

AIR EMISSION PERMIT NO. 05300384-004

IS ISSUED TO

Banta Corp Inc

BANTA CATALOG GROUP – MINNEAPOLIS

7401 Kilmer Lane

Maple Grove, Hennepin County, MN 55369

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

Permit Type	Application Date	Issue Date	Action #
Total Facility Operating Permit	April 17, 1995	December 27, 2001	001
Major Amendment		July 2, 2003	002
Major Amendment	June 20, 2007	See Below	004

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

Permit Type: Federal; Pt 70/Limits to Avoid NSR

Authorization to Construct and Operate Issuance Date: October 31, 2007

Final Permit Issuance Date: November 15, 2007

Expiration: December 27, 2006*

Title I Conditions do not expire.

* The Permittee can continue to operate this facility after the expiration date of this permit per the provision under Minn. R. 7007.0450, subp. 3 (Title V Re-issuance application received on June 27, 2006).

Jeff J. Smith, Manager
Air Quality Permits Section
Industrial Division

for Brad Moore
Commissioner
Minnesota Pollution Control Agency

TDD (for hearing and speech impaired only): (651) 282-5332

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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 Catalog (Facility) is a commercial printing facility. The Facility consists of heatset web offset lithographic printing presses, dryers, ink jet printers, and pollution control equipment. The Facility also has several activities that qualify as insignificant activities under Minn. R. 7007.1300, subp. 3 (see Appendix B of the permit for a list).

Banta is amending the permit to add a heatset offset printing press (with associated dryers) and two new regenerative thermal oxidizers to control the new and existing presses.

The Facility took limits to avoid major source classification for New Source Review (40 CFR § 52.21) in an air emissions permit issued in 1991. These limits are carried forward in this permit amendment. This permit also includes limits to avoid major source classification under the National Emissions Standards for Hazardous Air Pollutants program (40 CFR pt. 63). The Facility is a major source under the federal operating permits program (40 CFR pt. 70).

The permit contains requirements that limit emissions of VOC, HAP, and combustion pollutants.

The permit also authorizes changes at the Facility: installation, replacement and reconfiguration of control equipment, and modification and replacement of existing emissions units.

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Banta Catalog Group - Minneapolis
 Permit Number: 05300384 - 004

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
<p>The Permittee is authorized to install a Web Offset Printing Press (EU 113) and associated dryers (EU 114), and two Regenerative Thermal Oxidizers (CE 007 and CE 008). The construction authorization expires 12 months after permit issuance. The Permittee must keep a record of the dates of installation and start-up on site. The Permittee may apply for an extension of the construction authorization deadline by following the Administrative Amendment provisions in Minn. R. 7007.1400.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>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.</p>	<p>Title I Condition: To avoid classification as major source or modification under 40 CFR Section 52.21; To avoid major source classification under 40 CFR Section 63.2</p>
<p>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 enforceable by the EPA Administrator or citizens under the Clean Air Act.</p>	<p>Minn. R. 4410.4300; Minn. R. 4410.4400</p>
<p>Total Facility Press Dryers and Control Equipment Capacity: less than or equal to 140. million Btu/hour</p>	<p>Title I Condition: To avoid classification as major source or modification under 40 CFR Section 52.21</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 applies separately to each piece of industrial process equipment. Specifically, it applies to each press and ink jet printer.</p>	<p>Minn. R. 7011.0715, subp. 1(A)</p>
<p>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.</p>	<p>Minn. R. 7011.0715, subp. 1(B)</p>
<p>Volatile Organic Compounds: less than or equal to 240 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. This includes all non-combustion emissions of VOC other than those listed in Appendix B of this permit.</p> <p>VOC contents for each VOC-containing material shall be determined as described under the Material Content requirement. The calculation of VOCs used may take into account recovered/recycled VOCs as described under the Waste Credit requirement.</p>	<p>Title I Condition: To avoid classification as major source and modification under 40 CFR Section 52.21; Minn. R. 7007.3000</p>
<p>HAPs - Total: less than or equal to 23.5 tons/year using 12-month Rolling Sum to be calculated by the 21st day of each month for the previous 12-month period. This includes all non-combustion emissions of HAP other than those listed in Appendix B of this permit.</p> <p>All emission units shall be included in this calculation. HAP contents for each HAP-containing material shall be determined as described under the Material Content requirement. The calculation of HAPs used may take into account recovered/recycled HAPs as described under the Waste Credit requirement.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 63.2</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. This includes all non-combustion emissions of HAP other than those listed in Appendix B of this permit.</p> <p>All emission units shall be included in this calculation. HAP contents for each HAP-containing material shall be determined as described under the Material Content requirement. The calculation of HAP usage may take into account recovered/recycled HAPs as described under the Waste Credit requirement.</p>	<p>Title I Condition: To avoid major source classification under 40 CFR Section 63.2</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Banta Catalog Group - Minneapolis

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<p>Pre-Authorized Changes: The Permittee may modify listed emissions units and replace listed emissions units with similar emissions units, 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 meeting the requirements of GP 005. See GP 003 for further pre-authorized changes for press operations.</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: 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 63.2</p>
<p>Equipment Labeling and Inventory: The Permittee shall permanently affix a unique number to each emissions unit 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 readable and visible at all times from a safe distance.</p> <p>The Permittee shall maintain a written list of all emissions units on site. The list shall correlate the units to the numbers used in this permit (EU, GP, and CE) and shall include the data included in Appendix B of this permit. The Permittee shall update the list to include any replaced or modified equipment prior to making the pre-authorized change.</p>	<p>Minn. R. 7007.0800, subp. 2</p>
<p>OPERATIONAL REQUIREMENTS</p>	<p>hdr</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>Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated.</p>	<p>Minn. R. 7007.0800, subps. 2 & 16(J)</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subps. 14 & 16(J)</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>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.</p>	<p>Minn. R. 7011.0150</p>
<p>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.</p>	<p>Minn. R. 7030.0010 - 7030.0080</p>
<p>Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).</p>	<p>Minn. R. 7007.0800, subp. 9(A)</p>
<p>The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.</p>	<p>Minn. R. 7007.0800, subp. 16</p>
<p>PERFORMANCE TESTING</p>	<p>hdr</p>
<p>Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Table A.</p>	<p>Minn. R. ch. 7017</p>
<p>Performance Test Notifications and Submittals:</p> <p>Performance Tests are due as outlined in Table A of the permit.</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 - CD Copy: due 105 days after each Performance Test</p> <p>The Notification, Test Plan, and Test Report may be submitted in alternative format as allowed by Minn. R. 7017.2018.</p>	<p>Minn. R. 7017.2018; Minn. R. 7017.2030, subps. 1-4; Minn. R. 7017.2035, subps. 1-2</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

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<p>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.</p>	<p>Minn. R. 7017.2025</p>
<p>MONITORING REQUIREMENTS</p>	<p>hdr</p>
<p>Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subp. 4(D)</p>
<p>RECORDKEEPING</p>	<p>hdr</p>
<p>Recordkeeping: 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).</p>	<p>Minn. R. 7007.0800, subp. 5(C)</p>
<p>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.</p>	<p>Minn. R. 7007. 0800, subp. 5(B)</p>
<p>Material Usage Recordkeeping.</p> <p>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.</p> <p>For fountain and blanket wash solutions: The Permittee shall record the amount and type of solvent material, whenever material is dispensed. The log shall indicate if the material is fountain or blanket wash solution.</p> <p>Hand (manual) wash solutions: The Permittee shall record the amount and type of material each time material is dispensed.</p> <p>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 52.21; Minn. R. 7007.3000; To avoid major source classification under 40 CFR 63.2; Minn. R. 7007.0800. subps. 4 & 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, subps. 4 & 5</p>
<p>Monthly Recordkeeping -- VOC Emissions. By the 21st of the month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1. The total usage of each VOC-containing material for the previous calendar month using the material usage records. This record shall also include the VOC contents 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 A 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>Minn. R. 7007.0800, subps. 4 & 5</p>
<p>Monthly Recordkeeping -- HAP Emissions. By the 21st of the month, the Permittee shall calculate and record the following:</p> <ol style="list-style-type: none"> 1. The total usage of each HAP-containing material used in the previous calendar month using the material 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 A 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>Minn. R. 7007.0800, subps. 4 & 5</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

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<p>Material Content: VOC and HAPs contents in materials shall be determined by either:</p> <ol style="list-style-type: none"> 1. a Material Safety Data Sheet (MSDS); or 2. a Letter of Certification, provided by the supplier for each material used. <p>If a material content range is given, 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/or HAP 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, subs. 4 & 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.</p> <ol style="list-style-type: none"> 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. 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 and total and individual HAP content of any of the materials. 	<p>Minn. R. 7007.0800, subs. 4 & 5</p>
<p>REPORTING/SUBMITTALS</p>	<p>hdr</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>Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150-7007.1500. Submittal dates vary, depending on the type of amendment needed.</p>	<p>Minn. R. 7007.1150 - 7007.1500</p>
<p>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).</p>	<p>Minn. R. 7007.1400, subp. 1(H)</p>
<p>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.</p>	<p>Minn. R. 7019.3000 - 7019.3010</p>
<p>Emission Fees: due 60 days after receipt of an MPCA bill.</p>	<p>Minn. R. 7002.0005 - 7002.0095</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Banta Catalog Group - Minneapolis

Permit Number: 05300384 - 004

Subject Item: GP 002 Direct Heating Equipment

- Associated Items:**
- CE 004 Direct Flame Afterburner w/Heat Exchanger
 - CE 005 Direct Flame Afterburner w/Heat Exchanger
 - CE 006 Direct Flame Afterburner w/Heat Exchanger
 - CE 007 Direct Flame Afterburner w/Heat Exchanger
 - CE 008 Direct Flame Afterburner w/Heat Exchanger
 - EU 006 Press 1 Dryers
 - EU 007 Press 2 Dryers
 - EU 008 Press 4 Dryers
 - EU 009 Press 5 Dryers
 - EU 010 Press 6 Dryer and emissions control
 - EU 074 Press 7 Dryers
 - EU 075 Press 8 Dryers
 - EU 108 Makeup air unit East 17B
 - EU 109 Makeup air unit West 22
 - EU 114 Press 9 Dryers

What to do	Why to do it
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. This 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 applies separately to each piece of direct heating equipment.	Minn. R. 7011.0610, subp. 1(A)(2)

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Banta Catalog Group - Minneapolis

Permit Number: 05300384 - 004

Subject Item: GP 003 Press Operations

- Associated Items:**
- CE 004 Direct Flame Afterburner w/Heat Exchanger
 - CE 005 Direct Flame Afterburner w/Heat Exchanger
 - CE 006 Direct Flame Afterburner w/Heat Exchanger
 - CE 007 Direct Flame Afterburner w/Heat Exchanger
 - CE 008 Direct Flame Afterburner w/Heat Exchanger
 - EU 001 Web Offset Press 1
 - EU 002 Web Offset Press 2
 - EU 003 Web Offset Press 4
 - EU 004 Web Offset Press 5
 - EU 005 Web Offset Press 6
 - EU 006 Press 1 Dryers
 - EU 007 Press 2 Dryers
 - EU 008 Press 4 Dryers
 - EU 009 Press 5 Dryers
 - EU 010 Press 6 Dryer and emissions control
 - EU 072 Web Offset Press 7
 - EU 073 Web Offset Press 8
 - EU 074 Press 7 Dryers
 - EU 075 Press 8 Dryers
 - EU 113 Press 9
 - EU 114 Press 9 Dryers

What to do	Why to do it
<p>The Permittee shall control the emissions from the Press operations (presses and dryers) with control devices described by GP 005 at all times that the given press is operating. The current control equipment configuration is documented in Appendix C of this permit.</p> <p>The Permittee may change the equipment configuration (e.g., vent Press 7 operations to a control device other than CE 006), may replace the control devices listed in Appendix C, or install additional control devices, so long as all press operation emissions are controlled, all control devices are described by GP 005, 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 major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000</p>
<p>Notification of Control Equipment Changes: The Permittee shall submit a notification to the MPCA of any of the 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 (current data in Appendix C of this permit). The notification 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 180 days after achieving maximum capacity of Press 9 (EU 113) for VOC destruction efficiency of CE 007.</p>	<p>Minn. R. 7017.2020, subp. 1</p>
<p>Performance Test: due 180 days after achieving maximum capacity of Press 9 (EU 113) for VOC destruction efficiency of CE 008.</p>	<p>Minn. R. 7017.2020, subp. 1</p>

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Banta Catalog Group - Minneapolis
 Permit Number: 05300384 - 004

Subject Item: GP 005 Thermal Oxidizers

- Associated Items:** CE 004 Direct Flame Afterburner w/Heat Exchanger
 CE 005 Direct Flame Afterburner w/Heat Exchanger
 CE 006 Direct Flame Afterburner w/Heat Exchanger
 CE 007 Direct Flame Afterburner w/Heat Exchanger
 CE 008 Direct Flame Afterburner w/Heat Exchanger

What to do	Why to do it
The requirements for GP 005 apply separately to each control device listed in GP 005 (i.e., CE 004, CE 005, CE 006, CE 007, and CE 008). This includes each new thermal oxidizer added as allowed by GP 003.	Title I Condition: To avoid major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000
A. MONITORING SCENARIOS	hdr
Monitoring Scenarios: The Permittee is authorized to install a new temperature monitoring system that will monitor the 3-hour rolling average temperatures on each thermal oxidizer. Prior to installation of such a system, the Permittee shall comply with and monitor for the absolute minimum temperature limit listed under Scenario 1. After installation of the system, the Permittee shall comply with and monitor for the 3-hour rolling average temperature limit under Scenario 2.	Minn. R. 7007.0800, subp. 11
Notify: due 30 days after Equipment Installation. The Permittee shall notify the MPCA when the installation of the new temperature monitoring system is complete. The notification shall include the date that the Permittee switched to Monitoring Scenario 2.	Minn. R. 7007.0800, subp. 11
B. LIMITS APPLICABLE UNDER BOTH SCENARIOS	hdr
The Permittee shall operate and maintain the control equipment such that it achieves a destruction efficiency for Volatile Organic Compounds: greater than or equal to 95 percent control efficiency	Title I Condition: To avoid major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000
The Permittee shall operate and maintain each thermal oxidizer any time that any process equipment controlled by the thermal oxidizer is in operation.	Title I Condition: To avoid major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000
C. SCENARIO 1	hdr
Temperature: greater than or equal to 1200 degrees F absolute minimum at the Combustion Chamber unless a new minimum must be 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 temperature drops below the minimum temperature limit, the VOC used during that time shall be considered uncontrolled until the minimum temperature limit is once again achieved. This shall be reported as a deviation.	Title I Condition: To avoid major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000
D. SCENARIO 2	hdr
Temperature: greater than or equal to 1200 degrees F as a three-hour rolling average at the Combustion Chamber unless a new minimum must be 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 major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000
E. MONITORING	hdr
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 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. Under Scenario 2, the recording device shall also calculate the three-hour rolling average combustion chamber temperature.	Minn. R. 7007.0800, subps. 4 & 5

TABLE A: LIMITS AND OTHER REQUIREMENTS

Facility Name: Banta Catalog Group - Minneapolis

Permit Number: 05300384 - 004

<p>The Permittee shall maintain a continuous hard copy readout or computer disk file of the temperature readings. Once operating under Scenario 2, the Permittee shall also maintain the calculated three-hour rolling average temperatures for the combustion chamber.</p>	<p>Title I Condition: To avoid major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subps. 4 & 5</p>
<p>Inspections: At least once per calendar quarter, the Permittee shall inspect the control equipment external system components for structural integrity to ensure proper operation of the oxidizer. At least once per calendar year, the Permittee shall conduct an internal inspection of the control equipment valves for leakage; this assessment may be comprised of an internal inspection, or other method of assessment for leakage. The Permittee shall maintain a written record of the inspection and any corrective actions taken resulting from the inspection.</p>	<p>Minn. R. 7007.0800, subps. 4, 5, & 14</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subps. 4, 5, & 14</p>
<p>For periods when the thermal oxidizer is operated above the minimum combustion chamber temperature, the Permittee shall use either one of the following when completing calculations as required elsewhere in this permit: a. The destruction efficiency limit specified in this permit for this equipment (95%); or b. The destruction 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.</p>	<p>Title I Condition: To avoid major source or modification under 40 CFR Section 52.21 and 40 CFR Section 63.2; Minn. R. 7007.3000; Minn. R. 7007.0800, subps. 4 & 5</p>
<p>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.</p>	<p>Minn. R. 7007.0800, subps. 4, 5, & 14</p>
<p>The Permittee shall operate and maintain the thermal oxidizer in accordance with the O&M Plan. The Permittee shall keep copies of the O&M Plan available onsite for use by staff and MPCA staff.</p>	<p>Minn. R. 7007.0800, subp. 14</p>

TABLE B: SUBMITTALS

B-1 11/15/07

Facility Name: Banta Catalog Group - Minneapolis
Permit Number: 05300384 - 004

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 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

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:

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

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 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: ONE TIME SUBMITTALS OR NOTIFICATIONS

B-2 11/15/07

Facility Name: Banta Catalog Group - Minneapolis

Permit Number: 05300384 - 004

What to send	When to send	Portion of Facility Affected
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility

TABLE B: RECURRENT SUBMITTALS

B-3 11/15/07

Facility Name: Banta Catalog Group - Minneapolis

Permit Number: 05300384 - 004

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 12/27/2001. 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 12/27/2001. 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 31 days after end of each calendar year starting 12/27/2001 (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 A

Emission Calculation Equations

Facility Name: Banta Catalog Group – Minneapolis

Permit Number: 05300384-003

1. VOC Calculation Methods

The Permittee shall calculate monthly 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.

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

A = VOC emissions, in tons, from ink usage

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

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 that is carried over to the dryer

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

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 a dryer

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

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

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

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 ≤ 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

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

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 heatset materials that have a vapor pressure ≤ 10 mm Hg, CA = 0.40, for materials that have a vapor pressure > 10 mm Hg and for all nonheatset materials, CA = 0

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

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

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 ≤ 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

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

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

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

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.

2. Total and Individual HAP Calculation Methods

The Permittee shall separately 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.

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

Pollutant = each individual HAP and total HAPs

A = Pollutant emissions, in tons, from ink usage

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

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

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

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

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

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

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

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 ≤ 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

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

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 ≤ 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

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

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 ≤ 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

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

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

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

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.

APPENDIX B

Insignificant Activities and General Applicable Requirements

Facility Name: Banta Catalog Group – Minneapolis

Permit Number: 05300384-003

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 41 space heaters with a total capacity of 17.746 MMBtu/hr</i>	Minn. R. 7011.0515 (PM and opacity)
3(D)(2)	Equipment venting PM/PM ₁₀ 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.</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 _x , SO ₂ , PM/PM ₁₀ , VOC, and ozone. <i>Banta has several gluing operations, miscellaneous coating operations, scratch-off applicators and 45 water-based ink jet units that qualify under this subpart.</i>	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. The following table is a listing of the insignificant activities that the Permittee is somewhat likely to add and their associated applicable requirements.

Minn. R. 7007.1300, subp.	Rule Description of the Activity	General Applicable Requirement
3(B)(1)	Infrared electric ovens	Minn. R. 7011.0110 (opacity)
3(H)(5)	Blueprint copiers and photographic processes;	Minn. R. 7011.0110 (opacity)
3(H)(4)	Brazing, soldering or welding equipment.	Minn. R. 7011.0715 (PM and opacity)
3(H)(8)	Cleaning operations: alkaline/phosphate cleaners and associated cleaners and associated burners.	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)

APPENDIX C

Emissions Units Description

Facility Name: Banta Catalog Group – Minneapolis

Permit Number: 05300384-003

Emissions Units Description from Delta

paper copy only

TECHNICAL SUPPORT DOCUMENT
For
AIR EMISSION PERMIT NO. 05300384-004

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 determination to issue the permit.

1. General Information

1.1. Applicant and Stationary Source Location:

Applicant/Address	Stationary Source/Address (SIC Code: 2752)
Banta Corporation 225 Main Street Menasha, WI 54952	7401 Kilmer Lane Maple Grove Hennepin County
Contact: Mark McManus	Phone: 763-315-8268

1.2. Description of the Facility

Banta Catalog is a commercial printing facility. The Facility consists of heatset web offset lithographic printing presses, dryers, ink jet printers, and pollution control equipment. The main sources of emissions are the press operations, they have Volatile Organic Compound (VOC) emissions control equipment. The Facility also has several activities that qualify as insignificant activities under Minn. R. 7007.1300, subp. 3.

1.3 Description of the Activities Allowed by this Permit Action

Banta is amending the permit to add a heatset offset printing press (with associated dryers) and two new regenerative thermal oxidizers to control the new and existing presses.

The Facility took limits to avoid major source classification for New Source Review (40 CFR § 52.21) in an air emissions permit issued in 1991. These limits are carried forward in this permit amendment. This permit also includes limits to avoid major source classification under the National Emissions Standards for Hazardous Air Pollutants program (40 CFR pt. 63). The Facility is a major source under the federal operating permits program (40 CFR pt. 70).

The permit contains requirements that limit emissions of VOC, HAP, and combustion pollutants.

The permit also authorizes future changes at the Facility: installation, replacement and reconfiguration of control equipment, and modification and replacement of existing emissions units.

1.4. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary (tpy)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC	Single HAP	All HAPs
Total Facility Limited Potential Emissions	16.76	16.76	1.34	86.32	35.25	243.5	9.0	24.24

Table 2. Facility Classification

Classification	Major/Affected Source	Synthetic Minor	Minor
PSD		VOC	PM, PM ₁₀ , NO _x , SO _x , CO
Part 70 Permit Program	VOC		PM, PM ₁₀ , NO _x , SO _x , CO
Part 63 NESHAP		X	

2. Regulatory and/or Statutory Basis

New Source Review

The facility has limits to keep it a synthetic minor source under New Source Review regulations.

Part 70 Permit Program

The facility is a major source under the Part 70 permit program.

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 HAP usage such that it is a non-major source under 40 CFR pt. 63. Thus, no NESHAPs apply.

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 3. Regulatory Overview of Units Affected by the Modification/Permit Amendment

Unit	Applicable Regulations	Comments:
GP 002	Minn. R. 7011.0610	Standards of Performance for Direct Heating Equipment. Fuel limited to natural gas and propane only.
GP 003	Minn. R. ch. 7017	Requirements to test the new thermal oxidizers for VOC control efficiencies.

3. Technical Information

3.1 Calculations of Potential to Emit

Total Facility PTE remains unchanged for this permit action, compliance with all limits is demonstrated through recordkeeping and calculations.

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.

Table 4 summarizes the periodic monitoring requirements for those emission units for which the monitoring required by the applicable requirement is nonexistent or inadequate.

Table 4. Periodic Monitoring

EU/GP/CE	Requirement (basis)	Additional Monitoring	Discussion
Total Facility	Combustion Capacity ≤ 140 MMBtu/hr	Recordkeeping and notifications, annual reporting of total capacity	
	VOC ≤ 240 tpy Single HAP ≤ 9.0 tpy Total HAP ≤ 23.5 tpy	Recordkeeping, monthly calculations	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.
	Modification and replacement of existing units	Recordkeeping of any replaced units	Any replaced equipment must meet all the applicable requirements in the permit. If a changed unit would trigger a different requirement, the chance cannot be made without an amendment.
GP 003 Press Operations	Control Efficiency	GP 005 has monitoring of controls	Testing required to demonstrate destruction efficiency of the two new thermal oxidizers.
GP 005: Thermal Oxidizers	VOC control efficiency $\geq 95\%$ Temp ≥ 1200 °F at the combustion chamber	Temperature monitoring, recordkeeping, O&M inspections	Monitoring based on the MN Performance Standard for Control Equipment is adequate to have a reasonable assurance of compliance. Rationale for quarterly and yearly inspections based on EPA's January 2005 Technical Support Document (TSD) for Title V Permitting of Printing Facilities (Protocol 1, page D-46)

3.3 Insignificant Activities

Banta Catalog has several operations which are classified as insignificant activities. These are listed in Appendix B to the permit.

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.

3.5 Comments Received

Public Notice Period: September 30, 2007 – October 30, 2007

EPA 45-day Review Period: September 30, 2007 – November 14, 2007

There were no comments received.

4. Conclusion

Based on the information provided by Banta Catalog, the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 05300384-004, and this TSD, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Trevor Shearen (permit writer/engineer)
Christian Norman (enforcement)
Curt Stock (stack testing)
Dan Sullivan (peer reviewer)

AQ File No. 2032; DQ 1258, 1573

Attachments: *none*