



October 1, 2019

Rebecca Diehl
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DOEE Water Quality Standards
Second Proposed Rule Comments
Water Quality Division
1200 First Street NE, 5th Floor
Washington DC 20002

SUBJECT: Request for 240-day Extension of Comment Period
2016 Triennial Review of Water Quality Standards
Proposed Update to the Aquatic Life Criteria for Ammonia

Dear Ms. Diehl:

DC Water (DCW) previously requested and received a 60-day extension of the comment period to October 7, 2019 and, we are requesting an additional 240-day extension to that comment period.

DCW needs the additional time to more fully evaluate the impact that adoption of EPA’s 2013 Aquatic Life Ambient Water Quality Criteria for Ammonia (the “2013 Ammonia Criteria”) would have on the effluent limits for discharges from Outfall 002 at the Blue Plains Advanced Wastewater Treatment Plant (BPAWWTP or Blue Plains).

The current ammonia effluent limits for Outfall 002 were established based on a Blue Plains design flow of 384 mgd and EPAs 1999 Update of Ambient Water Quality for Ammonia (EPA 822-R-99-014). The effluent limits for ammonia, derived from the 1999 EPA criteria, were calculated by LimnoTech and are as shown in Table 1.

Table 1
Existing NPDES Permit Limits for Ammonia for Outfall 002

Period	November 1 - February 14	February 15 - April 30	May 1 - October 31
Average Monthly Limit (mg N-l)	12.8	10.3	4.1
Average Weekly Limit (mg N-l)	19.3	15.4	6.1

Preliminary ammonia effluent limits for Blue Plains Outfall 002 have also been calculated by LimnoTech for the EPA 2013 Ammonia Criteria included in the proposed rulemaking. The calculations were made following the procedures used to recalculate the ammonia limits for the current permit. The calculations are included in Attachment No. 1 and the resulting ammonia effluent limits for Outfall 002 are as shown in Table 2.

Table 2
Preliminary Calculated Limits for Outfall 002 Based on
Proposed 2013 Ammonia Criteria in Proposed Rulemaking

Period	November 1 - April 30	May 1 - October 31
Average Monthly Limit (mg N-l)	5.4	1.7
Average Weekly Limit (mg N-l)	7.8	2.5

The calculated limits for Outfall 002 based on the proposed rulemaking (Table 2) are lower than the current permit limits (Table 1) by a factor of approximately two, representing a significant change.

Currently the treatment process for Outfall 002 at Blue Plains consists of Primary and Secondary Treatment, Nitrification, Denitrification, Filtration and Disinfection. This process also receives effluent from the new Wet Weather Treatment Facility (WWTF) that was placed in service on March 20, 2018. The WWTF transfers treated effluent from combined sewer flow captured in the Long-Term Control tunnel facility for control of combined sewer overflows (CSOs).

The Nitrification and Denitrification facility, which provides treatment for removal of ammonia, was upgraded in 2014. This system is designed to achieve the very low TN concentrations required for compliance with the Blue Plains annual nitrogen mass loading allocation to Chesapeake Bay. During the design phase, the engineer noted there may be limitations to system operation and performance at the future flows and loads and during peak events.

At current flows, the Nitrification and Denitrification process has produced effluent with ammonia concentrations that would comply with the limits derived from the EPA 2013 Criteria. However, the current flows and loads represent approximately 70% of the design capacity, and these results may not reflect the future operating conditions at full plant capacity and the ability to meet short term (weekly) limits under dynamic peak flow conditions. Additional evaluation is needed to assess the capability of the system under the projected conditions.

In view of the uncertainties of reliable compliance with the new ammonia limits, we must undertake additional studies to evaluate the limits to which we may rely on the performance of the existing facilities and to what degree operational modifications or additional treatment facilities would be required. This analysis will include any additional capital and operational and maintenance costs. The additional comment period time that we are requesting will give us the opportunity to provide a substantiation of the above issues.

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Thank you for your assistance. We look forward to your reply. Please advise if you have questions or require additional information.

Sincerely,

A handwritten signature in black ink that reads "Leonard R. Benson" on the top line and "by Carlton Ray" on the bottom line. The signature is written in a cursive, flowing style.

Leonard R. Benson
Senior Vice President/Chief Engineer

c: Jeff Seltzer, DOEE
Salil Kharkar, DC Water
Gregory Hope, DC Water
Aklile Tesfaye, DC Water
Carlton Ray, DC Water

Enclosure: Attachment 1

