
From: Doug Ford <DFord@pmico.com>
Sent: Friday, February 19, 2021 9:50 AM
To: Khan, Faizan
Subject: RE: Saddle Ranch Subdivision WWTP Permit #AR0053210 and 0053210C

Faizan:

Thank you for your response. Thanks for working on the draft construction permit. The 0.0432 MGD flow is an estimated flow for the first phase of the subdivision. Let me know if you need anything from my end.

Respectfully,

William Doug Ford, P.E.
Principal
Pollution Management, Inc.
3512 South Shackelford
Little Rock, AR 72205
Office: 501-221-7122
Fax: 501-221-7775
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From: Khan, Faizan <Faizan.Khan@adeq.state.ar.us>
Sent: Thursday, February 18, 2021 4:44 PM
To: Doug Ford <DFord@pmico.com>
Subject: RE: Saddle Ranch Subdivision WWTP Permit #AR0053210 and 0053210C

Doug, the actual discharge permit will still take some more time since this is a new facility and it would be difficult to give a prospective timeline given that everything goes through multiple people; however, the draft construction permit should be much quicker and I am trying to prioritize that to avoid any potential delays for the project construction. During our internal review of the application, another question regarding the design flow came up. It looks like all of the calculations for the component specs and designs use 0.05 MGD, but the actual design flow is listed as 0.0432 MGD. Is there a reason for this discrepancy?

Faizan Khan | Engineer
Division of Environmental Quality | Office of Water Quality
NPDES Permits Section
5301 Northshore Drive | North Little Rock, AR 72118
t: 501.682.0670 | e: faizan.khan@adeq.state.ar.us



ARKANSAS

ENERGY & ENVIRONMENT

From: Doug Ford [<mailto:DFord@pmico.com>]
Sent: Thursday, February 18, 2021 12:59 PM
To: Khan, Faizan
Subject: RE: Saddle Ranch Subdivision WWTP Permit #AR0053210 and 0053210C

Faizan:

My client is trying to plan work for the subdivision and would like to know about the schedule for receiving the permit? When do you think the draft permit might be complete?

Respectfully,

William Doug Ford, P.E.
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From: Khan, Faizan <Faizan.Khan@adeq.state.ar.us>
Sent: Wednesday, February 3, 2021 4:28 PM
To: Doug Ford <DFord@pmico.com>
Subject: RE: Saddle Ranch Subdivision WWTP Permit #AR0053210 and 0053210C

I appreciate your thorough response, Doug. I'll take a look through these and let you know if there's anything else we need for the review.

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ARKANSAS

ENERGY & ENVIRONMENT

From: Doug Ford [<mailto:DFord@pmico.com>]
Sent: Wednesday, February 3, 2021 3:12 PM
To: Khan, Faizan
Subject: RE: Saddle Ranch Subdivision WWTP Permit #AR0053210 and 0053210C

Faizan:

Below in red font are my responses to your questions. Please let me know if you have any other questions or need additional information.

Respectfully,

William Doug Ford, P.E.
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From: Khan, Faizan <Faizan.Khan@adeq.state.ar.us>
Sent: Thursday, January 28, 2021 1:37 PM
To: Doug Ford <DFord@pmico.com>
Subject: RE: Saddle Ranch Subdivision WWTP Permit #AR0053210 and 0053210C

Good afternoon Doug,

My apologies for the slight delay getting back to you. I have been continuing the review of the construction permit application for Saddle Ranch Subdivision this week and wanted to collect as much as I could to avoid sending you too many emails. Please see the following questions/requests for additional information on the application. The page numbers I have included throughout reference the complete application that can be accessed via the following link:

https://www.adeq.state.ar.us/downloads/WebDatabases/PermitsOnline/NPDES/PermitInformation/AR0053210C_Complete%20Initial%20and%20Construction%20Application_20200921.pdf

General questions:

1. The design flow of the facility is listed as “0.432 MGD” in Form 1 (pg 9 of 102); however, the plans, specs, drawings, and calculations use 50,000 gpd = 0.05 MGD. Could you verify the proposed design flow of the facility? **The design flow should be 0.0432 MGD. Attached is the revised page 4 of NPDES Form 1.**
2. Since the facility will treat sanitary wastewater, has the project been sent to the Arkansas Department of Health (ADH) for approval? Please note approval from the ADH must be obtained before the start to any construction activities. **White & Associates the consulting engineer for the site development will submit the water and sanitary sewer plans to ADH to obtain approval prior to the start of any construction. The water and sanitary sewer plans are scheduled for submittal to ADH later in February.**

Treatment system:

3. Could you provide a new process flow diagram for the facility’s treatment system? Some of the text in the submitted diagram (pg 82 of 102) is not legible. This is important so we can verify the diagram matches the components listed in the application, which include: bar screen, grit chamber, flow equalization chamber, aeration chamber, two (2) clarifiers, sludge holding chamber, tertiary filter system, chlorine disinfection, and dechlorination. **Attached is a process flow diagram that is legible. Also attached are the entire treatment drawing set that should be more legible as well. The process flow diagram and drawing set are shown at Reprint Full Set and Reprint PFD. We prepared a pdf of the drawings and changed the print size from 11x 17 to 24 x 36 size sheets to allow the text to be larger.**
4. The design stages section in the calculations part (pg 51 of 102) lists “disinfection zone using UV.” This does not appear consistent with the rest of the Saddle Ranch Subdivision WWTP application, with chlorine disinfection being listed instead. Understandably, calculations for another, similar project were used for this application as well. Could you verify that the rest of the calculations in the application are consistent with the proposed designs for the Saddle Ranch Subdivision treatment system? **The design calculation information was incorrect, the disinfection system will be a tablet chlorinator not a ultra violet system. Attached is the revised page 51 of 102 that corrects the error.**

Bar Screen:

5. The listed velocity in the application (pg 30 of 102) is 1 ft/s; the Ten State Standards recommendation is no less than 1.25 ft/s to prevent settling. Could you provide justification for the lower proposed velocity? **The velocity into the bar screen will be a minimum of 1.25 ft/s, the 1 ft/s was a typographical error.**
6. What is the proposed slope of the bar screen? The Ten State Standards recommendation is 30-45 degrees from the horizontal. **The slope of the bar screen will be 45 degrees.**

Extended aeration activated sludge system:

7. The aeration tank freeboard listed (pg 32 of 102) is 16 inches. The Ten States Standards recommendation is no less than 18 inches. Could you provide justification for the lower proposed value? **The aeration tank freeboard is 18 inches, see attached drawing. The freeboard is shown as 1’-6” from the water surface elevation to the top of the tank.**

Chlorine disinfection:

8. Could you verify that the chlorine contact chamber volume is 274 gallons (pg 41 of 102)? At peak flow (considered twice the design flow, so 0.1 MGD in this case), this volume will not allow the minimum contact time of 15 minutes. To meet the appropriate contact time, the tank volume must be at least 1042 gallons. This is also the volume shown in the tech specs provided in the application (pg 72 of 102). Could you provide justification for the smaller contact chamber volume or verification of what the correct volume is? **The chlorine contact chamber is 1042 gallons, see attached Chlorine contact specification sheet. Also, page 41 of 102 is revised to show the correct volume of 1042 gallons.**
9. What is the proposed chlorination dosage? **The proposed chlorine dosage is 10 mg/l but will be adjusted as needed depending on concentration of fecal coliform count.**

Dechlorination:

10. Dechlorination is listed in the treatment system; however, the application does not look like it contains any more details on it. Could you provide these details? This includes at least the following information:
 - a. What is dechlorination type/chemical to be used? **Sodium sulfite tablets.**

- b. What is the dosage? **The dosage for dechlorination will be 1.78 mg/l sodium sulfite for every 1 mg/l total chlorine residual.**
 - c. When in the process will the dechlorination chemical be introduced? If adequate mixing is not expected, will mechanical mixing be provided? **There is an air mat in the dechlorination chamber for mixing.**
 - d. What is the proposed contact time? Ten State Standards recommends a minimum of 30 seconds at peak flow (twice the design flow, or 0.1 MGD). **The dechlorination chamber is large enough to meet the minimum contact time**
11. Please note the proposed dechlorination system should meet and/or consider the Ten State Standards recommendations listed in Section 103. Could you verify that the proposed system can meet the guidelines and/or that they will be considered in the system design? **The proposes treatment system should meet the Ten State Standards Section 103 for dechlorination.**

Thank you, and take care.

Sincerely,

Faizan Khan | Engineer

**Division of Environmental Quality | Office of Water Quality
NPDES Permits Section**

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ARKANSAS
ENERGY & ENVIRONMENT

From: Doug Ford [<mailto:DFord@pmico.com>]

Sent: Tuesday, January 26, 2021 8:22 AM

To: Khan, Faizan

Subject: Saddle Ranch Subdivision WWTP Permit #AR0053210 and 0053210C

Faizan:

Can you let me know the status of the referenced permit application? Please let me know if you have any questions or need additional information.

Respectfully,

William Doug Ford, P.E.
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