage and a minimum of 50% of the cleanup solvents recovered for recycle. The above limitations were established in Permit 07060055, pursuant to 35 Ill. Adm. Code Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203.

- b. Emissions and operation of natural gas-fired press dryers shall not exceed the following limits:

- i. Total Natural Gas Usage: 0.8 mmscf/month, 8.0 mmscf/year

ii. Emissions from the combustion of natural gas:

| Pollutant | Emission Factor (lb/mmscf) | Emissions | |
|------------------------------------|-------------------------------|-----------|-----------|
| | | (Tons/Mo) | (Tons/Yr) |
| Carbon Monoxide (CO) | 84 | 0.03 | 0.34 |
| Nitrogen Oxides (NO _x) | 100 | 0.04 | 0.40 |
| Particulate Matter (PM) | 7.6 | 0.01 | 0.03 |
| Volatile Organic Material (VOM) | 5.5 | 0.01 | 0.02 |

These limits are based on the maximum firing rate and standard emission factors (Tables 1.4-1 and 1.4-2 of AP-42, Volume I, Fifth Edition, Supplement D, July 1998).

- c. This permit is issued based on negligible emissions of particulate matter from the plastic pellet storage silos and transfer. For this purpose, emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
- 8. Compliance with the annual limits of this permit shall be determined on a daily basis from the sum of the data for the current day plus the preceding 364 days (running 365 daily total).
- 9a. 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. Pursuant to 35 Ill. Adm. Code 212.107, for both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This Condition shall not apply to 35 Ill. Adm. Code 212.301.
 - c. Pursuant to 35 Ill. Adm. Code 212.109, except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged.
 - d. Pursuant to 35 Ill. Adm. Code 212.110(a), measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E.
 - e. Pursuant to 35 Ill. Adm. Code 212.110(b), the volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4.
 - f. 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.
 - g. Testing required by Condition 9 shall be performed by a qualified independent testing service.
10. Pursuant to 35 Ill. Adm. Code 218.404(a), the VOM content of each coating and ink and the efficiency of each capture system and control device shall be determined by the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105 to establish the records required under 35 Ill. Adm. Code 218.404.

11. Pursuant to 40 CFR 63.829(d), the owner or operator of each facility which commits to the criteria of 40 CFR 63.820(a)(2) shall maintain records of all required measurements and calculations needed to demonstrate compliance with these criteria, including the mass of all HAP containing materials used and the mass fraction of HAP present in each HAP containing material used, on a monthly basis.
- 12a. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- b. Pursuant to 35 Ill. Adm. Code 218.404(b)(2), any owner or operator of a printing line which is exempted from the limitations of 35 Ill. Adm. Code 218.401 because of the criteria in 35 Ill. Adm. Code 218.402 shall collect and record all of the following information each year for each printing line and maintain the information at the source for a period of three years:
 - i. The name and identification number of each coating and ink as applied on each printing line.
 - ii. The VOM content and the volume of each coating and ink as applied each year on each printing line.
- 13a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. The amount of solvent-based inks (pounds/day and tons per year (running total));
 - ii. The amount of water-based inks (pounds/day and tons per year (running total));
 - iii. The amount of solvent used (pounds/day and tons per year (running total));
 - iv. The maximum VOM and HAP contents of the inks (weight %); and
 - v. Monthly and annual CO, NO_x, PM, VOM and HAP emissions with supporting calculations (lbs/day, 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.

14. Pursuant to 40 CFR 63.830(b)(6)(ii), each owner or operator of an affected source subject to 40 CFR 63 Subpart KK shall submit to the Illinois EPA or USEPA A summary report specified in 40 CFR 63.10(e)(3) shall be submitted on a semi-annual basis (i.e., once every 6-month period). These summary reports are required even if the affected source does not have any control devices or does not take the performance of any control devices into account in demonstrating compliance with the emission limitations in 40 CFR 63.824 or 40 CFR 63.825. In addition to a report of operating parameter exceedences as required by 40 CFR 63.10(e)(3)(i), the summary report shall include exceedences of either of the criteria of 40 CFR 63.820(a)(2).
15. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
16. Pursuant to 35 Ill. Adm. Code 218.404(b)(3), any owner or operator of a printing line which is exempted from the limitations of 35 Ill. Adm. Code 218.401 because of the criteria in 35 Ill. Adm. Code 218.402 shall notify the Illinois EPA of any record showing that total maximum theoretical emissions of VOM from all printing lines exceed 90.7 Mg (100 tons) in any calendar year before the application of capture systems and control devices by sending a copy of such record to the Illinois EPA within 30 days after the exceedance occurs.
17. 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.
18. 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:

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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 John Blazis at 217/782-2113.

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

Date Signed: _____

ECB:JPB:jws

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the flexographic printing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, (i.e., 100 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAP) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

| <u>Emission Unit</u> | E M I S S I O N S (Tons/Year) | | | | | | |
|----------------------------------------------------|-------------------------------|-------------|-------------|------------|-------------|----------------------|----------------------|
| | <u>CO</u> | <u>NOx</u> | <u>PM</u> | <u>SO2</u> | <u>VOM</u> | Single <u>HAP</u> | Total <u>HAPs</u> |
| All Printing Operations Natural Gas-Fired Press | -- | -- | -- | -- | 23.77 | 7.9 | 17.5 |
| Dryers | <u>0.34</u> | <u>0.40</u> | <u>0.03</u> | -- | <u>0.02</u> | -- | -- |
| Plastic Pellet Storage Silos and Transfer | ----- | ----- | <u>0.44</u> | ----- | ----- | ----- | ----- |
| Totals | 0.34 | 0.40 | <u>0.47</u> | ----- | 23.79 | 7.9 | 17.5 |

JPB:psj