



Mr. Gavin Gray
Enforcement Analyst
ADEQ
5301 Northshore Drive
North Little Rock, AR 72118

January 23, 2020

Re: Rogers Water Utilities, Permit No.: AR0043397

Dear Mr. Gray:

Please accept this response for a Corrective Action Plan (CAP) outlining the cause(s), evaluation(s) and actions taken to correct, and prevent recurrences. The staff at Rogers takes great pride in making sure that our effluent is safely introduced back into the environment. Although problems can happen we strive to learn from these mistakes and take corrective action to protect the future.

CODE: 50060 Chlorine, Total Residual

Monitoring Period 10/31/2019

The 10/30/2019 total residual chlorine violation of 0.85 mg/l with an instantaneous max of 0.1 mg/l.

Cause: This exceedance occurred due to a controller failure in the full feed mode for both CL2 and SO2. When we corrected the issue it immediately started the correct feed for both CL2 and SO2. Due to the detention time between the feed points the relative lower concentration of SO2 was not enough to dechlorinate the CL2 still in the contact zone and our sample happened to occur during that time. A resample 20 minutes later was within permit.

Evaluation of Equipment: The system is functioning as approved by DEQ to meet permit limits and is in excellent working order with appropriate spare parts on the shelf at the facility.

Action Taken: In an effort to prevent this failure in the future, staff will be trained to be more cautious during repairs to be sure over chlorinated water is resolved before returning to normal operation.

Compliance Date: All equipment is functioning properly and staff has been trained to adjust dosage based on selected feed points and detention times. Schedule of completion: 11/15/2019

Code: 80082 BOD, carbonaceous [5 day, 20C]

Monitoring Periods 05/31/2019 and 04/30/2019

The 4/30/2019 and 5/31/2019 CBOD violations are due to the same error. The 5/31 violation just included the 4/30/2019 data.

Cause: The error was due to a new lab technician not understanding how to dilute for a CBOD test. Our CBOD was elevated above normal operation for the sample but not a true violation. Having never seen one elevated, they diluted for our typical concentration. The value was not measurable due to the way the test is ran, so we had to report a > the max amount we dilute for.

Evaluation: All equipment used for measuring CBOD is functioning properly

Action: Technicians have been trained in making proper dilutions based on atypical concentrations.

Schedule of completion: 06/15/2019

Code: 50060 Chlorine, Total Residual

Monitoring Period 04/30/2018

On Thursday 04/12/2018 at 11:04 A.M., our effluent grab indicated a Chlorine residual of 0.92 mg/l.

Cause: Upon investigation it was discovered that a portion of the 12.5% bleach that is used to clean the effluent filters was released to the contact chamber allowing the residual to become too high to be dechlorinated with the SO₂. At 11:25 A.M. a TRC retest of the effluent was performed and our residual had dropped to 0.06, well below our permit value.

Evaluation: The effluent filters are operating as approved in the design approved by ADEQ. They are in good operating condition and well maintained.

Action: Operations staff was trained to make sure all residual CL₂ was drained back to the main lift station before effluent filter is put back into normal operation.

Schedule of completion: 04/30/2018

Code 50060 Chlorine, Total Residual

Monitoring Period 03/31/2018

On Thursday 03/01/18 at 10:19 A.M., our effluent grab indicated a Chlorine residual of 0.14 mg/l.

Cause: After investigation, staff found a faulty Sulfur Dioxide regulator.

Evaluation: The dechlorination system is operating as designed and approved ADEQ. The system is in good working order with necessary spare parts.

Action: Maintenance staff immediately replaced the equipment. We retested at 11:24 A.M. and found we were back to a 0.01 mg/l residual. Maintenance staff has instituted proactively rebuilding the regulators based on manufacturer's recommendations and keeping them on stand-by within the premises of the tank storage area.

Regulators are date stamped when rebuilt.

Schedule of Completion: 04/15/2018

Code: 00610 Nitrogen, ammonia total [as N}

Code: 00665 Phosphorous, total [as P]

Monitoring period 09/30/2017

On the week of August 27th to September 2nd the 7 day average for NH₃ was 2.59 and TP was at 2.87. These values were both above permit limits.

Cause: Loss of a power due to transformer failure for BNR treatment train #2 on Monday 08/28/17.

Evaluation: The BNR train is currently decommissioned for planned maintenance. If needed, the train could be returned to service in the next few weeks. However there is an active contract for the maintenance to be completed and the train will be unavailable for use for a short time to be determined by the upcoming contract. This train has functioned properly since the repair of the referenced failure until it was removed from service. The tardy request from ADEQ does confuse the issue as the evaluation is current, but the failure is in the past.

Action: Flow was diverted to the EQ system and a portion was allowed to be treated with BNR train #4. This outage took 24 hours to repair. Once repairs were made the treatment train was put back in service. Due to the length of time out of service the system took several days to recover due to the upset condition.
Schedule of Completion: 10/15/2017

Code: 00300 Oxygen, dissolved [DO]

Monitoring period 08/31/2017

The monthly average minimum DO for the month of August was 7.77 mg/l, this is below our permit of > or = to 7.9 mg/l.

Cause: Oxygen generation system failure.

Evaluation: The ADEQ approved drawings of this system are vague. They indicate a PSA system and two booster systems. The current system maintains a self-contained PSA as a backup and 3 booster pumps, primary generation is completed with a new compressor and nitrogen strippers. The components to the approved system are still either available or in use with a prime system that is simpler to operate and troubleshoot. All of the equipment is serviceable and maintained. Due to this requirement being outside the norms of nature and the aquatic life not being equipped to live in such a high concentration of oxygen, RWU is anxious to revisit this criteria in our next permit.

Action: In an effort to keep the current equipment functioning, outside services were contacted to identify where the component failure resided. With the failure of internal and external expertise to locate the component failure, it was determined that the best solution was to replace the current O2 generation system with a more simplified O2 generation control system that allowed for more flexibility. This new generation system has been in place since October 2017 with no permit violations to report since.

Schedule of Completion: 09/2017

Code: 50060 Chlorine, Total

Monitoring period 05/31/2017

Cause: RWU has been using an EPA approved on line meter (Hach CL-17) for continuous monitoring for CL2 mg/l. RWU has been experiencing erroneous readings from this meter that we have attempted to troubleshoot with Hach technical support. The issue is the meter reads 0.00 to 5.0 +/- 0.04 mg/l. The permit limit is 0.1 mg/l instantaneous max. The acceptable error from the manufacture is 80% of our max. We get readings that we know are false according to lab testing and other testing equipment. IE, we are occasionally showing less in the contact basin than our discharge after we have treated with SO2.

Evaluation: ADEQ approved online monitoring of CL2 residual using a Hach CL17 meter. The meter is functioning according to the advertised accuracy. The accuracy of the meter is inadequate to operate as ADEQ was allowing with an instant max of .1 mg/L. The permit's goal is a zero discharge of Cl2 and good engineering principles do not call for measurement of something that is supposed to be absent. This is noted in EPA paper 832-F-00-022. "At present, few options exist for reliable long-term measurement of sulfite salts or close-to-zero levels of residual chlorine in the finished effluent (ASCE and WEF, 1991)." Since RWU's permit requires dechlorination with SO2, the permit should require a min and max discharge of sulfur dioxide. It is chemically impossible to have

the SO2 residual and have CL2 at the same time. From an engineering standpoint, it gives RWU something to measure. This issue should be addressed with the next permit renewal.

Action: An email was sent to Allen Anderson of ADEQ on June 5th 2017 requesting RWU collect 3/week grab samples as our permit requires under the frequency column. On June 19th 2017 a letter from Bryan Leamons of ADEQ approved our request until the next issuance of NPDES individual discharge permit AR0043397.
Schedule of Completion 06/19/2017

Code: 74055 Coliform, fecal general

Monitoring period 04/30/2017

On Monday, March 27th between 8:30 A.M. and 12:30 P.M. the plant was without CL2 feed.

Cause: Due to extremely high flows and a late delivery truck, there was no CL2 available. This allowed for an elevated fecal count of 5200 colonies/100mls. This was only a violation for outfall 002 because this was the only day that there was flow present at that outfall. Outfall one averaged back to within limits.

Evaluation: RWU recognized the danger and was in the process of addressing sara regulations prior to the event, however the event occurred before implementation. The CL2 system works when it is supplied with necessary chemicals.

Action: The updated risk management plan now allows for more CL2 storage here at the facility. This will allow plant personnel to have access to CL2 in the event of high flows thru the effluent system. RWU also modified its' chemical contract to require a delivery up to twice per week instead of once.

Schedule of completion: June 2017

Code: 50060 Chlorine, Total

Monitoring period 03/31/2017

On March 28th, 2017 our online meter (Hach CL-17) indicated a reading of 0.50 mg/l. At 2:10 P.M. a grab sample revealed the effluent Chlorine residual was at 0.46 mg/l. Another sample and duplicate was collected at 2:30 P.M. which indicated 0.50 and 0.52 mg/l respectively.

Cause: After assessing the automated feed system it was determined that due to the extremely high flows the detention time in the contact chamber may be the issue to support sufficient dechlorinating.

Assessment: The plant was operating well outside design flows. At design the system works as designed. The change in SOP will address the issue until a more permanent engineering solution can be enacted within a new permit.

Action: The CL2 delivery point was moved to the effluent filters to allow for more contact time. The online meter showed immediate results. Another sample was collected at 4:09 P.M. which indicated a reading of 0.10 mg/l.

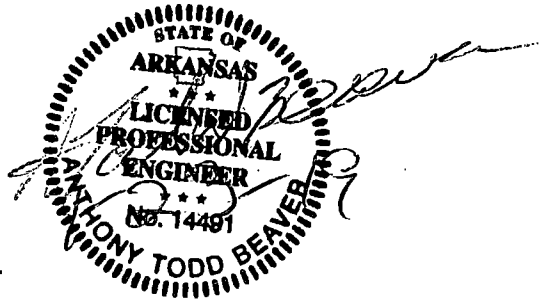
Future operation will allow the feed point to be switched to effluent filters during extremely high flows. SOP will reflect this change in CL2 delivery points during high flows.

Schedule of Completion: 03/28/2017

RWU has already completed all recommended actions and no progress reports are required.

Please accept this as an initial and final report as RWU has already completed all necessary actions to correct and prevent the recurrence of effluent violations.

Sincerely,



A. Todd Beaver, P.E.

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