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Water Division Enforcement Section  
Arkansas Dept of Environmental Quality  
5301 Northshore Dr  
Little Rock, Arkansas 72118-5317

February 19, 2013

Dear Mr. Johnson,

**NPDES Permit AR0021466**  
**Non Compliance – TSS & BOD**

It was nice to talk to you last week. I appreciate your dedication to the department and the continued partnership that is so necessary to protection of our states water.

As discussed, the City of Alma struggled with an algae issue in 2012. Our community, like so many others, has very limited resources and looks for opportunities to reduce treatment costs whenever possible. We were introduced to a product called PAA, para-acetic acid, which was supposed to remove all of the algae and reduce the BOD and TSS. We began feeding the product in mid-summer with no results; the vendor suggested an increase in the product, again with no results. Unfortunately, the treatment actually caused an extreme upset in the biology of the lagoon.

Although our lagoons are resilient, it was taking months to recover the biology. We finally decided to add an enzyme in December. The product used to assist the recovery was BEF. BEF stands for Bacteria, Enzymes and Fungi. The Fungi strain is an oxysporum which produces its own oxygen. The bacteria are aerobic which work on the oxygenated areas of the lagoon. It also has anaerobic bacteria which go deep to consume the sludge in the lagoon. It also has facultative bacteria which will go either way as needed. By the end of December, the lagoons had recovered and are now performing within compliance.

Although the BEF product does not affect algae, with your blessing, we would like to continue feeding 1 pound/day of the product to improve the lagoon biology. We will be asking for approval in the spring for an algae control product.

We have worked diligently to meet compliance at our wastewater facility. However, we know that our decision to use the PAA product was misguided. Please accept my apologies for our failure to satisfy compliance during this period.

Thank you for your understanding. If you have any questions, please contact me at your convenience.

Yours sincerely,

Mark Yardley  
Public Works Director

cc: File, Mayor, Operations Supervisor