

**AIR EMISSION PERMIT NO. 16300108- 003**

**IS ISSUED TO**

**IMATION ENTERPRISES CORPORATION**

1 Imation Place  
Oakdale, Washington County, MN 55128

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

Permit Type	Application Date
Total Facility Operating Permit	April 3, 1998
Minor Amendment	January 15, 2003

This permit authorizes the Permittee to operate 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

**Issue Date:** February 19, 2004

**Expiration:** February 19, 2009  
All Title I Conditions do not expire.

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Ann M. Foss, Manager  
Majors Air and Construction Section  
Majors and Remediation Division

for Sheryl Corrigan  
Commissioner  
Minnesota Pollution Control Agency

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**NOTICE TO THE PERMITTEE:**

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

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

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

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

**PERMIT SHIELD:**

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

The Imation facility at 1 Imation Place serves as the company's corporate headquarters and primary research and development center. The buildings on-site consist of administrative office space, laboratories, and pilot-scale production areas.

The activities requiring a Part 70 permit consist primarily of a pilot-scale coating operation, which consists of coaters, dryers, and solution preparation equipment. In addition, Imation operates two emergency generators and five natural gas fired boilers, three of which can burn propane as backup fuel. There are several listed insignificant activities, including two additional natural gas boilers.

The facility is permitted as a non-major source under the federal Prevention of Significant Deterioration (PSD) portion of New Source Review (NSR), due to federally enforceable operating conditions. The facility is permitted as a major source under the Part 70 operating permit program, since potential HAP (MEK) emissions exceed the Part 70 thresholds.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
 Permit Number: 16300108 - 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.**

<b>Subject Item: Total Facility</b>	
<b>What to do</b>	<b>Why to do it</b>
<b>FACILITY-SPECIFIC REQUIREMENTS</b>	hdr
Volatile Organic Compounds: less than or equal to 96.0 tons/year using 12-month Rolling Sum of total combined VOC from all units other than combustion sources. VOC emissions from all insignificant activities (not limited to those listed in Appendices B and C, and excluding combustion sources) are to be included in the limit. Emissions shall be calculated by the 15th day of each month for the previous 12-month period.	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21
Material Content: VOC content shall be determined by Material Safety Data Sheets (MSDS) or technical specifications provided by the manufacturer, whichever contains the more specific data, for each material used. If the information provided contains a material content range, the highest number in the range shall be used in all calculations, unless specifically stated otherwise elsewhere in this permit. The MPCA reserves the right to require the permittee to take samples of the VOC-containing materials and conduct analyses as per EPA reference methods in lieu of using MSDS data. Alternative methods (such as calculation by material balance or EPA or ASTM reference methods) may be used to determine VOC content, after receipt of written MPCA approval. If an EPA or ASTM reference method is used, it shall supersede the MSDS.	Minn. R. 7007.0800, subp. 4
Daily Recordkeeping: Each day of operation, record the quantity and VOC content of each VOC-containing material used. The Permittee may use the quantity of VOC-containing material removed from inventory as a surrogate for the quantity of VOC-containing material used, for all units except the coating equipment.	Title I Condition: Limit to avoid classification as a major source under 40 CFR 52.21
Monthly Recordkeeping - VOC Emissions  By the 15th day of each month, the Permittee shall calculate and record:  1. The total quantities of all VOC-containing materials used during the previous month; 2. The VOC content of each VOC-containing material used during the previous month, determined as described under "Material Content" above; 3. The total quantity of VOC recovered in the condensation dryers during previous month, in tons; 4. The VOC emissions for the previous month using the formulas specified in this permit; and 5. The 12-month rolling sum of VOC emissions for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and 5
Monthly Calculations - VOC Emissions  The Permittee shall calculate VOC emissions using the following equations:  $\text{VOC(M)} = \text{VOC(U)} - (\text{VOC(W)} + \text{VOC(R)})$  where: VOC(M) = VOC emissions for the previous month, in tons VOC(U) = total quantity of VOC used during the previous month, in tons VOC(W) = total quantity of VOC shipped offsite as waste during the previous month (optional - must conform to the requirements for "waste credit" below), in tons VOC(R) = total quantity of VOC recovered in the condensation dryers during the previous month, in tons	Minn. R. 7007.0800, subp. 4 and 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
Permit Number: 16300108 - 003

<p>Monthly Calculations - VOC Emissions, continued</p> <p><math>VOC(U) = (Q1 \times V1) + (Q2 \times V2) + (Q3 \times V3) + \dots</math></p> <p>where:</p> <p>Q# = The quantity of each VOC-containing material used during the previous month (quantity of material #1, quantity of material #2, etc.) (tons)</p> <p>V# = The VOC content (%) of each of VOC-containing materials used during the previous month (VOC content of material #1, VOC content of material #2, etc.)</p> <p>The 12-month rolling sum shall be calculated by summing the total VOC emissions (VOC(M)) from the previous 12 months.</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>Waste Credit (VOC(W)) - If the Permittee wishes to take credit for the quantity of VOC shipped offsite as waste, the following conditions must be met:</p> <ol style="list-style-type: none"> <li>1. Credit may only be taken for VOC contained in waste generated by the GP002 processes.</li> <li>2. Each container of such waste shall be accompanied by a waste composition profile, which shall include the quantity and VOC content of each VOC-containing waste material added to the container.</li> <li>3. For each container of waste generated by the GP002 processes, calculate the VOC using the following equation:  <math>VOC(W) = (QW1 \times VW1) + (QW2 \times VW2) + \dots</math></li> </ol> <p>Where:</p> <p>QW# = the quantity of each waste material put into the container (quantity of waste #1, quantity of waste #2, etc.), in tons</p> <p>VW# = the VOC content of each waste material put into the container (VOC content of waste #1, VOC content of waste #2, etc.), percent by weight</p>	Minn. R. 7007.0800, subp. 4 and 5
<p>The facility currently uses ozone-depleting substances as defined in 40 CFR pt. 82. Sections 601-618 of the 1990 Clean Air Act Amendments and 40 CFR pt. 82 may apply to your facility. Read Sections 601-618 and 40 CFR pt. 82 to determine all the requirements that apply to your facility.</p>	40 CFR pt. 82
<p>OPERATIONAL REQUIREMENTS</p>	hdr
<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>	Minn. R. 7011.0020
<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>	Minn. R. 7019.1000, subp. 4
<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>	Minn. R. 7011.0150
<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 federally enforceable.</p>	Minn. R. 7030.0010 through 7030.0080
<p>Inspections: Upon presentation of credentials and other documents as may be required by law, allow the Agency, or its representative, to enter the Permittee's premises, to have access to and copy any records required by this permit, to inspect at reasonable times (which include any time the source is operating) any facilities, equipment, practices or operations, and to sample or monitor any substances or parameters at any location.</p>	Minn. R. 7007.0800, subp. 9(A)
<p>The permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.</p>	Minn. R. 7007.0800, subp.16
<p>PERFORMANCE TESTS</p>	hdr
<p>Performance Testing: Conduct all performance tests in accordance with Minn. R. ch. 7017 unless otherwise noted in Tables A, B, and/or C.</p>	Minn. R. ch. 7017
<p>Limits set as a result of a performance test (conducted before or after permit issuance) apply until superseded as specified by Minn. R. 7017.2025 following formal review of a subsequent performance test on the same unit.</p>	Minn. R. 7017.2025
<p>RECORDKEEPING</p>	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
 Permit Number: 16300108 - 003

Record keeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007.1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350, subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007.0800, subp. 5(B)
Record keeping: Retain all records in a central location at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
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 you need a permit amendment, submit application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Extension Requests: The permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Emission Inventory Report: due 91 days after end of each calendar year following permit issuance (April 1). To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill	Minn. R. 7002.0005 through Minn. R. 7002.0095

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
Permit Number: 16300108 - 003

**Subject Item:** GP 001 Boilers - not Subpart Dc

**Associated Items:** EU 004 Boiler 304-4  
EU 007 Boiler 301-1

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.4 lbs/million Btu heat input . This limit applies individually to each emission unit in GP 001. PTE of each boiler is 0.0072 lb/MMBtu at maximum capacity.	Minn. R. 7011.0515, subp. 1
Opacity: less than or equal to 20 percent opacity ; except that a maximum of 60 percent opacity shall be permissible for four minutes in any 60-minute period and that a maximum of 40 percent opacity shall be permissible for four additional minutes in any 60-minute period. This limit applies individually to each emission unit in GP 001.	Minn. R. 7011.0515, subp. 2
Fuel burned: natural gas only.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
Permit Number: 16300108 - 003

**Subject Item:** GP 002 Laboratory, Solution Preparation, and Coating Equipment

**Associated Items:** EU 009 Solution Prep Area  
EU 010 Mainline Coater  
EU 011 Mainline Condensation Dryer  
EU 012 Mainline Oven  
EU 013 Offline Coater 1  
EU 014 Offline Condensation Dryer  
EU 015 Offline Coater 2  
EU 016 Offline Coater 2 Oven  
EU 017 Misc. Research labs

What to do	Why to do it
EMISSION LIMITS & OPERATING REQUIREMENTS	hdr
The Permittee utilizes less than 38 cubic meters of solvent per calendar year and therefore is subject only to the requirements of 40 CFR Sections 60.714(a), 60.717(b), and 60.717(c).	40 CFR Section 60.710(b); Minn. R. 7011.3450
NSPS RECORDKEEPING REQUIREMENTS	hdr
The Permittee shall maintain records of actual solvent use.	40 CFR Section 60.714(a); Minn. R. 7011.3450
NSPS REPORTING REQUIREMENTS	hdr
Submit: due 30 days after end of each calendar year starting 01/01/2000, record of actual solvent use	40 CFR Section 60.717(b); Minn. R. 7011.3450
Report the first calendar year in which actual annual solvent use exceeds 38 cubic meters, within 30 days of the end of the calendar year.	40 CFR Section 60.717(c); Minn. R. 7011.3450



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
Permit Number: 16300108 - 003

**Subject Item:** GP 004 Boilers - Subpart Dc

**Associated Items:** EU 001 Boiler 304-1  
EU 002 Boiler 304-2  
EU 003 Boiler 304-3

What to do	Why to do it
Recordkeeping - Fuel Usage: by the 15th day of each month, record the fuel usage for the previous month. Natural gas usage shall be stated in million cubic feet per month, and may be in the form of facility fuel bills prorated for individual boilers used during that month, or meter readings.	40 CFR Section 60.13(i) and February 20, 1992, EPA memorandum to meet requirements of 40 CFR Section 60.48c(g)
Fuel burned: natural gas or propane only.	Minn. R. 7007.0800, subp. 2

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
 Permit Number: 16300108 - 003

**Subject Item:** EU 005 Backup Generator - 01

**Associated Items:** SV 005 Generator

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Operating Hours: less than or equal to 200 hours/year using 12-month Rolling Sum for EU 005. Operating hours shall be determined using an hour run-time meter.	Title I Condition: Limit set in previous permit to avoid classification of source and modification as major under 40 CFR Sections 52.21 and 70.2, and Minn. R. 7007.0200
Fuel Burned: diesel fuel only, with a maximum sulfur content of 0.5% by weight.	Minn. R. 7007.0800, subp. 2
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping - Hours of Operation: by the 15th day of each month:  1. Calculate and record the EU 005 operating hours during the previous month; 2. Calculate and record the EU 005 operating hours during the previous 12-month period (12-month rolling sum).  Record all calculations at the time of calculation.	Title I Condition: Recordkeeping of limit assumed to avoid classification as major source and modification under 40 CFR Sections 52.21 and 70.2, and Minn. R. 7007.0200
Recordkeeping: Record and maintain records of the fuel combusted in the generator. These records may consist of purchase records or receipts, and should include the sulfur content of the fuel, by weight.	Minn. R. 7007.0800, subp. 4 and 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

02/19/04

Facility Name: Imation Corp  
 Permit Number: 16300108 - 003

**Subject Item:** EU 006 Backup Generator - 02

**Associated Items:** SV 006 Generator

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Sulfur Dioxide: less than or equal to 0.5 lbs/million Btu heat input	Minn. R. 7011.2300, subp. 2
Opacity: less than or equal to 20 percent opacity once operating temperatures have been attained.	Minn. R. 7011.2300, subp. 1
Operating Hours: less than or equal to 200 hours/year using 12-month Rolling Sum for EU 006. Operating hours shall be determined using an hour run-time meter.	Title I Condition: Limit set in previous permit to avoid classification of source and modification as major under 40 CFR Sections 52.21 and 70.2, and Minn. R. 7007.0200
Fuel Burned: diesel fuel only, with a maximum sulfur content of 0.5% by weight.	Minn. R. 7007.0800, subp. 2
RECORDKEEPING REQUIREMENTS	hdr
Recordkeeping - Hours of Operation: by the 15th day of each month:  1. Calculate and record the EU 005 operating hours during the previous month; 2. Calculate and record the EU 005 operating hours during the previous 12-month period (12-month rolling sum).  Record all calculations at the time of calculation.	Title I Condition: Recordkeeping of limit assumed to avoid classification as major source and modification under 40 CFR Sections 52.21 and 70.2, and Minn. R. 7007.0200
Recordkeeping: Record and maintain records of the fuel combusted in the generator. These records may consist of purchase records or receipts, and should include the sulfur content of the fuel, by weight.	Minn. R. 7007.0800, subp. 4 and 5

## TABLE B: SUBMITTALS

02/19/04

Facility Name: Imation Corp  
Permit Number: 16300108 - 003

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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

**TABLE B: ONE TIME SUBMITTALS OR NOTIFICATIONS**

02/19/04

Facility Name: Imation Corp  
Permit Number: 16300108 - 003

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Application for Permit Reissuance	due 180 days before expiration of Existing Permit	Total Facility
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup	EU009
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. Submit the name and number of the unit and the actual date of initial startup of the unit.	EU015
Notification of the Actual Date of Initial Startup	due 15 days after Initial Startup. Submit the name and number of the unit and the actual date of initial startup of the unit.	EU016
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of the and the date construction began for the unit.	EU015
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of the and the date construction began for the unit.	EU016
Notification of the Date Construction Began	due 30 days after Start Of Construction. Submit the name and number of the unit and the date construction began.	EU009

**TABLE B: RECURRENT SUBMITTALS**

02/19/04

Facility Name: Imation Corp  
Permit Number: 16300108 - 003

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 03/18/98 . The first report period of each calendar year covers January 1 - June 30. The second report period of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 03/18/1998 (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner and to the US EPA regional office in Chicago. This report covers all deviations experienced during the calendar year.	Total Facility

## APPENDIX B – Subpart 3 Insignificant Activities

Facility Name: Imation Corporation

Permit Number: 16300108-003

### Insignificant Activities and Applicable Requirements – Minn. R. 7007.1300, subp. 3

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
3(D)	Processing operations:	
	<p>2. Equipment venting particulate matter (PM) or particulate matter less than 10 microns (PM-10) inside a building, provided that emissions from the equipment are:</p> <p>a). filtered through an air cleaning system; and</p> <p>b). vented inside of the building 100% of the time.</p> <ul style="list-style-type: none"> <li><b>The facility operates 2 drill presses, 3 grinders, and a bandsaw that fall into this category.</b></li> </ul>	Minn. R. 7011.0710/0715
3(G)	<p>Emissions from a laboratory, as defined in the subpart.</p> <ul style="list-style-type: none"> <li><b>The facility operates an R&amp;D laboratory meeting the specifications of this item.</b></li> </ul>	Minn. R. 7011.0510/0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
3(H)	Miscellaneous:	
	<p>4. brazing, soldering or welding equipment;</p> <ul style="list-style-type: none"> <li><b>The facility operates brazing, soldering, and welding equipment</b></li> </ul>	Minn. R. 7011.0510/.0515 + Minn. R. 7011.0610 + Minn. R. 7011.0710/0715
3(I)	<p>Individual emissions units at a stationary source, each of which have a potential to emit the following pollutants in amounts less than:</p> <p>1. 4,000 lbs/year of carbon monoxide; and</p> <p>2. 2,000 lbs/year each of nitrogen oxide, sulfur dioxide, particulate matter, particulate matter less than ten microns, volatile organic compounds (including hazardous air pollutant-containing VOC), and ozone.</p> <ul style="list-style-type: none"> <li><b>Two natural gas boilers rated at 1.14 MMBtu/hour each (303-1 &amp; 303-2); each of these has potential emissions below the thresholds.</b></li> <li><b>VOC storage tanks with emissions less than the above thresholds</b></li> <li><b>Sander (IA002), PM/PM10 PTE = 0.003 tpy</b></li> <li><b>Coater (IA003), VOC PTE = 0.16 tpy</b></li> <li><b>Five mills, with individual VOC PTE's = 0.1, 0.48,</b></li> </ul>	<p>Minn. R. 7011.0515</p> <p>40 CFR 60.116b(a) &amp; (b); Minn. R. 7011.1520(C)</p> <p>Minn. R. 7011.0715</p> <p>Minn. R. 7011.0715</p>

Minn. R. 7007.1300, subpart	Rule Description of the Activity	Applicable Requirement
	<p><b>0.57, 0.57, and 0.07 tpy</b></p> <ul style="list-style-type: none"> <li>• <b>Two hand spreaders, each with VOC PTE = 0.033 tpy</b></li> <li>• <b>Four parts washers, with individual VOC PTEs = 0.57, 0.37, 0.23, and 0.23 tpy</b></li> <li>• <b>Three homogenation units, each with VOC PTE = 0.35 tpy</b></li> </ul>	<p>Minn. R. 7011.0715</p> <p>Minn. R. 7011.0715</p> <p>Minn. R. 7011.0715</p> <p>Minn. R. 7011.0715</p>



**APPENDIX C – Subpart 4 Insignificant Activities****Facility Name:** Imation Corporation**Permit Number:** 16300108-003**Insignificant Activities and Applicable Requirements – Minn. R.  
7007.1300, subp. 4**

<b>Insignificant Activity</b>	<b>Pollutant(s) Emitted</b>	<b>Applicable Requirement</b>
<b>Optical - CO<sub>2</sub> laser</b>	PM, PM10	Minn. R. 7011.0715
<b>Mills (E104A)</b>	VOC, MEK, Toluene	Minn. R. 7011.0715
<b>Mixer (E04A)</b>	VOC, MEK, Toluene	Minn. R. 7011.0715
<b>Microblaster (W173A)</b>	PM, PM10	Minn. R. 7011.0715
<b>Gritblaster/vacuum box (W173A)</b>	PM, PM10	Minn. R. 7011.0715
<b>Coater Pump Carts (E203A)</b>	VOC, MEK	Minn. R. 7011.0715

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 16300108-003**

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

## **1. General Information**

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

Owner and Operator Address and Phone Number	Facility Address (SIC Code: 8730)
Imation Enterprises Corp. 1 Imation Place Oakdale, MN 55128 Contact: Anne Harri, (651)704-4000	Imation Corp. 1 Imation Place Oakdale, Washington County, MN

### **1.2. Description of the facility**

The Imation facility at 1 Imation Place serves as the company's corporate headquarters and primary research and development center. The buildings on-site consist of administrative office space, laboratories, and pilot-scale areas.

The activities requiring a Part 70 permit consist primarily of a pilot-scale coating operation, which consists of coaters, dryers, and solution preparation equipment. In addition, Imation operates two emergency generators and five natural gas fired boilers, three of which can burn propane as backup fuel. There are several listed insignificant activities, including two additional natural gas fired boilers.

The facility is permitted as a major source under the Part 70 operating permit program since potential methyl ethyl ketone emissions exceed the Part 70 individual HAP threshold of 10 tons per year.

### **1.3 Description of any changes allowed with this permit issuance**

This permit authorizes installation of a solution prep area and an additional coating machine and associated drying oven. This equipment was permitted in Air Emission Permit No. 16300108-002 and is included in the VOC emission limit, but has not yet been installed.

This permit authorizes the combustion of propane in the Discovery boilers. Previously, only natural gas was permitted as a fuel.

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

- March 18, 1997 – State Operating permit issued (16300108-001)
- July 28, 1998 – Major Amendment to State Operating permit issued (16300108-002). This permit authorized a modification that subjected the facility to the requirement to obtain a Part 70 Operating Permit. Under Minn. R. 7007.0400, subpart 4(B), the Permittee was required to submit an application

for the Part 70 permit within one year of commencing operation of the permitted modification. Imation submitted the application for this Part 70 permit at the same time as the application for the modification, in compliance with Minn. R. 7007.0400, subp. 4(B).

- September 7, 1999 – MPCA received an application for an administrative amendment to extend a testing deadline. Due to staff's workload and conflicting priorities, that administrative amendment was not processed.
- January 23, 2001 – MPCA received a notification of installation of control equipment. Because this control equipment was installed as a means to recover gases from an already-insignificant (when uncontrolled) activity, the control equipment does not appear in the permit.
- January 17, 2003 – MPCA received a minor amendment application to allow boilers 1-4 (the NSPS boilers) to combust propane in addition to natural gas. Application was not reviewed at the time. It has now been reviewed and the minor amendment application was appropriate for the proposed modification. Discussion with Imation staff verifies that propane is combusted in the three larger "Discovery boilers": EU001 – EU003. The 4<sup>th</sup> Discovery boiler, EU004, is not connected to propane. The original permit for GP004 incorrectly included EU004, which is smaller and not subject to NSPS Subpart Dc. There is also a 5<sup>th</sup> boiler, EU007. EU004 was removed from GP004, and propane is authorized for GP004. GP001 includes EU004 and EU007, neither of which is subject to NSPS Subpart Dc, and neither of which combusts propane.

## 1.5 Facility Emissions:

**Table 1. Total Facility Potential to Emit Summary:**

	PM tpy	PM <sub>10</sub> Tpy	SO <sub>2</sub> tpy	NO <sub>x</sub> tpy	CO tpy	VOC tpy	Single HAP tpy	Total HAPs tpy
Total Facility Limited Potential Emissions (A)	2.27	2.15	8.11	74.11	26.08	98.01	96.0	96.0
Total Facility Limited Potential Emissions (B)	22.12	22.0	8.13	75.06	26.87	98.06	110.4	114.3
Total Facility Actual Emissions (2001) (A)	0.28	0.28	0.03	3.75	3.1	15.65	NR*	NR*

(A) – Excludes individual insignificant particulate matter and combustion sources

(B) – Including individual insignificant particulate matter and combustion sources

\* NR = not reported – HAPs are not reported on the annual emission inventory. HAPs emitted from the facility include methyl ethyl ketone, toluene, methanol, and acetonitrile.

**Table 2. Facility and Permit Classification**

Classification	Major/Affected Source	*Synthetic Minor	*Minor
NSR/PSD		VOC	All others
Part 70 Permit Program	HAPs	VOC	

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

## 2. Regulatory and/or Statutory Basis

### New Source Review

The facility accepts limits on VOC emissions to remain a non-major source under New Source Review – PSD (40 CFR § 52.21). The facility is limited to 96 tpy of VOC usage on a facility wide basis, including insignificant activities but excluding fuel combustion. The limit is based on a 12-month rolling sum. The facility is subject to the 250 ton per year threshold for major source status under New Source Review. The 96 tons per year plus VOC emissions from fuel combustion is well below the NSR threshold, and still below the Part 70 threshold of 100 tpy.

### Part 70 Permit Program

The facility is a major source of HAPs under the Part 70 Permit Program.

### New Source Performance Standards (NSPS)

The following New Source Performance Standards under 40 CFR § 60 apply at the facility:

- Subpart SSS: Magnetic Tape Coating Facilities
- Subpart Dc: Small Industrial-Commercial-Institutional Steam Boilers
- Subpart Kb: Volatile Organic Liquid Storage Vessels

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

It is likely that the facility will be subject to the upcoming MACT standard for Industrial/Commercial/Institutional Boilers & Process Heaters (Subpart DDDDD). That rule has not yet been promulgated.

The facility qualifies as a research or laboratory facility as defined in the Magnetic Tape Coating Facilities NESHAP (Subpart EE). Imation is therefore exempt from Subpart EE. The definition of research or laboratory facility reads as follows:

*Research or laboratory facility means any stationary source whose primary purpose is to conduct research and development to develop new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.*

### Minnesota State Rules

State Standards of Performance that apply to this facility and are included in the permit are:

- Minn. R. 7011.0500 through 7011.0515 – New Indirect Heating Equipment
- Minn. R. 7011.2300 -- Stationary Internal Combustion Engines

**Table 3 Regulatory Overview of Facility**

EU, GP, or SV	Applicable Regulations	Comments:
Total Facility	Title I limit to avoid New Source Review	VOC limit set on a 12-month rolling sum basis
GP001	Minn. R. 7011.0515	Standards of Performance for New Indirect Heating Equipment

EU, GP, or SV	Applicable Regulations	Comments:
GP002	40 CFR § 60, Subpart SSS	Standards of Performance for Magnetic Tape Coating Facilities
GP004	40 CFR § 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Boilers
EU005, EU006	Minn. R. 7011.2300	Standards of Performance for Stationary Internal Combustion Engines
	Title I limit to avoid New Source Review	Limit on hours of operation, based on a 12-month rolling sum

### 3. Technical Information

#### 3.1 Calculations

Hourly VOC emissions were determined by the Permittee based on equipment capacities and bottlenecks. Monthly VOC emissions from the coating operation (GP002) are calculated using the following mass balance equation:

$$VOC_M = VOC_U - (VOC_W + VOC_R)$$

Where

$VOC_M$  = the VOC emissions for the month

$VOC_U$  = the quantity of VOC used at the facility, calculated by multiplying the quantity of each VOC-containing material by the VOC content (highest percentage in range if a range is used)

$VOC_W$  = the quantity of VOC in containers of waste shipped out of the facility, calculated the same way  $VOC_U$  is calculated, except that the lowest percentage in a VOC content range is used

$VOC_R$  = the quantity of VOC recovered in the condensation dryers

Compliance with the annual VOC limit for the facility is determined each month by summing the values of  $VOC_M$  calculated for each of the preceeding 12 months.

All emissions from combustion (boilers and generators) are calculated in the traditional manner using emission factors published in AP-42.

Calculations are shown and summarized in Attachment 1 to this document.

#### 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**

<b>Emission Unit</b>	<b>Requirement (basis)</b>	<b>Additional Monitoring</b>	<b>Discussion</b>
Total Facility	Annual VOC limit (Title I limit to avoid PSD)	Daily record-keeping Monthly calculations	VOC used and wasted shall be determined based on MSDS or technical specifications from the supplier. VOC recovered in the condensation dryers shall be recorded. Monthly calculations of VOC emissions are sufficient because the limits are well below the PSD threshold of 250 tpy.
GP001	PM and Opacity limits (Minn. R. 7011.0515)	None	Based on boiler capacity and fuel used (natural gas), the potential emissions of each of the boilers is 0.0072 lb/MMBtu, approximately 2% of the limit. Non-compliance is unlikely.
GP004	NSPS Subpart Dc	None	The requirements of the NSPS pursuant to natural gas fired boilers have been defined in the EPA memorandum dated February 20, 1992. Only the records described in that memo need be required by the permit. (Note that the NSPS defines “natural gas” as including propane.)
EU005, EU006	SO <sub>2</sub> and Opacity limits (Minn. R. 7011.2300) Limit on sulfur content of fuel	Record-keeping	By limiting the sulfur content of the fuel combusted, the SO <sub>2</sub> emissions are limited, because a pure mass balance of sulfur is assumed. Record-keeping of the sulfur content of the fuel is required.
	Hours of operation limit (Title I limit to avoid PSD)	Record-keeping	Hours are recorded on a meter on the generator. Each month, a 12-month rolling sum of the total hours must be calculated.
GP002	Hourly VOC limit (no applicable requirement)	NA	This limit was eliminated from the permit. Permit No. 16300108-002 lists an emission limit of 950 pounds per hour. However, Imation has since submitted information certifying that the potential emissions are well below 200 pounds per hour. Since it is not current policy to list PTE in a permit, unless it is used to indicate that an applicable requirement could not be violated, there is no need to list the PTE in the permit.

### 3.3 Insignificant Activities

Insignificant activities are listed in Appendices B and C of the permit. There is a number of items listed under Subpart 4 Insignificant Activities, which are those activities insignificant because either their potential or actual emissions are below thresholds listed in the rule. These emissions are provided in Attachment 1 of this document. As shown in Table 1 of this document, there is a large gap between the VOC emissions limited in the permit and the PSD major source threshold, so the insignificant activities do not cause the facility to be considered major under PSD regulations.

### **3.4 Public Comments**

No comments were received during the 30-day public notice or the 45-day EPA notice.

## **4. Conclusion**

Based on the information provided by Imation Corp., the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 16300108-003 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Toni Volkmeier, Betsy Randt, Dan Sullivan (peer review)

Attachment:   1.   Calculations  
                  2.   Facility Description and CD-01 Forms