

MINNESOTA WASTEWATER OPERATORS ASSOCIATION

CENTRAL SECTION MEETING

JUNE 12, 2001

SMITH PARK SHELTER HOUSE

MONTEVIDEO, MINNESOTA

The June 12, 2001 MWOA central section meeting was held at the Montevideo Smith Park Shelter in Montevideo. Steve Jones, Montevideo City Manager, welcomed us to their city and provided the opening remarks. The Smith Shelter is a semi-open shelter, which provided for a pleasant meeting on a beautiful summer day. It's not often we are able to hold a meeting outside AND have great weather like we did on this day.

Our first speaker of the morning session was Holly Siddens-Kolbach from the Minnesota Pollution Control Agency, Marshall Office. Holly's topic was "What to expect during a MPCA Inspection. Holly outlined what a MPCA inspection consists of prior to and during the inspection, focusing mostly on what will occur at a pond system inspection. Prior to the inspection a facilities previous 12 months of plant data is reviewed by the inspectors. They will also look at the NPDES permit and review the monitoring frequency, compliance schedule and system design before getting to a site. A DMR review is performed at this time as well - looking for late/missing DMR's, complete data in the DMR, Sampling intervals for influent and effluent, Sample results for influent and effluent, proper calculations, precipitation readings, pond observations for pond systems, certified operators, any bypasses, and complete water balance/flow review. At the facility, the MPCA will perform a document review, which means they will sit down with the operator(s) and review the DMR and facility performance over the past year with them. A review of the water balance, recent I & I reduction, sampling equipment and filing system are also looked at. The system inspection is then performed from start to finish. Holly explained they are looking at lift stations to see if they are in good working order and that the flow measuring method is calibrated at least 2 times per year and that the operator knows how to perform the pump - run time meter calculations when applicable. The dikes of a pond are inspected for weed growth, animal infestation, rip-rap placement, erosion, and overall soundness of the dike structure(s). They will also look at the control structures and control gates for leakage into or out of the pond system. Any problems with leakage will need to be fixed ASAP. Maintenance of the fence with proper posting is also something that will be checked during the inspection. Holly then went into what a Compliance Monitoring Survey Report consists of and provided a list of Non-Compliance Issues. The list could be quite lengthy for a poorly operated system, but since this is Minnesota we are talking about, I would think the list is pretty short!! Regardless of the list size, operators will have 30 days to respond to the non-compliant issues from the time they receive the report from the MPCA. The last portion of Holly's talk dealt with enforcement. Holly discussed the enforcement actions and classified them based on the severity of the violation as to what action(s) may be taken. It was stated, as an example, that No DMR submittal, excessive or continuous discharge violations, and failure to address significant industrial users will bring swift enforcement actions from the MPCA. If anyone were to get a notice of non-compliance, cooperation and communication with the MPCA is what Holly suggests as your course of action. The community will need to submit and provide the requested information and completion of the compliance schedule(s) as stated in the letter of non-compliance.

Hopefully, this helps you with what to expect from a MPCA inspection, and if you still need more information Please contact the MPCA at 1-800-657-3864.

Our second speaker of the day was Darin Feist, from Vessco. Darin's talk was on Actiflo Clarifiers. The Actiflo process utilizes "microsand" (a very fine silica sand 100 – 150 um size) and polymer to enhance flocculation and settling. The microsand is used as a weighting agent and the polymer is added to attach to the sand creating a, usually positive, charge on the particle. Darin gave a brief, but effective, demonstration as to how this works and we were able to observe the results of the use of microsand and polymer addition for removal of suspended material in the sample. It was noted that often times "Alum" or Ferric Chloride" is used in place of the polymer depending on the process and what is trying to be accomplished. Where the use of weighting agents and polymers have been used for some time in water treatment, it is relatively new in the treatment of wastewater and is becoming a more common practice as we look for new ways to meet the regulatory requirements imposed on our treatment facilities. In the clarifiers, where this process is adaptable, at a WWTF, the polymer is added first and mixed to distribute the polymer evenly throughout the water and then followed by the microsand, through a maturation stage and then the settling process. In Darin's presentation, we were shown the use of tube settlers to aid in the removal of the settling solids. The solids are removed from the bottom of the clarifier in the conventional way, Scrapers to a sump area and then pumped. It was noted that the tube type solids removal systems on the bottom of some clarifiers are not a good application for the removal of the solids due to plugging problems. The piping and pumps used to remove the solids are rubber lined to alleviate the wearing problems of the pipe itself from the abrasiveness of the sand. The solids, as a slurry, are pumped to a cyclone separator for waste solids/water/sand separation. It was noted, that about 5% of the sand will be lost in the process requiring make-up sand be added during the operation. One of the advantages of the system is that there is a very small footprint in comparison to a conventional clarifier and does not require a large area of land to install. This also allows for the system to be competitively priced with conventional clarifiers. Some of the applications used currently for this process are as follows: Surface H₂O, Ground H₂O, Backwash H₂O, CSO's, Tertiary treatment at a WWTF, Iron and Manganese removal just to name a few. It should be quite interesting to watch the progress of the Actiflo system as the Phosphorus limits begin to kick in as a limiting factor in the NPDES permits.

The third and final speaker of the morning session was Chad Peterson from Safe Assure Consultants Inc., who's talk was on "What OSHA is looking at now!". Besides being very entertaining, Chad informed this listener of some new OSHA laws that I knew nothing about. Chad focused on Confined Spaces and Trenching for the most part. The first point Chad had to make was that OSHA has been pushing the enforcement agents and inspectors to no longer drive by a potential hazardous situation to drive to the office to check in as was the policy in the past. They now have to have very little reason to stop and check on a situation involving confined spaces to determine if all the safety rules are being followed, including use of proper communications, safety equipment, Safety clothing, and other requirements of entering a confined space. The major change that Chad pointed out on the confined space topic was the classification of confined spaces. Did you know that there is no such thing as Class 1A, 2A, B & C confined spaces?!! Me either. ALL confined spaces are classified as either a permitted space or non-permitted space. In Chad's opinion, there really is no such thing as a non-permitted confined space and eliminated any real discussion distinguishing the two types of classifications. Chad continued on to discuss the importance of the entry permit, when one needs to be filled out and what it does for the safety of the employees. He also talked about the importance of having the confined spaces tested with an air monitor before allowing entry and that all spaces must be tested prior to entry. Logs must be kept on all confined spaces entered and kept on file for a minimum of 1 year with it being a good idea to hold onto them longer. Of course there is much more to the requirement(s) than is written here, which means most of us will require more training on this subject to learn of all the modifications in the regulations. It is interesting to know that instead of developing their own requirements for confined space entry, Minnesota OSHA adopted the Federal OSHA rule and can be found on the internet at www.OSHA.gov

Chad was also compelled to let us know that EMS personnel are the only people authorized to enter a confined space for rescue purposes.

Moving into trenching operations, Chad discussed procedures and requirements, and orally quizzed the attendees as to the requirements for trenching (sloping/benching, shoring, shielding). The following are a few of the major points I thought were of great interest:

1. Competent Person Requirements

- § Be trained
- § Experienced
- § Perform Soils analysis
- § Inspect protective system(s)
- § Inspection for cohesiveness of soil. (rain, time)
- § Monitor atmosphere
- § Have authority to stop a digging operation.

Only one competent person per site

2. If you touch, scratch, nick or brush against any utility line, with a backhoe or other digging equipment, you are required to call 911 and have the utility company investigate the severity of the situation.
3. Reflective clothing and barricades are required at all dig sites by all personnel and encourages an inspector to stop at the site. Also by January 2002, the new law as to what type of vest must be worn in particular situation will go into effect.
4. Exits from trenches must be provided every 25' of all trench entrants. Usually this is called a ladder...., but did you know that those ladders must remain in the trench as long as it is open? This includes overnight when everyone has gone home for the day. The exits must be provided from start to finish of the project regardless of how long the project takes, to allow for animals, children or anything else that has the potential of falling or entering the trenched area.

Again these are just some interesting points of the talk and hopefully they will raise additional discussions in the future.

By this time we all had lunch on our minds. Our hosts, the city of Montevideo, provided us with an outdoor BBQ cooked by Bills Foods. The cuisine was Brats and burgers accompanied by potato salad, chips, coleslaw, beans and all the fixins. It was an awesome feast once again.

Following lunch, we gathered back together to listen to our last speaker of the day. Bob Thul, from Infratech, gave a talk on “trenchless sewer rehabilitation and manhole restoration”. Bob started with a slide presentation on manhole rehabilitation identifying existing problems that are commonly found in manholes. Starting with chimneys of the manholes and working downward into a manhole, Bob identified and discussed the options available on the market today for repairs and maintenance including, Mechanical seals with expansion joints, cured in place liners, Infrashield an outside of chimney liner providing positive outside pressure seal and chemical grouts. Each of the methods have their good and bad points, from ease of installation to effectiveness for the better aspects, and from cost to difficulty of installation for the poorer aspects of the different products. Bob also discussed and provided visuals on casting inserts, plastic half-moon shaped bowls that fit under the manhole lid to prevent water from entering the collection system, (I forgot what they are really called). We also looked at different liners for I & I restoration in manholes. The two types/methods of application were classified as either brush applied or spray applied. Bob took us through several slides demonstrating multiple applications or restoration ranging from brick and mortar type construction to poured concrete. The types of materials out there available for most any of the projects Bob discussed are wide and varied. Bob’s suggestion was, when rehabilitating you manholes and choosing what products you will have applied to the chimney, cone, barrel or bench, regardless of the material, we should be specifying the material (usually a synthetic grout) to have a compression and flexural strength of 8,000 to 10,000 (high density, low permeability). From here Bob went to sewer line rehabilitation. We mostly viewed slides of sewer lines before and after restoration and discussed common associated problems during rehabilitation projects.

All the speakers did a fantastic job at the section meeting in Montevideo and I would like to thank them for providing us with quality information and for supporting the MWOA by volunteering their time and efforts to train us at this meeting. Please thank our supporters when you get a chance, as they are the ones who help make this a successful organization.

President Tanya Schmidt of Cold Spring called the business meeting to order at 2:10 PM. Seventeen members were in attendance. Central Section Director Byron Hayunga from Montevideo thanked all who took part in the days events. We also would like to thank Byron and his entire city and staff for hosting the meeting and providing a wonderful day, the speakers were great, the food was excellent and the exchange of information, as usual, was beneficial to all. Thanks Byron and staff for all the work you went through to make the meeting a success. President Schmidt called upon Keith Redmond from the St. Cloud Technical College to provide an update on the development of the student organization at SCTC. Keith reported that they are making steady progress with their student club. The MWOA board meeting was held June 1st in St. Cloud at the Kelly Inn and Keith addressed the board at that time requesting that an amendment to the bylaws be adopted recognizing student chapters of the organization. The proposal is posted on the MWOA website at www.mwoa.net for anyone interested in reading the proposal. The amendment will be voted on at the annual meeting, by the full membership, for adoption into the bylaws. Keith expressed his desire for the memberships support with the amendment. The student organizations name is WAMM, reflecting all the professional organizations in support of the student club at SCTC. For more information please go to the MWOA web page. Byron then gave a summary of the June 1st board meeting. It looks like everything is set to go for the MWOA 25th Annual Conference in St. Cloud July 24 – 27 2001. It looks like it will be a “biggie” so get registered early and make those room reservations; the conference will be at the Kelly Inn (320-253-0606) in St. Cloud. I hope to see you there! The meeting for next year was discussed as well. Next years meeting will be held in Owatonna, Minnesota at the Ramada Inn while the 2003 meeting will be hosted by the Northwest section at a site not yet chosen. It takes a lot of planning and coordination to put the program together so if you are able to help out in any way, please contact your section directors as to what you can do to help out. Del Haug of Montrose, host of the September 2001 Central Section MWOA meeting, brought up the idea that has been discussed about having the annual meeting at a casino hotel. Del says he understands some of the ramifications of this, however it is getting more and more difficult to find locations/facilities large enough that can accommodate the MWOA meeting all at one site. He also expressed that many of our members work at facilities on the reservations and that we must consider that as a viable reason to hold a meeting at a casino hotel. I am sure there will be more discussion on this issue in the near future and I for one would like to hear peoples view point on this Idea. Byron announced at the meeting that his term as Central Section Director is up and that we need to elect a new director at the

September meeting. The term as director runs for three years, please come to the next meeting with your nominations for that position. Del Haug posted a challenge for the meeting in Montrose, that is, if we can get the attendance to at least 75 people for that meeting we will give away a Terry Redlin painting at the end of the meeting. Sounds like a great reason to attend, not to mention the quality of information that is shared at these meetings. I hope to see you all there! Having no other business to discuss President T. Schmidt closed the meeting at 2:35 PM until September. Door prizes were handed out at the end of the meeting that were provided by the vendors in attendance, thanks to all of those who contributed to this cause. Following the drawings, a tour at the Montevideo WWTF was offered to those who could attend. A final thanks to all those who were able to attend the meeting and remember, an organization is only as strong and productive as its membership, and the more you give the more you will get in return in more ways than you can imagine.

Respectfully Submitted,

Keith Redmond

Secretary/Treasurer

Central Section MWOA