

**ADDENDUM
Statement of Basis**

PERMITTEE: Blackfoot Tribe - Blackfoot Water Department

FACILITY NAME AND ADDRESS: Town of Browning Wastewater Treatment Lagoon
End of Young Brother Road
Browning, Montana 59417

PERMIT NUMBER: MT-0031835

RESPONSIBLE OFFICIAL: Gerald Wagner, Authorized Official
457 Hospital Road
P.O. Box 2029
Browning, MT 59417
406-338-7421
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FACILITY CONTACT: Kwebb Galbreth, Deputy Water Director
640 All Chiefs Road
Browning, MT 59417
(406) 217-3040
kwebb@blackfeetnation.com,

PERMIT TYPE: Minor, Wastewater Treatment Plant, Individual Permit Issuance

FACILITY LOCATION: The Facility is located at the end of Young Brother Road within the Blackfeet Indian Reservation of Montana.

Glacier County, Browning, Montana 59417
Section 11, Township 32 N, Range 11 W, TR IN N2
Latitude/Longitude: 48.552469, -112.998822

DISCHARGE POINT: Latitude/Longitude: 48.552537, -112.991345

Background

EPA gave public notice of a draft renewal NPDES permit (Permit) for the Town of Browning Wastewater Treatment Lagoon (the “Facility”) in May 2023, and sent a CWA Section 401 certification request to the Blackfeet Tribe on April 27, 2023. The Blackfeet Tribe waived Section 401 certification. EPA initially proposed a numeric effluent limitation for Total Ammonia Nitrogen (as N) of 2.9 mg/L, 30-day average, and 11 mg/L, daily maximum. This numeric limit was developed to protect aquatic life in the Facility’s receiving water. Based on comments received from the Permittee during the public comment period, EPA has concluded that the data it relied on to develop these numeric effluent limits was questionable. As a result, EPA has decided to remove the originally proposed numeric ammonia limit and is instead proposing to require the Facility to implement optimization Best Management Practices (BMPs) for ammonia. EPA is also proposing to require the Facility to conduct monthly

ammonia monitoring and reporting. This monitoring data will be used to evaluate the effectiveness of optimization BMPs and develop future permitting requirements for ammonia.

Proposed Modifications

EPA is proposing to revise Table 2 of Part 3 of the draft permit, to add a new Section 5.2 to Part 5 of the draft permit, and to add a new Appendix B to the draft permit. These changes create the new narrative effluent limitation of ammonia BMPs and related monitoring requirements and are described in greater detail below.

Part 3 – Effluent Limitations

Part 3 of the draft Permit includes a table, Table 2, containing all the effluent limits EPA has established for the Facility. EPA is proposing to modify several rows of the table to remove the numeric ammonia limit, to establish a report-only requirement for 30-day average and daily maximum ammonia concentrations, to provide a new footnote addressing the ammonia BMP, and to renumber the subsequent footnotes. Table rows and footnotes that EPA is proposing to modify are excerpted below with the deletions indicated by strikeout and additions indicated by underline.

Table 2. Final Effluent Limitations for Outfall 001

Effluent Characteristic	30-Day Average Effluent Limitations <u>a/</u>	7-Day Average Effluent Limitations <u>a/</u>	Daily Maximum Effluent Limitations <u>a/</u>
Total Ammonia Nitrogen (as N), mg/L, <u>c/</u>	2.9 <u>report only</u>	N/A	11 <u>report only</u>
Oil and Grease (O&G), mg/L, <u>d/</u>	N/A	N/A	10
Oil and Grease (O&G), visual, <u>d/</u>	Upon visual inspection, there shall be no visible sheen or floating oil detected. If either is detected in the discharge, a grab sample shall be taken immediately and analyzed.		

c/ Effluent monitoring in addition to Ammonia Best Management Practice (BMP) management plan requirements (See Section 5.2 Special Conditions of the Permit).

d/ If a visible sheen or floating oil is detected in the discharge, a grab sample shall be taken immediately, analyzed and recorded in accordance with the requirements of 40 C.F.R. Part 136.

The full, revised version of this table is provided in the draft permit conditions public noticed with this statement of basis.

Part 5 – Special Conditions

Part 5 of the draft Permit contains special conditions that EPA has developed for the Facility to supplement numeric effluent limitations and that are intended to reduce the overall quantity of ammonia being discharged or to reduce the potential for discharges of ammonia. Part 5 of the draft Permit initially contained a single special condition, Section 5.1, requiring an industrial waste survey to identify industrial users that could discharge non-domestic waste into the collections system and interfere with operations of the Facility. EPA is proposing to add a new special condition, Section 5.2, requiring the Permittee to develop an Ammonia Best Management Practice (BMP) Management Plan. This new provision requires the Facility to undertake several actions over the term of the permit, including:

- Evaluating each facility component or system for waste minimization opportunities (e.g., optimizing the Facility’s treatment for ammonia),
- Developing and implementing an ammonia BMP management plan,
- Training facility operators and staff on the installation, inspection, maintenance and documentation of BMPs,
- Installing and maintaining appropriate BMP optimization control measures to minimize ammonia in discharges from the Facility, and
- Periodically reviewing and modifying the BMP management plan and individual BMPs to ensure effective minimization of ammonia in discharges.

The full text of the new Section 5.2 is provided in the draft Permit conditions public noticed with this statement of basis.

Appendix B – BMP Reference Information

EPA is proposing to include a new Appendix B to the draft Permit to provide reference information to help inform the Permittee’s development of an ammonia BMP management plan. EPA is providing the appendix as optional guidance for the Permittee to consider. It is drawn from EPA’s Compliance Advisory Document # 305F22002, dated March 2022 from the Office of Enforcement and Compliance Assurance for reducing significant non-compliance with National Pollutant Discharge Elimination System permits, titled: “Compliance Tips for Small Wastewater Treatment Lagoons with Clean Water Act Discharge Permits”.

The full text of the new Appendix B is provided in the draft permit conditions public noticed with this statement of basis.

Basis for Proposed Modifications

During development of the initial draft Permit, EPA accessed the EPA Integrated Compliance Information System (ICIS) database to obtain receiving stream temperature and pH data from DMRs submitted by the Facility. Upon evaluation, EPA had some initial concerns with the reliability of some of the original DMR data points. To assess the reliability of the data, historical data on weather conditions in the surrounding area were used to determine if the surface water temperatures seemed reasonable (i.e., close to the monthly air temperature ranges). A comparison of DMR receiving water temperature data with associated air temperature data from the National Weather Service website (NOAA: <https://www.weather.gov/wrh/Climate?wfo=txf>) for the Cut Bank Municipal Airport, MT location (approximately 35 miles from Browning, MT) demonstrated inconsistencies between the air and water temperatures. Some receiving water temperatures were significantly outside of the ambient air temperature ranges. In subsequent discussions, the Facility Operator, Alvin Yellow Owl, indicated that the decimal points for some of the original temperature DMR submissions were incorrectly placed. Corrected receiving water temperature values were provided by Alvin Yellow Owl on February 17, 2023. EPA used this data to establish ammonia limits based on the *Aquatic Life Ambient Water Quality Criteria For Ammonia – Freshwater*, U.S. EPA Office of Science and Technology/Office of Water, 822-R-18-002/EPA-822-R-13-001, April 2013 (EPA 2013 Ammonia Criteria). EPA identified Total Ammonia Nitrogen (as N) concentrations of 2.9 mg/L for the 30-day average and 11 mg/L for the daily maximum as protective of aquatic life in the Facility’s receiving water.

EPA public noticed the draft renewal Permit in May-June 2023 and received comments from the Permittee that indicated that its monitoring data was unreliable. EPA reviewed the Permittee’s comments, the ammonia limits included in the previous iteration of this Permit and initially proposed for

this renewal, and the available ammonia compliance data. Based on this review, EPA has concluded that the data used was questionable for the development of a specific numeric limit based on EPA's CWA § 304(a) recommended ammonia criteria. Additionally, EPA reviewed information and data, collected since this Facility was previously issued permit coverage, concerning the general efficacy of lagoons in treating ammonia in wastewater. This information indicates that lagoon systems like Browning's can face limitations in treating ammonia in wastewater and that optimization improvements and Best Management Practices (BMPs) can improve lagoon wastewater treatment processes. Using permit writer professional judgement, EPA has determined that the Facility will instead be required to implement optimization BMPs in lieu of a numeric effluent limit for ammonia.

EPA developed this new BMP requirement in accordance with CWA section 402(a)(1) and (2) and the NPDES regulations at 40 CFR 122.44(k)(4), which authorize BMPs to control or abate the discharge of pollutants when, "The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA." In this instance, BMPs will be primarily used to reduce ammonia in the Facility's discharge and will serve to protect aquatic life in the receiving water. This BMP approach is consistent with the intent of Section 101(a)(2) of the Clean Water Act, which establishes a national goal of "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water." 33 U.S.C. § 1251(a)(2).

Based on EPA's 1993 *Guidance Manual for Developing Best Management Practices (BMP)*, (EPA 833-B-93-004. U.S. Environmental Protection Agency, Office of Water, Washington, DC), common general BMPs include good housekeeping, preventive maintenance, inspections, employee training, and recordkeeping and reporting. 40 CFR 122.2 includes the following in the definition of BMPs:

- Schedules of activities,
- Prohibitions of practices,
- Maintenance procedures,
- Treatment requirements, and
- Operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage areas.

When, as here, EPA requires a permittee to prepare a BMP management plan, the permittee must determine appropriate BMPs on the basis of circumstances at its facility. Here, it will be the Permittee's responsibility to develop, implement, and evaluate the success or shortfalls of its BMP plan to reduce ammonia in the Facility's discharge.

To ensure that implementation of the ammonia BMP management plan requirement results in actual reductions in ammonia in the Facility's discharge, EPA has included several related requirements. Broadly speaking, these requirements establish an iterative process of evaluation, planning, training, implementation, assessment and revision. As an initial step, the Permittee is required to evaluate each facility component or system and identify waste minimization opportunities. This evaluation is intended to identify the capacity of the various parts of the Facility to release pollutants when not functioning normally, and to identify the repairs, operational changes, maintenance improvements or other steps that could be implemented to reduce such discharges. This initial examination will inform the Permittee's next step, which is to document the BMPs necessary to ensure improved treatment of ammonia, develop a plan for implementation and implement those BMPs. The EPA expects that the Permittee will be able to use the information provided in Appendix B, or other reputable scientific and engineering studies, to guide its selection of BMPs. Regardless of the information sources used, the Permittee must determine and document what processes and procedures would be the most appropriate for addressing ammonia discharges from the Facility.

The BMP plan must include an implementation schedule, which will provide the Permittee with a clear set of next steps and schedule in which to take them. The Permittee is also being required to train its existing operator and staff on the proper installation and maintenance of selected BMPs, and to give such training to all new employees as well. This training component will ensure that the people working at the Facility have the knowledge, skills and ability necessary to ensure the ongoing effectiveness of the selected BMPs. Finally, the plan requires evaluation and amendment of the BMP plan if it proves ineffective. EPA anticipates that this assessment will be ongoing and will be tied to the Permittee's review of ammonia monitoring data. For example, if the Permittee has implemented several BMPs it expects to reduce ammonia concentrations, and DMR data produced subsequent to those changes shows no change or an increase in ammonia concentrations, the Permittee will be required to revise the plan. The EPA expects the Permittee to review its BMP choices to identify potential shortcomings or failure points, and to develop revised or new BMPs to improve their performance. This iterative process will be key to ensuring that instead of a "set and forget" approach to BMPs, the Permittee is actively managing its facility to protect water quality.

In addition to the implementation of BMPs, ammonia monitoring and reporting will be required on a monthly basis (remaining in alignment with the frequencies, reporting and sampling requirements in the Permit) to evaluate the effectiveness of optimization BMPs and develop future permitting requirements for ammonia. This dataset will also provide the basis for including numeric effluent limits in future permit cycles when the Tribe has EPA-approved water quality standards in place. Should the Tribe develop approved water quality standards that include requirements for numeric ammonia limits, the implementation of numeric ammonia limits would be required in future permits in alignment with the Tribe's approved water quality standards.

Anti-backsliding

Federal regulations at 40 CFR Part 122.44(l)(1) generally require that when a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit. The anti-backsliding regulations are not applicable in this instance, however, because this individual Permit replaces the Facility's prior coverage under the Region 8 General Permit for Wastewater Lagoon Systems in Indian Country. Such a switch from a general permit to an individual permit is not considered a renewal or reissuance of the Facility's previous permit.

Even if the transition from individual permit to general permit coverage is considered a renewal or reissuance, the change being proposed today comports with the basic anti-backsliding requirements in CWA § 402(o), which is applicable to effluent limits issued under CWA § 301(b)(1)(C). Though the Tribe does not currently have EPA-approved water quality standards, the previous ammonia limit was developed pursuant to section 301(b)(1)(C) to protect aquatic life using the Agency's Section 304(a) recommended water quality criteria for ammonia. Since the Region developed the general permit under which the Facility was previously covered, collection of data and information for lagoon systems in general has been ongoing, providing an increased understanding of the limitations lagoons face in treating ammonia in wastewater, and how optimization improvements and BMPs can positively impact lagoon wastewater treatment processes. In light of this new information, the EPA has determined that optimization BMPs and monitoring requirements are more appropriate for the Facility and the ammonia limits from the previous general permit coverage have not been carried forward.

Under CWA § 402(o)(2)(B)(i), a permit may be renewed, reissued, or modified to contain a less stringent effluent limitation applicable to a pollutant if:

“Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance . . .”

In consideration of EPA’s improved understanding of the best practices available to address ammonia in lagoon discharges, EPA has determined that this shift to an ammonia BMP approach is excepted from the backsliding prohibition. Furthermore, as noted above, this justification should not be considered in isolation given that anti-backsliding requirements do not apply to this issuance of a new individual permit. Should the Tribe develop approved water quality standards that include requirements for numeric ammonia limits, the implementation of numeric ammonia limits would be required in future permits in alignment with the Tribe’s approved water quality standards.

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