ADEQ
ARKANSAS
Department of Environmental Quality

July 24, 2018

The Honorable Larry Bryant
Mayor, City of Forrest City
303 North Rosser
Forrest City, AR 72336

Email: larrysbryant@gmail.com

RE: NPDES Permit Number AR0020087, AFIN 62-00070
Nutrient Reduction Plan

Dear Mayor Bryant:

The Department has received ETC's response to the Department's request for a nutrient reduction plan as required by the permit. See below:

> Part 1. Section B. Permit Compliance Schedule
> *Within 60 days of the effective date of the permit, the permittee must submit a plan for compliance with the development and implementation of Best Management Practices (BMPs) for the reduction of nutrients (Total Phosphorus and Nitrate + Nitrite Nitrogen) in the effluent in accordance with Part II.11. The plan should include each BMP that will be developed and implemented to reduce the amount of nutrients in the effluent to reduce eutrophication in the receiving waters. In addition, the permittee must submit a schedule describing the time needed to develop and implement the BMPs, with an estimated date that the reduced nutrient levels will be achieved.*

ETC's response only addresses reducing Ammonia Nitrogen and therefore does not meet the intent of the requirement. As stated above, the BMP implementation plan requirement is in regards to Total Phosphorus and Nitrate + Nitrite Nitrogen only. Forrest City has been monitoring for Total Phosphorus and Nitrate + Nitrite Nitrogen since August 1, 2012, and the facility is meeting all limits in regards to Ammonia Nitrogen.

Page 8 of the Fact Sheet from the current permit, which became effective November 1, 2017, states in part…

> *TP and NO3+NO2-N The previous permit required the permittee to monitor and report TP and NO3-NO2-N on their monthly DMRs. The TP and NO3+NO2-N data were analyzed to determine the need to continue the monitor and report requirement. The analysis calculated geometric means, for the 7-day average concentration, of 2.6 and 11.9 mg/l, respectively. The Department considers TP and NO3+NO2-N concentrations above 2.0 and 10 mg/l, respectively, potentially harmful to the receiving waters based on their designated uses and impairments, in accordance with Reg. 2.509 and EPA's 1986 "Quality Criteria for Water," respectively. ADEQ currently relies on Reg. 2.509 narrative statements to regulate nutrients. As required by the Clean Water Act (see, 40 CFR 131.11(b)(2)), narrative criteria are imposed where numerical criteria cannot be*

established or to supplement numerical criteria. Nutrients in excessive amounts can contribute to adverse ecological response (e.g., excessive algal growth and the problems associated with such growth, including biological community imbalance and oxygen depletion). These responses to nutrient enrichment may cause use impairment, although not all increases in plant growth are considered violations of the State's narrative standard. In addition, many external factors control whether and where use impairments may occur. These external factors include such factors as light availability, flow regime, re-aeration, detention time, and habitat. As a consequence, it is difficult to establish generally applicable threshold numeric nutrient concentrations above which use impairments are likely for waters of the State. In light of these circumstances, the Department has employed narrative criteria to address nutrients when cultural eutrophication results in an impairment of the State's designated uses. Therefore, Part II.11 has been included in the permit to require the permittee to develop and implement BMPs to reduce nutrient levels in the effluent to below 2.0 and 10.0 mg/l for TP and NO3+NO2-N, respectively. The Department reserves the right to reopen the permit to include nutrient limits if the receiving water does become impaired for nutrients [Reg. 2.509] or the nutrient levels in the effluent are not reduced. The monitoring results will be reviewed at the time of the next permit renewal to determine if additional action is necessary.

Within thirty (30) calendar days of receipt of this letter, please submit a plan for compliance with the development and implementation of Best Management Practices (BMPs) for the reduction of nutrients to the ADEQ Office of Water Quality, Enforcement Branch. The document may be emailed to me at pemberton@adeq.state.ar.us.

Thank you for your attention to this matter. Should you have any questions, feel free to contact me at 501-682-0664 or via e-mail at pemberton@adeq.state.ar.us.

Sincerely,

Layne Pemberton
Enforcement Analyst
Office of Water Quality, NPDES Enforcement Section

CC: Calvin Murdock: whcm2@aol.com
Mizan Rahman, P.E.: etc@etcengineersinc.com