

**AIR EMISSION PERMIT NO. 05300222-003**  
**Major Amendment**

**IS ISSUED TO**

Banta Corp Inc.

**BANTA DIRECT MARKETING**  
18780 West 78th Street  
Chanhassen, Hennepin County, MN 55317

The emission units, control equipment and emission stacks at the stationary source authorized in this permit amendment are as described in the Permit Applications Table.

This permit amendment supersedes Air Emission Permit No. 05300222-002 and 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.

Unless otherwise indicated, all the Minnesota rules cited as the origin of the permit terms are incorporated into the State Implementation Plan under 40 CFR § 52.1220 and as such as are enforceable by U.S. Environmental Protection Agency (EPA) Administrator or citizens under the Clean Air Act.

**Permit Type:** State; Limits to Avoid Pt 70/Limits to Avoid NSR;

**Operating Permit Issue Date:** November 22, 2005

**Major Amendment Issue Date:** August 10, 2009

**Expiration Date:** Permit does not expire

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Don Smith, P.E., Manager  
Air Quality Permits Section  
Industrial Division

for Paul Eger  
Commissioner  
Minnesota Pollution Control Agency

### Permit Applications Table

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Administrative Amendment	04/06/06	002
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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. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, 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:**

Banta Direct Marketing operates a commercial printing facility in Chanhassen, Minnesota. The facility is composed of eight web presses along with their dryers, seven sheet fed presses, one thermal oxidizer, and several ink jet printing units. The thermal oxidizer controls emissions from the facility. The facility has a Potential to Emit (PTE) of about 193 tons per year of Volatile Organic Compounds (VOC), although their actual emissions are much lower, making them a synthetic minor source for Part 70. The existing permit contains pre-cap language allowing the Permittee to add additional VOC and Hazardous Air Pollutant (HAP) emitting equipment under their existing cap. The existing permit also allows the Permittee to add equipment with additional MMBtu/hr capacity so long as the facility's total MMBtu/hr capacity does not exceed 80 MMBtu/hr, including insignificant activities.

**PERMIT AMENDMENT 002 DESCRIPTION:**

This permit action required performance testing for each of the existing oxidizers by specific deadlines. The amendment extended the deadline for the first test, in anticipation of the unit being replaced in the near future. The only other changes to the permit were administrative in nature (e.g., updating references to the permit issuance date).

**PERMIT AMENDMENT 003 DESCRIPTION:**

Banta Direct Marketing submitted a minor amendment in accordance with Minn. R. 7007.1450 on November 25, 2008. An administrative amendment and a reopening have all been rolled into this permit action. The minor amendment was submitted to remove Emission Unit (EU) 014 and to add four additional sheet fed presses (EUs 056-059) to permit 05300222-002. The total PTE of the four presses is less than 9.13 lb/hr (the maximum lb/hr increase for a minor amendment) of VOC.

The administrative amendment was submitted to notify the MPCA that Banta Direct Marketing had replaced two of its pieces of Control Equipment (CE) (CE 001 & 002) with a new thermal oxidizer (CE 003).

The reopening was generated due to a performance test on the new thermal oxidizer (CE 003), performed on September 12, 2006. The oxidizer must be operated at a temperature greater than 1475 degrees Fahrenheit and meet a 90 percent control efficiency or greater. Because of this new limit the permit action must follow the major amendment procedures.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing  
 Permit Number: 05300222 - 003

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
SOURCE-SPECIFIC REQUIREMENTS	hdr
Permit Appendices: This permit contains 2 appendices as listed in the permit Table of Contents. The Permittee shall comply with all requirements contained in the appendices.	Minn. R. 7007.0800, subp. 2
This permit establishes limits on the facility to keep it a minor source under New Source Review and the NESHAP program. The Permittee cannot make any change at the source that would make the source a major source under New Source Review or the NESHAP program 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: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; to avoid major source classification under 40 CFR Section 63.2
<p>Total Facility Press Dryers and Control Equipment Capacity: less than or equal to 80 million Btu/hr.</p> <p>All propane or natural gas combustion press dryers and control equipment at the Facility are subject to this limit.</p> <p>If the Permittee replaces any propane or natural gas combustion units, adds new propane or natural gas combustion units, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of GP 002. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. However, when calculating the emissions increase, only the hourly emissions increase (calculated per Minn. R. 7007.1200, subp. 3) shall be calculated.</p> <p>A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit.</p>	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200
<p>Equipment Labeling and Inventory: The Permittee shall permanently affix a unique number to each emissions unit and control equipment for tracking purposes. The numbers 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 reasonable and visible at all times from a safe distance.</p> <p>The Permittee shall maintain a written list of all emission units on site. The list shall correlate the units to the numbers used in this permit (EU, GP, and CE) and shall include data included in Appendix III of this permit. The Permittee shall update the list to include any replaced or modified equipment prior to making the pre-authorized changes.</p>	Minn. R. 7007.0800, subp. 2
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 applies separately to each piece of industrial process equipment. Specifically, it applies to each press and ink jet printer.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This applies separately to each piece of industrial process equipment. Specifically, it applies to each press and ink jet printer.	Minn. R. 7011.0715, subp. 1(B)
OPERATIONAL REQUIREMENTS	hdr
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
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

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 control practices and shall include a preventative maintenance program for the equipment and practices, a description of (the minimum but not necessarily the only) corrective actions to be taken to restore the equipment and practices 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 practices, and the records kept to demonstrate plan implementation.	Minn. R. 7007.0800, subps. 14 and 16(J)
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
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
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
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)
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
<b>PERFORMANCE TESTING</b>	hdr
Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A and/or B.	Minn. R. ch. 7017
Performance Test Notifications and Submittals:  Performance Tests are due as outlined in Table A of the permit. See Table B for additional testing requirements.  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  The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.	Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4, Minn. R. 7017.2035, subps. 1-2
Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as stated in the MPCA's Notice of Compliance letter granting preliminary approval. Preliminary approval is based on formal review of a subsequent performance test on the same unit as specified by Minn. R. 7017.2025, subp. 3. The limit is final upon issuance of a permit amendment incorporating the change.	Minn. R. 7017.2025, subp. 3
<b>MONITORING REQUIREMENTS</b>	hdr
Monitoring Equipment Calibration: The Permittee shall calibrate all required monitoring equipment at least once every 12 months.	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A and/or B 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)
<b>RECORDKEEPING</b>	hdr
Recordkeeping: Retain all records at the stationary source, unless otherwise specified within this permit, 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)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

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)
If the Permittee determines that no permit amendment or notification is required prior to making a change, the Permittee must retain records of all calculations required under Minn. R. 7007.1200. These records shall be kept for a period of five years from the date that the change was made. The records shall be kept at the stationary source for the current calendar year of operation and may be kept at the stationary source or office of the stationary source for all other years. The records may be maintained in either electronic or paper format.	Minn. R. 7007.1200, subp. 4
REPORTING/SUBMITTALS	hdr
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
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
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 - 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)
Emission Inventory Report: due on or before April 1 of each calendar year following permit issuance, to be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 - 7019.3100
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 - 7002.0095



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

**Subject Item: GP 001 Total Facility VOC Limits**

- Associated Items:**
- EU 002 Web Press 2
  - EU 004 Web Press 3
  - EU 007 Web Press 8
  - EU 008 Web Press 9
  - EU 009 Web Press 10
  - EU 010 Web Press 11
  - EU 012 Web Press 4
  - EU 013 Web Press 12
  - EU 015 Sheet fed press
  - EU 037 Sheet fed press
  - EU 038 Sheet fed press
  - EU 040 Ink Jet Printing Unit
  - EU 041 Ink Jet Printing Unit
  - EU 042 Ink Jet Printing Unit
  - EU 043 Ink Jet Printing Unit
  - EU 044 Ink Jet Printing Unit
  - EU 045 Ink Jet Printing Unit
  - EU 046 Ink Jet Printing Unit
  - EU 047 Ink Jet Printing Unit
  - EU 048 Ink Jet Printing Unit
  - EU 049 Ink Jet Printing Unit
  - EU 050 Ink Jet Printing Unit
  - EU 051 Ink Jet Printing Unit
  - EU 052 Ink Jet Printing Unit
  - EU 053 Ink Jet Printing Unit
  - EU 054 Ink Jet Printing Unit
  - EU 055 Ink Jet Printing Unit
  - EU 056 Sheet fed press
  - EU 057 Sheet fed press
  - EU 058 Sheet fed press
  - EU 059 Sheet fed press

<b>What to do</b>	<b>Why to do it</b>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

<p>Volatile Organic Compounds: less than or equal to 88 tons/year using 12-month Rolling Sum to be calculated by the 21st day of each month for the previous 12-month period as described later in this permit. All non-combustion VOC-emitting equipment at the Facility is subject to this limit.                  If the Permittee replaces any existing VOC-emitting equipment, adds new VOC-emitting equipment, or modifies the existing equipment, such equipment is subject to this permit limit as well as all of the requirements of GP 001. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. The Permittee is not required to repeat VOC calculations described in Minn. R. 7007.1200, subp. 2.                  A permit amendment will still be needed regardless of the emissions increase if the change will be subject to a new applicable requirement or requires revisions to the limits or monitoring and recordkeeping in this permit.</p>	<p>Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 &amp; Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>HAPs - Total: less than or equal to 18.9 tons/year using 12-month Rolling Sum to be calculated by the 21st day of each month for the previous 12-month period as described later in this permit. All HAP-emitting equipment at the Facility is covered by this limit.                  If the Permittee replaces any existing HAP-emitting equipment or adds new HAP-emitting equipment, such equipment is subject to this permit limit as well as all of the requirements of GP 001. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. A permit amendment may be needed if the change will be subject to a new applicable requirement or requires revisions to limits or the monitoring and recordkeeping in this permit.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 63.2; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>HAP-Single: less than or equal to 9.0 tons/year using 12-month Rolling Sum to be calculated by the 21st day of each month for the previous 12-month period. If the Permittee replaces any existing HAP-emitting equipment or adds new HAP-emitting equipment, such equipment is subject to this permit limit as well as all of the requirements of GP 001. Prior to making such a change, the Permittee shall apply for and obtain the appropriate permit amendment, as applicable. A permit amendment may be needed if the change will be subject to a new applicable requirement or requires revisions to limits or the monitoring and recordkeeping in this permit.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 63.2; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200</p>
<p>Pre-Authorized Changes: The Permittee may modify listed emissions units and replace listed emissions units with emissions units similar to those listed in GP 001, provided VOC and HAP emissions are tracked and calculated as specified in this permit, and all other permit conditions are met. Emissions from all presses and dryers must be controlled with control equipment listed in GP 004. See GP 003 for other pre-authorized changes for press operations.                   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: To avoid classification as major source and modification under 40 CFR Section 52.21 &amp; Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; to avoid major source classification under 40 CFR Section 63.2</p>
<p><b>MONITORING</b></p>	<p>hdr</p>
<p><b>Material Usage Recordkeeping</b>                   For ink materials used at the presses: On each day of operation, the Permittee shall record and maintain the quantity of each ink material dispensed in the press operations. This shall be based on written usage logs and meter readings.                   For fountain solution and blanket wash: The Permittee shall record the amount and type of solvent material, whenever material is dispensed. The log shall indicate if the material is fountain solution or blanket wash.                   Hand (manual) wash: The Permittee shall record the amount and type of material each time material is dispensed.                   Other VOC and HAP-containing materials: The Permittee shall calculate, record, and maintain monthly usage records showing the quantity of each material used. This shall be based on either written usage logs, or purchase/delivery records.</p>	<p>Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 &amp; Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; to avoid major source classification under 40 CFR Section 63.2; Minn. R. 7007.0800, subp. 4 and 5</p>
<p>Vapor Pressure Records: For materials used for either automatic or manual blanket wash, the Permittee shall document if the vapor pressure is equal to, less than, or greater than 10 mmHg at 20 degrees centigrade, for each material. If the vapor pressure is unknown, the Permittee shall assume that it is greater than 10 mmHg in the applicable permit calculations until such time that it is determined to be otherwise.</p>	<p>Minn. R. 7007.0800, subp. 4 and 5</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

<p>Monthly Recordkeeping -- VOC Emissions. By the 21st of the month, the Permittee shall calculate and record the following: 1) The total usage of VOC containing materials for the previous calendar month using the daily usage records. This record shall also include the VOC content of each material as determined by the Material Content requirement of this permit. 2) The VOC emissions for the previous month using the formulas specified in Appendix II of this permit. 3) The 12 month rolling sum VOC emissions for the previous 12 month period by summing the monthly VOC emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subp. 4 and 5</p>
<p>Monthly Recordkeeping - HAP Emissions. By the 21st of the month, the Permittee shall calculate and record the following: 1). The total HAP containing materials used in the previous calendar month using the daily usage records. This record shall also include the individual and total HAP contents of each HAP containing material used in the previous month, as determined by the Material Content requirement of this permit. 2). The total and individual HAP emissions for the previous month using the formulas specified in Appendix II of this permit. 3). The 12 month rolling sum total and individual HAP emissions for the previous 12 month period by summing the monthly emissions data for the previous 12 months.</p>	<p>Minn. R. 7007.0800, subp. 4 and 5</p>
<p>Material Content: VOC and HAPs contents shall be determined by either 1) 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 and HAPs contents. The Commissioner reserves the right to require the Permittee to determine the VOC and HAPs 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, subp. 4 and 5</p>
<p>Waste Credit: If the Permittee elects to obtain credit for HAPs and/or VOC shipped in waste materials, the Permittee shall either use item 1 or 2 to determine the VOC and/or total and individual HAP content for each credited shipment. 1) The Permittee shall analyze a composite sample of each waste shipment to determine the weight content of VOC, total HAP, and each individual HAP, excluding water. 2) The Permittee may use supplier data for raw materials to determine the VOC, and total and individual HAP contents 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, solids, and total and individual HAP content of any of the materials.</p>	<p>Minn. R. 7007.0800, subp. 4 and 5</p>
<p>Maximum Contents of Materials: The Permittee assumed certain worst-case contents of materials when determining the short term potential to emit of units in GP001. These assumptions are listed in the calculations in the Technical Support Document (TSD). Changing to a material that has a higher content of any of the given pollutants is considered a change in method of operation that must be evaluated under Minn. R. 7007.1200, subp. 3 to determine if a permit amendment or notification is required under Minn. R. 7007.1150.</p>	<p>Minn. R. 7005.0100, subp. 35a</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-7

08/10/09

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

**Subject Item: GP 002 Direct Heating Equipment**

**Associated Items:** CE 003 Thermal Oxidizer

EU 028 Web Press 2 Dryers

EU 029 Web Press 3 Dryers

EU 031 Web Press 8 Dryers

EU 032 Web Press 9 Dryers

EU 033 Web Press 10 Dryers

EU 034 Web Press 11 Dryers

EU 035 Web Press 4 Dryers

EU 036 Web Press 12 Dryers

EU 039 RTO (CE003)

<b>What to do</b>	<b>Why to do it</b>
Fuel Type: natural gas or propane only, by design.	Minn. R. 7005.0100, subp. 35a
The Permittee shall keep records of fuel purchases for the facility on a monthly basis.	Minn. R. 7007.0800, subp. 5
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.	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)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

**Subject Item: GP 003 Press Operations**

- Associated Items:**
- CE 003 Thermal Oxidizer
  - EU 002 Web Press 2
  - EU 004 Web Press 3
  - EU 007 Web Press 8
  - EU 008 Web Press 9
  - EU 009 Web Press 10
  - EU 010 Web Press 11
  - EU 013 Web Press 12
  - EU 028 Web Press 2 Dryers
  - EU 029 Web Press 3 Dryers
  - EU 031 Web Press 8 Dryers
  - EU 032 Web Press 9 Dryers
  - EU 033 Web Press 10 Dryers
  - EU 034 Web Press 11 Dryers
  - EU 035 Web Press 4 Dryers
  - EU 036 Web Press 12 Dryers

What to do	Why to do it
<p>The Permittee shall control the emissions from the Press operations (presses and dryers) with a thermal oxidizer at all times that the given press is operating.</p> <p>The Permittee may replace control devices described by GP 004, or install additional control devices, so long as all press operation emissions are controlled, and the dryer and control device capacity limit listed in the Total Facility section of this permit is met.</p>	<p>Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 &amp; Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; to avoid major source classification under 40 CFR Section 63.2</p>
<p>Notification of Control Equipment Changes: The Permittee shall submit a notification to the MPCA of any control equipment changes authorized under GP 003 of this permit. The notification shall be submitted at least 7 days prior to making the change, shall specify the affected emissions unit and control equipment numbers used in this permit, and shall include the updated control equipment data listed on MPCA Form GI-05A and the planned configuration on MPCA Form GI-05B. The equipment shall also specify the new total dryer and control equipment capacity in MMBTU/hr.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>Performance Test: due before end of each calendar 60 months starting 09/12/2006 to measure VOC destruction efficiency of CE 003 or any replacement control device. Not to exceed 60 months between test dates.</p>	<p>Minn. R. 7017.2020, subp. 1</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

**Subject Item: GP 004 Thermal Oxidizers**

**Associated Items: CE 003 Thermal Oxidizer**

What to do	Why to do it
The requirements listed for GP 004 apply separately to each control device listed in GP 004 (e.g., CE 003). This includes each new thermal oxidizer added as allowed by GP 003.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
LIMITS	hdr
For periods when the thermal oxidizer is operated above the minimum operating temperature, the Permittee shall use either 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 (90%); 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: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5
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 90 percent control efficiency	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7017.2025, subp. 3
The Permittee shall operate and maintain a thermal oxidizer any time that any process equipment controlled by the thermal oxidizer is in operation.	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14
Daily Monitoring: The Permittee shall physically verify the operation of the temperature recording device at least once each operating day to verify that it is working and recording properly. The Permittee shall maintain a written record of the daily verifications.	Minn. R. 7007.0800, subp. 4 and 5
Monitoring Equipment: The Permittee shall install and maintain thermocouples to conduct temperature monitoring 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
The Permittee shall operate and maintain the thermal 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
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, subp. 4, 5, and 14
Annual Inspections: At least once per calendar year, 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, subp. 4, 5, and 14
Corrective Actions: If the temperature is below the minimum specified by this permit or if the thermal 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 thermal oxidizer. The Permittee shall keep a record of the type and date of any corrective action taken.	Minn. R. 7007.0800, subp. 4, 5, and 14
Temperature: greater than or equal to 1475 degrees F as a three-hour rolling average as the operating temperature 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: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 2 and 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

A-10

08/10/09

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

<p>The Permittee shall maintain and operate a thermocouple monitoring device that continuously indicates and records the operating 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 of the operating temperature.</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings and calculated three hour rolling average temperatures for the combustion chamber.</p>	Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21 & Minn. R. 7007.3000; to avoid major source classification under 40 CFR Section 70.2 and Minn. R. 7007.0200; Minn. R. 7007.0800, subp. 4 and 5

**TABLE B: SUBMITTALS**

B-1 08/10/09

Facility Name: Banta Direct Marketing  
Permit Number: 05300222 - 003

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.

Send any application for a permit or permit amendment to:

AQ Permit Technical Advisor  
Industrial Division  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

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.

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.

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

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

AQ Compliance Tracking Coordinator  
Industrial Division  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194



**TABLE B: RECURRENT SUBMITTALS**

B-2 08/10/09

Facility Name: Banta Direct Marketing

Permit Number: 05300222 - 003

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 11/22/2005 . 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 calendar year starting 11/22/2005 . The Permittee shall submit an annual report by January 31 that describes the changes made at the facility during the previous calendar year using the latest MPCA application forms. The report shall document the VOC and HAP 12-month rolling sum calculations for the previous calendar year. The report shall be submitted with the annual Compliance Certification listed in Table B. As part of the Annual Report, the Permittee shall verify and certify that the facility has maintained minor source status for New Source Review and Part 63.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 11/22/2005 (for the previous calendar year). To be submitted to the Commissioner on a form approved by the Commissioner. This report covers all deviations experienced during the calendar year.	Total Facility

APPENDIX MATERIAL

Facility Name: Banta Direct Marketing

Permit Number: 05300222-003

**Appendix I: Insignificant Activities**

**Insignificant Activities and General Applicable Requirements**

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. <i>Banta has 44 heating/cooling units with a total capacity of 10.404 MMBtu/hr</i>	Minn. R. 7011.0515 (PM and opacity)
3(D)(2)	Equipment venting PM/PM <sub>10</sub> inside a building, provided that emissions from the equipment are filtered through an air cleaning system and vented inside of the building 100% of the time. <i>Banta has paper scrap generation and collection that is controlled and vented internally by an air handling system. The total capacity is 60,000 SCFM.</i>	Minn. R. 7011.0715 (PM and opacity)
3(I)	Individual emissions units at a stationary source, each of which have a PTE of the following pollutants in amounts less than: 2 tpy of CO and 1 tpy each of NO <sub>x</sub> , SO <sub>2</sub> , PM/PM <sub>10</sub> , VOC, and ozone. <i>Banta has miscellaneous gluing operations, misc. coating operations, and scratch-off applicators that fit under this subpart.</i>	Minn. R. 7011.0715 (PM and opacity)
3(K)	Infrequent use of spray paint equipment for routine housekeeping or plant upkeep activities not associated with primary production processes at the stationary source.	Minn. R. 7011.0715 (PM and opacity)

Under Minn. R. 7007.1250, subp. 1(A), the Permittee may add insignificant activities to the stationary source throughout the term of the permit without getting permit amendments. Certain exclusions apply and are listed in Minn. R. 7007.1250, subp. 2. In addition, this permit specifically prohibits the Permittee from making any modifications that would make the source major under NSR.

## Appendix II: HAP and VOC Calculation Methods

### VOC Calculation Methods

The Permittee shall calculate monthly VOC emissions using the formulas below. If the Permittee tracks material usage on a volume basis, the Permittee shall also record the necessary material density or VOC content in pounds/gallon, and perform the necessary conversions to calculate emissions in tons/month.

$$\text{VOC (tons)} = A + B + C + D + E + F + G - H$$

A = VOC emissions, in tons, from ink usage

$$A = [(U1 \times V1 \times (1-R) \times (1-DE)) + (U2 \times V2 \times (1-R) \times (1-DE)) + \dots]/2000$$

U# = amount of each VOC-containing ink material used in the previous month, in pounds

V# = weight percent VOC in U#, as a fraction (e.g., 10 % is 0.10)

R = weight fraction of ink material retained in product, 0.20

DE = destruction efficiency of the applicable control system.

B = VOC emissions, in tons, from fountain solution usage that is carried over to the dryer

$$B = [(U1 \times V1 \times (CA) \times (1-DE)) + (U2 \times V2 \times (CA) \times (1-DE)) + \dots]/2000$$

U# = amount of each VOC-containing fountain solution used in the previous month, in pounds

V# = weight percent VOC in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of fountain solution to the dryer, 0.70

DE = destruction efficiency of the applicable control system.

C = VOC emissions, in tons, from fountain solution usage that is not carried over to the dryer

$$C = [(U1 \times V1 \times (1-CA)) + (U2 \times V2 \times (1-CA)) + \dots]/2000$$

U# = amount of each VOC-containing fountain solution used in the previous month, in pounds

V# = weight percent VOC in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of fountain solution to the dryer, 0.70

D = VOC emissions, in tons, from automatic blanket wash that is carried over to the dryer

$$D = [(U1 \times V1 \times (CA) \times (1-DE)) + (U2 \times V2 \times (CA) \times (1-DE)) + \dots]/2000$$

U# = amount of each VOC-containing automatic blanket wash used in the previous month, in pounds

V# = weight percent VOC in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of automatic blanket wash to the dryer. For materials that have a vapor pressure  $\leq 10$  mm Hg, CA = 0.40, for materials that have a vapor pressure  $> 10$  mm Hg, CA = 0.

DE = destruction efficiency of the applicable control system.

E = VOC emissions, in tons, from automatic blanket wash that is not carried over to the dryer

$$E = [(U1 \times V1 \times (1-CA)) + (U2 \times V2 \times (1-CA)) + \dots]/2000$$

U# = amount of each VOC-containing automatic blanket wash used in the previous month, in pounds

V# = weight percent VOC in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of automatic blanket wash to the dryer. For materials that have a vapor pressure  $\leq$  10 mm Hg, CA = 0.40, for materials that have a vapor pressure  $>$  10 mm Hg, CA = 0.

F = VOC emissions, in tons, from manual wash solution

$$F = [(U1 \times V1 \times (CA)) + (U2 \times V2 \times (CA)) + \dots]/2000$$

U# = amount of each VOC-containing manual wash solution used in the previous month, in pounds

V# = weight percent VOC in U#, as a fraction (e.g., 10 % is 0.10)

CA = weight fraction of wash solution remaining in rags as waste. For materials that have a vapor pressure  $\leq$  10 mm Hg, CA = 0.50, for materials that have a vapor pressure  $>$  10 mm Hg, CA = 0.

G = VOC emissions, in tons, from all other VOC-containing materials

$$G = [(U1 \times V1) + (U2 \times V2) + \dots]/2000$$

U# = amount of each VOC-containing material used in the previous month, in pounds

V# = weight percent VOC in U#, as a fraction (e.g., 10 % is 0.10)

H = the amount of VOC shipped in waste, other than rags, in tons

$$H = [(W1 \times V1) + (W2 \times V2) + \dots]/2000$$

W# = amount, in pounds, of each VOC-containing waste shipped in the previous month. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero.

V# = weight percent VOC in W#, as a fraction (e.g., 10 % is 0.10)

Waste may be credited at the individual variable level (e.g., A, B, C, etc.) or as a separate variable, H.

## Total and Individual HAP Calculation Methods

The Permittee shall calculate the monthly emissions of each individual HAP and total HAP, separately, using the formulas below. If the Permittee records material usage on a volume basis, the Permittee shall also record the necessary material density or HAP contents in pounds/gallon, and perform the necessary conversions to calculate emissions in tons/month.

$$\text{Pollutant (tons)} = A + B + C + D + E + F + G - H$$

Pollutant = each individual HAP and total HAP

A = pollutant emissions, in tons, from ink usage

$$A = [(U1 \times V1 \times (1-R) \times (1-DE)) + (U2 \times V2 \times (1-R) \times (1-DE)) + \dots]/2000$$

U# = amount of each HAP-containing ink material used in the previous month, in pounds

V# = weight percent of pollutant in U#, as a fraction (e.g., 10 % is 0.10)

R = weight fraction of ink material retained in product, 0.20

DE = destruction efficiency of the applicable control system.

B = pollutant emissions, in tons, from fountain solution usage that is carried over to the dryer

$$B = [(U1 \times V1 \times (CA) \times (1-DE)) + (U2 \times V2 \times (CA) \times (1-DE)) + \dots]/2000$$

U# = amount of each HAP-containing fountain solution used in the previous month, in pounds

V# = weight percent of pollutant in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of fountain solution to the dryer, 0.70

DE = destruction efficiency of the applicable control system.

C = pollutant emissions, in tons, from fountain solution usage that is not carried over to the dryer

$$C = [(U1 \times V1 \times (1-CA)) + (U2 \times V2 \times (1-CA)) + \dots]/2000$$

U# = amount of each HAP-containing fountain solution used in the previous month, in pounds

V# = weight percent of pollutant in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of fountain solution to the dryer, 0.70

D = pollutant emissions, in tons, from automatic blanket wash that is carried over to the dryer

$$D = [(U1 \times V1 \times (CA) \times (1-DE)) + (U2 \times V2 \times (CA) \times (1-DE)) + \dots]/2000$$

U# = amount of each HAP-containing automatic blanket wash used in the previous month, in pounds

V# = weight percent of pollutant in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of automatic blanket wash to the dryer. For materials that have a vapor pressure  $\leq 10$  mm Hg, CA = 0.40, for materials that have a vapor pressure  $> 10$  mm Hg, CA = 0.

DE = destruction efficiency of the applicable control system.

E = pollutant emissions, in tons, from automatic blanket wash that is not carried over to the dryer

$$E = [(U1 \times V1 \times (1-CA)) + (U2 \times V2 \times (1-CA)) + \dots]/2000$$

U# = amount of each HAP-containing automatic blanket wash used in the previous month, in pounds

V# = weight percent of pollutant in U#, as a fraction (e.g., 10 % is 0.10)

CA = carryover of automatic blanket wash to the dryer. For materials that have a vapor pressure  $\leq$  10 mm Hg, CA = 0.40, for materials that have a vapor pressure  $>$  10 mm Hg, CA = 0.

F = pollutant emissions, in tons, from manual wash solution

$$F = [(U1 \times V1 \times (CA)) + (U2 \times V2 \times (CA)) + \dots]/2000$$

U# = amount of each HAP-containing manual wash solution used in the previous month, in pounds

V# = weight percent of pollutant in U#, as a fraction (e.g., 10 % is 0.10)

CA = weight fraction of wash solution remaining in rags as waste. For materials that have a vapor pressure  $\leq$  10 mm Hg, CA = 0.50, for materials that have a vapor pressure  $>$  10 mm Hg, CA = 0.

G = pollutant emissions, in tons, from all other HAP-containing materials

$$G = [(U1 \times V1) + (U2 \times V2) + \dots]/2000$$

U# = amount of each HAP-containing material used in the previous month, in pounds

V# = weight percent of pollutant in U#, as a fraction (e.g., 10 % is 0.10)

H = the amount of the specific HAP shipped in waste, other than rags, in tons

$$H = [(W1 \times V1) + (W2 \times V2) + \dots]/2000$$

W# = amount, in pounds, of each HAP-containing waste shipped in the previous month. If the Permittee chooses to not take credit for waste shipments, this parameter would be zero.

V# = weight percent of pollutant in W#, as a fraction (e.g., 10 % is 0.10)

Waste may be credited at the individual variable level (e.g., A, B, C, etc.) or as a separate variable, H.

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 05300222-003**

This technical support document (TSD) is intended for all parties interested in the permit and to meet the requirements that have been set forth by the federal and state regulations (40 CFR § 70.7(a)(5) and Minn. R. 7007.0850, subp. 1). The purpose of this document is to provide the legal and factual justification for each applicable requirement or policy decision considered in the preliminary determination to issue the permit.

**1. General Information**

**1.1. Applicant and Stationary Source Location:**

**Table 1. Applicant and Source Address**

<b>Applicant/Address</b>	<b>Stationary Source/Address (SIC Code: 2752)</b>
<b>Banta Corp., Inc.</b> 111 South Wacker Drive Chicago, IL 60606-4301	<b>Banta Direct Marketing</b> 18780 W 78th St Chanhassen Hennepin County
Contact: Bryan Street Phone: 952-937-9764	

**1.2. Facility Description**

Banta Direct Marketing operates a commercial printing facility in Chanhassen, Minnesota. The facility is composed of eight web presses along with their dryers, seven sheet fed presses, one thermal oxidizer, and several ink jet printing units. The thermal oxidizer controls emissions from the facility. The facility has a Potential to Emit (PTE) of about 193 tons per year of VOC, although their actual emissions are much lower, making them a synthetic minor source for Part 70. The existing permit contains pre-cap language allowing the Permittee to add additional VOC and HAP emitting equipment under their existing cap. The existing permit also allows the Permittee to add equipment with additional MMBtu/hr capacity so long as the facility's total MMBtu/hr capacity does not exceed 80 MMBtu/hr, including insignificant activities.

**1.3. Description of the Activities Allowed by this Permit Action**

Banta Direct Marketing submitted a minor amendment in accordance with Minn. R. 7007.1450 on November 25, 2008. An administrative amendment and a reopening have all been rolled into this permit action. The minor amendment was submitted to remove Emission Unit (EU) 014 and to add four additional sheet fed presses (EUs 056-059) to permit 05300222-002. The total PTE of the four presses is less than 9.13 lb/hr (the maximum lb/hr increase for a minor amendment) of VOC.

The administrative amendment was submitted to notify the MPCA that Banta Direct Marketing had replaced two of its pieces of Control Equipment (CE) (CE 001 & 002) with a new thermal oxidizer (CE 003).

The reopening was generated due to a performance test on the new thermal oxidizer (CE 003), performed on September 12, 2006. The oxidizer must be operated at a temperature greater than 1475 degrees Fahrenheit and meet a 90 percent control efficiency or greater. Because of this new limit the permit action must follow the major amendment procedures.

**1.4. Facility Emissions:**

**Table 2. Title I Emissions Increase Summary**

<b>Pollutant</b>	<b>Emissions Increase from the Modification (tpy)</b>	<b>Limited Emissions Increase from the Modification (tpy)</b>	<b>Net Emissions Increase (tpy)</b>	<b>PSD/112(g) Significant Thresholds for major sources (tpy)</b>	<b>NSR/ 112(g) Review Required? (Yes/No)</b>
PM			0	25	
PM <sub>10</sub>			0	15	
PM <sub>2.5</sub>			0	10	
NO <sub>x</sub>			0	40	
SO <sub>2</sub>			0	40	
CO			0	100	
Ozone (VOC)	27.60	27.60	21.37	40	No
Lead			0	0.6	
Total HAPs	.07	.07	.06	10/25	No

**Table 3. Non-Title I Emissions Increase Summary**

<b>Pollutant</b>	<b>After Change (lb/hr)</b>	<b>Before Change (lb/hr)</b>	<b>Net Change (lb/hr)</b>	<b>Insignificant Modification Thresholds (lb/hr &lt;)</b>	<b>Minor and Moderate Amendment Thresholds (lb/hr &lt; or ≥)</b>	<b>Type of Amendment (Minor or Moderate)</b>
PM <sub>10</sub>			0	0.855	3.42	N.A.
NO <sub>x</sub>			0	2.28	9.13	N.A.
SO <sub>2</sub>			0	2.28	9.13	N.A.
CO			0	5.70	22.80	N.A.
VOC	43.92	40.64	3.28	2.28	9.13	Minor
Lead			0	0.025	0.11	N.A.



**Table 5. Facility Classification**

<b>Classification</b>	<b>Major/Affected Source</b>	<b>Synthetic Minor</b>	<b>Minor</b>
PSD		X	
Part 70 Permit Program		X	
Part 63 NESHAP			X

## **2. Regulatory and/or Statutory Basis**

### New Source Review

This facility is not a major source for New Source Review. This permit has language stating, Title I Conditions to avoid classification as major source and modification under the Code of Federal Regulations. These citations are in the permit because of the precap flexibility allowed in the permit. Although at the time of this permit amendment the facility is technically a minor PSD source, the facility could become a synthetic minor.

### Part 70 Permit Program

The facility is a minor source under the Part 70 permit program but has the ability to become a synthetic minor because of the precap language.

### New Source Performance Standards (NSPS)

There are no New Source Performance Standards applicable to the operations at this facility.

### National Emission Standards for Hazardous Air Pollutants (NESHAP)

The facility has accepted limits on combined and single HAPs usage to ensure a non-major source status under 40 CFR pt. 63. The permittee has stated that no area source NESHAPs apply.

### Compliance Assurance Monitoring (CAM)

CAM does not apply to the modification allowed in this permit amendment, since the emission units added are not large pollutant specific emission units (PSEU).

### Environmental Review & AERA

The emissions increase is less than the threshold to require an Air Emissions Risk Analysis (AERA).

## Minnesota State Rules

Portions of the facility are subject to the following Minnesota Standards of Performance:

- Minn. R. 7011.0610, STANDARDS OF PERFORMANCE FOR FOSSIL-FUEL-BURNING DIRECT HEATING EQUIPMENT.
- Minn. R. 7011.0715, STANDARDS OF PERFORMANCE FOR POST-1969 INDUSTRIAL PROCESS EQUIPMENT.

**Table 6. Regulatory Overview of Units Affected by the Modification/Permit Amendment**

<b>Level*</b>	<b>Applicable Regulations</b>	<b>Comments:</b>
FC	N.A.	EU 006, 014, 016-027, 030 have been removed from the facility
FC	N.A.	EU 040-059 were added to the facility
FC	The Permittee shall comply with National Primary and Secondary Ambient Air Quality Standards, 40 CFR pt. 50, and the Minnesota Ambient Air Quality Standards, Minn. R. 7009.0010 to 7009.0080. Compliance shall be demonstrated upon written request by the MPCA.	This requirement does not need to be included in State permits, per MPCA practice. Therefore was removed from the permit.
GP 001	Title I Condition: Limit to avoid classification as major source under 40 CFR Section 63.2; limit to avoid major source classification under 40 CFR Section 70.2	HAP limit was changed from 23.5 tons per year of total HAPs to 18.9 tons per year. This was changed because the total facility PTE for total HAPs is calculated to be 18.9 tons per year. Per MPCA practice a limit can not be greater then the total facility PTE.
GP 001	Minn. R. 7005.0100, subp. 35a	Maximum Contents of Materials: If the permittee changes a material which has a higher content of a given pollutant the permittee must determine if a permit amendment or notification is required under Minn. R. 7007.1150.
GP 001	Title I limit to avoid NESHAPs	National Emission Standards for Hazardous Air Pollutants. Limit set on HAPs emissions from printing operations to avoid major source classification under 40 CFR § 63.
GP 004	Minn. R. 7007.0800, subp. 11	Monitoring Scenario removed for transition period between CE 001 and CE 002 to CE 003
CE 001 CE 002	N.A.	These two units have been retired. Both units are still at the facility but are no longer in operation.
CE 003	Title I Condition: Limit taken to avoid classification as a major source and modification under 40 CFR Section 70.2; Minn. R. 7007.0800, subp. 2 and 14; Minn. R. 7017.2025, subp. 3	This Regenerative Thermal Oxidizer replaced CE 001 & 002. On Sept 12, 2006 there was a performance test on this unit which created a reopening. The Permittee must operate the oxidizer at a minimum of 1475 degrees Fahrenheit, with a three-hour rolling average. The efficiency of this CE must be tested within every 60 calendar months starting 9/12/06.

### **3. Technical Information**

### 3.1 Calculations of Potential to Emit

With this permit action the facility recalculated emissions data for all equipment at the facility. The new calculations have been entered in Delta. All calculations are in Attachment 1 of this TSD.

### 3.2 Periodic Monitoring

In accordance with the Clean Air Act, it is the responsibility of 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.

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

- The likelihood of violating the applicable requirements;
- Whether add-on controls are necessary to meet the emission limits;
- The variability of emissions over time;
- The type of monitoring, process, maintenance, or control equipment data already available for the emission unit;
- The technical and economic feasibility of possible periodic monitoring methods; and
- The kind of monitoring found on similar units elsewhere.

The table below summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

**Table 7. Periodic Monitoring**

<b>Level*</b>	<b>Requirement (rule basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
FC & GP002	Limited to natural gas and propane, by design	Fuel purchase records.	
Direct Heating Equipment: GP 002	PM: $\leq$ variable depending on airflow Opacity: $\leq$ 20 % (Minn. R. 7011.0610)	None	All units use natural gas or propane; therefore, the likelihood of violating either of the emission limits is very small. The Permittee can demonstrate that these units will continue to operate such that emissions are well below the emission limits by only burning natural gas or propane. Since this is a permit condition, the semi-annual deviations report will document any deviations from this condition.

VOC Limits: GP 001	VOC $\leq$ 88.0 tons per year, on a 12-month rolling basis (limit to avoid NSR)	Recordkeeping: Daily records of coating usage; On-going MSDS records of coating contents; Monthly calculations of emissions.	Records can be generated on a daily basis for inks, based on meter readings. Records are generated whenever fountain and wash solutions are used, also from meter readings – sometimes this happens multiple times during the day and sometimes every couple days. The remaining materials are very low volume and will be based on monthly usage records.
GP 001	HAPs $\leq$ 9.0/18.9 individual / combined tons per year based on a 12-month rolling sum (limit to avoid NESHAP)	Recordkeeping: Monthly records of material use, and ongoing records of HAP content; Monthly emission calculations.	Credit can be taken for waste materials collected and shipped off-site (dispensed - waste = emissions). Since this is done at most monthly, calculating emissions more frequently than monthly would result in large spikes (while waste is accumulating) and dips (when waste is shipped) – resulting in possible paperwork violations and days with negative emissions. For these reasons, 12-month rolling limits are reasonable for this Facility. The VOC and total HAP limits are set low enough to account for the increased VOC and HAP emissions from the pre-authorized combustion sources.
GP 004 (CE 003 Thermal Oxidizer)	VOC: Control Efficiency of 90% (limit to avoid classification as a major source)  Operating temperature limit of $\geq$ 1475 °F	Temperature monitoring, Recordkeeping, O & M, inspections every 5 years	Monitoring based on the Minnesota Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance.

\*Where the requirement appears in the permit (e.g., EU, SV, GP, etc.).

### 3.3 Insignificant Activities

Banta Direct Marketing has several operations which are classified as insignificant activities. These are listed in Appendix I to the permit.

The permit is required to include periodic monitoring for all emissions units, including insignificant activities, per EPA guidance. The insignificant activities at this Facility are only subject to general applicable requirements.

### **3.4 Permit Organization**

In general, the permit meets the MPCA Delta Guidance for ordering and grouping of requirements. One area where this permit deviates slightly from Delta guidance is 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 (e.g., limits, submittals, etc.), should be in Table A or B. The main reason is that the appendices are word processing sections and are not part of the tracking system. Violation of the appendices can be enforced, but the computer system will not automatically generate the necessary enforcement notices or documents. Staff must generate these.

Appendix I is a listing of the Facility's Insignificant Activities and their applicable requirements. This is a fairly standard way to include these in the permit, since it is highly unlikely the MPCA would need to have these as trackable items in Delta.

Appendix II contains the specific calculation procedures for VOC and HAP emissions. These procedures are too complex to enter into Delta and must go in an Appendix.

Another area where the permit deviates from guidance is in the use of groups for requirements that apply to individual pieces of equipment. This is done in order to streamline the permit.

### **3.5 Comments Received**

Public Notice Period: 6/26/09 - 7/27/09

EPA 30-day Review Period: 6/26/09 - 7/27/09

Comments were not received from the public during the public notice period. No changes were made to the permit during the comment period.

## **4. Conclusion**

Based on the information provided by Banta Direct Marketing, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300222-003 and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Jake Swaggert (permit writer/engineer)  
Brent Rohne (enforcement)  
Shanda Fisher (stack testing)  
Peggy Bartz (peer reviewer)

AQ File No. 1656; DQ 2339, 2131, 1311

Attachments: 1. PTE Summary Spreadsheets  
2. Facility Description and CD-01 Forms