

WWG



MALAGA COUNTY WATER DISTRICT

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James D. Anderson, General Manager

12 August 2014

Warren W. Gross
Senior Engineering Geologist
Central Valley Regional Water Quality Control Board
1685 E Street
Fresno, Ca 93706

RECEIVED

AUG 18 2014

RWQCB-CVR
FRESNO, CALIF.

WRITTEN RESPONSE TO THE NOTICE OF VIOLATION (NOV) FOR THE COMPLIANCE INSPECTION HELD AT THE MCWD WWTF (NPDES NO. CA0084239) ON 21 MAY 2014

Dear Mr. Gross,

In accordance with the requirements of the NOV to provide a report by 27 August 2014 that describes how the District intends to resolve items 1-3, a schedule of when the Fuzzy Filter and Sludge Thickening Tank will be operational, to follow your recommendation to resolve items 4 and 5, and to implement items 6 and 7, the following report is submitted:

VIOLATIONS:

1. **Monitoring Location M-002.** M002 has been relocated to the distribution box that delivers combined effluent from all three secondary clarifiers to the ponds. The monitoring location is also marked with a sign.
2. **Sample Hold Times.** We know that hold time for pH sampling and testing is only 15 minutes. We are now collecting, recording, and testing pH samples within 15 minutes of when the sample was taken, and reporting our test results for compliance determination.
3. **Additional Samples.** We do not dispute this violation, but we want the waterboard to know that we are not selectively sampling nor sampling only to get a desired result to report. We will report additional sampling and include the results in calculations as required. I believe the fact that even though the three additional samples were not included in the summary report but were included in the contract laboratory reports indicates the omission was due to oversight and not negligent intent.

RECOMMENDATIONS:

Calibration. The only instrument at the facility used for compliance monitoring and reporting is the laboratory bench-top pH meter, which has been replaced with a new model that can be recalibrated by factory technicians. The old model was obsolete. The new pH meter came factory calibrated and will be recalibrated annually by factory certified technicians. Process control equipment is also calibrated per factory specifications.

Quality Assurance/Quality Control (QA/QC). We are reporting pH for compliance monitoring by Hach Method WW 8156. QA/QC procedures are followed by this method and in accordance with our QA/QC Plan which is being re-evaluated for content, accuracy and precision. We have a daily laboratory calibration log for all lab equipment that we use to record calibration measurements. We use industry grade standards for calibrations and follow shelf-life limits. We use a template for pH that automatically verifies measurements for accuracy and precision within required parameters to make sure that the pH meter is properly calibrated and takes accurate measurements.

R-002 Marker. We have made new signs to mark the locations of R-001, R-002, M-001 and M-002 which are approximately 6" x 10" in size with 4" reflective blue lettering on a white reflective background.

Sampling Procedures. We are presently drafting and reviewing written sampling procedures for the WWTF. These procedures not only explain in plain language the procedures for sampling, but include all samples required, locations samples are taken, types of samples, sample bottle labeling, hold times, recording, storage including preservatives required of some samples, delivery, and chain of custody procedures to maintain compliance.

Fuzzy Filter. We disassembled the Fuzzy Filter after we emptied enough pond space to insure we would not need to use tertiary filtration while we worked on the Fuzzy Filter. The Fuzzy Filter requires maintenance which we are still completing. So far we sand blasted and recoated the interior and the cover to manufacturer's specifications. We fabricated a new pressure plate for the fuzzy ball media because the old one was severely corroded. We have on order and are awaiting delivery a new gearbox to operate the pressure plate and two new limit switches that control the movement of the pressure plate. We replaced both turbidity meters with new ones. Once we receive the new gearbox and limit switches, we will reassemble the Fuzzy Filter and test it operationally. We expect the Fuzzy Filter to be back in operation before the end of September. The cost of this overhaul is about \$30,000.

Sludge Thickening Tank. We are overhauling the sludge thickening tank to meet new operating conditions. We are replacing both drive shafts and drive sprockets with new versions that keep the shaft stable but rotate only the drive sprockets. We are replacing the wear strips on the rail guides. We are replacing all the flights with new flights. We are replacing the drive chains with new chains. We are replacing the effluent collection box with a new stainless steel version. We have already bid and contracted this work and ordered all the parts. Work on the sludge thickening tank begins 15 August and is expected to be completed by mid-September. The cost of this overhaul is about \$45,000.

Other WWTF Upgrades. We have completed or are completing the following additional upgrades to the WWTF at an additional cost of about \$345,000:

1. A new grit conveyor is installed and operating.
2. The diffusers in aeration basins 2 and 3 have been replaced. Work is proceeding to replace those in basin 1.
3. A SCADA control loop is installed to operate the VFD drives for the aeration blowers by a dissolved oxygen meter set-point. New DO probe monitors were purchased for all three aeration basins. This project was designed to allow the WWTF to reduce total nitrogen by enabling denitrification in the aeration basins. This is a new technique, and we are working with the design engineer to develop operating procedures to accomplish nitrate nitrogen reduction.
4. Effluent water to the ponds is now metered and monitored by SCADA. Work is being completed.

5. Percolation pond maintenance is on-going through the summer. We raked and drained pond #7. We drained and will be raking ponds 1, 3, 4, 5 and 8 from 1-19 September. Ponds 2 and 6 were raked last year. We conducted an evaporation/percolation test on pond #7 and are awaiting calculations from our engineer as to what evaporation and percolation rate we attained by raking pond #7. We are preparing a report to respond to the NOV of 7 July 2014 to address item 3 of that Notice.
6. We are submitting a new CDBG project for 2015-16 to replace six valves on the bioreactor, thirteen gate valves at the pond distribution boxes and apply tarred gravel on pond access roads to eliminate dust.
7. We purchased new lab equipment and are training WWTF staff to measure and monitor TSS and VSS of RAS and activated sludge to develop a wasting rate to achieve optimum plant performance based on MCRT.
8. We purchased new lab equipment and are training WWTF staff in the proper use for colorimetric analysis of influent and effluent water for un-ionized ammonia and total nitrogen as nitrates to monitor plant performance to reduce total nitrogen.
9. For the past eight weeks all WWTF staff have been working together to study and complete the Sacramento State University Office of Water Programs Wastewater Treatment Plant Operator course (the Ken Kerri course) to enhance their knowledge of wastewater treatment plant operations. They are proceeding very well in the course and have completed the first seven chapters. This is a ten chapter course designed to be completed in six months which they will complete in about twelve weeks. One operator is taking the Grade 3 certification exam this October. One operator will take the Grade 2 exam next April and our new OIT will take the Grade 1 exam in April 2015. We are presently hiring another certified Grade 2 or 3 operator.
10. We started submitting e-SMR reports for the second quarter of this year, both quarterly and monthly NPDES and Pretreatment reports. We are having mixed results in this effort and are working with waterboard staff to understand these reports better to submit them properly. We are aware of where we are making mistakes and working to do a better job. Our goal is to successfully report three consecutive monthly NPDES reports by the end of this year to demonstrate our capability to switch to e-SMR reports. We have a defined objective and a plan to make this goal attainable.
11. We are in the final stages of drafting a Pretreatment Management Plan that we will submit to you for review before the end of this month. We are re-writing and will be re-issuing new industrial discharge permits. We are conducting facility inspections of our industrial dischargers to make sure their permits are adequate and relevant.

Sincerely,



James D. Anderson
General Manager