
CMSA Newsletter

Central Marin Sanitation Agency

December 2004

GENERAL

Security

We have completed the bid package for the security fence extension/front gate automation project, and are advertising it until mid-January. We are planning the site walkthrough for Thursday, January 13, with bid opening on Tuesday, February 1. We expect to bring a recommendation to the Board of Commissioners at their February 8 meeting, and, pending their approval, execute a contract for the work shortly after that.

San Quentin Plastics

A meeting was held at San Quentin Prison between Associate Warden, Sheila Petrakis and several of her staff members, and Jason Dow, Bob Adamson, and Robert Cole from CMSA. The purpose of the meeting was to discuss the plastics discharged to the sanitary sewer. San Quentin discussed their desire to reduce plastics discharged and efforts they were working on to minimize the usage of plastics at the prison. We informed San Quentin that in their soon to be issued permit they will be required to submit a schedule indicating when they will be hauling their garbage to landfill and not discharging garbage to the sanitary sewer.

They will also be required to develop and implement a plastics minimization plan to reduce usage of plastics in the bag lunches and products that are available for sale to the prisoners at the canteen. They were initially displeased that we were not willing to continue working with them as we have over the past 10 years. We discussed our appreciation of their past efforts, but the inconsistencies and lack of their ability to control the actions of the prisoners requires us to take a more definitive approach.

They informed us last week that they have contracted with Marin Sanitary Service to haul their trash away for a 30-day pilot program, and that they do not foresee why it cannot continue. We will be following up to ensure this is true, and to work with them on their bag lunches and canteen.

Belvedere Contract

CMSA has been operating and maintaining the City of Belvedere's wastewater pump stations since 1999 under a services contract. We recently received notice that Belvedere's sewer system will be consolidating with Sanitary District #5 (Tiburon), and as of June 30, 2005 they will no longer need our services. The city manager, Ed San Diego, expressed his appreciation of our staff and for their high quality of work and consummate professionalism.

The new manager of SD#5 who orchestrated the consolidation is interested in contracting with us to perform the electrical corrective and preventative maintenance of the district's pump stations. We will be evaluating this level of effort and discussing contract provisions during the upcoming months.

MMWD Desalination

The desalination pilot plant construction is tentatively scheduled to begin in mid-February 2005. MMWD has finalized the contract with Kennedy/Jenks to design and operated the facility, and has entered into a lease agreement with the Rod and Gun club to use a portion of their property for the pilot plant. Permitting is currently underway. They have received the necessary permit from the BCDC and hope to have the permit from the Regional Water Quality Control Board early in 2005.

The filter water from the pilot plant will be discharged into the San Rafael Sanitation District's collection system and will eventually reach our treatment plant. MMWD will be applying for permits and paying a minor monthly fee, to both SRSD and CMSA, for the pumping and treatment of the filter water. CMSA staff has been providing bioassay and sampling information to assist MMWD in the permitting process.

BUSINESS SERVICES

Audit

As previously reported, the Agency's annual financial audit commenced the first week of October. The first draft Independent Auditors Report was presented to the Agency in November. The audit was completed in December and the audit findings were presented by A.J. Major, a partner with the accounting firm of Vavrinek, Trine, Day & Co., LLP during the December Commission meeting. As stated both verbally and in writing in the Independent Auditor's Report, the financial statements audited present fairly, in all material respects, the financial position of CMSA and the results of its operations and cash flows for the years ended are in conformity with the accounting principles generally accepted in the United States of America as well as accounting systems prescribed by the State Controller's office for special districts. The completed audit report will be incorporated into the financial section of the Agency's Comprehensive Annual Financial Report (CAFR).

Comprehensive Annual Financial Report (CAFR)

The Agency began work on the Comprehensive Annual Financial Report or CAFR in November. The first draft documenting the status of the

major initiatives active in FY 03/04 was completed in early December and incorporated into the Introductory section of the CAFR along an Agency profile, and information useful in assessing the Agency's financial condition. The other completed portions of the CAFR include the financial section, which consists of the Independent Auditor's Report, and a statistical section. The CAFR will be submitted to the Government Finance Officer Association (GFOA) for Certificate Of Achievement For Excellence In Financial Reporting consideration, and distributed to our member agencies. The CAFR will also be presented to the Board during the January 2005 Commission meeting.

Asset Management

The phase one implementation of our Asset Management system, Computerized Maintenance Management System (CMMS), continues to progress. The milestone one goal of rolling out the corrective maintenance program was completed in October 2004. Milestone two focuses on developing documentation and implementing procedures for tracking assets from purchase to disposal. The target completion date for milestone two is January 14, 2005. Milestone three concentrates on collecting data on assets that previously have not been assigned asset identification numbers. Tracking these additional assets will allow more accurate accounting of the actual operation and

maintenance cost associated with specific equipment and processes. Collection of asset data is approximately 60% completed. The target completion date for milestone three is January 31, 2004.

The asset management system is a significant aspect of one of the Agency's strategic business plan goals. Future activities include the implementation of the preventative maintenance program, condition assessment procedure development and conducting the assessment for all agency fixed assets, tying asset repair and rehabilitation activities to our financial management systems, and development of an inventory management system.

Biosolids Disposal Contract

CMSA has a contract with Redwood Landfill for the disposal and beneficial reuse of our biosolids during the wet weather months. This five year contract will automatically renew on January 1, 2005 starting year two of the term. All contracts provisions will remain the same, with an annual CPI adjustment in the cost per wet/ton. The CPI adjustment is based on the Bureau of Labor and Statistics, December 2004 reporting for the annual CPI for (All Urban Consumers) the San Francisco-Oakland -San Jose area.

CAPITAL/ ENGINEERING

Cogeneration

The engine (S&S) and switchgear (Encorp) field technicians were here for two days last week to work with the subcontractor (KBL) and CMSA staff on modifications to the Lookout HMI, which is the operator interface system. It was productive and useful, but it also appears that a message we've been trying to convey on the need for 'power margin'- type controls has not yet gotten through. It is in the design documents, so we should get it implemented - eventually.

Aside from that we are still on schedule for the January 5th arrival of the refrigerator-dryer vendor (Pneumatech) to begin their training and be on-hand for the January 10th start-up of the digester gas system. The filter vendor (AFT) said on his way out the door a few weeks ago that "Oh, by the way, you'll need a temporary connection to the flares from the filters because they don't start yielding gas immediately." Instead they absorb the methane and give off carbon dioxide.

After some internal discussions it appears that the suggested way is the best way to handle it. Doug Miller, operations, found a connection on the discharge line where we can connect in some steel piping and run it

up the hill to the flares. There is a connection opportunity at the flares where a drip trap was removed sometime in the past. We should be able to run gas through both the waste line and the fuel line simultaneously, thus keeping the flares lit. When we suspect we've gotten methane coming out of the filters, we can shut off the direct source to the flares and see if the flares stay lit. At least, that is the draft plan.

There are more changes which still need to be made and there are always punchlist items as well. A preliminary list has been supplied to the construction contractor. The two most major changes needed are (1) to add some venting and relief lines between the cooling systems and expansion tanks and (2) further modifications to the fuel lines where the solenoid valves for natural and sludge gas need to be moved closer to the engine fuel intake.

Details from our consultant on both of these have been worked out so we are waiting on the contractor to provide quotes. S&S will be picking up the tab on the fuel modifications. We discovered that they were originally supposed to provide a completely assembled fuel system on their skid according to the detailed written specification. Unfortunately, the design documents for construction also showed them being assembled by the construction contractor which they proceeded to do albeit according to a technically

flawed design detail. However, now that all that needs to be changed, there is no reason for the engine vendor not to do this work so they are negotiating directly with the construction contractor on completing it.

Then there is the oil problem. We are still waiting on S&S of San Leandro to receive the parts they need to do their work in fixing the oil leak problems. We still do not have the details of what they are going to do except that the repair will take two days. This is a good time for us to be asking questions about this since whatever is wrong may have long-term implications.

Beyond the digester gas start-up there is still plenty to do. At this time we still have no word from the engine vendor on when they plan on providing training. Hopefully, we'll have that training when we begin our planned functional and performance testing following the digester gas start-up in mid-January.

Marine Outfall Maintenance

Parker Diving is working on this year's round of riser extensions for our marine outfall. The work was scheduled for earlier this month, but was delayed due to their crew being needed longer than anticipated to do emergency work at a shipwreck on the North Coast. Unfortunately, the delayed start date for our outfall work coincided with the beginning

of winter storms, and the poor diving conditions that accompany stormy weather. We anticipate the riser extensions being completed in the near future. We are also developing improved maintenance procedures, including an earlier start date for the annual inspection, riser extension guidelines to reduce the need for dredging in future years, and possibly use of air wrenches for future extension work.

Administration Building Roof Beam Inspection

We have received Roy Andrewson's report and recommendations on protecting the glue-lam ridge beam-ends on the Administration Building. As we reported last month, there has been significant weathering and some deterioration in the beam-ends. Mr. Andrewson is a local structural engineer, and his firm is experienced in glue-lam assessment and rehabilitation design. Once we evaluate his recommendations, we will develop a restoration plan, and implement a regular inspection and preventive maintenance program.

OPERATIONS & MAINTENANCE

POLYMER CRISIS RESOLVED

After September's surprise announcement by Polydyne, our polymer vendor, that they were closing their Bay Area

Plant and discontinuing our product as of November 1, we now have a contract amended through June 2005. We were very apprehensive, since no one could predict if any other Polydyne product would be as efficient and possible cost increases of 30 to 80% if we had to find another vendor. Cost increases are being driven by spiraling energy costs and shortages of a key chemical feedstock. We communicated extensively with other Bay Area wastewater agencies struggling with the same problem. We were lucky to find another Polydyne mannich product (manufactured in Los Angeles) that worked with our existing equipment and we were able to negotiate a contract amendment with a minor cost increase.

The contract amendment was approved by the Board in December. The week before Christmas we used up the last delivery of quaternary mannich polymer, washed out the polymer storage tank and piping, and took our first delivery of tertiary mannich poly. Staff is working to optimize centrifuge performance with this new polymer, troubleshooting some mixing problems, and working out the required ordering times for timely delivery from Los Angeles.

O&M PERSONNEL

For the bi-annual shift change, Operations personnel put in their requests, and assignments have been made per the MOU. The shift assignment change is

scheduled for January 15 and 16 with Leads Tom Asdell and Chris Finton swapping assignments.

As noted last month, Operator Larry Johnson retired on December 31. Operations will fill Larry's assignment with Virgil Sevilla. Virgil is currently an OIT (operator in training) but has just completed and filed the record of required experience. Until his application is processed and he receives his Wastewater Operator's Certificate, Ken Ross and Jean Saint-Louis will juggle their schedules to cover Larry's weekend shifts.

To fill the vacancy, CMSA will hire a candidate off our existing OIT list. Linda Bodwin, Doug Miller and Al Fiore served on the panel for a follow up interview for all interested candidates and we are working with Koff Associates to process a new hire.

O&M Monthly Update

Maintenance and Operations received training from the contractor on the new co-generation gas filtration system (for siloxane removal) and the gas compressors.

In preparation for January co-generation startup, the Instrumentation/Electrical (I/E) crew invested many hours checking and correcting control wiring with the contractor. Operations has removed the old media from our existing gas filtration system, the "Iron Sponge", and will install new media for

the startup.

O&M replaced the air diffuser socks in Aerator #3. After four years of use the efficiency had dropped as the socks begin to clog, requiring more power to force the air into the tank.

To comply with a new State Safety Order, the I/E shop implemented the required monthly testing of elevator safety systems for fire safety. O&M staff participated on the Teams for the Strategic Business Plan, Security, Safety, and Process Control.

ENVIRONMENTAL SERVICES

NPDES Testing

We had a permit exceedance for our Suspended Solids testing during the week of December 5-11. Our permit limit is a weekly average Sunday through Saturday and we collect a 24 hour composite sample every day. Our permit limit is 45 mg/L and our weekly average was 47 mg/L, which resulted in a permit exceedance. Fortunately, this exceedance is not considered serious by the State Water Board and will not result in a regulatory fine.

The exceedance was caused, in part, by the storm that came in Monday night (12/6) that raised plant flows into Tuesday and Wednesday.

Flows exceeded over 70 million gallons per day with the peak being about 86 MGD. The increased flows resulted in blending and less time for the solids to settle in our clarifiers.

Laboratory Certification

The results for the last of the 2004 laboratory certification samples was received in December and we passed all 5 dilutions for heterotrophic plate count bacteria samples. We actually count the number of bacteria present on clear plates where the bacteria are growing. We make and sterilize the media and pour it onto sterile plates where we have an unknown sample with bacteria present. The plate will then germinate in our incubator and after 48 hours we count the number of colonies present. Due to quality control problems with the vendor that provides the samples for the testing, these samples were analyzed later in the year than usual.

Bioassay Test

We had 95% survival of the fish in our December bioassay. We experienced a few challenges because the bioassay was running when the increased flows and solids passed through the plant. The increased solids made some of the testing difficult and required additional cleaning of lines that supply the effluent. Every month we are required to perform a 96-hour bioassay that runs continuously from Monday to Friday. The purpose of this test is to assess the effects of our effluent on the survival of young rainbow trout. Our permit requires that we have an 11 sample median limit

of 90 percent or greater and a 90th percent survival of at least 70 percent. This means no two samples over an 11 month period can fall below 70 percent survival to meet this limit.

Member Agency Assistance

The high flows experienced in the collection system during the rainy season creates the possibility for sanitary sewer overflows. There is also increased groundwater present that people incorrectly assume might be a broken or an overflowing sewage pipe. We run samples all year for Ross Valley Sanitary District, San Rafael Sanitary District, and Sanitary District 2 to assist them in determining whether water identified in their course of work and from citizen complaints is sewage. The high flows experienced in early December had all three agencies bringing in samples for analysis to assist in the determining the source of the water.

Storm Water Assistance

We have sent letters to the Town of Corte Madera, the City of Larkspur, and the City of Fairfax offering our services to assist them in enforcing storm water violations. When we are inspecting businesses that discharge to CMSA it is helpful to have the ability to issue storm water violations when wastes are being discharged improperly to the storm drains. We inform and educate the person discharging their wastes improperly on what they

should be doing, and then notify the appropriate City, Town, or regulatory personnel. If we had the authority to issue violations after an initial warning, it would greatly reduce the frequency of repeat offenders. We presently have agreements with the Cities of San Rafael and San Anselmo.

LGVSD Assistance

We have completed the annual inspections for LGVSD of their dischargers, photo developers, and printers in their service area. This is required as part of their pollution prevention program which we manage for them. We are currently inspecting the dental facilities in the LGVSD service area to monitor how they handle mercury waste and X-ray fixer waste to ensure it is being removed by an appropriate waste hauler.

Environmental Services

Vehicle

A request for bids with specifications for a 2004 or 2005 Ford Explorer were mailed out to three Ford dealerships - Marin Ford, Novato Ford, and S&C Ford. Bids were opened on December 23rd with the low bid being \$21,000 from S&C Ford in San Francisco.

The Explorer will replace our 1990 Dodge Caravan, and is a vehicle that can balance both the ability to carry inspectors, regulators, samplers, tables, tools, and serve a variety of uses.