

**AIR EMISSION PERMIT NO. 10300025- 001  
IS ISSUED TO**

MICO Inc  
1911 Lee Blvd  
North Mankato, Nicollet County, MN 56002-8118

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
Total Facility Operating Permit	August 1, 2000

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

**Permit Type:** State; Synthetic Minor Part 70

**Issue Date:** April 3, 2001

**Expiration:** Permit does not expire  
Title I Conditions do not expire.

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Ann M. Foss  
Manager  
North and South Major Facilities

For Karen A. Studders  
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. Certain requirements which have been determined not to apply are listed in Table A of this permit.

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:**

MICO, Inc. operates a 125,000 square foot manufacturing facility in North Mankato. The primary business conducted at the facility is the manufacture of hydraulic brake systems and associated components. Processes at the facility consist of parts machining, parts cleaning, assembly, and painting.

Emission units at the site are two vapor degreasers, two paint booths, and insignificant activities. This permit sets federally enforceable limits on VOC and HAP emissions such that the facility is minor under 40 CFR 52.21, 40 CFR Pt. 70, and an area source under 40 CFR Pt. 63.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

**Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.**

**Subject Item: Total Facility**

<b>What to do</b>	<b>Why to do it</b>
<b>EMISSION LIMITS</b>	hdr
Volatile Organic Compounds: less than or equal to 98 tons/year based on a 12 month rolling sum. All VOCs used in the paint booths shall be assumed to be emitted. VOC emissions from the degreasers shall be determined by measuring and recording the total amount of material used to refill the machine to the fill line during the month, and calculating the corresponding VOC percentage using information from the MSDS sheets. All VOC consumed shall be assumed to be emitted.	Title I Condition: to limit potential emissions to less than major source levels as defined by 40 CFR 52.21, and 40 CFR Pt. 70
HAP-Single: less than or equal to 9.8 tons/year based on a 12 month rolling sum. All HAPs used in the paint booths shall be assumed to be emitted. HAP emissions from the degreasers shall be determined by measuring and recording the total amount of material used to refill the machine to the fill line during the month, and calculating the corresponding HAP percentage using information from the MSDS sheets. All HAP consumed shall be assumed to be emitted.	Title I Condition: to limit potential emissions to less than major source levels as defined by 40 CFR Pt. 70
HAPs - Total: less than or equal to 24.5 tons/year based on a 12 month rolling sum. All HAPs used in the paint booths shall be assumed to be emitted. HAP emissions from the degreasers shall be determined by measuring and recording the total amount of material used to refill the machine to the fill line during the month, and calculating the corresponding HAP percentage using information from the MSDS sheets. All HAP consumed shall be assumed to be emitted.	Title I Condition: to limit potential emissions to less than major source levels as defined by 40 CFR Pt. 70
<b>MONITORING AND RECORDKEEPING</b>	hdr
Each month, by the 15th of the month, calculate and record the previous month's VOC usage in the paint booths, and the consumption in the degreasers, in tons. Add the previous months usage to the usage for the prior 11 months, and compare to the limit. Record the results.	Title I Condition: Monitoring for Title I Emission Limits
Each month, by the 15th of the month, calculate and record the previous month's HAP usage in the booths, and the consumption in the degreasers, in tons. Add the previous months usage and consumption to the usage for the prior 11 months, and compare to the limit. Record the results.	Title I Condition: Monitoring for Title I Emission Limits
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
<b>OTHER REQUIREMENTS</b>	hdr
Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment.	Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)
Monitoring Equipment: Install or make needed repairs to monitoring equipment within 60 days of issuance of the permit if monitoring equipment is not installed and operational on the date the permit is issued.	Minn. R. 7007.0800, subp. 4(D)
Monitoring Equipment Calibration: Annually calibrate all required monitoring equipment (any requirements applying to continuous emission monitors are listed separately in this permit).	Minn. R. 7007.0800, subp. 4(D)
Operation of Monitoring Equipment: Unless otherwise noted in Tables A, B, and/or C, monitoring a process or control equipment connected to that process is not necessary during periods when the process is shutdown, or during checks of the monitoring systems, such as calibration checks and zero and span adjustments. If monitoring records are required, they should reflect any such periods of process shutdown or checks of the monitoring system.	Minn. R. 7007.0800, subp. 4(D)
Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.	Minn. R. 7011.0020

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

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Facility Name: MICO Inc

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Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Air Pollution Control Equipment: Operate all pollution control equipment whenever the corresponding process equipment and emission units are operated, unless otherwise noted in Table A.	Minn. R. 7007.0800, subp. 2; Minn. R. 7007.0800, subp. 16(J)
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
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)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
REPORTING, See Table B for additional reporting requirements	hdr
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
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
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
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
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

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

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Facility Name: MICO Inc

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<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>
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**TABLE A: LIMITS AND OTHER REQUIREMENTS**

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

**Subject Item:** GP 001 Paint Booths**Associated Items:** EU 002 Paint Booth 1

EU 003 Paint Booth 2

What to do	Why to do it
EMISSION LIMITS	hdr
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730, or Minn. R. 7011.0735.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, subp. 1(B)
MONITORING REQUIREMENTS	hdr
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes and any other condition that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.	Minn. R. 7007.0800, subp. 2
Periodic Inspections: At least once per calendar quarter, or more frequently as required by the manufacturing specifications, the Permittee shall inspect the control equipment components. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 4, 5, and 14
Corrective Actions: If the filters or any of their components are found during the inspections to need repair, the Permittee shall follow the O & M Plan for the panel filter and take corrective action as soon as possible. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 4, 5, and 14
Operation and Maintenance of Filters: The Permittee shall operate and maintain each filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and MPCA staff.	Minn. R. 7007.0800, subp. 14



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

**Subject Item:** EU 001 Degreaser**Associated Items:** SV 001 Degreaser Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, Subp. 1.B.
OPERATING REQUIREMENTS	hdr
(1) The cleaning machine shall be designed to include or operated to meet the following:  (i) An idling and downtime mode cover, as described in 40 CFR 63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects. The cover shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover to not be in place.  (ii) A reduced room draft as described in 40 CFR 63.463(e)(2)(ii)	40 CFR 63.463(a)(1)
(2) The cleaning machine shall have a freeboard ratio of 0.75 or greater.  (3) The machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of parts.	40 CFR 63.463(a)(2) and (3)
(4) The vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.  (5) The vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.  (6) Each vapor cleaning machine shall have a primary condenser.	40 CFR 63.463(a)(4), (5) and (6)
The Permittee shall employ reduced room draft, (i.e. the movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute)) superheated vapor, and a freeboard ratio of 1.0.	40 CFR 63.463(b)(1)(i)
The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.	40 CFR 63.463(d)(2)
Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine.)	40 CFR 63.463(d)(3)
Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the Administrator.	40 CFR 63.463(d)(4)
Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.	40 CFR 63.463(d)(5)
During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.	40 CFR 63.463(d)(6)
During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.	40 CFR 63.463(d)(7)
When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.	40 CFR 63.463(d)(8)
Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturer.	40 CFR 63.463(d)(9)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

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Facility Name: MICO Inc

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Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of Subp. T, if requested during an inspection by the Administrator.	40 CFR 63.463(d)(10)
Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.	40 CFR 63.463(d)(11)
Sponges, fabric, wood, and paper products shall not be cleaned.	40 CFR 63.463(d)(12)
Ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10 degrees F above the solvent's boiling point.	40 CFR 63.463(e)(2)(vi)(A)
Ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed.	40 CFR 63.463(e)(2)(vi)(B)
Ensure that parts remain within the superheated vapor for at least the minimum proper dwell time.	40 CFR 63.463(e)(2)(vi)(C)
If the manufacturer's specifications for determining the minimum proper dwell time, or the parts do not remain within the superheated vapor for at least the minimum proper dwell time, an exceedance has occurred.	40 CFR 63.463(e)(3)(i)
If the temperature of the solvent vapor at the center of the superheated vapor zone is not at least 10 degrees F above the solvent's boiling point, and it is not corrected within 15 days, then an exceedance has occurred.	40 CFR 63.463(e)(3)(ii)
Determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).	40 CFR 63.466(c)(1)
The monitoring of the speed shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the owner or operator may begin monitoring the hoist speed quarterly.	40 CFR 63.466(c)(2)
If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated.	40 CFR 63.466(c)(3)
If the owner or operator can demonstrate to the Administrator's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.	40 CFR 63.466(c)(4)
<b>MONITORING REQUIREMENTS</b>	hdr
Use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode. The monitoring shall be done on a weekly basis, and the results recorded.	40 CFR 63.466(a)(2)
If an enclosure (full or partial) is used to achieve a reduced room draft, the owner or operator shall conduct an initial monitoring test, and thereafter, monthly monitoring tests of the wind speed within the enclosure using the procedure specified below, as well as a monthly visual inspection of the enclosure to determine if it is free of cracks, holes, and other defects.	40 CFR 63.455(d)(2)
Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.	40 CFR 63.455(d)(2)(i)
Record the maximum wind speed.	40 CFR 63.455(d)(2)(ii)
The Permittee shall prepare and implement a Startup, Shutdown, and Malfunction Plan (SSMP) for each of the emission units subject to Maximum Control Technology Standards prior to startup. The SSMP is a federally enforceable part of the permit and shall be prepared in accordance with 40 CFR Section 63.6(e)(3) and include requirements specified therein. SSMP must be located at the plant site and must be kept updated. When the SSMP is updated, the Permittee must keep all previous versions of the SSMP for a period of 5 years. The Permittee must submit the SSMP when required.	40 CFR Section 63.6(e)(3)(i); 40 CFR Section 63.6(e)(3)(v)
A written SSMP must contain the minimum of the following information: 1. A procedure that documents how any startup, shutdown, or malfunction event that has occurred will be addressed and documented; 2. Information regarding the operation of the source and its associated pollution control devices during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; and 3. Adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.	40 CFR Section 63.6(e)(3)(vii)
Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan.	40 CFR Section 63.6(e)(1)(ii)
<b>RECORDKEEPING</b>	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

04/03/01

Facility Name: MICO Inc

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<p>The owner or operator shall maintain the following records in written or electronic form for the lifetime of the machine.:</p> <p>(1) Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.</p> <p>(2) The date of installation for the solvent cleaning machine and all of its control devices.</p> <p>(3) Records of the halogenated HAP solvent content for each solvent used in the solvent cleaning machine.</p>	40 CFR 63.467(a)
<p>The owner or operator shall maintain the following records for a period of five years:</p> <p>(1) The results of any required control device monitoring, including the measurements of flow or movement of air across the top of the freeboard area of the solvent cleaning machine.</p> <p>(2) Estimates of annual solvent consumption.</p>	40 CFR 63.467(b)
<p>The Permittee shall maintain, at a minimum, the following information in the files:</p> <p>1) the occurrence and duration of each startup, shutdown, or malfunction of operation;</p> <p>2) the occurrence and duration of each malfunction of the air pollution control equipment;</p> <p>3) all maintenance performed on the pollution control equipment;</p> <p>4) actions taken during periods of startup, shutdown, and malfunction when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (SSMP). In this case, the Permittee shall report this action within 2 days of occurrence and follow by a written notification within 7 days of occurrence.</p> <p>5) all information necessary to demonstrate conformance with the affected source's SSMP and actions taken in accordance with SSMP;</p>	40 CFR Section 63.10(b)(2)
<p>6) each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative;</p> <p>7) all required measurements needed to demonstrate compliance with a relevant standard;</p> <p>8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations;</p> <p>9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;</p> <p>10) all CMS calibration checks;</p> <p>11) all adjustments and maintenance performed on CMS;</p> <p>12) any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part;</p> <p>13) all documents supporting initial notifications and notifications of compliance status.</p>	40 CFR Section 63.10(b)(2)
<b>REPORTING REQUIREMENTS</b>	hdr
<p>Initial notification: due prior to before construction. The permit application submitted dated July 20, 2000 meets the requirements of 40 CFR 63.5 (d)(1) and 40 CFR 63.468(b)(1)-(3).</p>	40 CFR 63.468 (b)
<p>The annual report shall include:</p> <p>(1) A signed statement from the facility owner stating that "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 40 CFR 63.463(d)(10)."</p> <p>(2) An estimate of solvent consumption for each solvent cleaning machine during the reporting period.</p>	40 CFR 63.468(f)(1)-(3)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

**Subject Item:** EU 006 Degreaser**Associated Items:** SV 005 Degreaser Exhaust

What to do	Why to do it
EMISSION LIMITS	hdr
Opacity: less than or equal to 20 percent	Minn. R. 7011.0715, Subp. 1.B.
OPERATING REQUIREMENTS	hdr
(1) The cleaning machine shall be designed to include or operated to meet the following:  (i) An idling and downtime mode cover, as described in 40 CFR 63.463(d)(1)(i), that may be readily opened or closed, that completely covers the cleaning machine openings when in place, and is free of cracks, holes, and other defects. The cover shall be in place during the idling mode, and during the downtime mode unless either the solvent has been removed from the machine or maintenance or monitoring is being performed that requires the cover to not be in place.  (ii) A reduced room draft as described in 40 CFR 63.463(e)(2)(ii)	40 CFR 63.463(a)(1)
(2) The cleaning machine shall have a freeboard ratio of 0.75 or greater.  (3) The machine shall have an automated parts handling system capable of moving parts or parts baskets at a speed of 3.4 meters per minute (11 feet per minute) or less from the initial loading of parts through removal of parts.	40 CFR 63.463(a)(2) and (3)
(4) The vapor cleaning machine shall be equipped with a device that shuts off the sump heat if the sump liquid solvent level drops to the sump heater coils.  (5) The vapor cleaning machine shall be equipped with a vapor level control device that shuts off sump heat if the vapor level in the vapor cleaning machine rises above the height of the primary condenser.  (6) Each vapor cleaning machine shall have a primary condenser.	40 CFR 63.463(a)(4), (5) and (6)
The Permittee shall employ reduced room draft, (i.e. the movement across the top of the freeboard area of the solvent cleaning machine or within the solvent cleaning machine enclosure does not exceed 15.2 meters per minute (50 feet per minute)) superheated vapor, and a freeboard ratio of 1.0.	40 CFR 63.463(b)(1)(i)
The parts baskets or the parts being cleaned in an open-top batch vapor cleaning machine shall not occupy more than 50 percent of the solvent/air interface area unless the parts baskets or parts are introduced at a speed of 0.9 meters per minute (3 feet per minute) or less.	40 CFR 63.463(d)(2)
Any spraying operations shall be done within the vapor zone or within a section of the solvent cleaning machine that is not directly exposed to the ambient air (i.e., a baffled or enclosed area of the solvent cleaning machine.)	40 CFR 63.463(d)(3)
Parts shall be oriented so that the solvent drains from them freely. Parts having cavities or blind holes shall be tipped or rotated before being removed from any solvent cleaning machine unless an equally effective approach has been approved by the Administrator.	40 CFR 63.463(d)(4)
Parts baskets or parts shall not be removed from any solvent cleaning machine until dripping has stopped.	40 CFR 63.463(d)(5)
During startup of each vapor cleaning machine, the primary condenser shall be turned on before the sump heater.	40 CFR 63.463(d)(6)
During shutdown of each vapor cleaning machine, the sump heater shall be turned off and the solvent vapor layer allowed to collapse before the primary condenser is turned off.	40 CFR 63.463(d)(7)
When solvent is added or drained from any solvent cleaning machine, the solvent shall be transferred using threaded or other leakproof couplings and the end of the pipe in the solvent sump shall be located beneath the liquid solvent surface.	40 CFR 63.463(d)(8)
Each solvent cleaning machine and associated controls shall be maintained as recommended by the manufacturers of the equipment or using alternative maintenance practices that have been demonstrated to the Administrator's satisfaction to achieve the same or better results as those recommended by the manufacturer.	40 CFR 63.463(d)(9)

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

Each operator of a solvent cleaning machine shall complete and pass the applicable sections of the test of solvent cleaning operating procedures in appendix B of Subp. T, if requested during an inspection by the Administrator.	40 CFR 63.463(d)(10)
Waste solvent, still bottoms, and sump bottoms shall be collected and stored in closed containers. The closed containers may contain a device that would allow pressure relief, but would not allow liquid solvent to drain from the container.	40 CFR 63.463(d)(11)
Sponges, fabric, wood, and paper products shall not be cleaned.	40 CFR 63.463(d)(12)
Ensure that the temperature of the solvent vapor at the center of the superheated vapor zone is at least 10 degrees F above the solvent's boiling point.	40 CFR 63.463(e)(2)(vi)(A)
Ensure that the manufacturer's specifications for determining the minimum proper dwell time within the superheated vapor system is followed.	40 CFR 63.463(e)(2)(vi)(B)
Ensure that parts remain within the superheated vapor for at least the minimum proper dwell time.	40 CFR 63.463(e)(2)(vi)(C)
If the manufacturer's specifications for determining the minimum proper dwell time, or the parts do not remain within the superheated vapor for at least the minimum proper dwell time, an exceedance has occurred.	40 CFR 63.463(e)(3)(i)
If the temperature of the solvent vapor at the center of the superheated vapor zone is not at least 10 degrees F above the solvent's boiling point, and it is not corrected within 15 days, then an exceedance has occurred.	40 CFR 63.463(e)(3)(ii)
<b>MONITORING REQUIREMENTS</b>	hdr
Use a thermometer or thermocouple to measure the temperature at the center of the superheated solvent vapor zone while the solvent cleaning machine is in the idling mode. The monitoring shall be done on a weekly basis, and the results recorded.	40 CFR 63.466(a)(2)
Determine the hoist speed by measuring the time it takes for the hoist to travel a measured distance. The speed is equal to the distance in meters divided by the time in minutes (meters per minute).	40 CFR 63.466(c)(1)
The monitoring of the speed shall be conducted monthly. If after the first year, no exceedances of the hoist speed are measured, the owner or operator may begin monitoring the hoist speed quarterly.	40 CFR 63.466(c)(2)
If an exceedance of the hoist speed occurs during quarterly monitoring, the monitoring frequency returns to monthly until another year of compliance without an exceedance is demonstrated.	40 CFR 63.466(c)(3)
If the owner or operator can demonstrate to the Administrator's satisfaction in the initial compliance report that the hoist cannot exceed a speed of 3.4 meters per minute (11 feet per minute), the required monitoring frequency is quarterly, including during the first year of compliance.	40 CFR 63.466(c)(4)
If an enclosure (full or partial) is used to achieve a reduced room draft, the owner or operator shall conduct an initial monitoring test, and thereafter, monthly monitoring tests of the wind speed within the enclosure using the procedure specified below, as well as a monthly visual inspection of the enclosure to determine if it is free of cracks, holes, and other defects.	40 CFR 63.455(d)(2)
Determine the direction of the wind current in the enclosure by slowly rotating a velometer inside the entrance to the enclosure until the maximum speed is located.	40 CFR 63.455(d)(2)(i)
Record the maximum wind speed.	40 CFR 63.455(d)(2)(ii)
The Permittee shall prepare and implement a Startup, Shutdown, and Malfunction Plan (SSMP) for each of the emission units subject to Maximum Control Technology Standards prior to startup. The SSMP is a federally enforceable part of the permit and shall be prepared in accordance with 40 CFR Section 63.6(e)(3) and include requirements specified therein. SSMP must be located at the plant site and must be kept updated. When the SSMP is updated, the Permittee must keep all previous versions of the SSMP for a period of 5 years. The Permittee must submit the SSMP when required.	40 CFR Section 63.6(e)(3)(i); 40 CFR Section 63.6(e)(3)(v)
A written SSMP must contain the minimum of the following information: 1. A procedure that documents how any startup, shutdown, or malfunction event that has occurred will be addressed and documented; 2. Information regarding the operation of the source and its associated pollution control devices during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; and 3. Adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.	40 CFR Section 63.6(e)(3)(vii)
Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan.	40 CFR Section 63.6(e)(1)(ii)
<b>RECORDKEEPING</b>	hdr

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

<p>The owner or operator shall maintain the following records in written or electronic form for the lifetime of the machine.:</p> <p>(1) Owner's manuals, or if not available, written maintenance and operating procedures, for the solvent cleaning machine and control equipment.</p> <p>(2) The date of installation for the solvent cleaning machine and all of its control devices.</p> <p>(3) Records of the halogenated HAP solvent content for each solvent used in the solvent cleaning machine.</p>	40 CFR 63.467(a)
<p>The owner or operator shall maintain the following records for a period of five years:</p> <p>(1) The results of any required control device monitoring, including the measurements of flow or movement of air across the top of the freeboard area of the solvent cleaning machine.</p> <p>(2) Estimates of annual solvent consumption.</p>	40 CFR 63.467(b)
<p>The Permittee shall maintain, at a minimum, the following information in the files:</p> <p>1) the occurrence and duration of each startup, shutdown, or malfunction of operation;</p> <p>2) the occurrence and duration of each malfunction of the air pollution control equipment;</p> <p>3) all maintenance performed on the pollution control equipment;</p> <p>4) actions taken during periods of startup, shutdown, and malfunction when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (SSMP). In this case, the Permittee shall report this action within 2 days of occurrence and follow by a written notification within 7 days of occurrence.</p> <p>5) all information necessary to demonstrate conformance with the affected source's SSMP and actions taken in accordance with SSMP;</p>	40 CFR Section 63.10(b)(2)
<p>6) each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative;</p> <p>7) all required measurements needed to demonstrate compliance with a relevant standard;</p> <p>8) all results of performance test, CMS performance evaluations, and opacity and visible emission observations;</p> <p>9) all measurements as may be necessary to determine the conditions of performance tests and performance evaluations;</p> <p>10) all CMS calibration checks;</p> <p>11) all adjustments and maintenance performed on CMS;</p> <p>12) any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements under this part;</p> <p>13) all documents supporting initial notifications and notifications of compliance status.</p>	40 CFR Section 63.10(b)(2)
<b>REPORTING REQUIREMENTS</b>	hdr
<p>Initial notification: due prior to before construction. The permit application submitted dated July 20, 2000 meets the requirements of 40 CFR 63.5 (d)(1) and 40 CFR 63.468(b)(1)-(3).</p>	40 CFR 63.468 (b)
<p>The annual report shall include:</p> <p>(1) A signed statement from the facility owner stating that "All operators of solvent cleaning machines have received training on the proper operation of solvent cleaning machines and their control devices sufficient to pass the test required in 40 CFR 63.463(d)(10).</p> <p>(2) An estimate of solvent consumption for each solvent cleaning machine during the reporting period.</p>	40 CFR 63.468(f)(1)-(3)

TABLE A: LIMITS AND OTHER REQUIREMENTS

04/03/01

Facility Name: MICO Inc  
Permit Number: 10300025 - 001

<p>The semi-annual report shall include:</p> <p>(1) Information on the actions taken to comply with 40 CFR 63.468(e) and (f). This information shall include records of written or verbal orders for replacement parts, a description of the repairs made, and additional monitoring conducted to demonstrate that monitored parameters have returned to accepted levels.</p> <p>(2) If an exceedance has occurred, the reason for the exceedance and a description of the actions taken.</p> <p>(3) If no exceedances of a parameter have occurred, or a piece of equipment has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.</p>	<p>40 CFR 63.468(h)(1)-(3)</p>
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## TABLE B: SUBMITTALS

04/03/01

Facility Name: MICO Inc  
Permit Number: 10300025 - 001

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

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

Send any application for a permit or permit amendment to:

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

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

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

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

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

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

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

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

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



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

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

What to send	When to send	Portion of Facility Affected
Initial Compliance Status Report	due 150 days after Initial Startup. The report shall include the name and address of the owner, the address of the machine, a list of control equipment used to achieve compliance, a list of parameters that are monitored and the values of these parameters measured on or during the first month after the compliance date, and conditions to maintain wind speed requirements.	EU001, EU006

**TABLE B: RECURRENT SUBMITTALS**

04/03/01

Facility Name: MICO Inc

Permit Number: 10300025 - 001

What to send	When to send	Portion of Facility Affected
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance for the solvent cleaning machine. Once an exceedance has occurred, the owner or operator shall follow a quarterly reporting format until a request to reduce the reporting frequency under 40 CFR 63.468(i) is approved.	EU001
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance for the solvent cleaning machine. Once an exceedance has occurred, the owner or operator shall follow a quarterly reporting format until a request to reduce the reporting frequency under 40 CFR 63.468(i) is approved.	EU006
Semiannual Deviations Report	due 30 days after end of each calendar half-year following Permit Issuance. The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31. If no deviations have occurred, the Permittee shall submit the report stating no deviations.	Total Facility
Annual Report	due 30 days after end of each year following Initial Startup	EU001
Annual Report	due 30 days after end of each year following Initial Startup	EU006
Compliance Certification	due 30 days after end of each calendar year following Permit Issuance (for the previous calendar year). To be submitted on a form approved by the Commissioner <, both to the Commissioner, and to the U.S. EPA regional office in Chicago>. This report covers all deviations experienced during the calendar year. < The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604>	Total Facility

## APPENDIX MATERIAL

Facility Name:MICO Inc

Permit Number: 10300025-001

Insignificant Activities Required to be listed:

Minn. R. 7007.1300, Subp. 3.D.(2): Assorted pieces of equipment used for machining metal parts, filtered through an air cleaning system and vented inside the building 100% of the time.

Minn. R. 7007.1300, Subp. 3.E.(2): Storage tank for Stoddard solvent (non-hazardous air pollutant VOC) with tankage capacity of 300 gallons.

Minn. R. 7007.1300, Subp. 3.I.(2): Fourteen furnaces burning natural gas, each with potential to emit of less than 2 tpy of CO and 1 tpy of PM, PM10, SO<sub>x</sub>, NO<sub>x</sub>, VOCs. Total gas capacity for this equipment is 7.08 mmBtu/hr. Furnaces used for space heating only.

**TECHNICAL SUPPORT DOCUMENT**  
**For**  
**AIR EMISSION PERMIT NO. 10300025-001**

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

**1. General Information**

1.1. Applicant and Stationary Source Location:

Owner and Operator Address and Phone Number (list both if different)	Facility Address (SIC Code: 3714)
MICO, Inc. P.O. Box 8118 North Mankato, MN 56002-8118 (507)625-6426 x 250 Brent McGrath	MICO, Inc. 1911 Lee Boulevard North Mankato, MN 56002

1.2. Description of the facility

MICO manufactures brake components and systems for the components. Emission sources are two paint booths, two degreasers, and insignificant activities.

1.3 Description of any changes allowed with this permit issuance

MICO applied for a minor permit amendment, dated July 20, 2000, for the installation and operation of a new degreaser. That degreaser is subject to federally enforceable regulations under the NESHAPs program, 40 CFR 63, Subp. T. With the control measures mandated by that performance standard, potential emissions from the new degreaser were below minor permitting thresholds.

This total facility permit is being issued with the minor amendment incorporated.

1.4. Facility Emissions:

Table 1. Total Facility Potential to Emit Summary:

EU #	SV#	Emission Unit Description	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
001		Degreaser								11.2	11.2
002		Paint Booth #1	41.7	41.7				296		95.1	297
003		Paint Booth #2	41.7	41.7				296		95.1	297
005		Stoddard Solvent						28.7			

Permit Action Number:

Date: 2/5/2004

006		Degreaser								6.31	6.31
TK	001	Meth. Chlor TK								0.07	0.07
TK	002	Iso. Alcohol TK						8.23			

	PM tpy	PM10 tpy	SO2 tpy	NOx tpy	CO tpy	VOC tpy	Pb tpy	Single HAP tpy	All HAPs tpy
Total Facility Limited Potential Emissions	13.9	13.9				98		9.8	24.5
Total Facility Actual Emissions	0.72	0.72				22.3		8.89	9.23

This permit sets limits on VOC and HAP to restrict potential emissions to less than major source levels as defined by 40 CFR 52.21, 40 CFR Pt. 70, and 40 CFR Pt. 63

Table 2. Facility(TF) and Permit Classification

Classification	Major/Affected Source	*Synthetic Minor	*Minor
PSD (list pollutant)		PM, PM10, VOC	CO, SO2, NOx
NAAR (list pollutant) not applicable			
Part 70 Permit Program (list pollutant)		PM10, VOC, HAPs	CO, SO2, NOx

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

## 2. Regulatory and/or Statutory Basis

Summary Regulatory and/or Statutory Basis of the Emission or operational Limit

### Regulatory Overview of Facility

EU, GRP, or SV #	Applicable Regulations	Comments:
GP001 Degreasers	Minn. R. 7011.0735  40 CFR 63, Subp. T	Standards of Performance for Industrial Process Equipment  National Emission Standards for Halogenated Solvent Cleaning
FC000	40 CFR 52.21	Limits set to restrict potential emissions to less than major

Permit Action Number:

Date: 2/5/2004

	40 CFR Pt. 70	source levels
EU002 EU003 Paint Booths	Minn. R. 7011.0735	Standards of Performance for Industrial Process Equipment

### 3. Technical Information

This permit allows for the installation of a new vapor degreaser. MICO submitted a permit application for the new degreaser, along with other facility information, in a permit application dated July 20, 2000.

The new degreaser is regulated by the Neshap standard at 40 CFR 63, Subp. T. Using the control technologies mandated by the standard, and emission factors developed by U.S. EPA in the development of the standard, potential predicted HAP emissions are 6.31 tons per year.

MPCA staff determined that the addition of the new degreaser would qualify as a minor amendment. As such, the facility was allowed by Minn. R. 7007.1450, Subp. 7. to install the degreaser prior to issuance of this permit. The minor amendment is incorporated into this total facility permit.

### 4. Conclusion

Based on the information provided by MICO, Inc., the MPCA has reasonable assurance that the proposed operation of the emission facility, as described in the Air Emission Permit No. 10300025-001 and this technical support document, will not cause or contribute to a violation of applicable federal regulations and Minnesota Rules.

Staff Members on Permit Team: Jenny L. Reinertsen, Dan Brady

Attachment: Calculations