
CMSA Monthly Report

Central Marin Sanitation Agency

February 2003

GENERAL

JPA Manager Meeting The managers from the JPA member agencies agreed to have regular meetings to discuss issues of concern within the CMSA service area, share information relating to collections system operation, maintenance, and construction activities, and discuss other management related topics. These meetings will be held bi-monthly at CMSA and minutes will be distributed.

The initial meeting was held on February 13, 2003. The discussion focused on sharing district information, such as Board/Commission composition, staffing levels, and collection system assets; the imminent sanitary sewer overflow regulations that are being drafted by the Regional Water Quality Control Board; the pending federal CMOM regulations and how each District is planning for their implementation of CMOM; and the capacity issue at CMSA.

The meeting was attended by Barry Hogue from the Ross Valley Sanitary District, Andy Preston from San Rafael Sanitation District, David Montero from Sanitary District #2, and Jason Dow from CMSA.

Reorganization Recruitment

After the February Commission meeting Koff and Associates, our human resources consultant, was notified that their executive recruitment proposal had been accepted for the Business Services and Treatment Plant manager positions. The initial stages of the recruitment involve development of the respective job descriptions, conducting a market survey for a competitive salary range, development of the position brochure, and determining the qualifications of the ideal candidate.

Staff has reviewed the job descriptions and the salary surveys will be completed by the first week of March. We anticipate bringing the detailed recruitment schedule to the March Commission meeting as an information item, and the recommended salary range for each position for Commission consideration.

MMWD Desalination

MMWD is continuing their investigation of a desalination facility as an alternative potable source to reduce their dependence on water supplied by the Sonoma County Water Agency (SCWA). There is a significant concern by MMWD staff and the public that the SCWA would not be able to deliver water during a drought due to upstream obligations and supply limitations.

MMWD has discussed with CMSA staff the possibility of using our marine outfall for

disposal of the brine waste from a future desalination facility. Issues for discussion include NPDES permit discharge limits for metals, permit modifications to separate responsibilities or develop individual permits, outfall maintenance and cleaning cost sharing, pipeline hydraulics during wet weather, and connection of the pipeline to our continuously operating outfall. We plan to meet with MMWD staff in the near future to brainstorm solutions to these topics and have a round table discussion of the current state of the desalination initiative and future schedule.

The environmental forum of Marin has approached CMSA and requested that we attend a citizens workshop on the desalination issue. Nancy Evans will attend as the CMSA representative and respond to questions pertaining to the above topics.

PG&E Rebate Program PG&E notified staff that our application under the self generation incentive program had been rejected. They stated that the grounds for the rejection was that our project didn't meet a particular eligibility requirement which turned out to be a new requirement for 2003. Our application was prepared following guidelines and criteria in a 2002 handbook.

Our construction attorney, Steve Lawrence, worked with staff to craft an appeal letter

that focused on the public policy issues with the decision, the illegality of retroactively applying a new rule to an existing application, and unjust enrichment. PG&E took our appeal to the state working group meeting and recommended that the appeal be granted. The working group concurred!

We are currently negotiating with the PG&E program administrator about the individual project components that are eligible for the rebate monies.

CAPITAL

Cogeneration Engine

Replacement The design of the new cogeneration system is beyond the 50% level of completion and CH2MHill, the design engineer, anticipates having the 90% drawings submitted in late March 2003. Our project team will then review and comment on the design submittal and we should be at the 100% level, ready for public bid, in early May 2003.

The Notice to Proceed letters have been sent to Applied Filter Technology for the siloxane removal equipment, and to Pneumatech for the refrigerated fuel gas dryer. The award for the compressor has been sent to McKenna engineering, and the award for the Waukesha engine-generator will go to Stewart and Stevenson later this week. These equipment items should be manufactured and delivered to CMSA before

the construction contract is awarded. This will allow the construction to be completed in 2003 and before the existing engine requires extensive servicing.

We have been contacted by an individual interested in purchasing our existing engine after it has been removed from service. Information has been provided relating to the emissions improvement on the engine and its original specifications. The potential buyer has stated that the air emissions modifications have limited the value of the engine on the open market and reduced it to a "parts" engine. He opines it is still worth around \$20,000.

Dewatering Improvement

Project The third Centrisys centrifuge has been installed and passed its functional test. Schram construction has completed about 90% of the project work and nearly all the mechanical work. Remaining work under the Schram construction contract includes testing of the new centrifuge control systems, pipe and drywall painting, general cleanup, and punch lists items. If the remaining testing goes well, the project should be wrapped up in the next few weeks.

The control system is comprised of the Centrisys control panels for each centrifuge and a new control panel that will communicate with the existing pumping equipment, the CMSA process control system, and the Centrisys panels. There has been a significant amount of coordination between Centrisys and the new panel

builder (KBL) to ensure that the two systems communicate properly and share needed information.

Operations staff have been operating the two Centrisys centrifuges since December 2002 and the centrifuge performance has been exceptional. The biosolids dryness, which impacts the hauling and disposal costs, has increased from just below 20% to over 25%. The 5% increase represents a 20% comparative increase and a significant cost saving.

After Schram construction has completed the majority of the on-site work, Centrisys representatives will provide operational and optimization training to our Operations staff.

Dechlorination - Phase II

Phase II of the dechlorination project involves constructing a metal building over the final effluent sample vault and relocating the NPDES permit compliance equipment from the end of the plant to the new building. Equipment to be moved include chlorine residual analyzers, pH meters, and the effluent composite sampler. This move eliminates 400' of piping where hydraulic detention times can affect the quality of the effluent sample. Additionally, the dechlorination system will now have independent analyzers to improve operational reliability.

The project design, schedule, cost analysis, and work plan were developed in-house by our temporary staff engineer, Andrew deBoer, and operator Chris Finton. They are currently soliciting quotes from metal building manufacturers and we intend to select the lowest cost vender that meets our specification requirements and passes a reference check. The new equipment and piping systems will be procured and installed by the maintenance department.

MAINTENANCE**Special Projects and Repairs**

Asset Management Dick Lindgren has been updating the Agency's Asset List. This is one of the first steps toward an Asset Management Program.

Also he is looking into alternative CMMS (Computerized Maintenance Management System) programs. We have some reservations about the program we are currently using, and want to compare with other packages available. We now manage our Maintenance functions with 3 different computer programs. Our goal is to get 1 consolidated system for Preventive Maintenance, Corrective Maintenance and Inventory Control. Dick made a trip to Union Sanitary District to look at there CMMS and how they use it. They have a system that is further developed than ours, but it takes a person full time to manage it. We will be forming a work team to assist in their CMMS selection, with a goal of having a new system selected, purchased and up and running by the end of 2003.

E/I Improvements Our Electrical / Instrumentation staff has been working to install electrical and instrumentation wiring to the final effluent sample vault near the end of the plant. This upgrade includes telemetry between the sulfite residual analyzer (which measures the concentration of de-chlorinating chemical residual) and the process control computer, separate electrical service to both final effluent sample pumps, installation of new continuous zero chlorine residual analyzers and telemetry, and finally, relocation of the final effluent sampler

Vector Station Repair Our Vector truck receiving station had a piping failure. A pump

discharge piping leak developed as a result of years of pumping rock and grit. The repair required a confined entry by the Maintenance workers, in a very unpleasant space. They did a great job on the project, which took 2 days, and now have a new discharge line up and running.

Plant Water Pumps Some of our plant water pumps are showing diminished water output. This is a key signal that they need attention. The first pump was disassembled and shows significant wear in areas that cause internal re-circulation within the pump. Renewing these surfaces with machining, and replacing all other worn components will bring the pump efficiency back to original. We will then proceed to check the other pumps and repair as necessary.

Security Plant Security is being looked at by Dick Lindgren. He has received a Security Check List from AMSA (Association of Metropolitan Sewerage Agencies). The check list is based on Asset Vulnerability. A cursory look at the check list shows some areas of concern for CMSA, but nothing that is glaring. Much of the AMSA list is for much larger plants than CMSA. Dick will be going through the checklist, soliciting input from other staff members, with a goal of providing a recommended implementation list.

OPERATIONS

New Saba Station Operators have toured the rebuilt Saba pump station with CMSA pump station personnel to learn what is new and what to do when an alarm is received from that station. The station is owned by Sanitary District #2. The old station had a dry well containing the station pumps and a wet well. During construction, the old dry well was demolished and the old wet well was rehabilitated with a new concrete liner. Two Flygt submersible pumps were installed in the wet well. The pumps are controlled by a new Allen Bradley PLC. Float switches in the wet well provide backup operation if the PLC fails. The PLC controls the operation of the pumps off of a wet well level value read by a Hydro-Ranger sonic level sensor. The station's appearance has been improved by new fences.

Secondary Digester During the first week of February, Operations made final arrangements to close up the secondary anaerobic digester and return it to service. Corrosion and structural inspections have been completed. The tank was sealed and reclaimed water was fed into the tank. Tank filling time was four days. The water has been heated to normal operating temperature (95 deg F or 37 deg C). Some unavoidable delays have been encountered in arranging for nitrogen gas to purge the gas

storage dome. This purging procedure is a safety measure to ensure that oxygen is not present with digester gas which could create an explosive condition. The purging with nitrogen is now scheduled for the last week in February. The Operations Department has worked out details in a work plan for the remainder of the activities to return the digester to normal service. A summary memo will be prepared including work completed by whom and for how much. This information will be valuable for future reference and tracking.

Shift Assignments Operators began new shift assignments in January. At the beginning of every new shift, Operators have the opportunity to request refresher training on subjects and procedures with which they need to refamiliarize themselves. Supervisors have completed this training by the end of February.

Radio Equipment Supervisor Steve Egbert has been assigning in-plant radio equipment to each Operator. In the past, radios were shared among all the Operators, but this has made following the status of each radio difficult. It was hard to know when batteries needed to be replaced and when repairs were one time or chronic. The goal is to better track performance of and repairs to this equipment and keep inventory functioning at a high level.

Odor Control in Wet Weather
During wet weather season

months (November through April), Operations will place the San Rafael and Ross Valley peroxide stations in and out of service as conditions require. When plant flow increases due to rain, the quality of the wastewater is good enough that the addition of odor control chemical hydrogen peroxide is not required. As plant flows decrease after the rainy weather has passed, influent quality is monitored to determine when hydrogen peroxide must again be dosed. Operator attention to these odor control treatment units optimizes both cost and odor control.

LAB

Marin General Hospital- IW personnel from CMSA and Novato Sanitary District met with personnel from Marin General Hospital and Novato Community Hospital to discuss elimination of mercury at the hospitals. In the past, medical facilities used a variety of instruments and reagents that contained mercury. During the meeting, it was determined that in recent years both hospitals have replaced most of the mercury-containing instruments and reagents listed in CMSA's draft "Best Management Practices for Medical Facilities: Minimizing Risks from Mercury."

Stormwater Citation- IW staff issued to a local automobile dealer a City of San Rafael

municipal citation for violating the City's Stormwater Ordinance. A agreement between CMSA and the City authorizes CMSA Inspectors to issue the citations, which entail a \$500 fine. The dealer's employees were discharging automobile washwater through a storm drain to a nearby canal, despite earlier warnings.

North Bay Watershed

Association Mercury Plan- Bob Adamson, Lead Industrial Waste Inspector, is the CMSA representative on the North Bay Watershed Association Water Quality Committee. Currently the primary project of the Committee is to develop a regional Mercury Pollution Prevention Plan for the North Bay watershed. The two main elements of the Plan are education of dentists regarding proper handling of waste mercury amalgam and facilitating recycling of spent fluorescent lamps, which contain mercury.

INDUSTRIAL WASTE

New Bioassay System, cont'd

In February we were finally able to demonstrate that the fish mortality that we have seen in the bioassay is due to ammonia. Effluent samples were sent to Pacific EcoRisk (PER) Laboratory; fish died in the untreated effluent, PER

removed ammonia with zeolite and all fish lived, and then they added back ammonia and fish died again. We are waiting to hear from the Regional Board concerning several options for dealing with ammonia in this testing. Meanwhile, because we use oxygen to aerate our in-house flow-through bioassay, and because ammonia levels are still well below summer concentrations, we did not produce much of the toxic form (unionized ammonia), and all fish lived in the test here.

Rob Cole Earns Biosolids

Certification: Rob Cole has passed the CWEA certification examination for biosolids. Because this is a relatively new area for CWEA certification, this means that he is now one of the few people in the state of California who are certified in this discipline. Congratulations, Rob!

ELAP Inspections, cont'd:

In January and February the lab was inspected by the Environmental Laboratory Accreditation Program (ELAP), for renewal of our certificate to test for a number of constituents. We did quite well in these inspections and only have a few minor deficiencies to correct.

Semiannual Monitoring: We are starting on our semiannual monitoring. We will be sampling and testing our biosolids, influent, and final effluent for a long list of constituents that includes dioxin, pesticides, PCBs, metals, cyanide, and others.

Oil and Grease: Our latest NPDES Permit requires that we test for effluent oil and grease (O&G) monthly, and we have a Permit limit to meet. (Our previous permit did not require this. The Bay has no oil or grease problems, but it is in the Basin Plan.) We have never detected any O&G since we began this latest testing in October 2001, so we have asked the Regional Board to reduce this monitoring frequency to quarterly. We expect a positive response.