

CWEA P3S Committee Meeting

November 17, 2009

Meeting Minutes

Meeting Location

City of Los Angeles Bureau of Sanitation Administration Building
2714 Media Center Drive, Los Angeles, CA 90065

Those in attendance onsite

Michael Simpson – P3S Committee Chair/LA BOS, Bill Garrett – LACSD, Joe Petchuk – City of Santa Monica, Preeti Ghuman – LACSD, Philip Lo – LACSD, Alec Mackie – JWC Environmental, Oscar Iniquez – United Water Burbank, Chris Herbeck – LACSD, Paul Schmidtbauer – SOCWA, Carl Spangenberg – Irvine Ranch Water District, Ken Hanks – LACSD, John Boyd – LACSD.

Those attending using the teleconferencing line

Jeff Carter – United Water Burbank, Catherine Allin – City of Millbrae, Marci Donohue – CWEA, Julie Taylor – CWEA

Introduction (Simpson)

Meeting called to order at 10:20 AM. Meeting start delayed due to technical issues setting up the gotomeeting “webinar” Internet connection. All attendees present and on the phone introduced themselves. Simpson introduced the technical session speaker, Mr. Carl Spangenberg.

Technical Session

“MBR Technology and Wastewater Treatment Case Study”. Carl Spangenberg of the Irvine Ranch Water District (IRWD) gave a PowerPoint presentation on the IRWD’s design considerations and subsequent expansion of 10-mgd wastewater treatment membrane bioreactor (MBR) at the Michelson Water Reclamation Plant. MBR uses semi-porous ultrafiltration membranes for solid/water phase separation in activated sludge. The MBR units (“cells”) are submerged directly into the mixed liquor tanks. MBR filtrate flows directly out of these units, leaving behind the highly concentrated mixed liquor. By doing the separation at this point in the treatment process the need for sedimentation (i.e. secondary settling) tanks is eliminated, saving considerable space. The modular design aspects of MBR also allows for easier future expansion than does traditional treatment processes.

The treatment process for an MBR is as follows:

Raw wastewater → grit chambers/screens → standard primary treatment → fine screens (removes hair) → Secondary activated sludge process → MBR. Waste sludge from the activated sludge process is handled using standard digesters.

The two main types of MBR systems are hollow-fiber and plate/disk. These types refer to the shape of the membrane each system uses. Most systems now available, including the one IRWD chose, use the hollow-fiber type, primarily due to its ability to treat more wastewater due to the high packing density of the hollow fiber tubes as compared with the less dense plate system. MBR operates at a high MLSS

(mixed liquor suspended solids level) as compared to standard secondary SS levels (MBR MLSS=8000-12,000 vs. standard MLSS=2500). MBR membranes treat 8-15 gals/sqft/day. In order to maintain acceptable MBR production rates, its critical that the membranes be kept clean. Depending on the model and type of membrane in use, they are nearly continuously being cleaned using processes that include daily backflushing, periodic chemical cleaning, or nearly continuous air scouring operations (10 seconds on, 10 seconds off). The amount of cleaning necessary can greatly impact final performance characteristics of a MBR. Foaming is a common problem encountered by MBR systems. Foam, generally thick and scummy brown, is periodically generated by the air scouring cleaning process and can present a challenge to WRP maintenance operations. MBR system capacities have historically been limited to about 10MGD, though larger systems, up to 60MGD, are now being proposed and installed.

MBR is commonly used as a pretreatment process for water destined for further treatment, such as reverse osmosis (R/O) as is now in-place at the Orange County Sanitation District. For reuse applications, such as groundwater replenishment, MBR filtrate generally has a unacceptably high TDS (salt) concentration, necessitating further treatment such as R/O.

BUSINESS MEETING

Meeting was called to order at 11:15 AM

CWEA- Update

No Report

Old Business

Subcommittee Reports

➤ **Treasurer Report:** Treasurer Joe Lucia reports 2010 P3S conference revenue of \$10,439.00 has been received to date, primarily from exhibitors and sponsors. The amount includes \$577.00 credited from the 2009 conference. The committee then discussed the recent \$23,000.00 “goal” set by CWEA for the annual contribution from the P3S Committee to the CWEA. Lucia said he thought the goal amount was too high, but reminded the committee members that it’s only a goal and not a requirement.

➤ **Awards Subcommittee:** Paul Schmidtbauer was in attendance, along with John Boyd. Boyd reports that approximately 760 nomination solicitation letters were sent out on 10-18-09 with a submittal deadline of 12-4-2009. No nominations have yet been received by Schmidtbauer. The mailing cost for the solicitation letters was \$501.90, for which the committee will reimburse Boyd. Joe Lucia will again be handling the Silver Cover awards with the assistance of Bill Garrett and the 2 most recent awardees.

➤ **Technical Certification Update:** No report. Julie Taylor was not in attendance today. Jeff Carter reports CWEA is working on a “train the trainer” program. Marci Donohue reports there will be a leadership training session at the CWEA 2010 annual conference.

➤ **Webinars:** The first attempt to implement the use of “webinars” for P3S committee meetings occurred today under the leadership of Philip Lo and Alec Mackie. The use of the “gotomeeting” service was coordinated by Lo, Mackie and the CWEA with moderate success. There were problems encountered with the audio provided by the gotomeeting service, though offsite attendees (Jeff Carter and Marci Donohue) reported the PowerPoint visual slides from the technical presentation were fine. Lo and Mackie volunteered to continue handling set-up of future webinars for all monthly P3S meetings where sufficient access to the Internet can be obtained. The teleconferencing line will continue to be utilized for handling the audio portion of the meeting for offsite attendees.

New Business

Conference Planning:

Simpson directed a session planning the 2010 Conference in Long Beach.

➤ **Program Chair Report:** Preeti Ghuman reports all final drafts for information to be included in the conference brochure are due this coming Monday, 11-23-09. 5 sessions now have sponsors.

- Onsite conference registration will open on Monday at 8:00am.
- Exhibits will open at 10:00am on Monday. The exhibitor reception is scheduled for Monday from 5:00pm-7:00pm.
- Exhibits and registration open at 8:00am on Tuesday.
- The “Opportunities for doing business with the EPA” workshop for vendors will be held from 8:45am-noon on Tuesday.
- Dueling Ships activity for attendees will be held at 5:30pm on Tuesday.
- Exhibitors open at 8:00am on Wednesday with exhibit breakdown commencing at 10:30am.
- Karin North will lead a pollution prevention training and issues session: She has found a doctor who runs a hospice who is willing to be a speaker on how they dispose of left over pharmaceuticals. North requests that the P3S committee pay for an airline ticket for the doctor to travel from SFO to Long Beach Airport and back. The committee approves a motion by Boyd to provide up to \$300.00 for the doctor’s travel costs.

➤ **Vendor Chair Report:** Alec Mackie reports that he is currently working with Joe Petchuk on Logos for the sponsors to be included in the conference brochure. He also reports he’s pursuing Stormwater Solutions Magazine to be a conference sponsor.

➤ **Conference Chair Report:** Michael Simpson reports he has selected and appointed Chin Long of the LA BOS to be the AV Chair for the conference. Long will handle 3 complete AV “kits”. Kits will consist of a laptop computer, digital projector and associated cables and cords.

- Packets for the handout at the conference will be a single \$1 plastic folder that will be printed with the P3S logo. Each packet will include paperwork for each presentation that will list the speaker name, email address, and a 150-word abstract. Speaker bio information will not be included, but will instead be posted on the P3S website.
- Save-the-Date Cards: Julie Taylor will send a proof of the card to Joe Petchuk today for his approval. Simon Watson at the OCS D will coordinate printing of the cards and mail them

out. Taylor will send a list of past conference attendees who don't have an email address to Simon for use as the mailing list.

- Conference pricing will remain at the levels agreed to last committee meeting.
- Words for Brochure: All final drafts for brochure items should be submitted to Julie Taylor by Tuesday, 11-24 for final review, approval and assembly.
 - Petchuk needs "Conference Highlights". Ghuman will provide this.
 - Simpson will provide "Message from the Chair" to Petchuk.
 - CWEA support will be listed as Julie Taylor and Marci Donohue.
 - Taylor and Donohue will compare the proposed 2010 brochure to the 2008 brochure for possible changes/additions.
 - Garrett will provide information to Petchuk on the Dueling Ships event and ECI session.
- Speaker gifts: Budget is \$2000. Simpson and Lo will purchase 100 USB PowerPoint control devices (they look like "thumbdrives", but are actually remote control devices), at a cost of \$19.40 each for distribution as speaker gifts.
- Attendee badge holders: Lo suggests \$500 be spent on ID badge holders for conference attendees. Taylor and Simpson note that there is nothing in the budget for this and the discussion is shelved.
- "Opportunities for doing business with the EPA" workshop session. This session is designed to attract consultants to the conference. There will be 5 speakers at the session:
 - Small Business Coordinator from the USEPA
 - U.S. Navy Environmental Coordinator from San Diego
 - LAUSD Building Green Program
 - California Energy Commission
 - City council representative from the City of Signal HillEach speaker will give a 10-minute presentation with a 20-minute question and answer period at the conclusion of the presentations. Each session attendee will be charged \$40.

Preconference Network Event: Will occur Sunday evening and will consist of attendees taking public transportation to L.A. Live in downtown Los Angeles near the convention center for an evening of fun and camaraderie.

Next Meeting (Simpson)

The next meeting is scheduled for Wednesday, December 16 at 10:00am at the Los Angeles County Sanitation Districts' Joint Administrative Office in Whittier.

Meeting adjourned 1300 hours

Respectfully Submitted,
John Boyd
Secretary, CWEA P₃S Committee