

Maintenance Subgroup BAMI  
Quarterly Meeting Minutes  
January 28, 2009 at CCCSD

**ATTENDEES**

Craig Gridley, WCWD  
Joe Smith, CMSA  
Mike Cadreau, CMSA  
Kirk Howard, FSSD  
Anil Kar, SJ  
Dave Robbins, CCCSD  
Dale Posey, SF  
Mike Barnes, KJ

**DISCUSSION ITEMS**

**CCCSD Weir Brushes**

A machinist at CCCSD developed a method of using brushes to clean secondary clarifier weirs. The clarifier brushes are more reliable (few work orders now). The brushes are changed on as needed basis (usually on a PM). The pivots are greased during the PM's and have not needed to be changed so far.

**Primary Clarifier Collector components**

CCCSD started replacing their chains around 1987 doing one tank a year for the next four years.

The primary sed tanks plastic track was fastened by using a "button" that was welded to the exiting rails. They have been very reliable. When the tank is empty, the plastic track will expand during the day, because of the sun warming them. They do go back to normal when we fill the tank with water. They have learned that during the reconnecting of the long flight chain, the flights will move in the reverse direction and have caught on the plastic track connections. They are now aware of that and have the flight lifted up over the joints of the plastic track. They have not seen any other catching of the plastic track, and are seeing 20+ years of service with the tracks being in great condition.

CMSA has also noted expansion and contraction of plastic collector components when tanks are out of service.

FSSD has had some of their plastic slotted to minimize expansion issues when the collector is out of service.

## Hot Topics

- CCCSD expanded its UV system in 2007. They have had some issues with failure of the control modules, which they bought from Ironbrook. Their landfill gas supply is projected to last for 10-12 years.
- SJ. Also uses landfill gas. Noted that it has a BTU value of 510 compared to digester gas at 620. They are installing Datastream as their CMMS using in house staff and a consultant. They plan to start using it in June 2009. They plan to send out RFPs for PPA for fuel cell and solar power projects. They are dealing with succession planning issues since they project they will lose 30% of their staff in 2-3 years and 50% in 5 years. They purchase NG from DGS (state) and have saved significantly with them since they have hedged prices with futures contracts. However, they are expecting a 25% increase. They can generate electricity at \$0.09/kW when they purchase NG at \$0.90/therm. Their electricity costs about \$0.09/kW from PG&E. They had a pilot UV project with Wedeco for a low power/high efficiency system..
- FSSD. Have installed four 50 kW wind turbines by Integrity. Are working on the electrical interconnection for them. They plan to enter into an agreement with Sun Edison for a 1 mW solar power project, with a power cost of \$0.10/kW. They recently started up their new secondary process expansion with good results. They plan to install a UV system to replace their gaseous chlorine.
- At their Oceanside Plant, SF upgraded its Maximo CMMS to integrate with its enterprise system. It's a big challenge. They have a \$13 mill HVAC upgrade project. Are rebuilding their two Waukesha engines, but have had trouble getting parts. At SE, they will rehab their pump station and replace their bar rakes.
- CMSA. Peterson is repairing their Waukesha engine. They are 50% complete with their \$50 mill wet weather project. They upgraded their flare to an automated ignition. They plan to upgrade their sluice gate controllers to levers.

## CMMS

- CMSA. Has used Maintenance Connection for about 5 years. They track PMs by area. Their time goes from this automatically to timesheets. They also can track operator time. They use bar codes to track inventory and time. After they populated their material list, they were able to go paperless. They do not have assigned staff to keep inventory because the store room is in their system. They are considering changing to NexGen since it has very good asset management capability. They have 5 licenses for Maintenance Connection, but are considering purchasing 10 if they purchase NexGen.
- WCWD. Uses the Hansen system, based on their collection system model. They use Crystal Reports. Operators can generate work orders automatically. Mechanics complete work orders.
- CCCSD. Has used Mainsaver for over 10 years. They upgraded to the Windows version about 2 years ago. They are considering purchasing

NexGen to use for asset management only. A clerk enters data into the system based on a mechanic's mark up of paper work orders. They track backlog and PMs by time and hours. The 5 maintenance supervisors review backlog, PMs and CMs, and then put together a weekly work schedule. They complete a monthly report with KPIs using Excel, extracting data from Mainsaver.

- SJ. Plan to install Datastream with a location based plant hierarchy. They estimate it will take a year to implement using consultants to install and set up the system, and in house staff to populate the data base.
- FSSD. Started using Maintenance Connection last July
- SF. Recently upgraded to Maximo 7.0. They use COGNOS for asset management because Maximo could not do easily. Their purchasing department is separate from Maximo. They just purchased Mtelligence, which is equipment assessment software.

#### **ACTION ITEMS**

1. Need comments from the group on the info sharing template that was distributed.
2. Mike M. to develop a template to compare electrical predictive maintenance activities by the group. He will email to Mike B. for distribution to the group.

#### **BACKLOG**

- Continue CMMS discussion: EBMUD, DDSD, USD, SRTWP
- Utility systems-each agency to discuss their strategies to analyze the systems to ensure they are adequate to handle changing facilities. (1/08)
- Major process discussion – Influent pumping/headworks- may tour EBMUD facilities at a future meeting

#### **FUTURE MEETINGS**

April 29, 2009 at EBMUD