



August 9, 2019

Ms. Rachel Lounsberry
Industrial Permitting Section
Water Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36110

Subject: Draft Renewal of NPDES Permit AL0001449
Tyson Farms, Inc.- Blountsville

Mrs. Lounsberry:

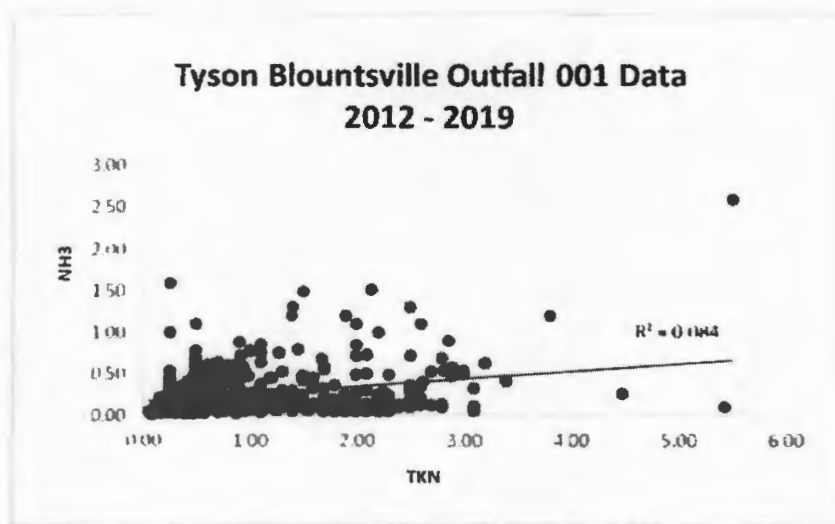
Tyson Farms, Inc. Blountsville Processing Plant ("Tyson") has received and reviewed the proposed draft renewal of NPDES Permit AL0001449. Tyson appreciates the opportunity to offer our comments on this proposed renewal. Each of the following paragraphs presents a single comment related to the proposed draft permit renewal.

1. In 2016 when Tyson applied for the reissuance of our NPDES permit, we included a request for a new outfall directly into the Locust Fork. In support of this request, Tyson conducted a feasibility study which included preliminary engineering, surveying of a proposed route, preliminary contact with residents / land owners, contact with the Alabama Department of Transportation (ALDOT) and discussions with the Alabama Department of Environmental Management ("Department" or "ADEM") concerning a direct outfall. The study lasted for approximately eighteen months and after completing the study, Tyson determined that it is in the community's (including Tyson's) best interest to maintain our existing discharge to Graves Creek and not pursue the new outfall into the Locust Fork. Please remove proposed Outfall DSN005 from the permit upon renewal.
2. Tyson conducted a review of the draft numerical limits proposed for BOD₅ and NH₃ in Outfall DSN001, this outfall is the same one referenced in the Graves Creek TMDL Study Report and the BOD₅ and NH₃ limits for the current permit are taken directly from that document. In the proposed renewal permit, it is Tyson's understanding that the Department has held the in-stream oxygen demand (sum of the demands created by BOD₅ and NH₃) constant to the loading specified in the TMDL; but, the Department reapportioned the oxygen demand between the BOD₅ and NH₃ when setting the



proposed limits. As a result, in the proposed permit renewal, Tyson received a higher BOD₅ mass limit and a lower NH₃ mass limit than that projected by the model. The concentration limits for BOD₅ and NH₃ were calculated from the mass limits and an average daily flow of 1.4 mgd ($Q_{avg}=1.4$ mgd). Does Tyson have a correct understanding of how the Department set the BOD₅ and NH₃ limits?

3. In the proposed permit renewal, it appears that the Department used a factor of 2.0 and multiplied that factor by the proposed NH₃ limit to obtain our new TKN limit. While the rationale indicates that this approach is Best Professional Judgement, Tyson would like to understand the basis for the 2.0 multiplier. Tyson conducted an evaluation of the TKN and NH₃ data for the 7½ years that we have operated under the current permit. As presented in the following chart, we do not find a consistent relationship or correlation between NH₃ and TKN.



Based on our 7 year dataset, the ratio between TKN and NH₃ has ranged from 0.2 to 62.0 with no statistical correlation ($R^2 = 0.084$). We believe a TKN limit based on a correlation between TKN and NH₃ is not appropriate. We anticipate the wastewater system upgrades currently under construction will result in lower discharge TKN concentrations; however, we have no basis to predict those future concentrations. We respectfully request the Department maintain our current summer season daily maximum TKN limit at 4.8 mg/L and our monthly average limit of 3.2 mg/L.

4. Finally, in the draft permit renewal, the effluent percentage to be used in our Whole Effluent Toxicity (WET) testing has been proposed at 100% instead of the 87.9% as



required in the current permit. The rationale for the change is that the model was updated. Tyson is aware that $Q_{avg}=1.4$ mgd instead of $Q_{avg}=0.97$ mgd is one change to the model; but, that would result in an effluent percentage of 88.9% if everything else is held constant. What else changed in the model and why did it change now, when it has remained constant for the two most recent past permit cycles (over 10 years)?

Thank you for the opportunity to provide comments. Should you have questions or concerns about these comments/observations, please contact me at Rodney.hames2@tyson.com or by phone at 205.466.8231 (office) or 205.901.7589 (cell).

Regards,

Rodney Hames, PE
Complex Environmental Manager
Tyson Alabama Complex

cc: Blountsville Wastewater Binder