

WVOA LMD Meeting Black Creek, WI – May 16, 2007

By George Kemmeter

On May 16, 2007 the Lake Michigan District held its second meeting for 2007, at Romy's Nitengale Supper Club in Black Creek, Wisconsin. There were a total of 65 attendees.

Jeff Mayou, LMD Chairperson, called the meeting to order. Jeff asked if there were any comments or corrections from the minutes of the February 22 meeting held in Clintonville. No comments or corrections were mentioned. Jeff thanked Brad Rokus and the rest of the staff at Clintonville for hosting the February meeting.

After review of the minutes and treasurer's report, read by LMD Secretary/Treasurer, George Kemmeter, there was a motion to accept both items as presented. Jeff Mayou thanked Tom Dennis of Dryor Equipment for providing the donuts and refreshments for the day and the speakers for their time.

Jeff reminded the members of the following upcoming events:

- DNR Lab Audit Training May 23rd in Fennimore
- Collection System Seminar on June 7th in Watertown
- Operators Golf Outing June 18th at Mayville Golf Course
- Motorcycle rive July 26th -29th touring from Comfort Suites in Pewaukee
- WVOA Annual conference October 23rd thru 26th in La Crosse
- Central States WEA Annual Conference May 22nd thru 25th at the Monona Terrace in Madison
- Central States WEA Management Seminar August 1st at Cabela in Richfield

The next 2007 LMD Meeting will be August 23rd in Seymour, which will include a golf outing. The November meeting will be in New London with a date to be announced later. Jeff asked for volunteers to organize and run the August golf outing. Ron Austreng stepped forward to volunteer his services. Jeff then mentioned if others would like to help, contact John Shoen from Seymour or any of the LMD officers.

The locations for the 2008 LMD meetings are set for Marinette in February, Berlin with South District in May, Appleton in August and Green Bay in November. LMD will be attempting to co-ordinate a Timber Rattlers outing in conjunction with the Appleton meeting. Anyone interested in sponsoring part or all of the outing, contact Jeff or the other LMD officers.

Jeff reminded attendees of Scholarships available through WVOA. These scholarships regularly go unclaimed. There are \$500 and \$1,000 scholarships that are awarded each year for both associate and four year degrees. Applications are due August 1st. Jeff also urged the attendees to submit nominations for Regional Operator of the Year by July 1st. The Bernhauer Crabtree and Service Awards to Jim Thalke by August 1st. Jeff also mentioned the Operators Competition which again teams of three will be required. We had two teams last year placed 1st and 3rd of four teams. Interested parties should contact Brian Helminger.

After adjourning the business meeting, Jeff introduced Joe Morrissey, Black Creek Director of Public Works and presented Joe with a special recognition award to the town of Black Creek for hosting the 2007 LMD Spring meeting.

The first presentation was given by Phil Korth of Foth on “Enhanced Aerated Lagoon Technology at the Village of Wittenberg, WI.” Phil started with a description of the existing WWTF, its flows and loads, capacity, operations, and WPDES permit limits. He then listed future conditions and future WPDES permit requirements. He described the challenges of the influent lift station and the aerated lagoon. Phil then explained that among the lagoon design considerations for BOD removal, hydraulic detention time can be reduced by multiple cells, and improved performance can be attained through increased biomass concentration with either complete mix reactor without recycle, or complete mix with solids separation and biomass recycle. He then reviewed the solutions to obtain this. Finally he explained the solutions for Phosphorus removal and concluded with post construction performance complete with pictures of the site and construction of the lagoons, equipment and covers.

Next up was Ray Grosch of Intellisys describing “IP Camera Technologies for Security, Process Monitoring and Waste Receiving.” In recent years there has been a rapid acceptance and implementation of computer networking and Internet technologies. In the wastewater field these technologies have been used for SCADA, CMM, LIMS, and process and regulatory reporting. The concept of bringing these technologies together into a single system to improve the efficacy and efficiency of facility operations is being referred to as Automating Facility Management.

In recent years a heightened concern for security has been add to the list of facility management responsibilities. Surveillance camera systems have long been used for security purposes. These camera systems have traditionally been quite expensive. However in recent years the cost of camera equipment and the application of wired and wireless IP (Internet Protocol) networks have significantly reduced the cost. Today IP cameras are being used not only for security but for process monitoring and documentation of activities such as waste receiving. IP camera technology can be an important component of an Automated Facility Management network, helping to improve the accuracy and efficiency of facility operations. His presentation reviewed the basics of new IP camera technology and the application of this technology at wastewater facilities.

After a short break, Tom Aten from the DNR spoke on DNR’s Switchboard. The switchboard is a secure, web-based system for operators, or others that interact with the DNR, to use to keep their contact information current and connect via links to electronic reporting tools. The Switchboard was developed to help sort out inaccurate, duplicate, or obsolete information that the agency has collected over the years. The Switchboard used Wisconsin User ID’s (WAMS ID’s) to provide the secure access to a person’s information. The Switchboard web site is available from the main DNR page at dnr.wi.gov, then the Environmental Protection Link, then the Environmental Business Switchboard link. The Switchboard pages have information about the electronic tools that DNR has, about the registration process, how to contact Switchboard staff and check FAQ’s, and much more. On-line tutorials have been developed for several parts of the Switchboard. Operators are encouraged to take a look at the Switchboard and

follow the registration process for using the EDMR and ECMAR tools. These tools help operators report required data more efficiently. Suggestions or comments are always welcome!

The next speaker was Nick Kiefer of Watson Marlow Pumps. During the presentation he discussed the peristaltic pump technology; nothing touches the pumped fluid but the hose or tube. He also discussed chemical applications for the tube pump line and sludge and slurries with hose pumps; the accuracy and wide flow range capabilities of the tube pump with multiple tube sizes, the simplicity of maintenance; free tube pump trial program; trade up/trade in program.

Right before lunch Rusty Schroedel of Earth Tech gave a presentation entitled “Energy-Uses, Sources, Rates, and Potential for Savings”. He first provided information on why energy is important and, citing several references, noted the different processes and common values for the split of energy use in wastewater plants. He then suggested processes where energy savings are possible and encouraged consideration of addressing large energy demand areas first, namely aeration and pumping. He further noted evaluation of the financial aspects of project are important, identifying issues relating to electricity billing structure and outside funding sources, such as Focus on Energy. Lastly, Rusty briefly discussed several case histories showing significant energy savings at several wastewater plants.

Right after lunch, Rick Mealy of DNR spoke on “Using Data to Assess Industrial Loading Fees”. The purpose of this session was to discuss how sample toxicity in the BOD analysis can adversely affect the calculation of user fees. User fees can be an important part of the budget process, and errors can lead to either under-charging (which is bad for your budget) or over-charging (which is bad for your customer’s budget and your relationship with them). During the session, the significance of estimating BOD results using COD data was discussed. A mathematical relationship between COD and BOD can be obtained for a specific waste, but only after a number of side-by side determinations. Sample toxicity can hamper the ability to make accurate estimated of BOD from COD data. The session focused on how to identify sample toxicity and then how to prepare the best sequence of sample dilutions to ensure that the toxic effects have been successfully diluted out in order to obtain a valid BOD result.

Taryn Nall of Kaempfer & Associates provided a plant introduction of Black Creek WWTP and welcomed everyone to tour the facility. Jeff Mayou concluded the meeting by again thanking Joe and the Village of Black Creek and gave directions to the plant. The meeting was adjourned and DNR slips were distributed.