

AIR EMISSION PERMIT NO. 05300648- 001

IS ISSUED TO

ANAGRAM INTERNATIONAL

7700 Anagram Drive
Eden Prairie, Hennepin County, MN 55344

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):

Application Permit Type	Application Date
Total Facility Operating Permit	April 14, 1995
Major Permit Amendment	December 18, 2001

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 as defined are in the state air pollution control rules unless the term is explicitly defined in the permit.

Permit Type: Federal; Part 70

Issue Date: June 24, 2002

Expiration: June 24, 2007

All Title I Conditions do not expire.

Ann M. Foss
Majors Facilities Section Manager
Majors and Remediation Division

for Karen A. Studders
Commissioner
Minnesota Pollution Control Agency

ASO:lao

TABLE OF CONTENTS

Notice to the Permittee

Permit Shield

Facility Description

Table A: Limits and Other Requirements

Table B: Submittals

Table C: Not used in this Permit

Appendices: Attached and Referenced in Table A

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.

Subject to the limitations of Minn. R. 7007.1800 and 7007.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

FACILITY DESCRIPTION:

Anagram International (Anagram) owns and operates a mylar entertainment balloon manufacturing facility in the city of Eden Prairie, Hennepin County, Minnesota. The facility consists of polyethylene extrusions, ink dryers and flexographic printing presses with catalytic oxidizers.

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 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
This permit establishes limits on the facility to keep it a minor source under New Source Review. The Permittee cannot make any change at the source that would make the source a major source under New Source Review until a permit amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments.	Title I Condition: Limit to avoid classification as a major source or modification under 40 CFR Section 52.21
The Permittee shall not begin construction of any single project or projects that are connected or phased which will cause a total increase in actual emissions of greater than 99 tons per year for any criteria pollutant without first getting a permit amendment to authorize the project. Connected and phased have meanings as defined in Minn. R. 4410.0200 subps. 9b and 60. The Permittee shall not begin construction of any other project which is listed in Minn. R. 4410,4300 or Minn. R. 4410.4400 without first getting a permit amendment to authorize the project. Such projects may require the completion of an Environmental Assessment Worksheet or an Environmental Impact Statement prior to the amendment being issued. This is a state only requirement and is not federally enforceable.	Minn. R. 4410.4300 and Minn. R. 4410.4400
Emission Unit Labeling: The Permittee shall permanently affix a unique number to the each emission unit for tracking purposes. The number shall correlate the unit to the appropriate EU and GP numbers used in this permit. The number can be affixed by placard, stencil, or other means. The number shall be maintained so that it is readable and visible at all times from a safe distance.	Minn. R. 7007.0800, subp. 2
Equipment Inventory List: The Permittee shall maintain a written list of all emission units on site. The list shall include the type of equipment, manufacturer and model number (if available), unique ID number (assigned and affixed as required by this permit), the corresponding control equipment number used to control the unit (if applicable), and the dates of initial startup, modification, and commence construction. The Permittee shall update the list to include any replaced, modified or added equipment prior to making the pre-authorized change. For equipment that is replaced, modified, or added, the Permittee shall complete an evaluation as detailed below and shall include a record of the evaluation as part of the equipment.	Minn. R. 7007.0800, subp. 2
Equipment Inventory List continued: Prior to making the change, the Permittee shall determine and keep a record of the following: 1) Evaluate whether the permit contains all applicable requirements that would apply to the planned change and 2) Re-evaluate whether the facility will continue to comply with all permit limits (e.g. 240 tpy VOC limit, Minn. R. ch. 7011 standard. etc.) If the answer to either is "no", the Permittee shall apply for and obtain the appropriate permit amendment as required by Minn. R. ch. 7007. These rule requirements may require that the permit amendment be issued prior to making the proposed change.	Minn. R. 7007.0800, subp. 2
STANDARD REQUIREMENTS	hdr
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment. At a minimum, the O & M plan shall identify all air pollution control equipment and shall include a preventative maintenance program for that equipment, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment to proper operation to meet applicable permit conditions, a description of the employee training program for proper operation and maintenance of the control equipment, and the records kept to demonstrate plan implementation.	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

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 001

<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Tables A and B of the permit. See Table B for additional testing requirements.</p> <p>Performance Test Notification (written): due 30 days before each Performance Test Performance Test Plan: due 30 days before each Performance Test Performance Test Pre-test Meeting: due 7 days before each Performance Test Performance Test Report: due 45 days after each Performance Test Performance Test Report - Microfiche Copy: due 105 days after each Performance Test</p>	<p>Minn. R. 7017.2030, subp. 1-4 and Minn. R. 7017.2035, subp. 1-2</p>
<p>Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>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.</p>	<p>Minn. R. 7011.0020</p>
<p>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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 3</p>
<p>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.</p> <p>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.</p>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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:</p> <ol style="list-style-type: none"> 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. 	<p>Minn. R. 7019.1000, subp. 1</p>
<p>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.</p>	<p>Minn. R. 7019.1000, subp. 4</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 001

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)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (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

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 001

Subject Item: GP 001 Total Facility VOC Sources

- Associated Items:**
- CE 001 Catalytic Afterburner w/Heat Exchanger
 - CE 002 Catalytic Afterburner w/Heat Exchanger
 - EU 001 Polyethylene Extruder
 - EU 003 Flexographic Printing Press and Dryer 1
 - EU 004 Flexographic Printing Press and Dryer 2
 - EU 005 Flexographic Printing Press and Dryer 3
 - EU 006 Flexographic Printing Press and Dryer 4
 - EU 007 6-Color Flexographic Printing Press and Dryer 5
 - EU 008 6-Color Flexographic Printing Press and Dryer 6
 - EU 009 8-Color Flexographic Printing Press
 - EU 010 Polyethylene Extruder
 - SV 001 Polyethylene Extruder
 - SV 003 Printing Catalytic Oxidizer
 - SV 004 Printing Oxidizer
 - SV 005 Polyethylene Extruder

What to do	Why to do it
A. LIMITS	hdr
<p>Volatile Organic Compounds: less than or equal to 240 tons/year using 12-month Rolling Sum to be calculated by the 28th day of each month for the previous 12-month period. All emission units, except those deemed to be insignificant activities under Minn. R. 7007.1300 and fuel combustion sources shall be included in this calculation. VOC contents for each VOC-containing material shall be determined as described under the Material Content Requirement.</p>	<p>Title I Condition: Limit to avoid classification as a major source and modification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>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 the less stringent limit of either Minn R. 7011.0730 or Minn. R. 7011.0735. This limit applies separately to each piece of industrial process equipment.</p>	<p>Minn. R. 7011.0715, subp. 1(A)</p>
<p>Opacity: less than or equal to 20 percent opacity . This limit applies separately to each piece of industrial process equipment.</p>	<p>Minn. R. 7011.0715, subp. 1(B)</p>
<p>Pre-authorized Changes: The Permittee may modify, install, replace listed emission units with emission units similar to those listed in GP 001, GP 002, GP 003 and GP 004 , provided VOC emissions are tracked and calculated as specified in this permit, and all other permit conditions are met. Emissions from all presses must be controlled with control equipment meeting the requirements of GP 002.</p> <p>If a proposed change triggers an applicable requirement that is not contained in this permit, the change must go through the appropriate procedures in Minn. R. ch. 7007.</p>	<p>Title I Condition: Limit to avoid classification as a mJOR source and modification under 40 CFR 52.21 and Minn. R. 7007.3000</p>
B. MONITORING	hdr
<p>Monthly Calculation- VOC emissions: By the 28th of each month, the Permittee shall maintain records and calculate the VOC emissions for the previous month from the applicable emission units except insignificant activities under Minn. R. 7007.1300 and fuel combustion sources. The emissions shall be calculated using the following equation:</p> $\text{VOC} = [(\text{Summation } (A_i V_i)) + (\text{Summation } (B_j Z_j))] \times [((100 - \% \text{ control}) / 100)] \times 0.0005\text{-CY}$ <p>where i =denotes each separate material used for printing j =denotes each separate material used for cleanup</p>	<p>Title I Condition: Recordkeeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 001

<p>CONTINUED</p> <p>Ai =amount of VOC containing material used for printing as purchased, gal/month Vi =VOC in Ai as applied, lb/gal Bj =amount of VOC containing material used for cleaning as purchased or used, gal/month Zj =VOC in Bj as applied, lb/gal % control =control efficiency for catalytic thermal oxidizer and/or thermal oxidizer 0.0005 =conversion factor, ton/lb C =amount of each VOC containing material shipped off-site as waste, tons/month Y =weight percent of VOC</p>	<p>Title I Condition: Recordkeeping for limit to avoid classification as a major source or modification under 40 CFR Section 52.21</p>
<p>Material Content: VOC contents inmaterial shall be determined by either (1) a Material Safety Data Sheet (MSDS) or (2) a letter of Certification provided by the supplier for each material used. If a material content range is given on the MSDS, the highest number in the range shall be used in all compliance calculations. Other alternative methods approved by the MPCA may be used to determine the VOC contents. The Commissioner reserves the right to require the Permittee to determine the VOC contents of any material, according to EPA or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>
<p>Waste Credit: If the Permittee elects to obtain credit for VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC content for each credited shipment.</p> <p>1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, excluding water.</p> <p>2) The Permittee may use supplier data for raw materials to determine the VOC content of each waste shipment, using the same content data used to determine the content of raw materials. If the waste contains several materials, the content of mixed waste shall be assumed to be the lowest VOC content of any of the materials.</p>	<p>Minn. R. 7007.0800, subps. 4 and 5</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 001

Subject Item: GP 002 Control Equipment

Associated Items: CE 001 Catalytic Afterburner w/Heat Exchanger

CE 002 Catalytic Afterburner w/Heat Exchanger

What to do	Why to do it
The requirements for GP 002 apply separately to each control equipment listed in GP 002 (i.e. CE 001 and CE 002). This includes each new catalytic oxidizer added as allowed under GP 001.	Title I Condition: Limit to avoid classification as a major source or modification under 40 CFR Section 52.2
The Permittee shall operate and maintain the control equipment such that it achieves an overall control efficiency for Volatile Organic Compounds: greater than or equal to 95 percent control efficiency	Title I Condition: Limit to avoid classification as a major source or modification under 40 CFR Section 52.2
The Permittee shall operate and maintain each catalytic oxidizer any time that any process equipment controlled by the catalytic oxidizer is in operation.	Title I Condition: Limit to avoid classification as a major source or modification under 40 CFR Section 52.2
MONITORING AND OPERATING SECEENARIO	hdr
Temperature: greater than or equal to 600 degrees F as a three-hour rolling average at the inlet unless a new minimum is set pursuant to Minn. R. 7017.2025, subp. 3, based on the average temperature recorded during the most recent MPCA approved performance test where compliance for VOC emissions was demonstrated. If the three-hour rolling average temperature drops below the minimum temperature limit, the VOC used during that time shall be considered uncontrolled until the average minimum temperature limit is once again achieved. This shall be reported as a deviation.	Title I Condition: Limit to avoid classification as a major source or modification under 40 CFR Section 52.2
The Permittee shall maintain a continuous hard copy readout or computer disk file of the inlet and outlet temperatures and the calculated three-hour rolling average inlet temperature.	Title I Condition: Limit to avoid classification as a major source or modification under 40 CFR Section 52.2
The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the combustion chamber temperature of the thermal oxidizer. The monitoring device shall have a margin of error less than the greater of +/- 0.75 percent of the temperature being measured or +/- 2.5 degrees Celsius. The recording device shall also calculate the three-hour rolling average combustion chamber temperature.	Minn. R. 7007.0800, subps. 4 and 5
Daily Monitoring: The Permittee shall physically check the temperature recording device at least once each operating day to verify that it is working and recording properly.	Minn. R. 7007.0800, subps. 4 and 5
Monitoring Equipment: The Permittee shall install and maintain thermocouples for measuring the temperatures as required by this permit. The monitoring equipment must be installed, in use, and properly maintained whenever operation of the monitored control equipment is required.	Minn. R. 7007.0800, subp. 4
Quarterly Inspections: At least once per calendar quarter, or more frequently if required by the manufacturer specifications, the Permittee shall inspect the control equipment internal and external system components, including but not limited to the refractory, heat exchanger, and electrical systems. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.	Minn. R. 7007.0800, subps. 4, 5, and 14
Annual Calibration: The Permittee shall calibrate the temperature monitor at least annually and shall maintain a written record of the calibration and any action resulting from the calibration.	Minn. R. 7007.0800, subps. 4, 5 and 14
Corrective Actions: If the temperature is below the minimum specified by this permit or if the catalytic oxidizer or any of its components are found during the inspections to need repair, the Permittee shall take corrective action as soon as possible. Corrective actions shall return the temperature to at least the permitted minimum and/or include completion of necessary repairs identified during the inspection, as applicable. Corrective actions include, but are not limited to, those outlined in the O & M Plan for the catalytic oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken	Minn. R. 7007.0800, subps. 4, 5 and 14
The Permittee shall operate and maintain the oxidizer in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14
For periods when the catalytic oxidizer is operated above the minimum inlet temperature, the Permittee shall use the appropriate one of the following when completing calculations as required elsewhere in this permit: a. The overall control efficiency limit specified in this permit for this equipment 95 %; or b. The overall control efficiency determined during the most recent MPCA approved performance test. If the tested efficiency is less than the efficiency limit in this permit, the Permittee must use the tested value in all calculations until the efficiency is demonstrated to be above the permit limit through a new test.	Title I Condition: Limit to avoid classification as a major source or modification under 40 CFR Section 52.2

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 001

Monthly Monitoring: At least once a month during normal operation, the Permittee shall record the temperature rise across the catalyst (outlet temperature - inlet temperature) while the process is running. If it is determined that the catalyst reactivity has been impaired, by comparison of the observed temperature rise to the past temperature rise records, the Permittee shall follow the corrective actions in the O & M plan. The Permittee shall maintain written records of the monitoring and any corrective actions taken.	Minn. R. 7007.0800, subps. 4, 5, and 14
C. PERFORMANCE TESTING REQUIREMENT	hdr
Initial Performance Test: due 180 days after Initial Startup of the oxidizer to measure destruction efficiency for VOC. Oxidizer means any new installed oxidizer.	Minn. R. 7017.2020, subp. 1

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc
 Permit Number: 05300648 - 001

Subject Item: GP 003 Direct Heating Equipment

Associated Items: EU 002 Polyethylene Extruder Dryer
 EU 011 Extruder Dryer
 SV 002 Extruder
 SV 006 Extruder Dryer

What to do	Why to do it
A. LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grams/dry standard cubic meter of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. This limit applies separately to each piece of direct heating equipment.	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. This limit applies separately to each piece of direct heating equipment.	Minn. R. 7011.0610, subp. 1(A)(2)
B. OTHER LIMITS AND REQUIREMENTS	hdr
Fuel Restriction: Authorized to burn natural gas or propane fuel only.	Minn. R. 7007.0800, subp. 2
Recordkeeping: Record and maintain records of the type of each fuel combusted in GP 003 on a monthly basis 28 days after the completion of the month.	Minn. R. 7007.0800, subps. 4 and 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 001

Subject Item: GP 004 Extruders**Associated Items:** EU 001 Polyethylene Extruder

EU 010 Polyethylene Extruder

SV 001 Polyethylene Extruder

SV 005 Polyethylene Extruder

What to do	Why to do it
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 the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011. 0735. This limit applies separately to each piece of industrial process equipment.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each industrial process equipment.	Minn. R. 7011.0715, subp. 1(B)

TABLE B: SUBMITTALS

06/24/02

Facility Name: Anagram International Inc
Permit Number: 05300648 - 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

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 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
Testing Frequency Plan	due 60 days after Initial Performance Test for destruction efficiency for VOC emissions. The plan shall specify a testing frequency based on the test 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 the MPCA.	GP002

TABLE B: RECURRENT SUBMITTALS

06/24/02

Facility Name: Anagram International Inc

Permit Number: 05300648 - 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
Annual Report	due 30 days after end of each year following Permit Issuance (January 30th). The Permittee shall submit this report that describes the changes made at the facility during the previous calendar year using the latest MPCA application forms (GI-04 and GI-05). The report will document any equipment that was added, replaced or modified under the pre-authorized change provisions of this permit. The report will be submitted with the annual compliance certification. As part of the Report, the Permittee shall verify and certify that the facility has maintained minor source status for New Source Review.	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 US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX B**Facility Name:** Anagram International Inc**Permit Number:** 05300648-001**Insignificant Activities and Applicable Requirements**

Minn. R. 7007.1300	Rule Description of the Activity	Likely Applicable Requirement
subpart 3(A)	Fuel use in space heaters fueled by natural gas where the space heater is a heating unit not conducted to ducting to distribute the heat. ◆ 6 Natural gas-fired roof and space heaters.	Minn. R. 7011.0515
subpart 4	Part 70 Insignificant activities with emissions less than 2.28 lb/hr of PM, PM10, NO _x , SO ₂ and VOCs, and less than 5.7 lb/hr of CO ◆ Ink storage room.	Minn. R. 7011.0710/0715

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 05300648-001

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: 2047)
Anagram International 7700 Anagram Drive, Eden Prairie, Minnesota 55344 Phone Number: (952)949-5767	Anagram International 7700 Anagram Drive, Eden Prairie, Minnesota 55344 Hennepin Country

1.2. Description of the Permit Action

This Part 70 Permit is an Air Emission Operating Permit required by Title V of the federal Clean Air Act Amendments of 1990, codified in 40 CFR pt. 70. "Part 70 is a section in the Code of Federal Regulations for the Protection of the Environment. Previously, the facility operated under a state only Total Facility Operating Air Emission Permit issued on December 18, 1992. Since the expiration of the Total Facility Operating Permit on December 18, 1997, Anagram International (Anagram) has continued to operate its facility under the conditions of the expired permit as is required by Minn. R. 7007.0450, Continuation of Expired Permit.

Anagram' Part 70 Operating Permit will be consolidation of all existing conditions from the expired Total Facility Operating Permit and amendments. The permit will incorporate more detailed specifications of the emission units, pollution control equipment and new rules and existing regulations that will apply to Anagram at the time of the issuance of this permit. The permit will also meet all requirements of Minn. R. 7007.0800, that specifies requirements for the content of Part 70 Permits.

The permit application for the issuance of Anagram's Part 70 Total Facility Operating Permit was received on April 17, 1995, in accordance with its deadline. Anagram did not submit any information that was claimed to be confidential verbally or in written correspondence.

1.3. Description of any changes allowed with this permit issuance

Anagram operates a manufacturing facility in the city of Eden Prairie, Hennepin County, in Minnesota. The manufactures mylar entertainment balloons. The facility consists of polyethylene extrusions, ink dryers and flexographic printing presses with catalytic oxidizer.

The main emissions for the facility are Volatile Organic Compounds (VOCs). The facility is a true minor for Hazardous Air Pollutants (HAPs), Particulate Matter (PM), Particulate Matter less than ten microns (PM₁₀), Sulfur Dioxide (SO₂), Nitrogen Oxides (NO_x) and Carbon Monoxide (CO). The permit limits VOC emissions to 240 tons per year based on a 12-month rolling sum. The permit also contains requirements on control equipment to control VOC emissions from the presses.

This permit also responds to an application for a Major Permit amendment. The major amendment application requests that the additional of three flexographic printing presses with catalytic thermal oxidizer, a polyethylene extruder and dryer to be encompass under the VOC emissions cap. The permit limits the emissions of the facility such that the facility is classified as non-major source under federal New Source Review regulations.

The permit also allows operating flexibility by authorizing the installation, replacement, and removal of equipment without a permit amendment, so long as the source remains in compliance with its permit. The Permittee will not “construct or reconstruct a major source of HAPs as defined in 40 CFR pt. 63, subp. B, without first obtaining a preconstruction permit.

1.4. Description of all amendments issued since the issuance of the last total facility permit and to be included in the Part 70 Permit.

Permit Number and Issuance Date	Action Authorized
AQD 2630-92-OT-1 December 18, 1992	Total Facility Permit
Amendment No. 1 AQD 2630-92-OT-1 March 23, 1994	Installation and Operation Permit for two printing presses and dryers.
Amendment No. 2 AQD 2630-92-OT-1 June 28, 1995	Amendment extended the one-year expiration of construction authorization.

1.5. Facility Emissions:

Permit Action Number: 001

Date: 12/12/2003

Page 2

Table 1. Total Facility Potential to Emit Summary (in tons per year):

	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Pb tpy	Combined HAPs tpy
Total Facility Limited Potential Emissions*	12.12	12.12	0.04	36.95	44.10	240.0	0.0	1.02
Total Facility Actual Emissions*	0.05	0.05	0.00	0.72	0.61	40.05	0.00	Not Available

*These are the limited potential emissions from column 3 in GI-07 from Delta. They differ from those in the permit application sent by the company in that they have been verified and corrected as needed by MPCA staff. These are the potential emissions that would appear in a public notice.

Table 2. Facility (TF) and Permit Classification

Classification (put x in appropriate box)	Major/Affected Source	*Synthetic Minor	*Minor
Prevention of Significant Deterioration (PSD)	N/A	VOC	PM, PM10, NOx, CO, SO2
Non Attainment Area Review (NAAR)	N/A	N/A	N/A
Part 70 Permit Program	VOC	N/A	PM, PM10, NOx, CO, SO2, HAP

* 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

Anagram has taken limits to avoid major source classification for New Source Review (40 CFR § 52.21). However, Anagram is a major source under the federal operating permit program (40 CFR pt. 70) but a true minor under National Emission Standards for Hazardous Air Pollutants (NESHAPs). The National Standards for Printing and Publishing Industry (40 CFR pt. 63, subp. KK, is not applicable to this facility.

* Level	Applicable Regulations	Comments:
Total Facility; GP 001	Minn. R. chs. 7002, 7007, 7009, 7011, 7019; 40 CFR § 52.21; Minn. R. 7011.0715	Title I Conditions: Prevention of Significant Deterioration (PSD) and Standards of Performance for Post 1969 Industrial Equipment. Limits taken to avoid major source classification under PSD for all emissions of VOC limits. It is a rolling limit due to substantial and unpredictable variations in operation. PM/PM10 to meet the Minnesota Performance Standard. The limits are other requirements including recordkeeping and monitoring related to the limits. Reporting requirements are contained in Table B of the permit.
Press Operations and Control Equipment (GP 001 and 002)	40 CFR § 52.21	PSD; Limits taken to avoid major source and modification classification under PSD. This includes a requirement to control emissions from the press operations with pre-authorization to replace, reconfigure, or add control equipment meeting the requirements of the permit. Control efficiency and other operating parameter requirement to limit VOC PTE to avoid major modification under PSD (for future modifications). Minnesota Performance Testing Rule: Requirements to test all new oxidizers for VOC control efficiencies.
EU 002 and 011 (GP 003)	Minn. R. 7011.0610, subp. 1(A)(1) and (2)	Standards of Performance for Direct Heating Equipment This standard includes limits for particulate matter and opacity. Fuel limited to natural gas and propane only.

EU 001 and	Minn. R. 7011.0700-	Standards of Performance for Industrial
------------	---------------------	---

Permit Action Number: 001

Date: 12/12/2003

Page 4

010 (GP 004)	7011.0735	Equipment This standard includes limits for particulate matter and opacity.
-----------------	-----------	--

* Level –EU = emission unit, GP = group, TF = total facility, CE = control equipment

3. Technical Information

3.1. Pre-authorized Changes

As briefly described earlier, the permit pre-authorizes certain changes. The Permittee may modify, replace or add the existing equipment and/or add, modify or reconfigure the air pollution control equipment, so long as all permit conditions are met.

While the permit allows the replacement or installation of certain equipment, it does not allow any changes that would trigger a new applicable requirement not contained in the permit. The permit sets 12-month rolling limit on VOC emissions, so annual VOC emissions cannot increase due to any of the pre-authorized changes. All applicable requirements and necessary monitoring requirements are in the permit. The replacement of existing units with similar technology and capacity units, and the changing or modification of existing units are specified in the permit, will not cause an emissions increase; so they are not modifications and can be made without the need for an amendment.

3.2. Potential to Emit Calculations:

Polyethylene Extrusion and Extruder Dryers:

Polyethylene Extrusion and Extruder Dryers calculations, there are correct as submitted by the Permittee. As indicated by the Permittee, the extrusion generates VOC and particulate emissions. The Permittee used “Development of Emission Factors for Polyethylene Processing”, Journal of Air and Waste Management Association. For the dryers, the Permittee used AP-42 emission factors to calculate the emissions. It was based on the maximum equipment capacity.

Flexographic Printing with Catalytic Oxidation System:

See calculations, there are correct. The Permittee completed the emissions calculations using MPCA guidance for printers. The basic procedure is a mass balance approach assuming certain percentages of materials are captured and vented to the control equipment. All calculations are based on worst-case material contents (e.g. highest VOC). VOC emissions may also be PM/PM10 condensables. Since these processes don't otherwise generate particulate matter, stacking testing for PM/P10 is not likely. In terms of applicability, it was decided that for these processes, the VOC leaving the oxidizers is not likely to condense and should not be counted as PM/PM10, therefore, the controlled VOC emissions are not considered condensable particulate for applicability purposes.

Permit Action Number: 001

Date: 12/12/2003

Page 5

The Permittee use organic solvent-based ink in their presses. Actually, the organic solvent-based ink do not contained any Hazardous Air Pollutants (See Material Safety Data Sheets attached).

Catalytic Oxidation: The emissions from this sources result from combustion of natural gas auxiliary fuel to heat incoming VOC-laden air and maintain the catalyst bed at 600 degrees F or greater. The emissions were based on combustion of natural gas at maximum capacity of the unit.

Unrestricted Potential to Emit (PTE)

Anagram calculated emissions for each emission unit operating at 8760 hours per year and arrived at the following PTE in tons per year for the facility.

PM	PM10	SO2	NOx	CO	VOC	Combined HAP
12.05	12.05	0.03	57.24	35.38	* 248.77	0.703

* Anagram received a total facility permit in 1992 that limited its VOC emissions not to exceed 248 tons/year

Actual Emissions

Anagram’s actual emissions in tons per year reported in the Emission Inventory for year 2000.

PM	PM10	SO2	NOx	CO	VOC	Combined HAP
0.05	0.05	0.00	0.72	0.61	40.05	Not Available

Limited Potential to Emit

Anagram’s Part 70 operating permit limits emissions as a 12-month rolling sum.

PM	PM10	SO2	NOx	CO	VOC	Combined HAP
12.12	12.12	0.04	36.95	44.1	240.00	1.02

3.3. Periodic Monitoring

Section 70.6(a)(3) of the Title V regulations specified the standard monitoring and related record keeping and reporting requirements that each Title V permit must contain. One important element of the monitoring, record keeping, and reporting requirement of Title V is that each permit must contain periodic monitoring sufficient to yield reliable data from relevant time period that is representative of the facility’s compliance with the permit.

Under Minn. R. 7007.0800, subp. 4, the MPCA will require the owner or operator of a facility to have sufficient knowledge of the facility to certify that the facility is in compliance with all applicable requirements. To achieve this objective, the MPCA staff considered all the relevant factors approved by EPA periodic monitoring requirements for permitted sources.

In evaluating the monitoring included in the permit, the MPCA considered the following:

Permit Action Number: 001

Date: 12/12/2003

1. the likelihood of violating the applicable requirements;
2. whether add-on controls are necessary to meet the emission limit;
3. the variability of emissions over time;
4. the type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
5. the technical and economic feasibility of possible periodic monitoring method, and
6. The kind of monitoring found on similar units.

TF/EU/GP/CE	Emission Limit (Basis)	Additional Monitoring	Discussion
Total Facility (GP 001)	<p>VOC \leq 240 tons per month based on a 12-month rolling sum (limit to avoid NSR)</p> <p>Modification and replacement of existing units</p>	<p>Recordkeeping: Monthly records of material use, ongoing records of VOC content; Monthly calculation of VOC emissions.</p> <p>On-going record of any equipment that is replaced or added to the facility</p>	<p>This stationary source currently has a tracking system in place for calculations of VOC emissions.</p> <p>Credit can be taken for waste materials collected and shipped off-site.</p> <p>Any replaced equipment must meet all the applicable requirements in the permit. If a change would trigger a different requirement, the change cannot be made without an amendment. In addition emissions must be tracked and calculated as required by the permit.</p> <p>The permit also requires that all units are labeled and inventoried.</p>
Direct Heating Equipment (GP 003)	<p>PM: variable depending on airflow (Minn. R. 7011.0610)</p> <p>Opacity: \leq 20% (Minn. R. 7011.0610)</p>	None	<p>All units use natural gas or propane; therefore the likelihood of violating of the emission limits is very low. The Permittee can demonstrate that these units will continue to operate such that emissions are well below</p>

			the emission limits by only burning natural gas or propane. No visible emissions are expected from these units, therefore no additional periodic monitoring is warranted.
Extruders: (GP 004)	PM: variable depending on airflow (Minn. R. 7011.0715) Opacity: $\leq 20\%$ (Minn. R. 7011.0715)	None	Based on the emission factors obtained from "Development of Emission Factors for Polyethylene Processing", Journal of the Air and Waste Management Association, the design PTE is 1.33 lbs/hr compared to the IPR limits of 2.49 lbs/hr, therefore, it will be unlikely that they will violate the applicable requirement.
Catalytic or Thermal Oxidizer (GP 002)	VOC: Control Efficiency of 95 % or greater (limit to avoid NSR) Temperature limit: ≥ 600 degree F inlet	Recordkeeping, O & M Inspections and Performance Testing.	Performance Testing in addition to monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance (daily and periodic inspections, correction actions, O & M and temperature records. The Permittee is also allowed new pollution control equipment but testing is required to determine adequate temperature and control efficiency.

3.4. Deviation from Delta Guidance

Permit Action Number: 001

Date: 12/12/2003

Page 8

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One item that deviates from guidance is the listing of certain applicable requirement at the group level even though they apply at the individual unit or control device. Specifically: the indirect heating rule listed at GP 003 and the industrial process equipment rule is listed at GP 004.

In general, limits that apply to individual pieces of equipment should be tracked at the unit level and should not be listed as a GP. The main reason is if there is noncompliance with a limit by one unit within the group, the computer system would say the whole group was out of compliance. This is a computer tracking issue.

Another area where this permit deviates slightly for Delta guidance in the use of appendices. While appendices are fully enforceable parts of the permit, in general, any requirement that the MPCA thinks should be tracked should be in Table A or B.

3.5. Insignificant Emission Units (IEU)

The IEU are in the Appendix B of the permit. These IEU are subject to the state general applicable requirements. It is our belief that IEU's listed in Appendix B of the permit associated with inconsequential environmental impacts and present little potential for violations of generally applicable requirements, therefore no monitoring will be required.

4. Conclusion

Based on the information provided by Anagram International, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300648-001 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:

Staff Engineer: Amrill Okonkwo, (651) 296-7009

Enforcement Staff: Rhonda Land, (651) 297-7707

Attachment:

- A. Facility Information Forms
- B. Form CD-01 (Compliance Form)
- C. Emission Calculations

Updated by Amrill Okonkwo, June 2002

Note: Called Bryan Holtrop on June 14, 2002 to request to reduce the 45-day EPA's review. He stated that I should go ahead and issue the permit.

Permit Action Number: 001

Date: 12/12/2003

Page 9

Permit Action Number:
Date: 12/12/2003

ATTACHMENT A
FORM GI-07 (Facility Emission Summary)

Permit Action Number:
Date: 12/12/2003

Permit Action Number:
Date: 12/12/2003

ATTACHMENT B
FORM CD-01 (Compliance Form)

Permit Action Number:
Date: 12/12/2003

Permit Action Number:
Date: 12/12/2003

ATTACHMENT C
MPCA and Permittee' Calculations
(Paper Copy)

Permit Action Number:
Date: 12/12/2003