

MAGNOLIA WASTEWATER SYSTEM
P.O. BOX 666
MAGNOLIA, ARKANSAS 71754-066
(870) 234-2955
mwws@sbcglobal.net
NPDES PERMIT NO. AR0043613, AFIN# 1400059

January 6, 2015

Gina Porter
Enforcement Analyst
Water Division, Enforcement Branch

RE: NPDES Permit Number AR0043613, AFIN 14-00059
Response to letter dated December 4, 2014.

Dear Miss Porter:

Gina the following is my response and possible solutions to our discharge violations.

Sewer Over Flows : Since late 2010 to date, we have replaced and upgraded 21,600 feet of sewer line that we had identified as being a problem . We will continue to pursue this as we identify our problem areas. In addition we have set up a monthly schedule of cleaning our sewer lines.

For pH and Chlorine Violations: These two problems should never happen! The plant keeps ton cylinders of chlorine and sulfur dioxide and totes of caustic soda on line to combat these types of problems. Such problems should have been caught by the operator of the plant and laboratory tech. These problems were addressed when the violations were reported. As to whether this eliminated the problems of no communication between Plant operator and lab tech, time will tell. I have made it a priority every day for myself to check chlorine residual and pH.

Fecal Coliform: Magnolia Wastewater is battling a server problem with the Magnolia Water system discharging to the wastewater there blow-down and backwash cycles. The wastewater plant receives colloidal solids that passes straight through the plant process and discharges with the effluent leaving the plant. This discharge of solids creates a shield around the bacteria to protect them from the disinfectant. The wastewater plant carries a high total chlorine residual in the contact chamber in efforts to offset the problems we have with the solids.

MAGNOLIA WASTEWATER SYSTEM

P.O. BOX 666

MAGNOLIA, ARKANSAS 71754-066

(870) 234-2955

mwws@sbcglobal.net

NPDES PERMIT NO. AR0043613, AFIN# 1400059

Bod and Ammonia: For every 1.0 mg of ammonia converted to nitrate, 7.14 milligram of calcium carbonate is consumed to neutralize the acid created by the conversion. The nitrifying bacteria are dependent on pH 7-8 su's. At pH of 6.1 to 6.2 su's the bacteria are seriously hindered. Since May of 2014 the plant has been using caustic soda at 50% concentration to battle the low pH of treatment process. Also we have been adding carbon acid at 54% to be sure enough food was available for the regeneration of the processing bacteria needed to maintain the system. We have moved away from caustic soda to Magnesium Hydroxide which has a stronger concentration and requires lower dosage. When we can get the ammonia in oxidation ditch under control we will have the BOD under control.

If you have any questions, feel free in contacting me at 870-234-2955 or 870-904-1694

Sincerely,



Russell W. Thomas, Supt/Mgr

City of Magnolia - Big Creek WWTP

City of Magnolia Big Creek WWS
MAGNOLIA WASTEWATER SYSTEM

P.O. Box 666

Magnolia, Arkansas

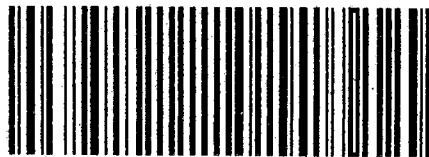
71754-0666

NPDES NO. AR0043613
AFIN No. 14-00059



**RETURN RECEIPT
REQUESTED**

CERTIFIED MAIL™



7013 0600 0002 2522 2994



UNITED STATES
POSTAL SERVICE

1000



72118

U.S. POSTAGE
PAID
MAGNOLIA, AR
71753
JAN 08, 15
AMOUNT

\$6.49

00012593-21

NPDES ENFORCEMENT SECTION
WATER DIVISION
ADEQ
5301 North Shore Drive.
North Little Rock, AR 72118-5317

721185317 R015

