Maintenance Subgroup BAMI
Quarterly Meeting Minutes
May 6, 2009 at EBMUD

ATTENDEES

Mike Cadreau, CMSA
Nathan Brennan, CMSA
Ike Bell, EBMUD
Dave Allen, EBMUD
Dave Port, USD
Dale Posey, SF
Mike Dixon, DDSD
Shawn Redmond, DDSD
Mike Barnes, KJ

DISCUSSION ITEMS

EBMUD Power Generation Upgrades

Dave Allen, the EBMUD Power Plant Supervisor, distributed a handout summarizing the recent improvements to the EBMUD Power Generation facilities.

- Installed an 828 digital controller to replace pneumatic controls. This has greatly reduced maintenance costs and has improved troubleshooting.
- Installed water cooled valve seats, which they hope will extend upper end overhauls to 40,000 hours.
- They use outside contractors to complete their lower end overhauls. They use an RFP approach that allows them select a contractor based on qualifications, performance, and price. They developed a rating matrix to compare price and qualifications. Ike will email a copy of the RFP to Mike to distribute to the group.

Other Power Generation Discussion

- SF. The Oceanside plant uses a blended gas controller, which has been hard to control. They filter the gas at the SE plant, but it's still challenging to keep the engines running.

- DDSD. They are producing more digester gas with their digester gas mixing system. They run the engines on digester gas 80% of the time now, compared with 60% of the time previously. Their chiller removes about 25% of the siloxane. They plan to add a siloxane filter in the future. They produce 300,000 CF/day of digester gas.
- USD. Has a chiller and gas filters. They change their filters about 4 times per year, at a total cost of $20,000/yr.

- EBMUD. Produce 6 MW of electricity, but don't use all their digester gas. They plan to add 4.5 MW turbines in the near future to use the gas. The turbines are estimated to cost $600,000 to rebuild every 5 years. AQMD likes turbines best because there is no NOX (due to no oil). The turbines will need 100% siloxane removal. The turbine project just bid for $19 million had an engineer's estimate of $30 million.

CMMS Discussion (continued from last meeting)

- DDSD selected Mainsaver about 10 years ago. They use Shopfloor to schedule work and close out work orders. Work orders can be written electronically by anyone, and are checked by a supervisor. The work order writer gets an email prompt about the status of the work order. When an asset number is entered, the writer is prompted about other work on that asset. For planning, they have a 10 minute meeting every day to go over the scheduled work and write the info on a grease board. They strive to schedule a week's worth of work at a time. Mainsaver can't prioritize work for each tech. The techs enter a "CMP" code to indicate that a work task is complete, but not closed out. The leads query the CMP codes, and then close out the work when ok. The leads meet for about 30 minutes at the end of each day to coordinate work. Mike created a flow chart for how to handle work orders, and he will email to Mike B. for distribution to the group. Their warehouse is now under purchasing rather than maintenance. Techs estimate parts costs I the work orders. They now track all time in Mainsaver, including "non wrench" time, which has helped for staff planning. They don't complete JSA's for all tasks. Mike plans to meet quarterly with leads to review performance.

- USD. Use Hansen for CMMS. Have a different program for the warehouse that is not linked to the CMMS, therefore there are no parts costs in the CMMS. Mechanics use computer extensively, about 1-2 hours per day. They are encouraged to order parts electronically. They use an electronic time card that is reviewed by supervisors before submitting. They have a dedicated voice mail box for mechanics to leave daily updates of their work for the 2 supervisors. They are starting to use competency tests for all employees, and these need to be signed off by a supervisor. The supervisors come in early before staff to plan the work for the day.

- EBMUD. Use Maximo. They would like to get the daily schedule into Maximo and distribute this. A clerk enters time into Maximo for the staff, and this flows automatically into their timesheets.

- SF. Use Maximo. They have several programs related to maintenance, and Dale would like to devise a way for them to communicate. Supervisors come in early before staff to plan work for the day.

ACTION ITEMS

1. Need comments from the group on the info sharing template that was distributed.
2. Ike to email RFP that they use for engine overhauls to Mike B. to distribute to the group.
3. Mike D. to email flow chart he developed for the DDSD work order process Mike B. to distribute to the group.
4. 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

- 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

July 22, 2009 at CCCSD