

ADEQ

ARKANSAS
Department of Environmental Quality

Facility: Walnut Ridge AR0046566
Date: 2/28/19

MEETING ATTENDANCE

Name	Organization	Job Title	E-Mail Address	Telephone Number
Bailey Taylor	ADEQ	Enforcement Coordinator	bailey.taylor@adeq.state.ar.us	501-682-0639
Richard Healey	ADEQ	Enf. Branch Manager	healeyr@adeq.state.ar.us	501-682-0640
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Craig Johnson	Crist Engineers		cjohnson@cristengineers.com	501-664-1552
Jon Kopp	City of Walnut Ridge		Jonathan.Kopp@yahoo.com	501-484-4958
Spencer Bean	City of Walnut Ridge			
Alex Kreps	ADEQ	Engineer	kreps@adeq.state.ar.us	501-682-0619
Shane Byrum	ADEQ	Engineer	byrum@adeq.state.ar.us	501-682-0618
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Kyle Breckenridge	CWB Engineers	Project Manager	kbreckenridge@cwbengineers.com	501-766-7832
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REMARKS:

Taylor, Bailey

From: Taylor, Bailey
Sent: Thursday, February 28, 2019 4:56 PM
To: 'cjohnson@crisengineers.com'; 'jonathan.kopp@yahoo.com'; Kyle Breckenridge (kbreckenridge@cwbenigneers.com)
Subject: RE: Walnut Ridge AR0046566 LIS 17-040
Attachments: AR0046566_Meeting Attendance_20190228.pdf

Mr. Johnson,

We appreciate you and the City of Walnut Ridge taking the time to meet with us today. Permits Branch will be awaiting your PAA proposal and Enforcement will be working with you to extend the final date of compliance of CAO LIS 17-040.

Should you have any questions, feel free to contact me.

Thanks,

Bailey Taylor
Enforcement Coordinator
Office of Water Quality
Arkansas Department of Environmental Quality
501-682-0639

From: Craig Johnson [<mailto:cjohnson@crisengineers.com>]
Sent: Monday, February 18, 2019 4:54 PM
To: Temple, Jessica
Cc: Rathe, Rebecca; Jonathan Kopp (jonathan.kopp@yahoo.com); 'Kyle Breckenridge'
Subject: Walnut Ridge AR0046566 LIS 17-040

Jessica – I hope this correspondence finds you well. Walnut Ridge is under a CAO to address WWTP excursions. The CAP outlines the design and construction of a new WWTP and to decommission the existing facility. We conducted a meeting with members of your staff on August 29, 2018 and briefed you on the timing of these improvements.

As part of our design on the new facility, we were intending to repurpose the existing chlorine contact basin to use for disinfection requirements. It has come to our attention that the use of Peracetic Acid (PAA) may be a viable option to meet disinfection requirements.

We have scheduled a bench scale trial to commence early March using a dosing schedule of 1.0, 1.5, 2.0 and 4.0 mg/L. The bench scale testing will be conducted on an secondary clarifier effluent (prior to disinfection) at the existing facility using VigorOx WW II manufactured by PeroxyChem. I understand that other utilities have performed bench and full scale testing using the VigorOx WW II product.

VigorOx WWT II, a peracetic acid-based formulation, is an equilibrium mixture of acetic acid (vinegar), hydrogen peroxide and water. The resulting solution contains a mix of 15% peracetic acid (PAA) and 23% hydrogen peroxide. The PAA molecule is a strong oxidant that, similar to chlorine, will attack and kill pathogenic organisms of concern in wastewater treatment such as *E-coli*, fecal coliforms and *Enterococci* by disruption of the cell membrane. The SDS is attached for your reference.

I would like to request a meeting with engineering and enforcement to discuss the application of PAA for Walnut Ridge and implications of a request to permit PAA prior to any full scale demonstration at the new facility. We have outlined a few questions below that we want to discuss with ADEQ staff prior to moving solidly in a direction considering PAA.

1. Will ADEQ require full scale demonstration at the new WWTP to approve a permit modification to utilize PAA?
2. What full scale demonstration will be required and parameter testing to permit the use of PAA for the new WWTP?
3. Will it be necessary to utilize chlorination and dechlorination during the full scale demonstration period (for the new facility)?
4. What residual PAA do you anticipate in the permit?
5. What test method will be required for PAA residual?

What we wish to achieve is a clear understanding of your requirements to permit PAA for the proposed NPDES permit modification and construction request.

I look forward to your response and proposed time where we can meet and discuss this opportunity for Walnut Ridge.

Craig A. Johnson, P.E.
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