

# OPEN CHANNEL NEWS

MCES Industrial Waste & Pollution Prevention

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## Metropolitan Council Environmental Services

Metropolitan Council Environmental Services (MCES) is one of three divisions of the Metropolitan Council, a regional public agency working for the seven-county metropolitan area. The mission of MCES is to provide wastewater services that protect the public health and environment while supporting regional growth.

Services provided by MCES ensure that:

- (1) sufficient sewer capacity exists to serve planned development, and sufficient capital investments are made to preserve the region's water quality;
- (2) wastewater collection and treatment services are provided in a cost- and quality-competitive manner for 103 communities and more than 800 industrial clients; and
- (3) local plans provide for adequate water supply and nonpoint source pollution prevention in the region.

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## MCES Inflow and Infiltration Reduction Plans

Excessive infiltration and inflow (I/I) entering the regional wastewater collection and treatment system consumes capacity needed for future growth and results in higher MCES charges to the region's



communities. I/I (clear water) sources include rain leaders, sump pumps, foundation drains, and groundwater leaking into public sewers and private connections. More than half of the communities MCES serves have excessive I/I, which can, for example, triple the wastewater flow volume entering the Metro Plant during heavy rainfalls.

This problem has been addressed in the Metropolitan Council's recently updated 2030 Water Resources Management Policy Plan. To reduce the amount of I/I entering the system, the Council will:

- Establish I/I goals for all communities discharging wastewater into the metropolitan disposal system.
- Require communities served by the system to include an I/I reduction plan in their comprehensive plan.
- Potentially limit future increases in sewer capacity to communities with ongoing excessive I/I.
- Starting in 2007, institute a surcharge program to provide funding for I/I reduction efforts.
- Starting in 2013, institute a demand charge for communities that fail to meet their I/I goals.

### How will this plan impact industries?

MCES charges for all volume received and treated, including clear water from I/I. This likely results in higher sewer rates for customers, including industries, in communities with excessive I/I. Without I/I reductions, these customers could face substantially higher rates and growth restrictions in the future. Communities, businesses and homeowners alike will need to investigate and correct I/I sources. Also, facilities still discharging non-contact cooling water (a prohibited waste) into the sanitary sewer may be required by MCES or their community to install a closed-loop system, or divert the flow into a storm sewer.

## Important Dates:

- September 30, 2005 - Minneapolis and Minnetonka Liquid Waste Disposal Sites will close.
- October 15, 2005 - All quarterly Liquid Waste Hauler reports due at MCES offices.
- October 30, 2005 - All Regular and Special Discharge quarterly reports due at MCES offices.

## Treatment Plant Tours

Have you ever wanted to see where your wastewater goes and how it's treated? Now you can! Several MCES treatment plants are now offering a limited number of tours.

MCES's award-winning treatment plants process 300 million gallons of wastewater a day for 103 communities and over 800 industrial clients. By conducting plant tours, we are giving the general public - our customers - an opportunity to see how the water they use from nature is cleaned and safely returned to the environment. Visitors will see the various ways we remove pollutants from wastewater, see how we process wastewater solids so they can be beneficially re-used, and how we recover energy along the way to power our plants.

Tours are offered monthly at the Blue Lake (Shakopee), Seneca (Eagan) and Eagles Point (Cottage Grove) Plants. The Metropolitan Plant will be added to this lineup in early 2006. Visitors must provide information for a security review and there is a minimum and maximum limit to the size of tour groups. To get more information and to schedule your tour, contact Linda Henning, Special Projects Manager, at 651-602-1279 or [linda.henning@metc.state.mn.us](mailto:linda.henning@metc.state.mn.us).



Eagles Point Plant located along the Mississippi River in Cottage Grove.

## Revised Procedure for COD Modification Ratio

Permittees will soon receive a mailing related to a revised MCES procedure. Since 1998, qualifying permittees with non-typical waste characteristics have been able to adjust their Chemical Oxygen Demand (COD) value for Strength Charge determinations. This is based on the biodegradability of the wastewater, and a "COD Modification Ratio" is calculated using Biochemical Oxygen Demand (BOD) and COD parameters. The methods and criteria for this procedure have been clarified, and will be sent out to all standard permittees.

## MPCA is Developing New State Pretreatment Rules

The Minnesota Pollution Control Agency (MPCA) is developing state pretreatment rules dealing with Publicly Owned Treatment Works (POTWs) and their industrial users. This rulemaking will achieve compliance with a federal requirement that Minnesota have state pretreatment rules. In addition to complying with the federal requirement, there are other motivations to have state pretreatment rules. Minnesota presently relies on the Federal General Pretreatment Regulation (40 CFR Part 403) for the implementation of pretreatment activities. This reliance presents some difficulties in that state authority for pretreatment activities are not clearly provided in the federal regulations, and there are certain aspects of the currently implemented pretreatment program that are not adequately provided for in the federal rules. The present rulemaking is designed to correct these inadequacies.

MCES and eight other POTWs in the state have pretreatment programs that are delegated to the POTW. The draft rules presented by MPCA contain requirements for the delegated programs that closely follow the federal requirements and also incorporate the National Categorical Pretreatment Standards. Therefore, the new state rules should not bring about any significant change to the current delegated pretreatment programs or their permitted industrial users. Requirements for POTWs that have not been delegated are also included in the draft rules.

The current draft of the pretreatment rules is available at the following MPCA Web page  
[www.pca.state.mn.us/water/pretreatment-rulechange.html](http://www.pca.state.mn.us/water/pretreatment-rulechange.html).

## Customer Forum Review

Approximately 30 industry representatives attended an Industrial Waste Customer Forum on June 9, 2005.

Jason Willett, MCES finance director, provided a detailed presentation on the 2006 proposed rates and the MCES rate system. He also discussed the Council's plan to reduce infiltration and inflow (I/I) to the Metropolitan Disposal System. I/I reductions will help free up capacity in the sewer system for future growth.

Leo Hermes, IWPP program manager, presented 2006 permit fees and also talked about upcoming issues that may impact industrial users. Changes to both the State Pretreatment Rules and the Septage Management Program were discussed.

The forum concluded with a question-and-answer session. Most questions centered on MCES rates and the budget

## Two Hauled Waste Disposal Sites to Close

Effective September 30, 2005, the Minnetonka and Minneapolis hauled liquid waste disposal sites will be permanently closed. These two sites are lightly used and do not meet MCES criteria for continued use. These closures are in accordance with the adopted recommendations of the System Wide Septage Management Study.

## Modified Closure Schedule for Northern Disposal Sites

MCES has modified the closure schedule, adopted with the System Wide Septage Management Study, for four northern hauled liquid waste disposal sites. According to the recommended plan, the Brooklyn Park, Coon Rapids, Forest Lake and Plymouth sites would close during 2009 upon start-up of one (possibly two) new MCES disposal sites. Brooklyn Park and Plymouth could close earlier if downstream sediment buildup recurs. Further, the study acknowledged that there are private sector options for the disposal of hauled liquid waste, such as treatment facilities or transfer stations.

It is now apparent that private sector capabilities exceed earlier MCES expectations, and that private facilities may be built and opened earlier than 2009. The start-up of these facilities would benefit MCES and its customers by: 1) preventing any additional sediment buildup or downstream corrosion at current MCES northern disposal sites, and 2) relieving MCES of the costly burden associated with siting and construction of new northern interceptor disposal sites. In view of these benefits, the Metropolitan Council, on August 24, 2005, adopted a policy change that authorizes staff to close interceptor disposal sites earlier than previously published, if an alternative facility opens that serves the same market. To serve the same market the facility must locate within a 15-mile radius of an existing MCES site; accommodate septage, holding tank and portable toilet waste types; have the capacity to accept the same volume as the nearby existing MCES site; and accept waste from all MCES permitted haulers.



Liquid waste hauler discharging load at the Coon Rapids disposal site.

## Sniffing Out Mercury

*Article provided by the Minnesota Technical Assistance Program*

Burr Technology Inc., of Little Canada, received a notice of violation from MCES after submitting its required water test results in January. Specializing in mechanically polishing and removing burrs from metal parts, Burr Tech exceeded the legal wastewater limit of two parts per billion of mercury. Burr Tech was given 30 days to reduce wastewater mercury levels before MCES would order the facility not to discharge to the sewer.

“I hadn’t realized we were in violation. I was totally surprised by it,” said owner Remi DuCharme. “I thought perhaps it was from a job we were running at the time we were tested.” No mercury was found after looking at material safety data sheets and testing deburring chemicals used on the days yielding high mercury levels. Not knowing where else to look, DuCharme contacted the Minnesota Technical Assistance Program (MnTAP) for help.

Karl Dewahl, MnTAP engineer, suggested Burr Tech look at chemicals containing sodium hydroxide, which can be contaminated with mercury. But none of the chemicals tested were a source. Dewahl’s mercury research pointed to mineral abrasives, thermoset plastic liners—made of polyurethane—and plastic polishing media as possible contaminant sources. Consulting Ed Swain, Minnesota Pollution Control Agency (MPCA) mercury expert, confirmed his theory. To zero in on the mercury source, Burr Tech had MPCA use its Lumex, a mercury vapor analyzer, to scan the facility.

The Lumex detected mercury vapors coming from two of Burr Tech’s 11 tumblers. Burr Tech tested the polyurethane liners of the two tumblers and found that the samples contained 24 parts per million of mercury. Burr stopped using the problem tumblers and passed the next three-day wastewater test ordered by MCES. Because the vendor had switched to a mercury-free liner since DuCharme bought the liners two years before, he was able to get the vendor to replace the tumbler linings at cost.

**Prevention Tips:** Companies using or manufacturing urethane components should use mercury-free urethanes to avoid contamination.

“I knew turning up water flow when samples were taken was not the right way to solve the problem. It is not fair to the environment or to the industry,” said DuCharme. Turning up water flow may increase a company’s problems. Consistent differences between test results submitted by a company and MCES can lead to increased sampling frequency and enforcement actions.

For more information about preventing mercury contamination, or to request a site visit from a MnTAP engineer or scientist to get customized suggestions for your operation, call 612/624-1300 or 800/247-0015.

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## 2006 Rates and Fees

The Metropolitan Council on July 27, 2005, approved the following rates affecting industrial users for 2006:

Strength Charge Rates for wastewater generated within the Council's region will be \$0.136 per excess pound of total suspended solids (TSS), and \$0.068 per excess pound of chemical oxygen demand (COD).

Full cost recovery rates for treatment of wastewater generated outside of the Council's region will be \$0.267 per excess pound of TSS and \$0.1335 per excess pound of COD.

Liquid waste haulers' standard load charges will be \$33.81 per 1,000 gallons. Holding tank wastes will be charged \$1.52 per 1,000 gallons. The Portable Toilet Waste rate will be \$44.94 per 1,000 gallons. Collar county load charges will be \$43.81 per 1,000 gallons.

Service Availability Charge will be \$1,550 per unit, and the associated Add-on-Service Charge rates will be \$0.78 per 1,000 gallons.

For all permittees, permit fees will range from \$450 to \$4,250 depending on permit status.

For more information regarding rates and fees, please contact your MCES engineer or visit: [www.metrocouncil.org/environment/IndustrialWaste/news\\_rates.htm](http://www.metrocouncil.org/environment/IndustrialWaste/news_rates.htm) The 2006 rates will be posted on this site following end-of-year billing in February 2006.