

Thomas Harrington (adpce.ad)

From: Terry Long <eswwtp@yahoo.com>
Sent: Wednesday, September 27, 2023 2:07 PM
To: Thomas Harrington (adpce.ad); Richard Healey (adpce.ad)
Cc: Simon Wiley
Subject: Re: Eureka Springs - AR 0021895
Attachments: SEPTEMBER 14 2023 - Special.pdf

Mr. Harrington and Mr. Healey,

Per our conversations approximately two weeks ago concerning overflows and discolored discharges, I collected a special grab sample of our effluent on September 9, 2023 and took it to our contract lab for analysis. As promised during those conversations, I am forwarding the results of that special sample. Attached please find the results (labeled Sept. 14 2023 - Special) of testing performed on that sample. The lab results are very atypical for this facility and I believe at the very least, we are on the road to recovery.

If you require any additional information please reach out and I will provide it as quickly as possible.

Best regards,

Terry Long, Plant Manager
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Eureka Springs WWTP
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On Friday, September 15, 2023 at 09:23:02 AM CDT, Terry Long <eswwtp@yahoo.com> wrote:

Mr. Harrington and Mr. Healey,

Thank you for reaching out to me this morning (Thursday), it was a pleasure speaking with you. We are concerned with the quality of our effluent because this is where we live and play and we take pride in producing a high-quality, clear and nutrient-free effluent discharge. We know that several years ago Eureka Springs had a history of a string of permit violations to their NPDES permit resulting in consent orders and in the past few years, we have all worked very hard to consistently produce an effluent that avoids permit violations and we very disturbed that this has happened.

The issue of a washout of mixed liquor suspended solids was the result of a pump that failed to operate. The pump that failed was one of our motive pumps which serve two purposes. The first purpose is to mix and stir the mixed liquor during the treatment process and the second purpose is to pump our waste sludge out of the treatment system for disposal. Because during the treatment process we are injecting air into the mixed liquor to allow the microorganisms to breathe, it is impossible to tell if the pump is working. But during the waste phase of the treatment process, this pump is used to pump the waste sludge out of the SBR#1 basin. When this pump failed to operate, that allowed, or caused, the mixed liquor suspended solids to build up in the basin to a higher than normal level resulting in the top layer of the sludge

blanket was pulled off, or sucked out, during a decant cycle thus causing the brown discharge. We had our pump repair people out on Wednesday to pull the pump, but we were unable to pull the pump because one of the valves to block the flow of water into the pump broke and as a result, is unable to fully close. At this time, we are working as fast as we can to get the defective valve repaired so we can pull the pump and get it repaired.

I did get a grab sample of our effluent today and got it delivered to ESC, our contract laboratory, this afternoon so they can begin their analysis. The results of this special sample will be forwarded to you as soon as we receive them. Although taken through our chainlink fence, I was also able to get pictures of our effluent as it left our facility. The pictures show the end of the discharge pipe with effluent flowing out and entering the receiving stream. Additionally, I got pictures of our effluent in our post-aeration basin. As you know, the way our plant is designed that we have periodic discharges of effluent and those discharges go through the post-aeration basin to help ensure that the dissolved oxygen concentration in our effluent is high enough to support minnows, fish, and other aquatic life. I mention this because if, or when, we have a washout of mixed liquor suspended solids, that a portion of those solids remain in the post aeration basin for several decant cycles which produce a "cloudy" or "dirty" or "brown" discharge until all those solids have been flushed out of the post aeration basin which gives the impression that we are producing an effluent that does not meet our permit requirements. Today while I was taking pictures of the effluent, I again witnessed this happening. When the decant first started, the water was "brown", but the longer the decant lasted, the clearer the effluent got because the water entering the post-aeration basin was very clear, as is evidenced along the left side of the pictures, near the middle. As I watched, I took pictures of the discharge entering the post-aeration basin. The pictures show a stream of clean, clear water entering the post-aeration basin and the basin became noticeably less brown, or discolored, by the time the decant was finished.

I believe that I have described the events that have occurred causing this permit violation, as well as the steps that have been taken and are yet to be taken to avoid future events like this happening. If you require anything else, please feel to reach out to me and I will be happy to provide that information as quickly as possible.

Best regards,

Terry Long, Plant Manager
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