



CENTRAL MARIN SANITATION AGENCY

NEWSLETTER | SPRING 2018

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Jason R. Dow, P.E.
General Manager



PG&E transformer (on right) and main plant switchgear (building on left); the Agency's two digesters in the background.



Existing co-generation system.

Excess Power Delivery Project Now in Construction Phase

CMSA has been working through the multi-faceted process that will allow the Agency to supply excess power generated from our biogas-fueled cogeneration system to the electrical grid. PG&E completed their studies that identified the necessary electrical grid system improvements and included those requirements in a new Interconnection Agreement. CMSA and PG&E are currently in the construction phase of our respective electrical and control system improvements.

In March, the Board approved a small generator power purchase agreement with Marin Clean Energy to sell our future excess power to them through their feed-in-tariff program. Next up is to complete construction of the improvements, test those improvements with PG&E, and obtain the necessary CEC documentation to certify our power as a renewable resource.

Agency's NPDES Permit Renewed

The San Francisco Bay Regional Water Quality Control Board (RWB) approved the reissuance of CMSA's NPDES permit at their January 2018 meeting, and it became effective on March 1, 2018. The new permit is very similar to the prior permit, and it maintains an important provision authorizing the treatment plant to continue wastewater blending during

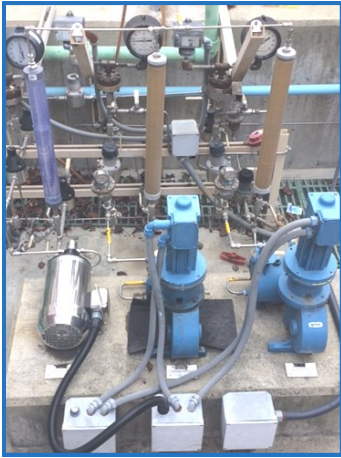
wet weather events for this permit term, without a requirement to reduce the frequency and/or volume of blending events. A significant change in the permit is the listing of CMSA's satellite collection agencies as co-permittees, with specific projects to complete during the permit's 5-year term to reduce stormwater infiltration and inflow into their respective

sewer systems. The agencies have appealed the permit to the State Water Board, who has until May 9 to either hear or dismiss the appeal.



O & M: CONTROL PANELS / HEAT EXCHANGER / INFLUENT SAMPLER

Sulfide Odors Under Control



Hydrogen peroxide is a powerful chemical that oxidizes hydrogen sulfide, an odorous compound generated in wastewater processes. This chemical is injected into the San Rafael and Ross Valley interceptors to control these odors. Last December, the Agency upgraded the onsite peroxide facility by replacing the original chemical feed pumps with new gear style pumps that eliminate the use of expensive peroxide compatible lubricants. Staff also replaced the pump controls with variable frequency drive motors, and installed an onsite programmable logic controller (PLC). The project work was all performed in-house.

New peroxide pump (silver cylinder on left)



Peroxide pump controls.

Influent Samplers Upgraded

Samplers collect wastewater from the facility headworks which is tested for various constituents. The challenging operating environment, along with obsolescence, meant the system was due for an upgrade. Staff, with the cooperation of several departments, replaced the existing samplers, rehabilitated the delivery pumps, and removed the remains of previous generations of equipment. This was all accomplished without interruption to sampling operations.



New samplers (left) and rehabilitated pumps (right).



Cogeneration Heat Exchanger Replaced

The Agency's cogeneration system is a combined heat and power system (CHP) and utilizes three separate heat exchangers. The waste heat exchanger uses reclaimed water to draw heat away from the coolant that circulates through the engine. Due to the discovery of pin leaks and rust perforations, a new heat exchanger was recently installed by Agency technicians.



New waste heat exchanger.

Multi-year Control Panel Project Completed

CMSA recently completed a multi-year capital improvement project to upgrade the facility's 30-plus year-old sump pump control panels at two per year. Recently, the final control panel was installed in the return activated sludge (RAS)



basement. These new panels are constructed of durable stainless steel, are fully integrated into the facility's process control system, and were designed to accommodate two pumps per panel to increase their flexibility.

Digester Heating Loop Rehabilitated

Heated water from the cogeneration system is circulated through sludge heat exchangers to keep the facility's digested sludge temperature at an optimal 100°F. The pump system is part of this digester heat circulation loop. In February, both of the heating loop's recirculation pumps, along with four isolation valves and associated equipment, were replaced.



TECH SERVICES: COATINGS / PAVING / FIRE PROTECTION / ODOR SCRUBBER



H2S Scrubbers.

Speedy Hydrogen Sulfide (H2S) Media Removal

Biogas generated from anaerobic digestion is transported to a H2S removal system to reduce the H2S concentration in the raw biogas. In February, the Agency hired a specialized contractor to replace 22,000 pounds of H2S removal media. The project was completed in just three days from equipment shut down to start-up.



Gallery wall cracking.

A separate project involves repairing approximately 660 linear feet of wall and ceiling cracks located throughout the treatment plant's underground galleries by injecting them with polyurethane grout to prevent leaks. These projects will be publicly bid this summer.

Plant Roads to be Improved and Repaved By This Summer

This project will repair and rehabilitate asphalt pavement in poor condition at several locations, resolve drainage and road settlement issues, and improve access to the new maintenance storage building. CMSA staff surveyed the repair locations, prepared construction documents, and will issue the project for bidding this spring. The improvements are scheduled to be completed by end of summer of 2018.



Failed pavement near the Ross Valley Interceptor.

Fire Protection System Improvements on the Horizon

Staff has requested quotes from licensed fire protection system contractors to conduct an annual fire protection system inspection, and to correct the deficiencies noted in last year's fire inspection. Some of the work will be replacement of corroded sprinkler heads, addition of pressure relief valves, and installation of breakaway spools at fire hydrants.

New Odor Scrubber Fan for Headworks

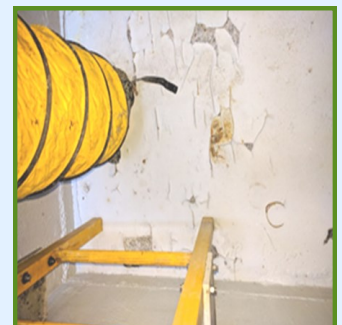
The original headwork odor scrubber fan has been in service since 1985, and has reached the end of its long, useful life. Engineering staff has prepared construction contract documents for the Headworks Odor Scrubber Fan Replacement Project. The project was informally bid and three mechanical contractors submitted proposals. The project was awarded to Monterey Mechanical, and the construction activities should be completed by June.



New Headworks scrubber fan.

Industrial Coatings and Concrete Rehabilitation

Engineering staff is preparing construction contract documents to repair the epoxy coatings in the sodium bisulfite chemical storage room and in the sodium bisulfite and sodium hypochlorite drain vaults. The epoxy coatings protect the structural integrity of the concrete floor and walls, have multiple cracks and delamination in several locations, and have totally failed in other areas.



Failed coating in the SBB vault.

FINANCE AND HR: NEW HIRES / PUBLIC ED / BENEFITS / BUDGET

Seeking Lab Analyst

CMSA is developing and implementing the new Environmental Laboratory Accreditation Program (ELAP) Standards, and as part of that process, staff evaluated several options and ultimately recommended hiring a new laboratory analyst as a resource to meet the additional regulatory requirements. The recruitment for the new Laboratory Analyst position began in April, with the position expected to be filled by June.



Booths and Tours

CMSA hosts public education booths at several local events including the Marin County Fair, Earth Day events, and local farmers markets. CMSA also offers tours of the facility for schools, community groups, and other members of the public.

For information on touring the facility, please call 415-459-1455 to schedule your visit.

New Faces at CMSA

Michael Pimm

Last November, the Agency welcomed Bay Area native,



Michael Pimm, who was hired as a Utility Worker. Michael's previous

work experience includes Kibblewhite Precision Machine & Fabrication and Fedex. Michael lives in Pacifica and enjoys surfing and spending his free time outdoors.

Jeremy Schwarm

Jeremy joined the Agency in February as an Operator-In-Training (OIT). Jeremy is a graduate of Santa Rosa Junior College's Water/Wastewater Technology Program. He worked 18 years for Safeway Inc. prior to being hired by CMSA.

Jeremy lives in Santa Rosa and enjoys spending his free time with



his family and taking mountain biking trips around the North Bay.

Asset Management to be Streamlined

The Agency has a comprehensive asset management system to manage inventory, schedule preventative, corrective, and predictive maintenance, and track asset improvements, repairs, work orders, and maintenance costs. Finance and maintenance staff are developing a process to align capital asset information for both maintenance and financial accounting purposes. This project will result in a more efficient workflow and better reporting coordination between finance and maintenance.

Fiscal Year 2018-19 Budget Nearing Completion

In the past, CMSA prepared two versions of the budget, a standard version in May/June for adoption by the Board, and the Government Finance Officers Association (GFOA) version, sent in September for their award program. This year, Finance will prepare only one version which will save time and effort. The GFOA budget will be presented at the June Board meeting.



Triage Nurses At the Ready

The Agency recently contracted for nurse triage services for its Worker's Compensation program from the California Sanitation Risk Management Authority (CSRMA), the Agency's insurance provider. This service will diagnose workplace injuries at inception and manage the claim over its course. The program will help to reduce costs and speed recovery through professional diagnosis, and faster, more efficient claims processing.

Claremont Engaged as New EAP Provider

The Agency has contracted with a new Employee Assistance Program provider, Claremont EAP. Claremont provides a wide variety of services including private counseling visits, work/life referrals for services such as child and elder care, and legal, real estate, and financial consultation. Claremont also provides services for management and human resource consulting, critical incident stress debriefing, and optional seminars that can either be web-based or live.

