

# OPEN CHANNEL NEWS

MCES Industrial Waste & Pollution Prevention

Issue # 18 /December 2004

## 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.

MCES provides water resources management services to 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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Plant operator Steve Harrom, left, and assistant business unit manager Tony Rudh monitor the early performance of one of the Metro Plant's new incinerators.

## Metro Plant Solids Management Building is Delivering Great Results

After just three months of operation, a new wastewater solids processing facility at the Council's Metro Plant in St. Paul already is delivering on its promise of operating far more efficiently than the system it is replacing.

"We've had exceptional results since starting up two of our three new fluid-bed incinerators this fall," said Bill Moore, general manager of Metropolitan Council Environmental Services Division (MCES). "The new incinerators, along with new processes and equipment for dewatering the solids removed from the wastewater, are reducing fuel costs, air emissions, and odors. We couldn't be more pleased with the early results."

The incinerators are part of a new Solids Management Building, constructed at a cost of \$160 million, that also includes the dewatering equipment, energy recovery and pollution control systems, and a process for preparing up to 10 percent of the solids to be safely applied to agricultural land. The third of the three incinerators was scheduled for start-up in mid-December. The building will process about 220 tons of solids per day.

With a simpler and more stable process, once the incinerators are fueled to an operating temperature of 1400 degrees F., they burn on the heat value contained in the solids, without needing to be stoked with more natural gas. These efficiencies will help reduce the plant's natural gas bill from about \$2.4 million this year to less than \$400,000 in 2005. In addition,

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### Important Dates:

January 15, 2005 – Liquid Waste Hauler reports due at MCES offices for all LWH permittees.

January 30, 2005 - All Regular & Special Discharge quarterly, semi-annual and annual reports due.

## Metro Plant Solids Management Building is Delivering Great Results

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steam generated by heat recovered from the incinerators will produce enough electricity to meet 25 percent of the plant's energy needs.

To improve air emissions that would come from the new Solids Management Building, MCES's original planning and design included enhanced air pollution control equipment to remove greater amounts of such things as particulates, metals, carbon monoxide, and nitrogen and sulfur oxides. The equipment is performing as expected.

The new system also allowed the Metro Plant to phase out fairly odorous solids dewatering equipment and do a better job of enclosing the solids during the various processing stages to help keep odors out of the atmosphere.

## Does Your Company Have a Sump or Pit That Needs Periodic Cleaning?

If your company has a sump, vault, or pit that collects solids and periodically needs to be cleaned, you need to know that the material removed is being handled correctly. Typically a hauler (i.e., Liquid Waste Hauler or LWH) is called in to clean these types of tanks. They back up their truck, suck out the contents and drive away, but do you know where they dispose of this material?

**Who's responsible?** Like most waste, it's the generator's responsibility to know where this material is being disposed of and that it is acceptable. If it's brought to MCES, the hauler discharges it at either a waste treatment plant or at a disposal site tributary to one. In most cases, the hauler does not treat the waste prior to discharge. Therefore, it must meet MCES discharge criteria when transported. In addition, if the waste is considered an 'industrial load' it must be sampled and approved prior to transport. **The LWH must have a valid approval letter for each industrial waste load prior to hauling it to MCES.** If the hauler isn't asking you for an approval letter or showing you one, you might want to be looking for a different hauler.

**Limits & Rates** - Whatever limits apply to the waste at the sump, pit or vault, also apply at the disposal site. If the waste exceeds the limits in the company's Industrial Discharge Permit or is considered a prohibited waste when it's discharged back into the sewer, then the company and/or the hauler could be subject to enforcement action. Also be aware, the waste hauled by LWH's is subject to a load charge, which is similar to a strength charge for connected industrial discharges.

**How do I get a discharge approved?** Before you need your sump, pit, or vault cleaned or need off-spec product hauled away, contact your permit engineer to obtain a Discharge Request Form (also available on our Web site) and sampling instructions. The engineer will review the request and determine if the waste is acceptable. If it's deemed acceptable by MCES, a discharge approval letter will be generated and sent to the company. An extended approval may be granted for ongoing and/or frequent discharges. The hauler should have this letter in their hands prior to transporting an industrial waste load and should have proper MCES approval to discharge at the St. Paul Disposal Site.

## Load Charge Rates to Increase for Haulers and Their Customers

Beginning Jan. 1, 2005, a rate change will occur which will affect MCES permitted liquid waste haulers and their customers. The rate change is a result of a new rate structure that will be used to calculate load charges. The new rate structure will include a debt service component to help pay for capital costs associated with building new facilities, and a full treatment cost component to recover costs associated with accepting, conveying, and treating hauled liquid waste.

**The load charges** for domestic septage, commercial waste, and portable toilet waste are fixed rates per 1,000 gallons and **will essentially double in 2005.** The industrial load charge is calculated using a formula that will include the strength charge, debt service and a provision for full cost recovery. This change is also going to double the cost of having industrial waste hauled to an MCES disposal site. The rates are listed on the back page of this newsletter.

These changes are necessary to ensure that load charge rates include all cost components currently paid by connected users. This change is in alignment with MCES's policy on rate equity for all customers.

## Adoption of Hauled Liquid Waste Program Changes

Recommendations for future MCES acceptance of septage and other hauled liquid waste are nearing final adoption. This results from the System Wide Septage Management Study, which was completed earlier this year. That study evaluated current MCES practices related to hauled waste, including identified infrastructure problems and other program deficiencies. If adopted, the recommendations will result in substantial changes to the approved disposal sites, as well as procedures utilized by the permitted haulers using MCES facilities.

The recommended plan includes disposal sites at the following locations:

- Metropolitan Plant (design under way)
- Empire Plant (construction in 2005)
- Blue Lake Plant (to be improved)
- Chanhassen (interceptor site to be improved)
- Northern Metro Area (one, or possibly two, interceptor sites if acceptable locations can be found)

All future disposal sites will have upgraded security and access control, provisions for sampling, a method to determine actual load volumes (most likely with truck scales), and detention tanks (if needed) to control the discharge rate. Under this plan, remaining existing sites will be closed, although the time frame extends out until 2009 in some cases. Another change, to be implemented during 2005, is that commercial waste will no longer be accepted at interceptor disposal sites (must be discharged to Metro or Blue Lake Plants only). Capital costs, and additional operating expenses related to program implementation, will be recovered through the "special facilities" component to the load charge.

The recommended plan was approved by the Metro Council Environment Committee Dec. 14. Adoption by the full Metropolitan Council is anticipated in early January.

## **Congratulations to Two 2004 Governor's Awards Winners**

*Information provided by Minnesota Office of Environmental Assistance*

The Governor's Awards for Excellence in Waste and Pollution Prevention honor superior environmental achievements by Minnesota's businesses, institutions and public agencies. Winning a Governor's Award represents the highest level of environmental achievement within the state of Minnesota. This year two of MCES's industrial permittees won awards.



### **Armament Systems Division, United Defense**

The Armament Systems Division of United Defense has established an Environmental Management System (EMS) to incorporate environmental considerations into the company's manufacturing practices. An Environmental Design Guide, developed by the company and incorporated into the EMS, is used in the preliminary design phase of new products and programs to eliminate or "design out" hazardous substances. By designing out hazardous chemicals, costs associated with them are avoided and customer satisfaction and environmental protection are improved.

### **General Mills Inc. Chanhassen Facility**

General Mills Inc. conducted a Pollution Prevention Initiative at its Chanhassen facility. The purpose of this project is to demonstrate and measure pollution prevention benefits from the integration of environmental considerations into the design stage of products and related production practices. Multiple production areas were evaluated to identify opportunities for process and product improvements. As a result, the company implemented changes that have reduced solid waste generation and associated costs and enhanced economic performance.

### **Governor's Awards Information**

To find out more about these projects and the other 2004 award winners, visit the Minnesota Office of Environmental Assistance Web site at: <http://www.moea.state.mn.us>

### **Help for Reducing Your Waste**

Is your company being driven to become lean and cut waste? Minnesota Technical Assistance Program (MnTAP) can help improve your use of raw materials, investigate new technology, reduce waste and energy use, and save money. If you would like help solving your waste-related problems, Call MnTAP at 612/624-1300 or 800/247-0015. Visit [www.mntap.umn.edu](http://www.mntap.umn.edu) for more information on how MnTAP can help you.

## **MCES Wins Two MnGREAT! Awards**

*Information provided by Minnesota Office of Environmental Assistance*

As part of the annual Governor's Awards for Excellence in Waste and Pollution Prevention, MnGREAT! (Minnesota Government Reaching Environmental Achievements Together) awards are presented to government employees and agencies in recognition of environmental achievements in the prevention of waste and pollution, the reduction of waste at its source, conservation of energy and water, recycling, and composting. MCES was presented two awards this year, one for the Voluntary Dental Office Amalgam Separator Program, the other for the sustainable design in the construction of the Eagles Point Wastewater Treatment Plant.

### **Voluntary Dental Office Amalgam Separator Program**

MCES was presented an award for its partnership with the Minnesota Dental Association to develop and implement a mercury reduction program. MCES staff completed two research studies showing that dental clinics are a significant source of mercury to wastewater treatment plants and that cost-effective amalgam separators are available to dentists. The goal is to have all general practice dentists who place or remove amalgam install and operate a separator, resulting in significant environmental improvements in the state.

### **Eagles Point Wastewater Treatment Plant Construction**

An award was also presented for the sustainable design in the construction of the Eagles Point Wastewater Treatment Plant in Cottage Grove. The plant was tripled in capacity while in continuous operation on a limited-area site in a sensitive environmental location on the bluffs above the Mississippi River. Sustainable design features include building orientation, insulation, lighting and daylighting, office furnishings, recycling of demolition debris, and stormwater control and landscaping. Two remarkable features are elimination of specific toxic chemicals and heating and cooling. Chlorine gas and liquid sodium bisulfite were replaced by ultraviolet lamps for disinfection of the 3-million-gallon daily flow of effluent. Heating and cooling of the plant administration building is supplemented by a thermal heat pump exchange with the relatively year-round consistent temperature of that same effluent.



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## 2005 Rates and Fees

The Metropolitan Council has approved the following rates affecting industrial users for 2005:

Strength charge rates for wastewater generated within the Council's region will be \$0.129 per excess pound of total suspended solids (TSS), and \$0.0645 per excess pound of chemical oxygen demand (COD).

Liquid waste haulers' standard load charges will be \$32.30 per 1,000 gallons. Holding tank wastes will be charged \$1.47 per 1,000 gallons. Collar county load charges will be \$42.30 per 1,000 gallons. The portable toilet waste rate will be \$42.94 per 1,000 gallons.

Hauled industrial wastewater generated outside of the seven-county metropolitan area is subject to a \$50 per load service fee.

Full cost recovery rates for treatment of hauled industrial wastewater will be \$0.255 per excess pound of TSS and \$0.1275 per excess pound of COD.

The service availability charge (SAC) for 2005 will be \$1,450 per unit. The associated add-on-service charge rate will be \$0.73 per 1,000 gallons of treated groundwater discharged to the sanitary sewer.

Permit fees will range from \$425 to \$4,025 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 2005 rates will be posted on this site after final 2004 billings are prepared beginning in February 2005.