

Pretreatment Audit Report

City of Bismarck

ND-0023434

Bismarck, North Dakota

June 28, 2022 to June 30, 2022



Prepared by:

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Pretreatment Audit Summary Table

City of Bismarck Pretreatment Audit Report

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Pretreatment Audit Findings	Pretreatment Requirement and Corrective Action
<i>Section 3.0 – Resources</i>	
1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(3) state that the POTW shall have “<i>sufficient resources and qualified personnel to carry out the authorities and procedures</i>” of the Pretreatment program. Although the City has an excellent fats, oil, and grease (FOG) program, based on EPA’s review of the City’s Pretreatment records, it appears that the City needs to provide focus on the implementation of the Pretreatment program for the SIUs in the service area. This audit report provides corrective action items for almost every implementation area of the Pretreatment program. The most significant EPA areas of concern include the City’s legal authority in the municipal ordinance, lack of current local limits, permit development, compliance evaluation of reports/notices and lack of enforcement. It is not clear to the EPA if these areas of concern are due to inadequate resources or qualified personnel implementing the program. EPA recommends the City evaluate its current commitment and organization of the Pretreatment program and further recommends the City provide additional commitment to the Pretreatment program by ensuring the position that develops/writes permits, evaluates for compliance and provides enforcement be a full-time position or a 1.0 FTE.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(3) <u>Corrective Action Item</u> Submit a staffing plan to evaluate the City’s commitment to the Pretreatment program to address the corrective action items in this audit report and the projected growth in the service area or from outside contributing jurisdictions.
<i>Section 4.0 – Municipal Ordinance and Intergovernmental Agreements</i>	
2. 40 C.F.R. § 403.8(f)(1) states, “The POTW shall operate pursuant to legal authority enforceable in Federal, State, or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Clean Water Act (Act) and any regulations implementing those sections.”	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1) <u>Corrective Action Item</u> • Update Title 11.1 – Pretreatment Regulations of the municipal ordinance to

The City provided its Pretreatment legal authority found in Title 11.1 – Pretreatment Program of the municipal ordinance for the EPA to review. Based on EPA’s review, the City has not updated its municipal ordinance to incorporate required provisions from the 2005 Pretreatment Streamlining Regulations, promulgated by EPA and adopted by the NDDEQ in 2019. The City’s current legal authority does not provide the City the adequate framework to implement the Pretreatment Regulations in the POTW’s service area.

The City’s municipal ordinance needs to be updated to provide the City the framework to implement the Pretreatment Regulations in the POTW’s service area. The areas of the municipal ordinance that need to be updated are summarized below and identified in the enclosed City of Bismarck Legal Authority Review:

Definitions – §11.1-01-02:

- *Approval Authority*: definition is absent.
- *Authority Representative of the IU*: definition is absent.
- *BMP*: definition is established in the FOG Control Section §11.1-04-03(1) of the ordinance and the BMP definition currently only applies to the FOG sector. The BMP needs to be established for the Pretreatment program and needs to state that BMPs shall be considered local limits and Pretreatment Standards for the purposes of this part and section 307(d) of the Act.
- *Control Authority*: definition is absent. EPA recommends the City replace its current definition for *City* in §11.1-01-02(7) with **Control Authority** to comply with the Federal Regulations.
- *Indirect Discharge*: definition is absent. EPA recommends the City replace its current definition for *Industrial Wastes* in 11.1-01-02(14) with Indirect Discharge to comply with the Federal Regulations.
- *Industrial User*: definition is absent. EPA recommends the City replace its current definition for *Industrial User* in 11.1-01-02(15) with **Industrial User** to comply with the Federal Regulations.
- *Interference*: the current definition is not

provide the City the legal framework to implement the Pretreatment regulations in the POTW’s service area. Submit the updated ordinance to NDDEQ as a program modification for review and approval.

Recommended Action Item

The City has established the trucked and hauled prohibition except at designated points. However, as discussed during the audit, EPA recommends the City establish truck and hauled waste requirements in the municipal ordinance that specifically identifies the designated trucked/hauled waste discharge point, access and use and type of waste allowed and control provisions.

equivalent to the definition established in 40 C.F.R. § 403.3(k) of the Federal Pretreatment Regulations because it does not define interference as a “*discharge, which alone or in conjunction with a discharge or discharges from other sources*”.

- *POTW*: The current definition found in §11.1-01-02(39) needs to include “The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.” to comply with the Federal Pretreatment Regulations in 40 C.F.R. § 403.3(q).
- *Pretreatment*: The current definition found in §11.1-01-02(39) states the following: “The process of reducing the nature of pollutant properties, eliminating pollutants, or altering the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging wastewater to disposal system. The reduction, elimination, and alteration may be obtained by physical, chemical or biological processes, process changes or other means, except as prohibited by this title.” The definition needs to refer to the prohibition for dilution currently found in §11.1-03-02(4).

In addition, the definition needs to include the following to comply with the definition found in 40 C.F.R. § 403.3(s) of the Federal Pretreatment Regulations: “Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the POTW. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with § 403.6(e).”

- *Significant Industrial User (SIU)*: the definition found in §11.1-01-02(42) is not equivalent and needs to be modified to comply with the definition found in 40 C.F.R. § 403.3(v) which states:

“(i) All Industrial Users subject to Categorical

Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and

(ii) Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirement (in accordance with 40 CFR § 403.8(f)(6)).”

- *Slug Discharge*: the definition found in §11.1-01-02(43) is not equivalent and needs to be modified to comply with the definition found in 40 C.F.R. § 403.8(f)(2)(vi) which states: ” any Discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, local limits or Permit conditions.”

In addition, EPA recommends the City incorporate the following definitions from the attached EPA Model Ordinance:

- Categorical Industrial User
- Composite Sample
- Grab Sample
- Pollutant

General and Specific Prohibitions – §11.1-03-01

- *General Prohibition for Pass Through and Interference*-40 C.F.R. § 403.5(a): The municipal ordinance has not incorporated this general prohibition found in the Federal Pretreatment Regulations.
- *Solid or Viscous / Obstructions* - 40 C.F.R. § 403.5(b)(3): The City's specific prohibition found in §11.1-03-01(2) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.

- *Flow Rate/Concentration/BOD Loadings*-40 C.F.R. § 403.5(b)(4): The City's specific prohibition found in §11.1-03-01(11) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.
- *Heat*-40 C.F.R. § 403.5(b)(4): The City's specific prohibition found in §11.1-03-01(10) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.
- *Toxic Gases/Vapors/Fumes* - 40 C.F.R. § 403.5(b)(4): The City's specific prohibition found in §11.1-03-01(6) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.

Local Limits Applicability Language in 11.1-03-02(5) states that the City's local limits apply to users. Local limits are developed using SIU flow and are applicable to SIUs in permits/control mechanisms.

Deny new or increase contributions – the City has established the authority to condition new or increased non-domestic wastewater in §11.1-06-02(2) but not the authority to deny such waste, if the POTW cannot accept such waste. Example language from the EPA Model Ordinance includes the following “[The Superintendent] may deny any application for an individual wastewater discharge permit.”

Permit Contents – §11.1-06-02

- *Statement of Non-Transferability* – currently, the ordinance states in 11.1-06-2(6) that permits are not transferable. EPA recommends the City allows permit transfers in a statement of non-transferability with prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator.
- The permit conditions section needs to establish BMPs as a permit condition.
- The City's municipal ordinance at §11.1-06-02(3)(j) only requires notification for changed discharge. This notification requirements section of the municipal ordinance needs to be modified to include all notifications require by 40 CFR 403.12.
- A statement of applicable civil and criminal penalties required in 40 C.F.R.403.8(f)(1)(B)(5)

of the Federal Pretreatment Regulations needs to be established as a permit condition.

- Requirements to control Slug Discharges, if determined by the POTW to be necessary as required by 40 C.F.R. 403.8(f)(C)(2)(vi) of the Federal Pretreatment Regulations needs to be established as a permit condition.

Reporting/Notification Requirements – The City’s municipal ordinance does not incorporate the following reports and notifications required in 40 C.F.R.403.12 of the Federal Pretreatment Regulations:

- *Baseline Monitoring Report (BMR)* - 403.12(b)– the City has established permit application requirements in §11.1-06-02(2) but not BMR reporting requirements for CIUs.
- *Compliance schedule for meeting categorical Pretreatment Standards* - 403.12(c).
- *90-day Compliance Reports* – 403.12(d)
- *CIU Compliance Reports* – 403.12(e)
- *SIU Compliance Reports* – 403.12(h)
- *Notice of Potential Problems, including Slug Discharges* – 403.12(f)
- *Notification of Violations within 24 hours* – 403.12(g)(2)
- *30-Day Resampling requirement* – 403.12(g)(2)
- *Requirement to Conduct Representative Sampling* – 403.12(g)(3)
- *Notification of Changed Discharge* – 403.12(j)
- *Notification of Discharge of Hazardous Waste* – 403.12(p)
- *Reporting Certification and authorized signatory* – 403.6(a)(2)(ii) and 403.12(l)
- *Recordkeeping, including BMPs* – 403.12(o)
- *Submission of all Monitoring Data* – 403.12(g)(6)
- Requirement to use appropriate Analytical Procedures not established, as required by 403.12(g)(5).

Requirement to use appropriate Sampling Procedures not established, as required by 403.12(g)(3,4)

Right to copy records not established in current Right of Entry authority established in 11.1-06-02(7) of the ordinance.

SNC publication language in 11.1-07-06 in the City’s

ordinance needs to be modified to comply with the Federal Regulations. Specifically, the publication language in this section needs to include the following statement after the largest newspaper “that provides meaningful public notice within the jurisdiction(s) served by the POTW of Industrial Users”.	
3. 40 CFR 403.8(f)(1) of the Federal Pretreatment Regulations require the following: “The POTW shall operate pursuant to legal authority enforceable in Federal, State or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Act and any regulations implementing those sections. Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law.” According to information gathered during the audit, the City currently does not have any outside contributing jurisdictions that contribute wastewater to the City’s POTW. However, the City is discussing or planning regionalization of its POTW to expand the service area of the POTW to include the City of Lincoln, located adjacent to Bismarck. The City of Lincoln had a 2020 census population of 4,257. Two IUs were identified that are outside the City boundaries and that contribute wastewater to the City’s POTW: the County Shop and the Missouri River Correctional Facility. It is unknown if the City has established an agreement or contract with these facilities to implement the Pretreatment program for these facilities.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1) <u>Corrective Action Item</u> Ensure the authority to implement the Pretreatment program in the City of Lincoln is established by either annexing Lincoln into Bismarck or by establishing this authority in an IGA in which the Lincoln delegates the authority to implement the Pretreatment program to the City, if/when POTW regionalization occurs. Determine if the County Shop and the Missouri River Correctional Facility that are located outside the City boundaries are sources of non-domestic wastewater to the City’s POTW. If these IUs contribute non-domestic wastewater, then establish the authority to implement the Pretreatment programmatic activities at these IUs. In addition to these two identified IUs, determine if there are other IUs outside the City boundaries that contribute non-domestic wastewater to the POTW.
<i>Section 4.0 – Local Limits</i>	
4. The City’s NPDES permit reissued by the NDDEQ and effective on July 1, 2018 include local limit requirements in Part V(B). The local limits requirements are as follows: “The Permittee shall establish and enforce specific local limits to implement the general and specific prohibitions found in 40 CFR 403.5(a) and (b), as required by 40 CFR Section 403.5(c). The Permittee shall continue to develop these limits as applicable	<u>Pretreatment Requirements</u> 40 C.F.R. § 122.44(j)(2)(ii) 40 C.F.R. § 403.5(C)(1) <u>Corrective Action Item</u> Develop and submit a technical evaluation of the City’s local limits, as required in Part V(B) of the NPDES Permit issued July 1, 2018.

and effectively enforce such limits. In accordance with EPA policy and with the requirements of 40 CFR sections 403.8(f)(4) and 403.5(c), the permittee shall determine if technically based local limits are necessary to implement the general and specific prohibitions of 40 CFR sections 403.5(a) and (b). This evaluation should be conducted in accordance with the latest revision of EPA Region VIII Strategy for Developing Technically Based Local Limits and after review of EPA's "Local Limits Development Guidance" July 2004. Where the Permittee determines that revised or new local limits are necessary, the Permittee shall submit the proposed local limits to the Approval Authority in an approvable form in accordance with 40 CFR 403.18." It does not appear that the City has provided a technical evaluation of its local limits, as required by Part V(B) of its NPDES permit.	
5. Based on EPA's review of the relevant records related to a technical evaluation, the following criteria have changed since the City last developed their local limits in 1994: • POTW Removal Efficiency: the City's POTW has been upgraded in 2009 to improve sludge storage, in July 2009 to upgrade the headworks process, install a new primary clarifier and rehab existing primary clarifiers, and in 2011 to rehab the digesters. As a result, it appears that the POTW removal efficiency used to calculate the 1994 local limits has changed. • POTW Loadings: Based on EPA's review of the Pretreatment records and POTW data, the BOD loadings to the POTW have increased from 9,857 lbs/day in 1994 to 14,607 lbs/day in 2021 and the TSS loadings to the POTW have increased from 10,702 lbs/day in 1994 to 15,329 lbs/day in 2021. Similarly, the trucked and hauled waste loadings increased from 237,630 gallons/day in 1999 to 900,258 gallons/day in 2021. • IU loadings: the SIUs listed in the 1994 development records have significantly changed from current SIUs and loadings. • Limiting Criteria/Standards: The City has been	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.5(C)(1) 40 C.F.R. § 403.8(f)(4) <u>Corrective Action Item</u> Update the 1994 local limits to incorporate current data in the service area and the POTW, current standards, construction or rehab updates to the POTW that result in different removal efficiencies, growth in the service area and to incorporate SIU changes in the service area. Submit updated local limits to NDDEQ as a program modification for review and approval.

issued at least three NPDES permit renewals with potentially new limits and water quality/biosolids/local standards since 1994.	
<i>Section 7.0 – Industrial User Inventory and Characterization</i>	
6. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(i-iii), require an approved Pretreatment program to: 6.1. “Identify and locate all possible Industrial Users which might be subject to the POTW Pretreatment Program. Any compilation, index or inventory of Industrial Users made under this paragraph shall be made available to the Regional Administrator or Director upon request.” 6.2. “Identify the character and volume of pollutants contributed to the POTW by the Industrial Users identified under paragraph (f)(2)(i) of this section. This information shall be made available to the Regional Administrator or Director upon request”. 6.3. “Notify Industrial Users identified under paragraph (f)(2)(i) of this section, of applicable Pretreatment Standards and any applicable requirements under sections 204(b) and 405 of the Act and subtitles C and D of the Resource Conservation and Recovery Act. Within 30 days of approval pursuant to 40 C.F.R. 403.8(f)(6), of a list of significant industrial users, notify each significant industrial user of its status as such and of all requirements applicable to it as a result of such status.” The City provided its current IU inventory of the IUs in its service area for EPA to review. The IU inventory has about 2,000 IUs that are organized by the water account ID. Based on EPA’s review, it appears that the IU inventory appears to be current and includes a description of the type of business. However, the City needs to ensure the IUs on the inventory are characterized based on current conditions or changes that may occur at the IU. In addition, EPA recommends the City ensure its IU inventory includes or is primarily organized by current names of the IU, instead of the owner/contact of the water account.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(i-iii) <u>Corrective Action Item</u> Ensure the industrial user inventory is maintained to provide current characterization of the IUs based on current conditions at the IU. <u>Recommended Action Item</u> EPA recommends the City ensure its IU inventory includes or is primarily organized by current names of the IU, instead of the owner/contact of the water account. EPA recommends the City develop a plan to maintain the IU inventory to ensure the information and records on the IUs capture current conditions. based on available tools to the City such as the industrial waste survey, drive by inspections, facility inspections, sampling, etc. to ensure the characterization of IUs is based on current data/information. The City should evaluate its current IU inventory and determine which IUs or IU sectors are a priority based on local concerns and prioritize them to ensure that these IUs or sectors are updated on a more frequently, based on available tools to the City to ensure the characterization of IUs is based on current data/information. EPA recommends the City collaborate with the Fire Department because they are in the facilities in the service area and may provide additional information regarding potential for significant process/wastewater generation or spill/slug potential in the service area.

7. To evaluate the City’s maintenance of the IU inventory and the current characterization of the IUs on the IU inventory, EPA requested records such as surveys/questionnaires, inspection reports and sampling data for selected IUs on the IU inventory or gathered during a Google Maps search of the POTW’s service area. The evaluation of the available records is included with the bulleted IUs: • Mind Over Material, 1500 112th Ave – no documentation, appears to be outside City boundaries. • Sheet Metal Specialties, 1223 Continental Avenue #2 – no documentation found and in the POTW’s service area. The IU inventory includes this facility by its water account, 00055830-000, does not list Sheet Metal Specialties as the contact and describes this location as carpet stores retail, which does not appear to be a current characterization of this IU. • Modern Machine Works, 921 East Front Avenue – industrial waste survey dated August 19, 2011	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(i-iii) <u>Corrective Action Item</u> Determine if Mind Over Material located at 1500 112th Ave contributes non-domestic wastewater the City’s POTW, and if so, characterize the discharge. Provide a characterization of Sheet Metal Specialties, located at 1223 Continental Avenue, #2 in Bismarck, based on current information to identify, characterize and notify this IU of applicable Pretreatment Standards, as required by 40 C.F.R. § 403.8(f)(2)(i-iii). Ensure the characterization of Modern Machine Works in the City’s IU inventory is based on current conditions at the facility and based on information gathered in a recent IU survey or facility inspection.
<i>Section 8.0 – Control Mechanism (Permit) Evaluation and Permit Specific Issues</i>	
8. Based on EPA’s evaluation, the City’s SIU permit template requires the following updates to comply with required permit conditions in the Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6). In addition, EPA identified permit inconsistencies and suggested language/permit conditions to provide clarity to the permit language. <i>(The EPA’s evaluation is included in the enclosed Bismarck-Permit Template Review.docx and comments embedded in the Boiler Plate Permit 2014-EPAdoc):</i> • Penalties for Violation (A.2): The permit template references 11.1-08-05 of the ordinance for authority to establish penalties, however, this section was repealed. • Noncompliance Notification (A.5): This section of the permit states the following: “In the event the permittee is unable to comply with any of the conditions of the permit, the permittee shall provide the Pretreatment Coordinator with the following information within five (5) days after commencement of such occurrence...” This	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) 40 C.F.R. § 403.12 <u>Corrective Action Item</u> Update the SIU permit template to include the permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment regulations and the notifications required by 40 C.F.R. 403.12 In addition to updating the SIU permit template, modify the current SIU permits to comply with the permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment regulations.

section conflicts with the 24-hour notification requirement in the permit template.

- Statement of Non-Transferability (A.10 of the permit template) – The ordinance does not allow transfers, but the City is exceeding its authority by allowing transfers in the permit template.
- BMPs are absent as a permit condition.
- Requirement to conduct representative sampling, as required by 40 C.F.R.403.12(g)(3) is absent as a permit condition.
- Requirement to control slug discharges, if determined to be necessary by the POTW is absent as a permit condition.
- Reporting Requirement (B.9): This section establishes the reporting requirements for the SIU and states “All results of the sampling and analysis required by Item No. 4 of Section B of this permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month during which the sample was taken.” This establishes unclear report due dates and is dependent on the date the sample was taken. The City needs to establish compliance monitoring periods (i.e., monthly/quarterly/semi-annual) and establish due dates based on the compliance period, not the date the sample was taken. See example below for quarterly reporting:

Compliance Monitoring Period	Due Date
January through March	April 30
April through June	July 31
July through September	October 31
October through December	January 31

- Reporting Requirement (B.9): EPA recommends the City evaluate if other reporting requirements such as continuous flow and pH, operation and maintenance logs/records, hazardous waste manifests and the integrity of the data, such as

analytical hard copies, including analytical QA/QC are necessary to ensure compliance of the compliance monitoring period and includes these as required reporting conditions in a Reporting section within the permit.

- Reporting Requirement (B.9): The permit further states that “A discharge monitoring report form furnished by the City of Bismarck shall be used and the signature of a responsible corporate officer shall be affixed to the certification statement at the bottom of the form.” Although the current discharge monitoring report provides the certification statement and authority signatory, EPA recommends the City establish the authorized signature and certification statement as a condition of the permit. Not establishing the authorized signature and certification statement as a permit condition puts the onus on the City to provide DMRs to the SIUs instead of on the SIU to ensure every DMR includes the certification statement that is adequately signed, regardless on if the SIU uses the DMR furnished by the City.
- Recordkeeping Requirement (A.13): The recordkeeping requirements in this section states, “The records shall be made available for inspection and copying by the City of Bismarck and the Environmental Protection Agency.” This section of the permit did not indicate that records shall be made available for inspection by the NDDEQ as the approval authority.
- The following notifications, required by 40 C.F.R. 403.12 are absent:
 - Notice of Potential Problems, including slug discharges to be reported immediately – 40 C.F.R. 403.12(f)
 - Notice of discharge of hazardous waste – 40 C.F.R. 403.12(p)
 - Upset provision – 40 C.F.R. 403.16
 - Bypass notifications – 40 C.F.R. 403.17
 - Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, as required in

40 C.F.R.403.8(f)(1)(B)(5) is absent as a permit condition.	
9. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to “Identify the character and volume of pollutants contributed to the POTW.” The SIU inspection reports include minimal descriptions of the facility’s unit operations. 9.1. The facility inspection reports for the Bismarck Landfill need more detail and should capture current conditions in the type of waste received by the Landfill, operation and processes in the small building on site, review of applicable records and if the sampling at the monitoring point is representative of the landfill leachate discharge. 9.2. Facility inspection reports for Ameripride need more detail and should capture current conditions in the laundry operations such as wastewater discharges and collection from the washers and how these wastewaters are conveyed to the wastewater treatment, a detailed description of the wastewater treatment and if the wastewater treatment is functioning adequately, In addition, the inspection report should include a detailed description on chemical storage of laundry chemicals and transport to the washers for spill and slug discharge potential. The inspection reports need to include a review of relevant records. 9.3. The facility inspection reports for Doosan Bobcat need more detail and should capture current conditions in the type of raw materials received for processing at the plant, identification of all process wastewater and dilution wastestreams with the inspection clearly identifying process, dilution and unregulated flows discharging to the POTW, the categorical standard applicable to the facility as well as clearly indicating which processes subject the facility to certain categorical limits. The inspection report should contain more detail on the evaluation of pretreatment facilities and chemical storage areas. The report needs to include a review of the potential for a slug discharge, not just potential spills. In addition, it	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(ii) <u>Corrective Action Item</u> Provide more detail in the SIU inspection reports to capture current conditions at the SIU, as discussed in the detail provided for each SIU to identify the character and volume of contributed pollutants. A facility inspection should also include a review of relevant records to ensure the information and data provided to the City meets quality control and is accurate, the treatment system is adequately functioning, and that the monitoring equipment is calibrated appropriately. The City needs to ensure these relevant Pretreatment records are adequately reviewed during the inspection and the results of the records review are documented in the inspection report.

is necessary for the report to include an evaluation of the industry's records; the report included no such evaluation. 9.4. The facility inspection reports for East Side Jersey Dairy need more detail and should capture current conditions in the dairy operations such as wastewater discharges and potential for dilution wastestreams from identified unregulated wastestreams (e.g. cooling water). In addition, the City needs to ensure it reviews and evaluates appropriate records and document the results of its review in the inspection report. It is unclear from the inspection how much wastewater the City is receiving from East Side Jersey Dairy. The inspection only identified water usage flows and no internal process flows or discharge flows. In addition, the inspection report mentions cooling water but does not indicate the disposal or management method. The inspection report should clearly identify all wastewater discharged to the POTW and include representative flow data. 9.5. The High Plains Coating and Fabrication inspection report did not specify the wastewaters generated at the facility and the method of disposal. The report also indicated that chemicals are stored in close proximity to the drains but did not describe the slug potential.	
10. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(iii), require an approved Pretreatment program to notify Industrial Users of applicable Pretreatment Standards and any applicable requirements under sections 204(b) and 405 of the Act and subtitles C and D of the Resource Conservation and Recovery Act. There are no records indicating notification of this applicable Pretreatment Standards or other applicable requirements as part of the 2021 annual inspection to High Plains Coating and Fabrication.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(iii) <u>Corrective Action Item</u> Provide adequate notification to High Plains Coating and Fabrication and other SIUs after facility inspection in regard to findings or current conditions that may change the applicability of the Pretreatment Standards or applicable requirements. This notification may be included in a follow up letter or by providing a copy of the inspection report to the SIU.
11. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(iii) require a POTW to "Control through Permit, order, or similar means, the contribution to	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii)

the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” 11.1. The Bismarck Landfill permit includes a compliance schedule in Part B.8 for installation of a flowmeter without any justification in the Bismarck Landfill records or the 2021 inspection report. The compliance schedule does not include a milestone for the flowmeter installation, and it was impossible for EPA to determine the Bismarck Landfill’s compliance with the compliance schedule. The Pretreatment records for the Bismarck Landfill do not include documentation regarding the installation of the flowmeter. 11.2. During EPA’s review of the Bismarck Landfill permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Bismarck Landfill permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. 11.3. The City does not develop fact sheets or permit rationales that justify the permit conditions and limits, based on current information gathered during annual inspection reports, permit applications, DMRs or other reports and notifications. Based on the review of the Bismarck Landfill permit, it was unclear to EPA in the permits how the City identified pollutants of concern; how permit limits and other permit conditions were developed because there is no documentation that describes or justifies these during permit development, as identified in §8.4.2(3)(a-f) of this audit report.	40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) Bismarck Landfill Permit, Part B.8 <u>Corrective Action Item</u> Ensure the Bismarck Landfill complies with the milestones in its permit’s compliance schedule by requiring the Bismarck Landfill to provide the appropriate documentation such as a signed and certified letter/report. Provide an adequate enforcement response to this violation, according to its ERP if the City determines that the Bismarck Landfill is not in compliance with the compliance schedule. Update the Bismarck Landfill permit to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. <u>Recommended Action Item</u> EPA recommends the City develop a fact sheet or permit rationale with every SIU permit developed or renewed to ensure it is written to ensure compliance with applicable Pretreatment Standards and Requirements, based on current conditions at the SIU. Examples of the Bismarck Landfill permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas identified in §8.4.2(3)(a-f) of this audit report.
12. Part B.4 of the Bismarck Landfill permit establishes specific sampling requirements in May and October of every year. The Bismarck Landfill samples on a quarterly frequency, however, the Landfill did not sample in October 2020 and October 2021, as	<u>Pretreatment Requirements</u> Bismarck Landfill Permit, Part B.4 <u>Corrective Action Item</u> Provide an enforcement response for the

required in the permit.	failure to sample in October 2020 and October 2021, according to the City's ERP.
13. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to "Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices." 13.1. The Bismarck Landfill sampled on May 27, 2020 and is required by the permit to provide a report no later than thirty (30) days after the last day of the month during which the sample was taken or by June 30, 2020. The report was submitted to the City on November 4, 2020 and was date stamped by the City. However, there were no records that the City provided an enforcement response for the violation of a late report. 13.2. The submittal of the May 2020 DMR on November 4, 2020 meets the significant noncompliance (SNC) criteria found in §11.1-07-06(f) of the municipal ordinance: "Failure to provide, within 30 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules."	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vii) Municipal Ordinance, §11.1-07-06(f) <u>Corrective Action Item</u> Provide an enforcement response for the submittal of the May 2020 report past the due date of June 30, 2020, according to the City's ERP. Provide an enforcement response for an SNC criteria violation for the May 2020 DMR submitted greater than 30 days past its due date. Publish Bismarck Landfill for being in SNC in 2020, as required in §11.1-07-06 of the municipal ordinance.
14. The Pretreatment regulations at 40 C.F.R. § 403.8(f)(2)(v) require the City to "Inspect and sample the effluent from each Significant Industrial User at least once a year." The City failed to sample the Bismarck Landfill for Hg and BTEX in 2020 and 2021.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(v) <u>Corrective Action Item</u> Evaluate the Bismarck Landfill sampling plans and sampling plans for all SIUs to ensure all permit limited parameters are sampled in 2022.
15. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(iii) require a POTW to "Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements." 15.1. The Pretreatment regulations at 40 CFR 403.8(f)(1)(iii)(B)(3) requires that the permit must be enforceable and at a minimum contain	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii) 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) 40 C.F.R § 403.5(c)(3) <u>Corrective Action Item</u> Evaluate the nonylphenol ethoxylates permit

“Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards in part 403 of this chapter, categorical Pretreatment Standards, local limits, and State and local law.” Further, 40 C.F.R. §403.5(c)(3) states, “Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond.” 15.1.1. The Ameripride permit includes nonylphenol ethoxylates with a permit limit of 10 lbs/day. The City has not developed a local limit for this pollutant in its ordinance and there is no justification on how this limit was developed for if public participation was included in this development. 15.2. During EPA’s review of the Ameripride permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Ameripride permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. 15.3. The City does not develop fact sheets or permit rationales that justify the permit conditions and limits, based on current information gathered during annual inspection reports, permit applications, DMRs or other reports and notifications. Based on the review of the Ameripride permit, it was unclear to EPA in the permits how the City identified pollutants of concern; how permit limits and other permit conditions were developed because there is no documentation that describes or justifies these during permit development, as identified in §8.4.3(3)(a-c) of this audit report.	limit of 10 lbs/day and ensure this limit is enforceable by justifying the development of this limit and ensuring public participation is included by public noticing the permit. Update the Ameripride permit to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. <u>Recommended Action Item</u> EPA recommends the City develop a fact sheet or permit rationale with every SIU permit developed or renewed to ensure it is written to ensure compliance with applicable Pretreatment Standards and Requirements, based on current conditions at the SIU. Examples of the Ameripride permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas identified in §8.4.2(3)(a-c) of this audit report and the development of the nonylphenol ethoxylates permit limit of 10lbs/day.
16. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vii) <u>Corrective Action Item</u>

reports and notices.” The SIU did not sample for nonylphenol ethoxylates quarterly, as required by the permit nor is there documentation that the facility used less than 5 lbs/day. There is no record that the City evaluated the DMR as incomplete with all permit conditions and limits and there are no records of enforcement response to these violations.	Provide an enforcement response for the SIU’s failure to sample quarterly for nonylphenol ethoxylates in 2020 and 2021, according to the City’s ERP. Determine if the failure to sample for nonylphenol ethoxylates meets SNC criteria. If so, publish the facility for SNC.
17. The Pretreatment regulations at 40 C.F.R. § 403.8(f)(2)(v) require the City to “Inspect and sample the effluent from each Significant Industrial User at least once a year.” The City failed to sample Ameripride for nonylphenol ethoxylates, a permit-limited pollutant, in 2020 and 2021.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(v) <u>Corrective Action Item</u> Evaluate the Ameripride sampling plans and sampling plans for all SIUs to ensure all permit limited parameters are sampled in 2022.
18. On July 13, 2020, Ameripride had a violation of the City’s obstruction prohibition found in §§11.1-03-01.2 and 11.1-03-01.13(a) of the municipal ordinance. The City provided an NOV on August 4, 2020 that include the following action items: • Within 90 days, Ameripride must develop and submit a plan of action that will prevent the sanitary sewer pipe flow obstruction from the facility discharges. • 2. Within 180 days, Ameripride must complete and implement the engineered plan of action(s) to prevent flow obstruction from the discharge of oil, grease and solids. The SIU responded to the NOV on October 30, 2020 and stated that it will provide a written plan by November 2, 2020 and completion by February 2, 2021. EPA was unable to find documentation on the written plan due by November 2, 2020 and documentation of completion by February 2, 2021.	<u>Pretreatment Requirements</u> Municipal Ordinance, §§11.1-03-01.2 and 11.1-03-01.13(a) Ameripride NOV response dated October 30, 2020 <u>Corrective Action Item</u> Provide documentation to EPA to ensure the SIU is back into compliance by the submittal of the written plan by November 2, 2020 or completion of an engineered plan of action to prevent flow obstruction by February 2, 2021. If Ameripride is not in compliance, then provide an enforcement response to the failure to respond to NOV deadlines in accordance with the City’s ERP.
19. The Pretreatment Regulations at 40 CFR § 403.8(f)(2)(vi) require a POTW to “Evaluate whether each such Significant Industrial User needs a plan or other action to control Slug Discharges.” If a slug discharge control plan is necessary, the plan shall have at a minimum the following: • Description of discharge practices, including non-routine batch Discharges. • Description of stored chemicals.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vi) <u>Corrective Action Item</u> Re-evaluate Ameripride to determine if it needs a slug discharge control plan to ensure procedures/measures/equipment are adequate to minimize or eliminate the potential for spills and slug discharges from chemical storage handling/transfer and use. Provide justification

- Procedures for immediately notifying the POTW of Slug Discharges, including any Discharge that would violate a prohibition under § 403.5(b) with procedures for follow-up written notification within five days. - If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response. 19.1. Based on EPA’s review, Ameripride has not been required to develop a slug discharge control plan and appears to have a significant amount of chemicals in storage and in process use.	to EPA on whether the City has determined if Ameripride needs or does not need a slug discharge control plan.
20. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(iii) require a POTW to “Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” 40 CFR § 403.8(f)(1)(iii)(B)(3) requires that the permit must be enforceable and at a minimum contain “Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards in part 403 of this chapter, categorical Pretreatment Standards, local limits, and State and local law.” 20.1. The permit contains limits from categorical standards and local limits; a justification for categorical standards and why certain limits were applied was not found in documents provided. 20.2. The Pretreatment regulations at 40 C.F.R. § 403.12(e)(1) require Doosan Bobcat to sample permit-limited pollutants at least twice per year, unless required more frequently by the City The permit establishes a monitoring frequency for TTO at once per year. 20.3. The Metal Finishing Categorical Pretreatment Standards at 40 CFR 433.12(a) and	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii) 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) 40 C.F.R § 433.12(a-b) Doosan Bobcat permit, Part B.10 <u>Corrective Action Item</u> Provide justification and incorporate the most stringent limit in the Doosan Bobcat permit from the Metal Finishing Categorical Standards and the City’s local limits. Modify the Doosan Bobcat permit to establish a minimum sampling frequency for TTOs at twice per year. Require Doosan Bobcat to sample TTOs at a minimum frequency of twice per year until the SIU develops and submits to the City for approval a TOMP that identifies the toxic organic compounds used; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures for ensuring that toxic organics do not routinely spill or leak into the

(b) state that in lieu of monitoring for TTOs, the City may allow Doosan Bobcat to develop a Toxics Organic Management Plan (TOMP) and certify the following: “Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation [or pretreatment standard] for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the permitting [or control] authority.” Part B.10 of the permit contains conditions for developing a TOMP and certifying for TTOs.

20.3.1. Doosan Bobcat is currently certifying for TTOs in lieu of monitoring but has not developed a TOMP. This is violation of the Metal Finishing Categorical Pretreatment Standards at 40 CFR § 433.12(a) and (b).

20.4. During EPA’s review of the Doosan Bobcat permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Doosan Bobcat permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.

20.5. The City does not develop fact sheets or permit rationales that justify the permit conditions and limits, based on current information gathered during annual inspection reports, permit applications, DMRs or other reports and notifications. Based on the review of the Doosan Bobcat permit, it was unclear to EPA in the permits how the City identified pollutants of concern; how permit limits and other permit conditions were developed because there is no documentation that describes or justifies these during permit development, as identified in

wastewater. is submitted and approved by the POTW

Update the Doosan Bobcat permit to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.

Recommended Action Item

EPA recommends the City develop a fact sheet or permit rationale with every SIU permit developed or renewed to ensure it is written to ensure compliance with applicable Pretreatment Standards and Requirements, based on current conditions at the SIU. Examples of the Doosan Bobcat permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas identified in §8.4.2(3)(a-c) of this audit report.

§8.4.4(2)(a-b) of this audit report.	
21. 40 CFR § 403.8(f)(1)(iii)(B)(3) requires that the permit must be enforceable and at a minimum contain “Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards in part 403 of this chapter, categorical Pretreatment Standards, local limits, and State and local law.” 21.1. For both total chromium and nickel, the City applied the local limit as the most stringent monthly average limit. It does not appear that the 1994 local limits development allow the City to apply the local limits as enforceable monthly limits. 21.2. Similarly, the City applied established the cadmium local limit at 0.09 mg/L as the most stringent monthly average. In addition to the uncertainty if this is technically valid, the monthly average categorical standard for cadmium from 40 CFR part 433 is 0.07 mg/L and therefore, more stringent.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(B)(3) <u>Corrective Action Item</u> Provide documentation to EPA that the 1994 local were developed using chronic standards that allow the expression of local limits as monthly averages. If not, then the monthly average from the categorical standard needs to be applied in the permit. Modify the Doosan Bobcat permit to apply the most stringent monthly average limit for cadmium equal to 0.07 mg/L.
22. The Pretreatment Regulations at 40 CFR § 403.8(f)(2)(vi) require a POTW to “Evaluate whether each such Significant Industrial User needs a plan or other action to control Slug Discharges.” The Doosan Bobcat inspection report cover letter dated March 9, 2022 addressed the need for the facility to have a slug discharge control plan. However, the cover letter did not identify a submittal date for this plan. During EPA’s review of the Pretreatment records, a slug plan was not found. Additionally, based on EPA’s inspection of the Doosan Bobcat facility, a slug discharge control plan is necessary to address potential slug discharges from chemical storage/handling, and process tanks in the facility.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vi) Doosan Bobcat Inspection Report dated March 9, 2022 <u>Corrective Action Item</u> Ensure Doosan Bobcat submits a slug discharge control plan.
23. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(iii) require a POTW to “Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” 23.1. The municipal ordinance at §11.1-06-02(6) states the following: “Permits are not	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii) 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) Municipal Ordinance, §11.1-06-02(6) <u>Corrective Action Item</u> Issue a new permit to the new owner of East

transferable.” The East Side Jersey Dairy transferred ownership on April 29, 2020 and based on EPA’s review, it does not appear that the City transferred the existing permit or issued a new permit to the new owner. 23.2. During EPA’s review of the East Side Jersey Dairy permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the East Side Jersey Dairy permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. 23.3. The City does not develop fact sheets or permit rationales that justify the permit conditions and limits, based on current information gathered during annual inspection reports, permit applications, DMRs or other reports and notifications. Based on the review of the East Side Jersey Dairy permit, it was unclear to EPA in the permits how the City identified pollutants of concern; how permit limits and other permit conditions were developed because there is no documentation that describes or justifies these during permit development, as identified in §8.4.5(2)(a-b) of this audit report.	Side Jersey Dairy, as identified in the April 29, 2020 letter. Update the East Side Jersey Dairy permit to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. <u>Recommended Action Item</u> EPA recommends the City develop a fact sheet or permit rationale with every SIU permit developed or renewed to ensure it is written to ensure compliance with applicable Pretreatment Standards and Requirements, based on current conditions at the SIU. Examples of the East Side Jersey Dairy permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas identified in §8.4.5(2)(a-b) of this audit report.
24. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices.” 24.1. Part B.4 of the East Side Jersey Dairy permit requires semiannual monitoring but requires sampling specifically in May and October. The permit states in Part B.9 that “All results of the sampling and analysis required by Item No. 4 of section B of this permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month in which the sample was taken.” 24.1.1. The East Side Jersey Dairy sampled in March 2022, September 2021 and April 2021 but failed to sample in May 2021,	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2) East Side Jersey Dairy, Part B.4 <u>Corrective Action Item</u> Provide an enforcement response to East Side Jersey Dairy for the failure to sample in May and October 2021 and May 2022, according to the City’s ERP

October 2021 and May 2022, as required by the permit.	
25. The slug discharge control plan submitted to the City from the East Side Jersey Dairy does not include all minimum elements required in a slug control plan, as required in 40 C.F.R. § 403.8(f)(2)(vi) of the Pretreatment regulations.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vi) <u>Corrective Action Item</u> Require East Side Jersey Dairy to update the slug discharge control plan to include a description of discharge practices and description of stored chemicals at the facility. <u>Recommended Action Item</u> EPA recommends the City require East Side Jersey Dairy to add detail regarding processes and chemicals stored as well as how other operations could potentially slug load (e.g., the truck washing which was identified in the inspection report as a potential cause of prior pH violations).
26. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(iii) require a POTW to “Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” 26.1. The City determined that Coca Cola Bottling needed a slug discharge control plan. However, the SIU’s permit do not include slug discharge control plan requirements. 26.2. The permit requires pH sampling twice every six months. Coca Cola Bottling has installed a continuous pH meter and this continuous pH data must be reported to the City under the additional monitoring provision of the permit. 26.3. During EPA’s review of the Coca Cola Bottling permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Coca Cola Bottling permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii) 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) <u>Corrective Action Item</u> Modify the Coca Cola Bottling permit to include slug discharge control requirements. Require Coca Cola Bottling to report the data collected from the continuous pH monitoring. Update the Coca Cola Bottling permit to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. <u>Recommended Action Item</u> EPA recommends the City develop a fact sheet or permit rationale with every SIU permit developed or renewed to ensure it is written to ensure compliance with applicable Pretreatment Standards and Requirements, based on current conditions at the SIU.

Regulations. 26.4. The City does not develop fact sheets or permit rationales that justify the permit conditions and limits, based on current information gathered during annual inspection reports, permit applications, DMRs or other reports and notifications. Based on the review of the East Side Jersey Dairy permit, it was unclear to EPA in the permits how the City identified pollutants of concern; how permit limits and other permit conditions were developed because there is no documentation that describes or justifies these during permit development.	
27. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices.” The permit requires samples be collected in May and October of each year. Coca Cola Bottling sampled its effluent on September 9-10, 2020, April 7, 2021, September 22, 2021, and March 23-24, 2022 and did not sample in October 2020, May 2021, October 2021 and May 2022, as required in the permit. The City did not identify these violations in the reviews of the self-monitoring reports.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2) <u>Corrective Action Item</u> Provide an enforcement response for the failure to sample in October 2020, May and October 2021 and May 2022, according to the City’s ERP.
28. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(iii) require a POTW to “Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” 28.1. The High Plains Coating and Fabrication permit was effective on September 1, 2020 and expires on July 31, 2025. There was no industrial waste survey questionnaire or permit application in the Pretreatment records. The municipal ordinance at §11.1-06-02(2) requires “All industrial users shall complete and file with the pretreatment coordinator an application in the form prescribed by the pretreatment coordinator and accompanied by a fee set by the board.” 28.2. During EPA’s review of the High Plains Coating and Fabrication permit, the permit conditions for the permit template discussed in	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii) 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) Municipal Ordinance, §11.1-06-02(2) <u>Corrective Action Item</u> Determine if High Plains Coating and Fabrication submitted a permit application, in compliance with §11.1-06-02(2) of the municipal ordinance. Provide an enforcement response if a permit application was not submitted, according to the City’s ERP. Update the Coca Cola Bottling permit to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. 403.8(f)(1)(iii)(B)(1-6) of

§8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the High Plains Coating and Fabrication permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. 28.3. The City does not develop fact sheets or permit rationales that justify the permit conditions and limits, based on current information gathered during annual inspection reports, permit applications, DMRs or other reports and notifications. Based on the review of the High Plains Coating and Fabrication permit, it was unclear to EPA in the permits how the City identified pollutants of concern; how permit limits and other permit conditions were developed because there is no documentation that describes or justifies these during permit development.	the Pretreatment Regulations. <u>Recommended Action Item</u> EPA recommends the City develop a fact sheet or permit rationale with every SIU permit developed or renewed to ensure it is written to ensure compliance with applicable Pretreatment Standards and Requirements, based on current conditions at the SIU. The City should re-evaluate the High Plains Coating and Fabrication zero discharge permit to ensure there is no allowance for a discharge. The SIU should apply for a discharge permit if it needs to discharge in the future.
29. The permit requires High Plains Coating and Fabrication to submit annual reports that cover the calendar year from January 1 through December 31 of each calendar year. The 2020 annual report was signed on September 28, 2020 and received by the City on October 6, 2020. The 2021 annual report was signed on November 24, 2021 and received by the City on November 30, 2021. The City did not provide an enforcement response to High Plains Coating and Fabrication for the failure to submit a complete annual report for 2020 and 2021.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2) <u>Corrective Action Item</u> Ensure annual compliance reports are submitted after the monitoring period ends on December 31 to ensure that the facility is certifying compliance for the complete monitoring period. Provide an enforcement response for the failure to submit a complete annual compliance report for 2020 and 2021, according to the City's ERP.
<i>Section 10.0 – Control Authority Compliance Monitoring</i>	
30. 40 C.F.R. § 403.8(f)(1)(v) of the Pretreatment Regulations requires the POTW to have the legal authority to "Carry out all inspection, surveillance, and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(v) 40 C.F.R. § 403.8(f)(2)(v) 40 C.F.R. § 403.8(f)(2) 40 C.F.R. § 403.12(g)(5)

requirements.” Further, 40 C.F.R. § 403.8(f)(2)(v) require a POTW to “Randomly sample and analyze the effluent from Industrial Users and conduct surveillance activities in order to identify, independent of information supplied by Industrial Users, occasional and continuing noncompliance with Pretreatment Standards. Inspect and sample the effluent from each Significant Industrial User at least once a year.” As required in 40 C.F.R. § 403.8(f)(2), the POTW shall “develop and implement procedures to ensure compliance with the requirements of a Pretreatment Program.” 31. The City developed IU-specific sampling plans that includes site-specific sampling at each IUs. The IU sampling plans include sampling techniques/procedures, equipment, and an identification of the sampling location. This provides the City consistent sampling at each SIU. The City needs to incorporate QA/QC into each IU sampling plan such as equipment blanks, trip blanks, sample duplicates, matrix spikes, control standards to ensure the sampling and analytical techniques are in control and compliance with 40 CFR 136. In addition, the sampling plan should be evaluated to ensure the site-specific sampling protocols at the SIUs that are representative, based on the SIU’s current wastewater discharge for the production day.	<u>Corrective Action Item</u> Update the sampling plan and IU-specific sampling protocols to incorporate QA/QC into each IU sampling plan such as equipment blanks, trip blanks, sample duplicates, matrix spikes, control standards to ensure the sampling and analytical techniques are in control and compliance with 40 CFR 136. In addition, evaluate the sampling plan to ensure the site-specific sampling protocols at the SIUs that are representative, based on the SIU’s current wastewater discharge for the production day.
<i>Section 11.0 – Enforcement</i>	
32. The EPA establishes the regulatory requirement to develop and implement an Enforcement Response Plan (ERP) in 40 C.F.R. § 403.8(f)(5)(i-iv) of the Pretreatment Regulations. The regulations require the City to develop and implement an enforcement response plan that contains detailed procedures indicating how a POTW will investigate and respond to instances of industrial user noncompliance. The plan shall, at a minimum: (i) Describe how the POTW will investigate instances of noncompliance. (ii) Describe the types of escalating enforcement responses the POTW will take in response to all anticipated types of industrial user violations and the time periods within which responses will take place. (iii) Identify (by title) the official(s) responsible for	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(5)(i-iv) <u>Corrective Action Item</u> Update the enforcement response plan to be in compliance with 40 C.F.R. § 403.8(f)(5)(i-iv) of the Pretreatment Regulations.

each type of response.

(iv) Adequately reflect the POTW's primary responsibility to enforce all applicable pretreatment requirements and standards.”

The City submitted its ERP to the EPA for review, prior to the audit. Based on the EPA’s review, the ERP needs to be updated to include the following, in accordance with 40 C.F.R. § 403.8(f)(5)(i-iv) (*Note: EPA Comments are included in the attached City of Bismarck - ERP Checklist and embedded in the Bismarck Enforcement Response Plan-EPA that are enclosed with the audit report*):

32.1. Permitting Overview (Section 4.1):
Table 2.1 SIUs is out of date.

32.2. The ERG Tables is missing enforcement remedies for violations of Pretreatment Standards that result in SNC:

32.2.1. Violation of Permits limits/Pretreatment Standards and Requirements that result in SNC is absent (SNC Criteria #s A and B)

32.2.2. Any other violation of a Pretreatment Standard or Requirement as defined by 40 CFR 403.3(l) that the POTW determines has caused Interference or Pass Through (including endangering the health of POTW personnel or the general public) (SNC Criteria # C)

32.2.3. Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority (SNC Criteria # D)

32.2.4. Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance (SNC Criteria # E)

32.2.5. Reporting Violations that are over 30 days and/or result in SNC (SNC Criteria #F)

32.2.6. Failure to accurately report noncompliance (SNC Criteria # G)

32.2.7. Any other violation or group of violations, which may include a violation of Best Management Practices, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment program (SNC Criteria # H) 32.3. The ERG Table is missing enforcement remedies for anticipated types of violations common to Pretreatment Programs: 32.3.1. Failure to Notify – the ERG table only lists failure to notify of changed discharge. Other notifications for 24-hour, slug discharge, potential problems, hazardous waste, upset and bypass are absent. 32.3.2. Analytical deficiencies such as hold time exceeded, not reportable data, failing QA/QC 32.3.3. Violations specific to BMP-based sector control programs such as the FOG program. 32.3.4. Violations specific to trucked/hailed waste, such as illicit discharge, illegal access, failure to provide records, poor housekeeping at discharge site, etc.	
33. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices.” 40 C.F.R. § 403.8(f)(2)(viii) of the Pretreatment Regulations require a POTW to comply with the public participation requirements in the enforcement of National Pretreatment Standards. These procedures shall include a provision for at least annual public notification in a newspaper of general circulation, that provides meaningful public notice within the jurisdictions served by the POTW, of IUs which, at any time during the previous 12 months, were in SNC with applicable Pretreatment requirements. The SNC determinations are both calculation of numeric Pretreatment Standards, as listed in 40 C.F.R. § 403.8(f)(2)(viii)(A-D) and determination of violations of the narrative Pretreatment Standards, as listed in 40 C.F.R. § 403.8(f)(2)(viii)(E-H).	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(vii) 40 C.F.R. § 403.8(f)(2)(viii) <u>Corrective Action Item</u> Ensure the City adequately evaluates discharge monitoring reports and notices for compliance with permit limits and conditions established in the SIU permits. Ensure the City performs SNC determinations of numeric and narrative criteria, as applicable.

33.1. Based on EPA's review and specific violations in SIU permit that were not identified, as described in §8.4 of this audit report, the City needs to ensure it adequately evaluates discharge monitoring reports and notices for compliance with permit limits and conditions established in the SIU permits.

33.2. According to the City, it performs SNC calculations for numeric criteria and determines SNC for the narrative criteria, as applicable but has not had an SIU in SNC for a number of years. Based on EPA's review of the Pretreatment records and the number of potential SNC violations that were not identified during the City's compliance evaluation.

Table of Contents

1.0	Introduction.....	35
2.0	Publicly Owned Treatment Works (POTW) Information	36
2.1	Treatment Solids	37
2.2	Design Capacities	37
2.3	NPDES Permit.....	37
3.0	Resources	42
3.1	Resources Regulatory Background	42
3.2	Evaluation of the City’s Resources and Funding	42
3.3	Examples of Available Pretreatment Training/Resources	43
4.0	Municipal Ordinance and Intergovernmental Agreements.....	44
4.1	Legal Authority Background.....	44
4.2	City of Bismarck Municipal Ordinance	45
4.3	Inter-Jurisdictional or Governmental Agreements (IGA)	49
4.3.1	IGA Regulatory Background	49
4.3.2	Evaluation of the City’s IGAs with Outside Contributing Jurisdictions	50
5.0	Local Limits	51
5.1	Local Limits Regulatory Background	51
5.2	Local Limits Requirements Established in the City’s NPDES Permits	53
5.3	The EPA Evaluation of the City’s Local Limits	53
5.3.1	Technically-based Local Limits.....	53
5.3.2	Numeric Ordinance Limits	55
5.3.3	Dilution Prohibition	55
5.4	Local Limits Technical Evaluation-Regulatory Background.....	55
5.5	Technical Evaluation of the City’s Local Limits	56
5.6	Permit or Site-Specific Limits.....	57
6.0	Pretreatment Operating Procedures	58
6.1	Regulatory Background.....	58
6.2	Standard Operating Procedures (SOPs)	59
6.3	Templates	59
6.4	Records and Data Management.....	60

6.4.1	Regulatory Background	60
6.4.2	Recordkeeping and Data Management Procedures	61
6.5	Receipt of Discharge Monitoring Reports and Notifications	61
6.6	Management of Confidential Records.....	62
7.0	Industrial User Inventory and Characterization.....	62
7.1	Regulatory Background.....	62
7.2	Industrial User Identification and Characterization Procedure	63
7.3	Industrial User Database of the City’s Service Area.....	64
8.0	Control Mechanism (Permit) Evaluation and Permit Specific Issues.....	65
8.1	Regulatory Background.....	65
8.2	The EPA’s Evaluation of the City’s Permitting Legal Authority	68
8.3	Permit Template Overview	68
8.4	Specific Permit Record Findings	70
8.4.1	Permit records Overview	70
8.4.2	Bismarck Landfill	71
8.4.3	Aramark/Ameripride Industrial Laundry	74
8.4.4	Doosan Bobcat.....	77
8.4.5	East Side Jersey Dairy	79
8.4.6	Coca Cola Bottling.....	81
8.4.7	High Plains Coating and Fabrication	81
9.0	Significant Industrial User Facility Inspections.....	83
9.1	Regulatory Background.....	83
9.2	Right of Entry.....	83
9.3	Facility Inspection Records – Background	84
9.4	Evaluation of the City’s Inspection Reports/Records	85
9.5	Notification of Applicable Pretreatment Standards	86
9.6	Facility Inspections	86
10.0	Control Authority Compliance Monitoring	86
10.1	Regulatory Background.....	86
10.2	Sampling Plan and Protocols.....	87
10.2.1	Site-Specific Sampling Protocols	87

10.2.2	Quality Assurance/Quality Control (QA/QC)	88
10.3	The EPA Evaluation of the City’s Control Authority Monitoring.....	88
10.3.1	SOPs.....	88
10.3.2	City’s Control Authority Monitoring.....	88
11.0	Enforcement.....	88
11.1	Regulatory Background.....	88
11.2	Enforcement Legal Authority.....	89
11.3	Enforcement Response Plan.....	89
11.4	Compliance Evaluation	90
11.5	SNC Calculations and Public Participation.....	91
12.0	Trucked and Hauled Waste.....	91
12.1	Regulatory Background.....	91
12.2	Legal Authority	92
12.3	Trucked and Hauled Waste Disposal Location and Control Mechanisms.....	92
13.0	Best Management Practices – Sector Control Programs	95
13.1	Regulatory Background.....	95
13.2	Authority in Rules and Regulations	95
13.3	Fats, Oils and Grease (FOG) BMP Sector Control Program	95
13.4	Dental Amalgam BMP Sector Control Program.....	96

Figures

Figure 1	–City of Bismarck Service Area.....	38
Figure 2	- City of Bismarck POTW and Missouri River, Google Maps View.....	39
Figure 3	– City of Bismarck POTW Processes.....	40
Figure 4	– Bismarck POTW Process Schematic Diagram.....	41
Figure 5	– Bismarck POTW – Septic Disposal Site	94

Tables

Table 1	– City of Bismarck Design Capacities.....	37
Table 2	– City of Bismarck Local Limits	53
Table 3	- Special Mass-Based Limitations	54

1.0 Introduction

The U.S. Environmental Protection Agency, Region 8 (EPA) and the North Dakota Department of Environmental Quality (NDDEQ) conducted an audit of the Pretreatment program, administered by the City of Bismarck, ND (City) from June 28, 2022 through June 30, 2022. The Pretreatment audit started on June 28, 2022, at 8:00 a.m. with an opening interview. The closing conference was held on June 30, 2022, at 8:00 a.m. during which the EPA and the NDDEQ presented the preliminary observations, conclusions, and findings from the audit.

Participants in the audit included:

City of Bismarck, ND

Bill Gefroh	Pretreatment Coordinator/Laboratory Manager
Dean Woehl	Pretreatment Technician
Travis Carufel	Wastewater Treatment Plant Superintendent
Nick Rutschky	Wastewater Treatment Plant Supervisor
Sandy Young	Laboratory Technician/QA Manager
Jeron Fuller	Collections/Distribution Superintendent (Closing Conference only)
Michelle Klose	Utilities Operations Director (Closing Conference Only)

NDDEQ

Montana Kruske	Pretreatment Coordinator
Lawrence Hanson	Pretreatment/NPDES Permits
Sarah Feld Waldron	NPDES Permits

EPA

Al Garcia	Region 8 Pretreatment Coordinator
Emilio Llamozas	EPA Region 8 Enforcement Unit
Maggie Green	EPA HQ Pretreatment

The primary purpose of the EPA audit was to evaluate the Pretreatment program administered and implemented by the City. In addition, the audit served as a forum for the EPA, NDDEQ and the City to discuss issues related to the implementation of the Pretreatment program and for the EPA to provide outreach and training to the City.

The EPA Pretreatment audit consisted of an evaluation of the following:

- The City's legal authority codified in its municipal ordinance; Title 11.1 – Pretreatment Program.
- Development and implementation of the City's local limits.
- The City's resources to implement the Pretreatment program in its service area.
- Implementation policies and templates developed by the City.
- Review and evaluation of the Pretreatment programmatic activities and records

- maintained for the permitted Significant Industrial Users (SIUs).
- Site inspection of selected SIUs and IUs in the service area to ensure the Pretreatment records reflect current conditions,
- Discussion of the Pretreatment Regulations and implementation.

The following sections of the report highlight the findings, corrective actions, and recommended actions of the audit. The action items to correct program deficiencies and meet regulatory requirements are identified in the Pretreatment Audit Summary Table, beginning on page 2 of this report. Specific actions to clarify and strengthen program implementation are provided as recommendations within the body of the audit report.

2.0 Publicly Owned Treatment Works (POTW) Information

The City owns and operates a Publicly Owned Treatment Works (POTW) located at 601 London Avenue, Bismarck, ND 58504. The POTW serves the boundary of the City of Bismarck and some IUs outside the City's jurisdictional boundary, such as the County Shop and the Missouri River Correctional Facility. The service area for the POTW is shown in Figure 1.

The POTW tour was provided by Mr. Bill Gefroh-Pretreatment Coordinator, Mr. Travis Carufel-Wastewater Treatment Plant Superintendent, and Mr. Nick Rutschky-Wastewater Treatment Plant Supervisor. The POTW is a secondary, trickling filtration mechanical plant with anaerobic digestion for the treatment solids and chlorination/dechlorination for disinfection. The aerial view of the POTW, generated from Google Maps is shown in Figure 2. In addition, Figure 3 provides a process overview and Figure 4 provides a process schematic diagram.

The City's service area is composed of two collection system basins, the Washington basin that incorporates a significant portion of the City's service area and the Wachter basin that services the southeast side of the City. Each of these basins are serviced by a main lift station to pump the wastewater into the POTW. The Washington lift station pumps wastewater through a 24-inch interceptor and the Wachter lift station pumps wastewater to the POTW via two 24-inch interceptors. All interceptors coming into the POTW combine into a single channel. The single channel enters the Headworks building and is screened through a drum screen to remove solids and organic material. The trucked waste enters the POTW in the influent channel. The screenings are collected into a dumpster and is transported to the landfill. The screened wastewater enters into two teacup grit removal systems arranged in a parallel configuration. The sand and grit is removed, washed and collected in the solids dumpster. The POTW removes about 0.8 tons of solids in the headworks per day.

The wastewater from the Headworks enters into a splitter box and about 60% of the wastewater from headworks is sent to a 1.5-million gallons flow-equalization tank for aeration and conditioning to minimize the effects of H₂S at the POTW. The POTW has another 1.5 million gallons in storage, if needed. The aerated and conditioned wastewater is then sent to the three primary clarifiers. The other 40% of the wastewater from headworks is sent to the primary clarifiers for a 3-hour detention time to allow for solids

and scum to separate from the wastewater. The solids and scum are collected and pumped to the anaerobic digester. The POTW installed a new pumping station in 2017 to pump the primary effluent to the three trickling filters, each about 16 feet in diameter. The POTW currently uses two of the trickling filters in parallel. The trickling filter effluent is pumped to the three secondary clarifiers. The secondary effluent is sent to the chlorination basin where the POTW uses liquid chlorine and is dechlorinated at the end of this basin using sodium bisulfite. The dechlorinated effluent flows through a 42-inch line about 1 mile to the Missouri River.

2.1 Treatment Solids

The POTW has two primary anaerobic digesters for the solids and a holding batch tank. The digesters process solids for approximately 35 days to ensure the biosolids meet pathogen and vector control requirements. The solids are dewatered in a press to 22% dry weight and are land applied as Class B solids in the spring and fall seasons. The biosolids are stored on the POTW site during the non-application seasons.

2.2 Design Capacities

Table 1 lists the design capacities for the City's POTW, based on information submitted in the 2021 Pretreatment Annual report and information gathered during the audit.

Table 1 – City of Bismarck Design Capacities

Pollutant	Design Capacity (lbs/day)	Loadings (lbs/day)	% of Design Capacity
Flow	9.3 MGD	6.03 MGD	65
TSS	20,100	15,329	76
BOD	17,400	14,607	84
TKN	20,100	---	---
Ammonia	13,065	---	---

According to the City's 2021 Annual Pretreatment Report, the City issues permits to 10 SIUs of which one is subject to Categorical Pretreatment Standards. The City reports a total SIU flow of 0.176 MGD and a 2.92% total industrial flow contribution to the POTW.

2.3 NPDES Permit

The City's NPDES permit #ND-0023434, issued by the North Dakota Department of Environmental Quality (NDDEQ), contains provisions for an EPA-approved Pretreatment program in Part V. The permit is effective on July 1, 2018 and is scheduled to expire on June 30, 2023.



Figure 2 - City of Bismarck POTW and Missouri River, Google Maps View

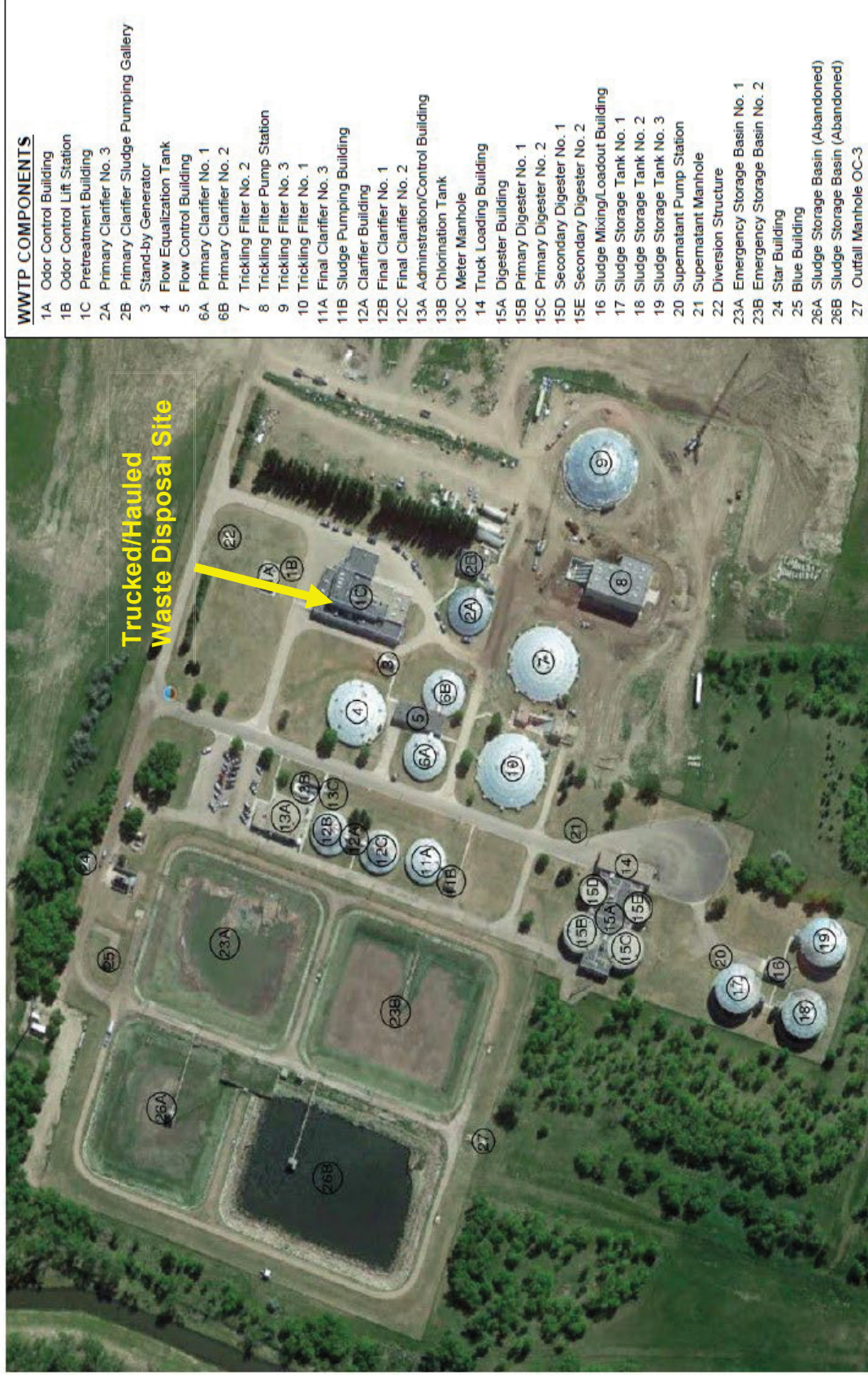


Figure 3 – City of Bismarck POTW Processes

3.0 Resources

3.1 *Resources Regulatory Background*

The Pretreatment Regulations found in 40 C.F.R. § 403.8(f)(1-6) include POTW Pretreatment requirements and procedures to implement an approved Pretreatment program. These requirements and procedures include the legal authority and the implementation procedures of the Pretreatment program (permitting, inspections, sampling, industrial waste survey, receipt of IU reporting and notification, record-keeping, slug discharge control, data evaluation and enforcement for non-compliance). In addition, the Pretreatment Regulations found in 40 C.F.R. § 403.8(f)(3) state that the POTW shall have sufficient resources and qualified personnel to carry out the authorities and implementation procedures of the Pretreatment program.

A Pretreatment program, in compliance with the criteria listed in the Pretreatment Regulations, requires adequate and qualified staffing to implement the Pretreatment program in its service area. The resources required for each implementation activity depend largely on the size of the service area, number of IUs/SIUs/sector control programs, and Pretreatment program policies. A compliant program also requires a consistent funding mechanism to ensure the program is adequately funded and equipped to fully implement the program.

3.2 *Evaluation of the City's Resources and Funding*

The City reported in its 2021 annual report that it commits 1.5 FTE to the Pretreatment Program and has an annual budget of \$158,253 for that calendar year. This was confirmed by EPA during the opening interview portion of the audit. According to the City, the FTE commitment consists of a Pretreatment Coordinator at a 0.5 FTE and a 1.0 FTE Pretreatment Technician. The Pretreatment Coordinator manages the Pretreatment program and is also the Laboratory Manager. The Pretreatment Coordinator and Technician share responsibility for implementing the programmatic activities of the Pretreatment Program but it appears that the Coordinator is primarily responsible for permit development/writing, evaluation of compliance reports/notices and compliance evaluation/enforcement of the SIUs. The Technician implements the FOG program and provides sampling and inspection support for the program. The Technician also serves as backup for the laboratory and provides sampling support for the drinking water plant. The Pretreatment program collaborates and receives support from POTW personnel for field activities and the Collections Department for odor complaints, public outreach and issues within the collection system. The Pretreatment program is organized within the POTW and the Coordinator reports to the Director of Utilities, who reports to the City administrator.

The City is well funded by the Wastewater Enterprise fund and does not impose cost recovery on the IUs in the service area, except for surcharge for excess BOD and TSS contributed to the City's POTW. The City appears to be well equipped to carry out the field activities of the Pretreatment program; it has a dedicated vehicle, several 4230 ISCO automatic samplers, bubbler flow meters, access to refrigerated samplers, pH field meters with 3-point calibration, and necessary PPE. The City also has a storage room for equipment storage and appropriate access to sinks to decontaminate field equipment after

monitoring activities.

The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(3) state that the POTW shall have “sufficient resources and qualified personnel to carry out the authorities and procedures” of the Pretreatment program. Although the City has an excellent FOG program, based on EPA’s review of the City’s Pretreatment records, it appears that the City needs to focus on the implementation of the Pretreatment program for the SIUs in the service area. This audit report provides corrective action items for almost every implementation area of the Pretreatment program. The most significant EPA areas of concern include the City’s legal authority in the municipal ordinance, lack of current local limits, permit development, compliance evaluation of reports/notices and lack of enforcement.

It is not clear to the EPA if these areas of concern are due to inadequate resources or qualified personnel implementing the program. EPA recommends the City evaluate its current commitment and organization of the Pretreatment program and further recommends the City provide additional commitment to the Pretreatment program by ensuring the position that develops/writes permits, evaluates for compliance and provides enforcement be a full-time position or a 1.0 FTE. The City is required to submit a staffing plan that evaluates the City’s commitment to the Pretreatment program to address the corrective action items in this audit report and the projected growth in the service area or from outside contributing jurisdictions.

3.3 Examples of Available Pretreatment Training/Resources

The EPA is available to help with training and outreach assistance to the Pretreatment personnel. In addition, there are opportunities for training and peer communication with the CIPCA and R8PA organizations within Region 8. This is not a comprehensive list of all Pretreatment related training/resources available. The City is encouraged to seek out training and resources that will support its Pretreatment program implementation. EPA is also available to the City for Pretreatment training opportunities.

The Region 8 Pretreatment workshop provided by Region 8 Pretreatment Association provides training sessions directly related to Pretreatment implementation, updates to upcoming regulations and policies, and networking opportunities.

The EPA provides “Pretreatment 101” webinar training designed to provide consistent national training to local and state Pretreatment programs. The webinar series is located at <https://www.epa.gov/npdes/national-pretreatment-program-training-and-webinar>. Archived presentations may be downloaded, and a schedule of future training opportunities is located at the website.

An additional resource available is the Pretreatment Coordinators Group discussion forum, found at the following website:

<https://groups.io/g/Pretreatment/topics>

4.0 Municipal Ordinance and Intergovernmental Agreements

4.1 Legal Authority Background

40 C.F.R. § 403.8(f)(1) of the Pretreatment Regulations states:

“The POTW shall operate pursuant to legal authority enforceable in Federal, State, or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Clean Water Act (Act) and any regulations implementing those sections. Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law.

At a minimum, this legal authority shall enable the POTW to:

- i. Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the POTW by Industrial Users where such contributions do not meet applicable Pretreatment Standards and Requirements or where such contributions would cause the POTW to violate its NPDES permit;
- ii. Require compliance with applicable Pretreatment Standards and Requirements by Industrial Users;
- iii. Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under §403.3(v), this control shall be achieved through individual permits or equivalent individual control mechanisms issued to each such User...
- iv. Require (A) the development of a compliance schedule by each Industrial User for the installation of technology required to meet applicable Pretreatment Standards and Requirements and (B) the submission of all notices and self-monitoring reports from Industrial Users as are necessary to assess and assure compliance by Industrial Users with Pretreatment Standards and Requirements, including but not limited to the reports required in §403.12.
- v. Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a Discharge source or treatment system is located or in which records are required to be kept under §403.12(o) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of the Act;
- vi. (A) Obtain remedies for noncompliance by any Industrial User with any Pretreatment Standard and Requirement. All POTW's shall be able to seek injunctive relief for noncompliance by Industrial Users with Pretreatment Standards and Requirements. All POTWs shall also have authority to seek or assess

civil or criminal penalties in at least the amount of \$1,000 a day for each violation by Industrial Users of Pretreatment Standards and Requirements.

(B) Pretreatment requirements which will be enforced through the remedies set forth in paragraph (f)(1)(vi)(A) of this section, will include but not be limited to, the duty to allow or carry out inspections, entry, or monitoring activities; any rules, regulations, or orders issued by the POTW; any requirements set forth in control mechanisms issued by the POTW; or any reporting requirements imposed by the POTW or these regulations in this part. The POTW shall have authority and procedures (after informal notice to the discharger) immediately and effectively to halt or prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons. The POTW shall also have authority and procedures (which shall include notice to the affected industrial users and an opportunity to respond) to halt or prevent any discharge to the POTW which presents or may present an endangerment to the environment or which threatens to interfere with the operation of the POTW. The Approval Authority shall have authority to seek judicial relief and may also use administrative penalty authority when the POTW has sought a monetary penalty which the Approval Authority believes to be insufficient.

vii. Comply with the confidentiality requirements set forth in §403.14.”

The provisions in 40 C.F.R. § 403.8(f)(1)(i-vii) do not provide local Pretreatment programs with legal authority, but they do establish the minimum requirements for the local municipality to implement the Pretreatment program. A POTW’s legal authority is derived from State law. Therefore, State law must confer the minimum legal authority required by the Pretreatment Regulations on a POTW.

To apply the regulatory authority provided by State law, it is necessary for the POTW to establish local regulations to legally implement and enforce pretreatment requirements. A POTW’s legal authority is typically established in a sewer use ordinance as part of the municipality’s code, or in the case of a sanitation district, its Rules and Regulations. The EPA’s 2007 *Model Pretreatment Ordinance* provides a template for POTWs that are required to develop pretreatment programs and can be found at the following website:

https://www3.epa.gov/npdes/pubs/pretreatment_model_suo.pdf

4.2 City of Bismarck Municipal Ordinance

EPA approved the City’s Pretreatment program on March 10, 1986, according to records maintained by EPA. EPA approved updates to the City’s municipal ordinance on November 13, 1992 to incorporate provisions required by the Domestic Sewage Exclusion Rule, on December 14, 1995 to update the Pretreatment definitions and to incorporate BTEX limits, and on September 10, 1999 to update the enforcement authority.

The City provided its Pretreatment legal authority found in Title 11.1 – Pretreatment Program of the municipal ordinance for the EPA to review. Based on EPA’s review, the City has not updated its municipal ordinance to incorporate required provisions from the

2005 Pretreatment Streamlining Regulations, promulgated by EPA and does not provide the City the adequate framework to implement the Pretreatment Regulations in the POTW's service area.

The City's municipal ordinance needs to be updated to provide the City the framework to implement the Pretreatment Regulations in the POTW's service area. The areas of the municipal ordinance that need to be updated are summarized below and identified in the enclosed City of Bismarck Legal Authority Review:

1. Definitions – §11.1-01-02:

- 1.1. *Approval Authority*: definition is absent.
- 1.2. *Authority Representative of the IU*: definition is absent.
- 1.3. *BMP*: definition is established in the FOG Control Section §11.1-04-03(1) of the ordinance and the BMP definition currently only applies to the FOG sector. The BMP needs to be established for the Pretreatment program and needs to state that BMPs shall be considered local limits and Pretreatment Standards for the purposes of this part and section 307(d) of the Act.
- 1.4. *Control Authority*: definition is absent. EPA recommends the City replace its current definition for *City* in §11.1-01-02(7) with **Control Authority** to comply with the Federal Regulations.
- 1.5. *Indirect Discharge*: - definition is absent. EPA recommends the City replace its current definition for *Industrial Wastes* in 11.1-01-02(14) with Indirect Discharge to comply with the Federal Regulations.
- 1.6. *Industrial User*: definition is absent. EPA recommends the City replace its current definition for *Industrial User* in 11.1-01-02(15) with **Industrial User** to comply with the Federal Regulations.
- 1.7. *Interference*: the current definition is not equivalent to the definition established in 40 C.F.R. 403.3(k) of the Federal Pretreatment Regulations because it does not define interference as a “*discharge, which alone or in conjunction with a discharge or discharges from other sources*”.
- 1.8. *POTW*: The current definition found in §11.1-01-02(39) needs to include “The term also means the municipality as defined in section 502(4) of the Act, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.” to comply with the Federal Pretreatment Regulations in 40 C.F.R. 403.3(q).
- 1.9. *Pretreatment*: The current definition found in §11.1-01-02(39) states the following: “The process of reducing the nature of pollutant properties, eliminating pollutants, or altering the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging wastewater to disposal system. The reduction, elimination, and alteration may be obtained by physical, chemical or biological processes, process changes or other means, except as prohibited by this title.” The definition needs to refer to the prohibition for dilution currently found in §11.1-03-02(4).

In addition, the definition needs to include the following to comply with the definition found in 40 C.F.R. 403.3(s) of the Federal Pretreatment Regulations: “Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against surges or slug loadings that might interfere with or otherwise be incompatible with the POTW. However, where wastewater from a regulated process is mixed in an equalization facility with unregulated wastewater or with wastewater from another regulated process, the effluent from the equalization facility must meet an adjusted pretreatment limit calculated in accordance with § 403.6(e).”

- 1.10. *Significant Industrial User (SIU)*: the definition found in §11.1-01-02(42) is not equivalent and needs to be modified to comply with the definition found in 40 C.F.R.403.3(v) which states:

1.10.1. “All Industrial Users subject to Categorical Pretreatment Standards under [40 CFR 403.6](#) and [40 CFR chapter I](#), subchapter N; and

1.10.2. (ii) Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirement (in accordance with [40 CFR 403.8\(f\)\(6\)](#)).”

- 1.11. *Slug Discharge*: the definition found in §11.1-01-02(43) is not equivalent and needs to be modified to comply with the definition found in 40 C.F.R. 403.8(f)(2)(vi) which states: ” any Discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch Discharge, which has a reasonable potential to cause Interference or Pass Through, or in any other way violate the POTW's regulations, local limits or Permit conditions.”

- 1.12. In addition, EPA recommends the City incorporate the following definitions from the attached EPA Model Ordinance:

1.12.1. Categorical Industrial User

1.12.2. Composite Sample

1.12.3. Grab Sample

1.12.4. Pollutant

2. General and Specific Prohibitions – §11.1-03-01

- 2.1. *General Prohibition for Pass Through and Interference*-40 C.F.R.403.5(a): The municipal ordinance has not incorporated this general prohibition found in the Federal Pretreatment Regulations.
- 2.2. *Solid of Viscous/Obstructions*-40 C.F.R.403.5(b)(3): The City’s specific prohibition found in §11.1-03-01(2) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.

- 2.3. *Flow Rate/Concentration/BOD Loadings*-40 C.F.R.403.5(b)(4): The City's specific prohibition found in §11.1-03-01(11) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.
- 2.4. *Heat*-40 C.F.R.403.5(b)(4): The City's specific prohibition found in §11.1-03-01(10) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.
- 2.5. *Toxic Gases/Vapors/Fumes*-40 C.F.R.403.5(b)(4): The City's specific prohibition found in §11.1-03-01(6) is not equivalent and needs to be updated to comply with the Federal Pretreatment Regulations.
3. *Local Limits Applicability Language* in 11.1-03-02(5) states that the City's local limits apply to users. Local limits are developed using SIU flow and are applicable to SIUs in permits/control mechanisms.
4. *Deny new or increase contributions* – the City has established the authority to condition new or increased non-domestic wastewater in §11.1-06-02(2) but not the authority to deny such waste, if the POTW cannot accept such waste. Example language from the EPA Model Ordinance includes the following “[The Superintendent] may deny any application for an individual wastewater discharge permit.”
5. Permit Contents – §11.1-06-02
 - 5.1. *Statement of Non-Transferability* – currently, the ordinance states in 11.1-06-2(6) that permits are not transferable. EPA recommends the City allows permit transfers in a statement of non-transferability with prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator.
 - 5.2. The permit conditions section needs to establish BMPs as a permit condition.
 - 5.3. The City's municipal ordinance at §11.1-06-02(3)(j) only requires notification for changed discharge. This notification requirements section of the municipal ordinance needs to be modified to include all notifications required by 40 CFR 403.12.
 - 5.4. A statement of applicable civil and criminal penalties required in 40 C.F.R.403.8(f)(1)(B)(5) of the Federal Pretreatment Regulations needs to be established as a permit condition.
 - 5.5. Requirements to control Slug Discharges, if determined by the POTW to be necessary as required by 40 C.F.R. 403.8(f)(C)(2)(vi) of the Federal Pretreatment Regulations needs to be established as a permit condition.
6. Reporting/Notification Requirements – The City's municipal ordinance does not incorporate the following reports and notifications required in 40 C.F.R.403.12 of the Federal Pretreatment Regulations:
 - 6.1. *Baseline Monitoring Report (BMR)* - 403.12(b)– the City has established permit application requirements in §11.1-06-02(2) but not BMR reporting requirements for CIUs.
 - 6.2. *Compliance schedule for meeting categorical Pretreatment Standards* - 403.12(c).

- 6.3. *90-day Compliance Reports* – 403.12(d)
- 6.4. *CIU Compliance Reports* – 403.12(e)
- 6.5. *SIU Compliance Reports* – 403.12(h)
- 6.6. *Notice of Potential Problems, including Slug Discharges* – 403.12(f)
- 6.7. *Notification of Violations within 24 hours* – 403.12(g)(2)
- 6.8. *30-Day Resampling requirement* – 403.12(g)(2)
- 6.9. *Requirement to Conduct Representative Sampling* – 403.12(g)(3)
- 6.10. *Notification of Changed Discharge* – 403.12(j)
- 6.11. *Notification of Discharge of Hazardous Waste* – 403.12(p)
- 6.12. *Reporting Certification and authorized signatory* – 403.6(a)(2)(ii) and 403.12(l)
- 6.13. *Recordkeeping, including BMPs* – 403.12(o)
- 6.14. *Submission of all Monitoring Data* – 403.12(g)(6)
- 7. Requirement to use appropriate Analytical Procedures not established, as required by 403.12(g)(5).
- 8. Requirement to use appropriate Sampling Procedures not established, as required by 403.12(g)(3,4)
- 9. Right to copy records not established in current Right of Entry authority established in 11.1-06-02(7) of the ordinance.
- 10. SNC publication language in 11.1-07-06 in the City’s ordinance needs to be modified to comply with the Federal Regulations. Specifically, the publication language in this section needs to include the following statement after the largest newspaper “that provides meaningful public notice within the jurisdiction(s) served by the POTW of Industrial Users”.
- 11. The City has established the trucked and hauled prohibition except at designated points. However, as discussed during the audit, EPA recommends the City establish truck and hauled waste requirements in the municipal ordinance that specifically identifies the designated trucked/hauled waste discharge point, access and use and type of waste allowed and control provisions.
- 12. The EPA Guidance Manual for the Control of Hauled Wastes to POTWs -EPA833-B-98-003 is enclosed with this audit report. Appendix G includes model trucked and hauled waste ordinance language.
- 13. The 2007 EPA Model Pretreatment Ordinance is attached with this audit report.

4.3 *Inter-Jurisdictional or Governmental Agreements (IGA)*

4.3.1 IGA Regulatory Background

A POTW’s authority to implement and enforce its approved Pretreatment program is directly related to its regulatory jurisdiction. The POTW’s authority is established in the

local ordinance or Rules and Regulations, which are in effect for its service area. Local entities with connectors, or outside jurisdictions to the service area that contribute wastewater, must establish legally binding mechanisms to ensure that all IUs in these outside contributing jurisdictions are subject to enforceable Pretreatment standards and requirements, as required in §403.8(f)(1).

40 C.F.R. § 403.8(f)(1)(i) states, “The POTW shall operate pursuant to legal authority enforceable in Federal, State or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Act and any regulations implementing those sections. *Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law.*” [Emphasis added]

The local entity that implements the Pretreatment program must either obtain this authority for itself through an IGA or ensure that the outside contributing jurisdiction has both the authority and the obligation to implement and enforce the Pretreatment Standards and Requirements against every IU that discharges to the POTW.

4.3.2 Evaluation of the City’s IGAs with Outside Contributing Jurisdictions

The municipal ordinance at §11.1-01-01 includes language to apply the Pretreatment Regulations to IUs outside the City boundaries: “This title shall apply in the City of Bismarck, North Dakota, and to persons outside the city who are, by contract or agreement with the city, users of the city wastewater disposal system. Except as otherwise provided herein, the director of public works shall administer, implement and enforce the provisions of this ordinance.”

However, municipal ordinances do not automatically extend the City’s authority to implement the Pretreatment Regulations (right of entry to inspection/sample/inspect and copy records, issue permits or require compliance with BMPs, require reporting and notification, evaluate for compliance and enforce) outside the City boundaries established by its charter.

According to information gathered during the audit, the City currently does not have any outside contributing jurisdictions that contribute wastewater to the City’s POTW. However, the City is discussing or planning regionalization of its POTW to expand the service area of the POTW to include the City of Lincoln. The City of Lincoln is adjacent to Bismarck and the 2020 census population was 4,257. As required by 40 C.F.R. § 403.8(f)(1)(i), if/when regionalization occurs, the City needs to ensure it has the authority to implement the Pretreatment program in the City of Lincoln by either annexing Lincoln into Bismarck or by establishing this authority in an IGA in which the Lincoln delegates the authority to implement the Pretreatment program to the City. EPA is enclosing the Multijurisdictional Pretreatment Programs Guidance Manual - EPA 833-B-94-005 published by EPA in June 1994.

Two IUs were identified that are outside the City boundaries and that contribute wastewater to the City’s POTW: the County Shop and the Missouri River Correctional Facility. It is

unknown if the City has established an agreement or contract with these facilities to implement the Pretreatment program for these facilities. The City needs to determine if the County Shop and the Missouri River Correctional Facility that are located outside the City boundaries are sources of non-domestic wastewater to the City's POTW. If these IUs contribute non-domestic wastewater, then the City needs to establish the authority to implement the Pretreatment programmatic activities at these IUs. The Pretreatment programmatic activities include, but not limited to, the right of entry to inspect/copy records/sample, issue permits or other forms of Pretreatment control, require reports/notices, evaluate compliance and enforce. In addition to these two identified IUs, the City should determine if there are other IUs outside the City boundaries that contribute non-domestic wastewater to the POTW.

5.0 Local Limits

5.1 Local Limits Regulatory Background

40 C.F.R. § 403.8(f)(4) of the Pretreatment Regulations require POTWs that are developing pretreatment programs to develop and enforce specific limits on prohibited discharges or demonstrate that the limits are not necessary. 40 C.F.R. § 403.5(c)(1) states, "Each POTW developing a POTW Pretreatment Program pursuant to §403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a)(1) and (b) of this section [*general and specific prohibitions*]. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits." [*Clarification and emphasis added*].

The National Pretreatment Program consists of three types of national pretreatment standards established by regulation that apply to industrial users. These include prohibited discharge standards, categorical standards, and local limits. Prohibited discharge and categorical standards are developed by the EPA to establish nationwide Pretreatment Standards. Prohibited discharge standards, comprised of general and specific prohibitions found in 40 C.F.R. 403.5(a) and (b) of the Pretreatment Regulations, apply to all IUs regardless of the size or type of operation. Categorical standards are uniform, technology-based standards that apply to specific process wastewater discharges from industrial categories. These categorical standards are found at 40 C.F.R. Parts 405 through 471.

The EPA's promulgation of categorical standards does not relieve a POTW from its obligation to evaluate the need for and to develop local limits to meet the general and specific prohibitions in the Pretreatment Regulations. Because specific prohibitions and categorical standards provide only general protection against pass through and interference, local limits based on POTW-specific conditions may be necessary. Local limits are developed by POTWs to enforce the specific and general prohibitions, as well as any state and local regulations.

An EPA-approved Pretreatment program is required to develop local limits that are protective of the POTW, the collection system, and the POTW's site-specific standards. These site-specific standards may be NPDES permit effluent limits, biosolids limits, environmental criterion, worker health and safety standards or other local standards.

The EPA recommends that POTWs establish their local limits based on the maximum allowable headworks loading (MAHL) calculated for each pollutant of concern. The MAHL approach enables the POTW to calculate local limits considering the portion of the MAHL that is controllable (non-domestic discharges from IUs) from the uncontrollable portion (domestic sources, background concentrations, etc.). A pollutant's MAHL is determined by first calculating its Allowable Headworks Loading (AHL) for each POTW's site-specific standard or environmental criterion. Local limit development uses a mass-balance approach to determine the AHLs for a POTW based on the environmental and treatment plant criteria.

An AHL is the estimated maximum loading of a pollutant that can be received at a POTW's headworks, that should not cause a POTW to violate a treatment plant limit or environmental criterion. An AHL is developed to prevent interference or pass through. An AHL is calculated for each applicable POTW site-specific standard: pass through, sludge contamination, air quality standards, and the various forms of interference (i.e. biological treatment inhibition, sludge digestion inhibition). The AHLs for each pollutant of concern (POC) are calculated based on the various suitable environmental criteria, plant flow rates, and plant removal efficiency. After calculating a series of AHLs for each POC, the lowest AHL is chosen as the MAHL.

MAHLs estimate the maximum combined loadings that can be received at the POTW's headworks from all sources. Maximum allowable industrial loadings (MAIL), developed by the POTW, represent the amount of pollutant loadings the POTW can receive from controlled sources (i.e., industrial users, some commercial sources, and some hauled waste) that the POTW chooses to control through local limits. Local limits can take many forms based on how MAILs are allocated by the POTW. The designation and implementation of these MAILs, including the allocation of loadings to SIUs, are left to each POTW. The POTW should provide a reasonable method of allocating the MAIL to the SIUs while ensuring the implementation procedures do not exceed the calculated MAHL. Typically, the POTWs allocate the MAIL as a uniform concentration-based or a mass limit to each SIU.

The local limits should be based on the following:

- Sampling of the service area to develop a representative data set collected for local limits (e.g., influent, effluent, biosolids, commercial, residential, industrial, trucked/hauled waste),
- Evaluation of the current POTW standards/criteria (including, but not limited to: NPDES permit limits/conditions, water quality standards, biosolids standards),
- Identification of the POTW removal efficiency and pollutant partitioning,
- Evaluation of data to ensure it is current and representative of current conditions,
- Identification of pollutants of concern,
- Calculations of loadings and determination of MAHL,
- Development of local limits and allocation methods.

5.2 Local Limits Requirements Established in the City's NPDES Permits

The City's NPDES permit reissued by the NDDEQ and effective on July 1, 2018 include local limit requirements in Part V.B.

5.3 The EPA Evaluation of the City's Local Limits

5.3.1 Technically-based Local Limits

The City's current local limits were public noticed and approved by the EPA on July 5, 1994. The local limits are established in §11.1-03-02(5) of the municipal ordinance and are expressed as concentrations. In addition, the City has established special, mass-based allocations of its local limits in §11.1-03-02(6).

The local limits applicability language in §11.1-03-02(5) states the following:

“Except as noted in 11.1-03-02.6 no user may discharge wastewater containing materials in excess of the following values. Concentrations apply at the point of discharge to the City collection system. The pretreatment coordinator may impose mass limitations in addition to or in place of the above concentration-based limits if deemed appropriate to prevent interference or to protect the quality of the treatment plant effluent or sludge.”

Table 2 – City of Bismarck Local Limits

Pollutant	Symbol	Daily Maximum (mg/L)
Cadmium, Total	Cd	0.09
Chromium, Total	Cr	4.39
Chromium VI	Cr VI	4,39
Copper, Total	Cu	2.50
Lead, Total	Pb	0.94
Mercury, Total	Hg	0.06
Nickel, Total	Ni	0.79
Selenium, Total	Se	0.20
Silver, Total	Ag	0.94
Zinc, Total	Zn	7.93

The applicability language for the Special Mass-Based Limitation in §11.1-03-02(6) states the following:

“In developing the above limits provision has been made to reserve a limited amount of treatment capacity for small quantities of wastewater that exceeds these limits. Wastewater may be accepted on a mass-limitation basis from dischargers that do not meet the definition of a significant industrial user providing that prior approval for such discharges is obtained from the pretreatment coordinator and the discharge will not exceed any of the mass-based limits below”

Table 3 - Special Mass-Based Limitations

Pollutant	Symbol	Daily Maximum (lbs/day)
Cadmium, Total	Cd	0.046
Chromium, Total	Cr	1.75
Chromium VI	Cr VI	1.75
Copper, Total	Cu	1.26
Lead, Total	Pb	0.39
Mercury, Total	Hg	0.026
Nickel, Total	Ni	0.33
Selenium, Total	Se	0.10
Silver, Total	Ag	0.38
Zinc, Total	Zn	3.62

Based on the audit, it appears that the City does not currently use the special mass-based limits established in §11.1-03-02(6) in SIU permits or other control mechanisms for IUs in the service area.

5.3.2 Numeric Ordinance Limits

In addition to the established technically-based local limits, the City has incorporated the following numeric ordinance limits in the municipal ordinance. These numeric ordinance limits are not site-specific and have not undergone the rigor of approval/public participation for the technically-based local limits:

- pH §11.1-03-01(3)] - Any wastewater having a pH less than 6.0
- BTEX and Benzene [§11.1-03-02(6)] – BTEX = 0.75 mg/L and Benzene = 0.05 mg/L

5.3.3 Dilution Prohibition

The City has incorporated a prohibition on dilution in §11.1-03-02(4) of the municipal ordinance to ensure the IUs are appropriately managing their regulated wastestreams to meet compliance with an applicable Pretreatment Standard or Requirement:

“A User may not increase the use of process water or in any way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained herein, contained in the Federal Pretreatment Standards, or contained in any state requirements.”

The dilution prohibition language in §11.1-03-02(4) of the municipal ordinance meets the requirement in 40 C.F.R. Part 403.6(d) of the Pretreatment Regulations.

5.4 Local Limits Technical Evaluation-Regulatory Background

40 C.F.R. § 122.44(j)(2)(ii) of the NPDES regulations require POTWs to provide a written technical evaluation of the need to revise local limits following permit issuance or reissuance. The technical evaluation is a detailed re-evaluation of data, criteria, conditions, and assumptions on which local limits are based to determine whether any significant changes affecting the local limits have occurred. Chapter 7 of the *Local Limits Development Guidance Manual*, EPA-833-R-04-002A, July 2004 provides guidance on completing the technical evaluation of local limits.

The Annual Pretreatment Reports submitted to the NDDEQ provide the POTW with an opportunity to perform reviews for exceedances of the established MAHL for the POCs, on an annual basis. The POTW compares both the maximum and average influent data for the reporting year against the MAHL to determine if there were any exceedances. In addition, the POTW is required to report biosolids data to determine if there were any changes or concerns with the biosolids loadings. An exceedance of the established MAHL may be indicative of a change in the service area, changes to the POTW operations or changes to domestic or non-domestic loadings and may indicate a need to recalculate the local limits. However, the annual review may not have addressed conditions that can change over time, such as operating conditions, environmental criteria/standards, data, or assumptions that may make local limits no longer appropriate, protective or legally-defensible.

As a follow-up to MAHL exceedances listed on the annual report and as required during a permit reissuance, a POTW should compare its current conditions and requirements with those that existed when the local limits were developed. The EPA recommends that POTWs determine if re-calculating existing local limits, or developing MAHLs for new pollutants of concern, is necessary in response to the following criteria:

1. Removal Efficiencies
 - a. Modification to the POTW or new POTW brought online.
 - b. Changes in POTW processes or operations that have affected the POTW removal efficiencies.
2. Total POTW or IU Loading
 - a. Significant changes to flow to the POTW.
 - b. Significant changes to loadings to the POTW due to new IUs, changes in loadings at existing IUs or significant growth in the service area.
 - c. Significant changes in loadings from SIUs in the service area.
3. Limiting Criteria/Standards
 - a. New or revised NPDES permit limits.
 - b. New or revised biosolids standards.
 - c. Changes in EPA or State Criteria (acute and chronic water quality standards for the receiving waters, reuse water quality criteria) at the time of local limit development to existing criteria.
4. Sludge Characteristics or Method of Disposal
 - a. Changes in loadings to biosolids.
 - b. Changes in biosolids disposal methods.
5. Background Concentrations of Pollutants in Receiving Water

5.5 Technical Evaluation of the City's Local Limits

The City's NPDES permit reissued by the NDDEQ and effective on July 1, 2018 include local limit requirements in Part V(B) to implement 40 C.F.R. § 122.44(j)(2)(ii) of the NPDES regulations. The local limits requirements are as follows:

“The Permittee shall establish and enforce specific local limits to implement the general and specific prohibitions found in 40 CFR 403.5(a) and (b), as required by 40 CFR Section 403.5(c). The Permittee shall continue to develop these limits as necessary and effectively enforce such limits. In accordance with EPA policy and with the requirements of 40 CFR sections 403.8(f)(4) and 403.5(c), the permittee shall determine if technically based local limits are necessary to implement the general and specific prohibitions of 40 CFR sections 403.5(a) and (b).

This evaluation should be conducted in accordance with the latest revision of EPA Region VIII Strategy for Developing Technically Based Local Limits and after review of EPA's "Local Limits Development Guidance" July 2004. Where the Permittee determines that revised or new local limits are necessary, the Permittee shall submit the proposed local limits to the Approval Authority in an approvable form in accordance with 40 CFR 403.18.”

It does not appear that the City has provided a technical evaluation of its local limits, as required by Part V(B) of its NPDES permit. Based on EPA's review of the relevant records related to a technical evaluation, the following criteria have changed since the City last developed their local limits in 1994:

- POTW Removal Efficiency: the City's POTW has been upgraded in 2009 to improve sludge storage, in July 2009 to upgrade the headworks process, install a new primary clarifier and rehab existing primary clarifiers, and in 2011 to rehab the digesters. As a result, it appears that the POTW removal efficiency used to calculate the 1994 local limits has changed.
- POTW Loadings: Based on EPA's review of the Pretreatment records and POTW data, the BOD loadings to the POTW have increased from 9,857 lbs/day in 1994 to 14,607 lbs/day in 2021 and the TSS loadings to the POTW have increased from 10,702 lbs/day in 1994 to 15,329 lbs/day in 2021. Similarly, the trucked and hauled waste loadings increased from 237,630 gallons/day in 1999 to 900,258 gallons/day in 2021.
- IU loadings: the SIUs listed in the 1994 development records have significantly changed from current SIUs and loadings.
- Limiting Criteria/Standards: The City has been issued at least three NPDES permit renewals with potentially new limits and water quality/biosolids/local standards since 1994.

5.6 Permit or Site-Specific Limits

Local municipalities implementing the Pretreatment program should have the ability to establish site or permit-specific limits as deemed necessary to be protective of the POTW. This is a beneficial authority because situations or projects may occur in the service area that the municipality may want to provide control to protect the POTW.

The EPA considers the development of any local limit, whether codified in the municipal ordinance/rules and regulations or developed on a site-specific situation (i.e., permits-specific limit) to be a program modification under 40 C.F.R §403.18 (53 FR 40579, Final Rule, General Pretreatment Regulations for Existing and New Sources, October 17, 1988). The development of any local limit is required to follow the approval and public notice provisions, both at the local level and by submitting to the EPA.

40 C.F.R §403.5(c)(3) of the Pretreatment Regulations states, "Specific effluent limits shall not be developed and enforced without individual notice to persons or groups who have requested such notice and an opportunity to respond." The EPA recommends that POTWs conduct public participation in the local limits process (whether codified in the municipal ordinances/rules and regulations or new limits developed in a permit) as openly as possible. This may involve notifying the SIUs/IUs and other affected parties of the proposed limits or announcing a 30-day public comment period. This would allow sufficient time for the public to participate, which is a fundamental goal of the Clean Water Act in Section 101(e).

The City has established the ability to develop site or permit-specific limits in §11.1-03-02(3) of its municipal ordinance:

“The City reserves the right to establish by ordinance more stringent or more lenient limitations or requirements on discharges to the wastewater disposal system if deemed necessary to comply with the objectives presented in Chapter 11.1-01.”

Based on the EPA’s review of the Pretreatment records, the City has established site-specific limits for nonyl-phenol ethoxylates in the AmeriPride permit. The City did not document the development of this site-specific limit, nor does it appear that the City provided adequate public notice of this limit to ensure the public has an opportunity to participate or comment on this limit. This site-specific limit is further discussed in EPA’s review of the AmeriPride Pretreatment records in Section 8.4 of this audit report.

6.0 Pretreatment Operating Procedures

6.1 Regulatory Background

40 C.F.R. §403.8(f)(2) of the Pretreatment Regulations states, “The POTW shall *develop and implement* procedures to ensure compliance with the requirements of a Pretreatment Program.” [*emphasis added*] The Pretreatment Regulations identify these minimum procedures in 40 C.F.R. §403.8(f)(2)(i-viii) to include the following **implementation** activities, summarized below:

- Identify and locate all possible IUs that might be subject to the Pretreatment program,
- Obtain information describing the character and volume of wastes discharged by IUs,
- Notify IUs of all applicable Pretreatment standards and other applicable State or Federal standards or requirements,
- Review self-monitoring reports and other notices submitted by IUs,
- Randomly sample and analyze effluents from IUs,
- Evaluate whether each SIU needs a slug discharge control plan,
- Investigate instances of noncompliance with Pretreatment standards and requirements,
- Comply with public participation requirements.

The requirements listed in 40 C.F.R. §403.8(f)(2) include the **development** of procedures. Adequate and updated standard operating procedures (SOPs) provide the following benefits to a Pretreatment program:

- Develop the baseline knowledge of the Pretreatment Regulations and establish the framework for program implementation,
- Adequately implement the authorities established in the municipal ordinance and ensure consistency in program implementation,
- Retain institutional and historical knowledge developed within the POTW’s program, and
- Provide a valuable training resource for new or inexperienced staff members.

Ultimately, the benefits of valid SOPs to the Pretreatment program are increased efficiency, along with improved data comparability, credibility, and legal defensibility. In addition, the development of written SOPs and templates allow the Approval Authority to determine if the procedures adequately implement the legal authority developed in the municipal ordinance/rules and regulations as required in 40 C.F.R. §403.8(f):

“A POTW Pretreatment program must be based on the following legal authority and include the following procedures. These authorities and procedures shall at all times be fully and effectively exercised and implemented.”

6.2 *Standard Operating Procedures (SOPs)*

EPA evaluated the City’s procedures and templates during the audit to ensure these meet the requirements listed in 40 C.F.R. § 403.8(f)(2). As previously discussed, developing SOPs are beneficial for the City’s Pretreatment program but most importantly, to ensure adequate implementation of the authorities established in the municipal ordinance and ensure consistency in program implementation. EPA considers the Industrial User Inventory and Characterization, Sampling Plan/QA-QC, and the Enforcement Response Plan to be a priority and are required SOPs to ensure consistent implementation of the City’s legal authority. EPA evaluated these priority SOPs and provided comments in the following sections within this audit report:

- Industrial User Inventory and Characterization Procedures (*discussed in §7.0*),
- Sampling Plan, Site-Specific Sampling Protocol, Quality Assurance and Quality Control (*discussed in §10.0*), and
- Enforcement Response Plan and Data Compliance Evaluation (*discussed in §11.0*).

Although it appears that the City has developed SOPs to implement the Pretreatment program in its service area, EPA recommends the City evaluate the need to develop Pretreatment procedures, as necessary.

6.3 *Templates*

Templates and checklists are also critical to a Pretreatment program to ensure consistent and appropriate implementation of the Pretreatment regulations. The City has developed the following templates to implement certain portions of the Pretreatment program:

- permit application for discharging facilities
- SIU permit template
- FOG questionnaire
- Dental certification form
- Vehicle and Equipment Service inspection form
- IU general checklist
- IU slug potential survey

The templates appear adequate to provide the City information to develop a permit or determine appropriate compliance.

The current permit application includes the following certification statement at the signature block “The information contained in this application is familiar to me and to the best of my knowledge and belief is true, complete and accurate.” EPA recommends this statement be replaced by the certification statement required in the Pretreatment regulations at § 403.6(a)(2)(ii) which states the following:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

In addition, EPA recommends the City evaluate its IU general inspection checklist to ensure the IU inspection template allow for information to provide a complete and current IU inspection. For example, the IU inspection checklist should include an evaluation of non-routine batch discharges that have the potential for slug discharges due to spills, housekeeping, or non-customary discharges. In addition, the City should ensure the IU inspection form provides a comprehensive description of the IU’s processes or service. The evaluation of the permit template is included in §8.4 of this audit report.

6.4 Records and Data Management

6.4.1 Regulatory Background

The recordkeeping requirements of the Pretreatment program are established in 40 C.F.R. §403.12(o)(1-3):

“(1) Any Industrial User and POTW subject to the reporting requirements established in this section shall maintain records of all information resulting from any monitoring activities required by this section, including documentation associated with Best Management Practices. Such records shall include for all samples:

- (i) The date, exact place, method, and time of sampling and the names of the person or persons taking the samples.
- (ii) The dates analyses were performed.
- (iii) Who performed the analyses.
- (iv) The analytical techniques/methods use; and
- (v) The results of such analyses.

(2) Any Industrial User or POTW subject to the reporting requirements established in this section (including documentation associated with Best Management Practices) shall be required to retain for a minimum of 3 years, any records of monitoring activities and results (whether or not such monitoring activities are required by this section) and shall make such records available for inspection and copying by the Director and the Regional

Administrator (and POTW in the case of an Industrial User). This period of retention shall be extended during the course of any unresolved litigation regarding the Industrial User or POTW or when requested by the Director or the Regional Administrator.

(3) Any POTW to which reports are submitted by an Industrial User pursuant to paragraphs (b), [baseline monitoring reports] (d), [90-day compliance reports] (e), [categorical industrial user monitoring reports] and (h) [significant industrial user monitoring reports] of this section shall retain such reports for a minimum of 3 years and shall make such reports available for inspection and copying by the Director and the Regional Administrator. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Industrial User or the operation of the POTW Pretreatment Program or when requested by the Director or the Regional Administrator.”

6.4.2 Recordkeeping and Data Management Procedures

Based on information gathered during the audit, the Pretreatment Coordinator maintains the SIU permit and IU records in the office, located at the POTW. The SIU records are maintained in their own drawers and include information organized sequentially. The SIU records are organized within each folder by the following:

- Inspections
- Permit
- NOVs/Enforcement
- Surcharge
- Inspections/Spill Prevention
- DMR/self-monitoring

The IU surveys and local limits records are also maintained in this office space. The records are maintained for at least three years.

6.5 *Receipt of Discharge Monitoring Reports and Notifications*

The Pretreatment regulations in 40 C.F.R. §403.8(f)(2)(vii) require a POTW to “Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices required under §403.12 [IU compliance reports], or indicated by analysis, inspection, and surveillance activities [control authority monitoring].” This requires the POTW to ensure adequate receipt and tracking of self-monitoring reports (SMR) and notifications, have procedures to evaluate the data and information contained within these reports and notices, and determine compliance with the Pretreatment standards (e.g., permit limits and conditions).

According to information gathered during the audit, the City receives, and date stamps all self-monitoring discharge monitoring reports (DMR) and notices. The Pretreatment Coordinator uses a DMR checklist to document if the DMRs and notices are received within the due date described in the permit. The DMRs are evaluated for compliance and the data is entered into a spreadsheet for storage and archiving.

6.6 Management of Confidential Records

40 C.F.R. § 403.14 of the Pretreatment Regulations establishes the public availability of the Pretreatment records and the provisions to establish confidential business information (CBI). The City has incorporated the public availability and confidentiality requirements in §11.1-06-02(10) of the municipal ordinance:

“Any information submitted to the pretreatment coordinator and claimed as confidential pursuant to federal regulations must be treated as confidential. Information and data furnished to the pretreatment coordinator pursuant to federal regulations which is effluent data is available to the public without restriction. All other information must be available to the public without restriction unless inconsistent with federal law or regulations.”

According to information gathered during the audit, the City has not received confidential business information.

7.0 Industrial User Inventory and Characterization

7.1 Regulatory Background

The Pretreatment Regulations state in 40 C.F.R. § 403.8(f)(2)(i-iii) that a POTW shall develop and implement procedures to ensure compliance with requirements of a Pretreatment Program. [These requirements are summarized after the regulation language in **bold** and *italics* font].

- i. “Identify and locate all possible Industrial Users which might be subject to the POTW Pretreatment Program. Any compilation, index or inventory of Industrial Users made under this paragraph shall be made available to the Regional Administrator or Director upon request.” ***This requires a POTW to develop and maintain an inventory of IUs in the service area.***
- ii. “Identify the character and volume of pollutants contributed to the POTW by the Industrial Users identified under paragraph (f)(2)(i) of this section. This information shall be made available to the Regional Administrator or Director upon request.” ***This requires a POTW to characterize the IUs in the inventory of the service area.***
- iii. “Notify Industrial Users identified under paragraph (f)(2)(i) of this section, of applicable Pretreatment Standards and any applicable requirements under sections 204(b) and 405 of the Act and subtitles C and D of the Resource Conservation and Recovery Act. Within 30 days of approval pursuant to 40 C.F.R. 403.8(f)(6), of a list of significant industrial users, notify each significant industrial user of its status as such and of all requirements applicable to it as a result of such status.” ***These procedures must include the notification of IUs of applicable Pretreatment Standards and other applicable requirements.***

The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(6) state, “The POTW shall prepare and maintain a list of its non-domestic or Industrial Users meeting the criteria in §403.3(v)(1). The list shall identify the criteria in §403.3(v)(1) applicable to each Industrial User and, where applicable, shall also indicate whether the POTW has made a determination pursuant to §403.3(v)(2) that such Industrial User should not be considered

a Significant Industrial User. The initial list shall be submitted to the Approval Authority pursuant to §403.9 or as a non-substantial modification pursuant to §403.18(d).”

Approved Pretreatment programs are required by the Pretreatment Regulations to understand their service area and outside contributing jurisdictions, by developing and maintaining an inventory of IUs. In addition, the Pretreatment Regulations require a Pretreatment program to characterize the IUs listed on the inventory and notify the IU of their status under the Pretreatment program. For example, the following characterizations may apply to an IU, based on information received from questionnaires, drive-by or facility inspections:

- The IU is not characterized as significant, based on volume and characteristic of the discharged wastewater.
- The IU is characterized as significant and issued a permit.
- The IU is not characterized as significant, but loadings need to be controlled using BMPs in a source control program.
- The IU is generating wastewaters that are significant but is characterized as a zero-discharging facility.

The **Industrial Waste Inventory and Characterization** or industrial waste survey (IWS)/ IU inventory procedures are an important component to an effective Pretreatment program because this is a POTW’s first exposure to the IUs, allows the POTW to determine if an IU is significant, notify the IU of its status under the Pretreatment regulations, and determine the appropriate type of control mechanisms for these facilities to protect the POTW and collection system.

7.2 Industrial User Identification and Characterization Procedure

40 C.F.R. §403.8(f)(2) of the Pretreatment Regulations require the City to “develop and implement procedures” that “enable the POTW” to comply with these Pretreatment Program requirements. The City has developed an IU Identification and Characterization procedure that describe current methods and procedures the City uses to identify and characterize IUs in the service area of its POTW and to notify these IUs of applicable Pretreatment Standards. In addition to identifying the significant industrial users that are subject to the Pretreatment Program the industrial waste survey provides the City with a comprehensive list of industrial users. This information is useful for identifying potential problem discharges that may occur, for characterizing the user base and in contacting IU’s regarding information requests or notification of program or ordinance changes which may affect the IUs.

According to the SOP, the City established and maintains the IU inventory by compiling a list of non-residential accounts from the City’s water billing records. Additional resources used to keep the IU inventory up to date include the following:

- Building Permits
- Environmental Health Department (food licenses)
- City Council Agenda review

- Track It, Community Development software
- Social media, Facebook, Google, Yahoo
- City staff (Fire Department, Streets crew, Jetting crew, Water Plant, and Wastewater Plant)

The City's primary method for keeping the Industrial Waste Survey up to date is a monthly review of building permits and new commercial water accounts. This information is reviewed, and the industrial users are added to the master list of IU's. Users that appear to have some potential to be classified as a SIU are sent a survey questionnaire to complete and return within 30 days.

7.3 Industrial User Database of the City's Service Area

40 C.F.R. § 403.8(f)(2)(i-iii) of the Pretreatment regulations require the City to identify and locate all IUs in its service area, identify the character and volume of pollutants contributed by these IUs based on current information, and notify these IUs of applicable Pretreatment Standards and Requirements. The City provided its current IU inventory of the IUs in its service area for EPA to review. The IU inventory has about 2,000 IUs that are organized by the water account ID.

To evaluate the City's maintenance of the IU inventory and the current characterization of the IUs on the IU inventory, EPA requested records such as surveys/questionnaires, inspection reports and sampling data for selected IUs on the IU inventory or gathered during a Google Maps search of the POTW's service area. The evaluation of the available records is included with the bulleted IUs:

- Mind Over Material, 1500 112th Ave – no documentation, appears to be outside City boundaries.
- Sheet Metal Specialties, 1223 Continental Avenue #2 – no documentation found and in the POTW's service area. The IU inventory includes this facility by its water account, 00055830-000, does not list Sheet Metal Specialties as the contact and describes this location as carpet stores retail. This does not appear to be an accurate characterization of this IU. The City needs to gather current information to identify, characterize and notify this IU of applicable Pretreatment Standards, as required by 40 C.F.R. § 403.8(f)(2)(i-iii).
- Modern Machine Works, 921 East Front Avenue – industrial waste survey dated August 19, 2011

Based on EPA's review, it appears that the IU inventory appears to be current of the POTW's service area and includes a description of the type of business. However, the City needs to ensure the IUs on the inventory are characterized based on current conditions or changes that may occur at the IU. In addition, EPA recommends the City ensure its IU inventory includes or is primarily organized by current names of the IU, instead of the owner/contact of the water account.

The City should develop a plan to maintain the IU inventory to ensure the information and records on the IUs capture current conditions. based on available tools to the City such as

the industrial waste survey, drive by inspections, facility inspections, sampling, etc. to ensure the characterization of IUs is based on current data/information. The City should evaluate its current IU inventory and determine which IUs or IU sectors are a priority based on local concerns and prioritize them to ensure that these IUs or sectors are updated more frequently, based on available tools to the City to ensure the characterization of IUs is based on current data/information. There may be some IUs that will not have to be updated or maintained based on common knowledge, such as retail shops or restaurants.

However, other facilities may be a priority and may need to be updated every five years. For example, machine shops have the potential to add a metal finishing line or paint preparation phosphate spray process and can be subject to the Metal Finishing Categorical Pretreatment Standards. The City should ensure the machine shop's characterization is based on current data more frequently than lesser priority IUs. This prioritization method of maintaining the IU inventory may decrease the number of IUs required to gather current data or provide focus on the IUs or IU sectors of concern. The City can also determine that other IUs or IU sectors may not need to be updated on a regular schedule, based on the potential for these IUs to not change processes, not discharge pollutants of concern, and on the City's judgment.

EPA recommends the City collaborate with the Fire Department as they may be able to provide additional information regarding potential significant process/wastewater generation or spill/slug potential in the service area.

The EPA has a training for "Industrial User Inventory and Characterization Procedures," provided in September 2010, which is archived at the following website:

<https://www.epa.gov/npdes/national-pretreatment-program-events-training-and-publications#pretreat101>

8.0 Control Mechanism (Permit) Evaluation and Permit Specific Issues

8.1 Regulatory Background

POTWs are required to issue control mechanisms to IUs identified through IU Inventory and Characterization procedures as SIUs. Individual permits or general control mechanisms authorize the discharge of wastewater to a POTW upon condition that the discharger complies with the permit limitations and conditions. An SIU permit is effective for only a limited period and should be revocable by the issuing authority at any time for just cause. In addition, the POTW's legal authority will typically include a provision that forbids the discharge of industrial wastewater from a SIU without a current permit.

The Pretreatment Regulations establish the required permit conditions in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) that include the following minimum elements:

1. Statement of duration (in no case more than five years);
2. Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;

3. Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;
4. Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general Pretreatment Standards, categorical Pretreatment Standards, local limits, and State and local law;
5. Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond applicable federal deadlines;
6. Requirements to control Slug Discharges, if determined by the POTW to be necessary.

The reporting and notification requirements in permit condition #4 above are found in 40 C.F.R. § 403.12 of the Pretreatment Regulations and include the following:

- Baseline Monitoring Reports – 403.12(b)
- Compliance Schedule Progress Reports – 403.12(c)
- 90-Day Compliance Reports – 403.12(d)
- CIU Periodic Compliance Reports – 403.12(e)
- Notice of Potential Problems, including Slug Loading – 403.12(f)
- Notification of Changes Affecting Slug Discharge Potential – 403.8(f)(2)(vi)
- 24-Hour Non-Compliance Notification – 403.12(g)
- SIU Periodic Compliance Reports – 403.12(h)
- Notification of Changed Discharge – 403.12(j)
- Notification of Hazardous Waste Discharge – 403.12(p)
- Notification of Bypass – 403.17

Under general principles of administrative law, permit applicants and other interested parties may challenge the POTW's permit decisions, including the permit limitations and conditions and the POTW's authority to issue the permit. The POTW must ensure that it has the requisite legal authority to impose Pretreatment Standards and Requirements in SIU permits and that it exercises its authority in a consistent and non-arbitrary manner. The local ordinance must clearly provide the POTW with the following authorities to support the permit requirements found in 40 C.F.R. § 403.8(f)(1)(iii):

- Authority to regulate all Industrial Users contributing wastewater to the POTW.
- Authority to require and issue permits, orders, or other control mechanisms, including:
 - Authority to require Industrial Users to submit all data that the POTW deems relevant to permit decisions and provisions for public access to data.
 - Authority to enter, inspect, and sample to verify information supplied by the Industrial User as well as to assess the Industrial User's compliance status.
 - Authority to incorporate local limits, including BMPs (if applicable).
 - Authority to incorporate federal and state Pretreatment Standards and Requirements.

- Authority to require self-monitoring, record keeping, reporting, and notifications by the permittee.
- Authority to develop other appropriate permit conditions.
- Authority to enforce sewer use ordinance and discharge permit violations.
- Authority to require the development of a slug discharge control plan.

The POTW is required to establish the legal authority to require an IU to complete and file a permit application, with current information, to receive an initial or reissued permit. A permit application enables the POTW to obtain the information necessary to characterize the facility, to evaluate the quality and quantity of wastewater discharged, or projected to be discharged for a new facility, and to determine the applicable Pretreatment Standards and controls. The permit application serves as the formal request from the IU to discharge to the POTW and is required to be signed by a responsible corporate officer of the IU, as defined in 40 C.F.R. § 403.12(l) of the Pretreatment Regulations. In addition to the permit application, the POTW should evaluate, if available, historic IU effluent data, compliance reports, previous inspection reports, Safety Data Sheets, etc.

Throughout the permit drafting process, the POTW should carefully and thoroughly document each step in a permit rationale or statement of basis. A statement of basis is a document that provides a justification of the permit conditions and limits based on a characterization of the IU, its wastewater discharge, and the applicable Pretreatment Standards and Requirements. The statement of basis should include a description of the facility's production, process(es), wastewater generation/management, and discharge locations to adequately characterize the facility. The statement of basis should also identify the appropriate Federal, State, and Local Pretreatment Standards, based on the IU's characterization; and should provide justification for permit conditions and requirements, such as pollutants of concern, monitoring/reporting frequencies, representative sampling types, notification requirements, slug discharge control, operation and maintenance requirements, etc.

The statement of basis facilitates defending any challenges that the permit terms and conditions were developed arbitrarily or capriciously and provides the required documentation in the permit record of any relief from otherwise applicable requirements (i.e., pollutants not expected to be present, equivalent limits, decisions on general control mechanisms, decisions on Non-Significant Categorical Industrial User (NSCIU) classification, and decisions on reduced monitoring requirements). In addition, the statement of basis can serve as a resident document to preserve institutional knowledge and continuity for new or different staff members.

The EPA updated the IU Permitting Guidance Manual, 833-R-12-0001A in September 2012. This guidance manual supports the implementation of the permit conditions found in 40 C.F. R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. The guidance manual is intended to provide both new and experienced permit writers with conceptual support and specific examples to strengthen their permit development expertise. The guidance manual references technical guidance developed by the EPA regarding local limits, enforcing Pretreatment Standards and Requirements, controlling hauled waste, information regarding compliance inspections and sampling, and BMPs.

The IU Permitting Guidance Manual can be found at the following website:

https://www.epa.gov/sites/production/files/2015-10/documents/industrial_user_permitting_manual_full.pdf

8.2 *The EPA's Evaluation of the City's Permitting Legal Authority*

EPA evaluated the City's municipal ordinance to ensure it provides an adequate framework to require permit coverage, to deny or condition non-domestic wastewater contributions and to establish adequate permit conditions.

- §11.1-06-02(1) – establishes the requirement for SIUs to obtain a wastewater discharge permit
- §11.1-06-02(2) –contains the permit application requirements and establishes the requirement for existing IUs at least 90 days before the expiration of the permit.
- §11.1-06-02(2) – establishes the authority for the City to conditions wastewaters discharged to the public sewers.
 - As discussed in §4.2 of this audit report, the City needs to establish the authority to deny non-domestic waste, if the POTW cannot accept such waste.
- §11.1-06-02 – establishes the permit conditions to prevent Pass Through or Interference and to protect the POTW, worker health and safety, biosolids and the receiving stream water quality.
 - As discussed in §4.2 of this audit report, the City needs to modify the ordinance to comply with all permit conditions listed in 40 C.F.R. 403.8(f)(1)(B).

8.3 *Permit Template Overview*

The City has developed and uses a permit template for all permits issued to SIUs in the service area. EPA evaluated the permit template to ensure it complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations. Based on EPA's evaluation, the SIU permit template requires the following updates. (*The EPA's evaluation is included in the enclosed Bismarck-Permit Template Review.docx and comments embedded in the Boiler Plate Permit 2014-EPAdoc*):

1. Penalties for Violation (A.2): The permit template references 11.1-08-05 of the ordinance for authority to establish penalties, however, this section was repealed.
2. Noncompliance Notification (A.5): This section of the permit states the following: "In the event the permittee is unable to comply with any of the conditions of the permit, the permittee shall provide the Pretreatment Coordinator with the following information within five (5) days after commencement of such occurrence..." This section conflicts with the 24-hour notification requirement in the permit template.
3. Statement of Non-Transferability (A.10 of the permit template) – The municipal ordinance at §11.1-06-02(6) does not allow transfers, but the City is exceeding its authority by allowing transfers in the permit template. (**Note:** EPA recommends the City modify its ordinance by allowing transfers with prior notification to the POTW)

and a copy of the permit to the new owner/operator)

4. BMPs are absent as a permit condition.
5. Requirement to conduct representative sampling, as required by 40 C.F.R. § 403.12(g)(3) is absent as a permit condition.
6. Requirement to control slug discharges, if determined to be necessary by the POTW, as required by 40 C.F.R. § 403.8(f)(1)(B)(6) is absent as a permit condition.
7. The Pretreatment Regulations at 40 CFR § 403.12(g)(6) require an SIU to report all monitoring results if it monitors any regulated pollutant at the appropriate sampling location more frequently than required by the Control Authority, using the procedures prescribed in 40 C.F.R.136. Part B.6 of the boilerplate permit includes provisions for additional monitoring but needs to be modified to include “at the appropriate sampling location” to comply with the Pretreatment Regulations.
8. Reporting Requirement (B.9): This section establishes the reporting requirements for the SIU and states “All results of the sampling and analysis required by Item No. 4 of Section B of this permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month during which the sample was taken.” This establishes unclear report due dates and is dependent on the date the sample was taken. The City needs to establish compliance monitoring periods (i.e., monthly/quarterly/semi-annual) and establish due dates based on the compliance period, not the date the sample was taken. See example below for quarterly reporting:

Compliance Monitoring Period	Due Date
January through March	April 30
April through June	July 31
July through September	October 31
October through December	January 31

9. Reporting Requirement (B.9): EPA recommends the City evaluate if other reporting requirements such as continuous flow and pH, operation and maintenance logs/records, hazardous waste manifests and the integrity of the data, such as analytical hard copies, including analytical QA/QC are necessary to ensure compliance of the compliance monitoring period and includes these as required reporting conditions in a Reporting section within the permit.
10. Reporting Requirement (B.9): The permit further states that “A discharge monitoring report form furnished by the City of Bismarck shall be used and the signature of a responsible corporate officer shall be affixed to the certification statement at the bottom of the form.” Although the current discharge monitoring report provides the certification statement and authority signatory, EPA recommends the City establish the authorized signature and certification statement as a condition of the permit. Not establishing the authorized signature and certification statement as a permit condition puts the onus on the City to provide DMRs to the SIUs instead of on the SIU to ensure every DMR includes the certification statement that is adequately signed, regardless on

if the SIU uses the DMR furnished by the City.

11. Recordkeeping Requirement (A.13): The recordkeeping requirements in this section state “The records shall be made available for inspection and copying by the City of Bismarck and the Environmental Protection Agency.” This section of the permit must also indicate that records shall be made available for inspection by the NDDEQ as the approval authority.
12. The City needs to update the SIU permit template to include the following notifications, required by 40 C.F.R. 403.12:
 - i. Notice of Potential Problems, including slug discharges to be reported immediately – 40 C.F.R. § 403.12(f)
 - ii. Notice of discharge of hazardous waste – 40 C.F.R. § 403.12(p)
 - iii. Upset provision – 40 C.F.R. § 403.16
 - iv. Bypass notifications – 40 C.F.R. § 403.17
13. Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, as required in 40 C.F.R. § 403.8(f)(1)(B)(5) is absent as a permit condition.
14. Note: In addition to the SIU permit template, the City must modify the current SIU permits to incorporate permit conditions or provide clarity on permit language to ensure the permits comply with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations..

8.4 Specific Permit Record Findings

The City has identified ten IUs in the service area that are determined to be SIUs and that have been issued permits under the Pretreatment program. One SIU, Bobcat Manufacturing is subject to the Metal Finishing Pretreatment Standards for New Sources found in 40 CFR § 433.17. The other SIUs are subject to the City’s local limits.

Findings from EPA’s review of the Pretreatment records, including the facility inspection report, fact sheet/permit rationales, permit, self-monitoring reports, correspondence, compliance evaluation, and enforcement records are listed below. The areas of concern that were observed systemically throughout all records are identified in the Permit Records Overview, #8.4.1:

8.4.1 Permit records Overview

1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to “Identify the character and volume of pollutants contributed to the POTW.” The SIU inspection reports include minimal descriptions of the facility’s unit operations. Facility inspection report need to include more detail regarding the SIU’s chemical storage/handling/transfer, process/unit operations, wastestream generation from these unit operations, wastestream management or wastewater treatment, sampling procedures to provide a current characterization, including an evaluation of slug discharge potential and process or treatment plant changes.

2. 40 C.F.R. § 403.8(f)(1)(iii) of the Pretreatment regulations require a POTW to “Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” Further, 40 CFR § 403.8(f)(1)(iii)(B) require that the control mechanisms must be enforceable. The City does not develop fact sheets or permit rationales that justify the permit conditions and limits, based on current information gathered during annual inspection reports, permit applications, DMRs or other reports and notifications. Based on the review of the permits in the Pretreatment records, it was unclear to EPA in some permits how the City identified pollutants of concern; how permit limits and other permit conditions were developed because there is no documentation that describes or justifies these during permit development.
 - a. EPA recommends the City develop a fact sheet or permit rationale with every SIU permit developed or renewed to ensure it is written to ensure compliance with applicable Pretreatment Standards and Requirements, based on current conditions at the SIU.

8.4.2 Bismarck Landfill

1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to “Identify the character and volume of pollutants contributed to the POTW.” The facility inspection reports for the Bismarck Landfill need more detail and should capture current conditions in the type of waste received by the Landfill, operation and processes in the small building on site, review of applicable records and if the sampling at the monitoring point is representative of the landfill leachate discharge.
2. The 2021 inspection was conducted on December 8, 2021 and the inspection report was not completed until March 4, 2022. EPA is unclear on if the delay in issuing the 2021 inspection report is due to lack of focus on report writing or due to resource issues. EPA recommends the inspection reports be issued within 45 to 60 days to ensure the reports capture information gathered during the inspection and the report are timely.
3. As stated in #8.4.1(2), the City does not develop fact sheets or permit rationales that justify the permit limits and conditions. Examples of the Bismarck Landfill permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas:
 - a. The permit does not adequately describe the monitoring point. The fact sheet/permit rationale should provide adequate description of the monitoring point, including photos and an evaluation of sampling protocol to ensure representative sampling based on the SIU’s current discharge. The fact sheet should also establish appropriate sampling and analytical QA/QC to ensure the data generated from sampling events are in control and enforceable.
 - b. The permit has BOD and TSS monitoring requirements without associated permit limits of these pollutants. EPA recommends the City include “report

only” in the limits table to provide clarity for the BOD and TSS monitoring.

- c. The Pretreatment regulations at 40 CFR § 403.8(f)(1)(iii) require a POTW to “Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” Further, 40 CFR § 403.8(f)(1)(iii)(B)(3) requires that the permit must be enforceable and at a minimum contain “Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards in part 403 of this chapter, categorical Pretreatment Standards, local limits, and State and local law.”
 - i. The permit includes limits for all metals in which the City developed local limits, with the exception of Chromium VI (Cr^{6+}). There is no justification on if Cr^{6+} is currently a pollutant of concern or why permit limits/monitoring is not included in the permit.
- d. EPA recommends the City evaluate compliance and data histories with every permit renewal. This evaluation should be documented in the fact sheet and will help the City determine the following:
 - i. If local limits pollutants are currently pollutants of concern.
 - ii. Whether sampling frequencies or types in the previous permit need to be modified, based on current conditions at the facility.
 - iii. If permit conditions, for but not limited to, reporting or notification need to be modified or new conditions included, based on current conditions at the facility.
- e. The Bismarck Landfill permit has unclear monitoring periods and report due dates. The permit requires the Bismarck Landfill to sample in May and October and states in Part B.9 that “All results of the sampling and analysis required by Item No. 4 of section B of this permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month in which the sample was taken.”
 - i. The City established the specific May and October sampling months to ensure the SIU is sampling twice per calendar year and although not specifically stated as a permit condition, appears to establish the DMR due as June 30 and November 30.
 - 1. EPA recommends the City not be specific to the sampling months and instead establish a compliance monitoring period for the 1st 6 months and last 6 months of the calendar year. The City should also establish specific DMR due dates for July 30 and January 30 for each 6-month compliance period.
- f. The permit establishes flow to be monitored daily and it appears that the City requires the Bismarck Landfill to report daily average and maximum flow for each month in the reporting period, based on EPA’s review of the

DMR associated with the permit.

- i. As discussed in 8.3(9) of this audit report, EPA recommends the City establish a reporting requirement section within the permit with specific reporting requirements, such as daily average and daily maximum flows.
 - g. The permit includes a compliance schedule in Section B.8 for installation of a flowmeter without any justification in the records or the 2021 inspection report.
 - i. The compliance schedule does not include a milestone for the flowmeter installation, and it was impossible for EPA to determine the Bismarck Landfill's compliance with the compliance schedule.
 - ii. The Pretreatment records for the Bismarck Landfill do not include documentation regarding the installation of the flowmeter. The City needs to ensure the Bismarck Landfill complies with the milestones in the compliance schedule by requiring the Bismarck Landfill to provide the appropriate documentation such as a signed and certified letter/report. If the City determines that the Bismarck Landfill is not in compliance with the compliance schedule, then the City needs to provide an adequate enforcement response to this violation, according to its ERP.
 - h. During EPA's review of the Bismarck Landfill permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Bismarck Landfill permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.
4. Part B.4 of the Bismarck Landfill permit establishes specific sampling requirements in May and October of every year. The Bismarck Landfill samples on a quarterly frequency, however, the Landfill did not sample in October 2020 and October 2021, as required in the permit. The City is required to provide an enforcement response for the failure to sample in October 2020 and October 2021, per its ERP.
5. The Bismarck Landfill sampled on May 27, 2020 and by permit is required to provide a report no later than thirty (30) days after the last day of the month during which the sample was taken or by June 30, 2020. The report was submitted to the City on November 4, 2020 and was date stamped by the City. However, there were no records that the City provided an enforcement response for the violation of a late report. The City is required to provide an enforcement response for the submittal of the May 2020 report past the due date of June 30, 2020, per its ERP.
- a. In addition, the submittal of the May 2020 DMR on November 4, 2020 is in violation of the SNC criteria found in §11.1-07-06(f) of the municipal ordinance: "Failure to provide, within 30 days after the due date, required

reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules.” The City is required to provide an enforcement response for an SNC criteria violation for the May 2020 DMR submitted greater than 30 days past its due date. The SIU also needs to be published for violating this SNC criteria in 2020, as required in §11.1-07-06 of the municipal ordinance.

6. The Pretreatment regulations at 40 C.F.R. § 403.8(f)(2)(v) require the City to “Inspect and sample the effluent from each Significant Industrial User at least once a year.” The City failed to sample the Bismarck Landfill for Hg and BTEX in 2020 and 2021. This is a failure to implement the Pretreatment Regulations. The City is required to evaluate its sampling plans for all SIUs to ensure all permit limited parameters are sampled in 2022.

8.4.3 Aramark/Ameripride Industrial Laundry

1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to “Identify the character and volume of pollutants contributed to the POTW.” Facility inspection reports for Ameripride need more detail and should capture current conditions in the laundry operations such as wastewater discharges and collection from the washers and how these wastewaters are conveyed to the wastewater treatment, a detailed description of the wastewater treatment and if the wastewater treatment is functioning adequately, In addition, the inspection report should include a detailed description on chemical storage of laundry chemicals and transport to the washers for spill and slug discharge potential. The inspection reports need to include a review of relevant records.
2. The 2021 inspection was conducted on November 10, 2021 and the inspection report was not completed until March 9, 2022. EPA is unclear on if the delay in issuing the 2021 inspection report is due to lack of focus on report writing or due to resource issues. EPA recommends the inspection reports be issued within 45 to 60 days to ensure the reports capture information gathered during the inspection and the reports are timely.
3. As stated in #8.4.1(2), the City does not develop fact sheets or permit rationales that justify the permit limits and conditions. Examples of the Ameripride permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas:
 - a. The Ameripride permit does not adequately describe the monitoring point. The fact sheet/permit rationale should provide adequate description of the monitoring point, including photos and an evaluation of sampling protocol to ensure representative sampling based on Ameripride’s current discharge. The fact sheet should also establish appropriate sampling and analytical QA/QC to ensure the data generated from sampling events are in control and enforceable.
 - b. The permit limits pH at not less than 6.0 but does not include pH monitoring. Industrial laundries have the potential for pH fluctuations based

on chemicals used and the laundry operations. The City does not have documentation on why pH is not monitored to ensure compliance with the City's limit.

- c. Part B.4 of the Ameripride permit requires semiannual monitoring but requires sampling specifically in May and October. The permit requires Ameripride to sample in May and October and states in Part B.9 that "All results of the sampling and analysis required by Item No. 4 of section B of this permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month in which the sample was taken." This inconsistency in the permit language results in unclear monitoring periods and DMR due dates.
 - i. EPA recommends the City not be specific to the sampling months and instead establish a compliance monitoring period for the 1st 6 months and last 6 months of the calendar year. The City should also establish specific DMR due dates for July 30 and January 30 for each 6-month compliance period.
 - d. The Pretreatment regulations at 40 CFR § 403.8(f)(1)(iii) the City to "Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements." Further, 40 CFR § 403.8(f)(1)(iii)(B)(3) requires that the permit must be enforceable and at a minimum contain "Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards in part 403 of this chapter, categorical Pretreatment Standards, local limits, and State and local law."
 - i. The Ameripride permit includes nonylphenol ethoxylates with a permit limit of 10 lbs/day. The City has not developed a local limit for this pollutant in its ordinance and there is no justification on how this limit was developed for Ameripride in its permit to ensure this limit is enforceable.
 - e. During EPA's review of the Ameripride permit, the missing permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Ameripride permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.
4. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vii) require the City to "Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices." The SIU did not sample for nonylphenol ethoxylates quarterly, as required by the permit nor is there documentation that the facility used less than 5 lbs/day. There is no record that the City evaluated the DMR as incomplete with all permit conditions and limits and there are no records of enforcement response to these violations. The City is required to provide an enforcement response for the SIU's failure to sample

quarterly for nonylphenol ethoxylates in 2020 and 2021. The failure to sample for nonylphenol ethoxylates should also be evaluated for SNC.

5. The Pretreatment regulations at 40 C.F.R. § 403.8(f)(2)(v) require the City to “Inspect and sample the effluent from each Significant Industrial User at least once a year.” The City failed to sample Ameripride for nonylphenol ethoxylates, a permit-limited pollutant, in 2020 and 2021. This is a failure to implement the Pretreatment Regulations. The City is required to evaluate its sampling plans for all SIUs to ensure all permit limited parameters are sampled in 2022.
6. On July 13, 2020, Ameripride had a violation of the City’s obstruction prohibition found in §§11.1-03-01.2 and 11.1-03-01.13(a) of the municipal ordinance. The City provided an NOV on August 4, 2020 that include the following action items:
 - a. Within 90 days, Ameripride must develop and submit a plan of action that will prevent the sanitary sewer pipe flow obstruction from the facility discharges.
 - b. 2. Within 180 days, Ameripride must complete and implement the engineered plan of action(s) to prevent flow obstruction from the discharge of oil, grease and solids.

The SIU responded to the NOV on October 30, 2020 and stated that it will provide a written plan by November 2, 2020 and completion by February 2, 2021. EPA was unable to find documentation of the written plan due by November 2, 2020 and documentation of completion by February 2, 2021. Provide documentation to EPA to ensure the SIU is back into compliance by the submittal of the written plan by November 2, 2020 or completion of an engineered plan of action to prevent flow obstruction by February 2, 2021. If Ameripride is not in compliance, then provide an enforcement response to the failure to respond to NOV deadlines.

7. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(vi) require the City to “Evaluate whether each such Significant Industrial User needs a plan or other action to control Slug Discharges.” If a slug discharge control plan is necessary, the plan shall have at a minimum the following:
 - a. Description of discharge practices, including non-routine batch Discharges.
 - b. Description of stored chemicals.
 - c. Procedures for immediately notifying the POTW of Slug Discharges, including any Discharge that would violate a prohibition under § 403.5(b) with procedures for follow-up written notification within five days.
 - d. If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.

- e. Based on EPA's review, Ameripride has not been required to develop a slug discharge control plan and appears to have a significant amount of chemicals in storage and in process use. The City needs to re-evaluate the SIU to determine if it needs a slug discharge control plan to ensure procedures/measures/equipment are adequate to minimize or eliminate the potential for spills and slug discharges from chemical storage handling/transfer and use.

8.4.4 Doosan Bobcat

1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to "Identify the character and volume of pollutants contributed to the POTW." The facility inspection reports for Doosan Bobcat need more detail and should capture current conditions in the type of raw materials received for processing at the plant, identification of all process wastewater and dilution wastestreams with the inspection clearly identifying process, dilution and unregulated flows discharging to the POTW, the categorical standard applicable to the facility as well as clearly indicating which processes subject the facility to certain categorical limits. The inspection report should contain more detail on the evaluation of pretreatment facilities and chemical storage areas. The report needs to include a review of the potential for a slug discharge, not just potential spills. In addition, it is necessary for the report to include an evaluation of the industry's records; the report included no such evaluation.
2. As stated in #8.4.1(2), the City does not develop fact sheets or permit rationales that justify the permit limits and conditions. Examples of the Bobcat permit limits/conditions in which documentation is necessary to provide clarity or justification include the following areas:
 - a. The Bobcat permit does not adequately describe the monitoring point. The fact sheet/permit rationale should provide adequate description of the monitoring point, including photos and an evaluation of sampling protocol to ensure representative sampling based on the Doosan Bobcat's current discharge. The fact sheet should also establish appropriate sampling and analytical QA/QC to ensure the data generated from sampling events meet quality control criteria and enforceable.
 - b. The permit has unclear monitoring periods and report due dates, Daily, monthly, quarterly and yearly monitoring are required by the permit. The permit states in Part B.9 that "All results of the sampling and analysis required by Item No. 4 of section B of this permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month in which the sample was taken." Based on this permit language, it is unclear what is the correct due date and leads to uncertainty on submittal of DMRs.
 - i. EPA recommends the City establish clear compliance monitoring periods and specific DMR due dates for each compliance period.
 - c. The Pretreatment regulations at 40 CFR § 403.8(f)(1)(iii) the City to

“Control through Permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements.” Further, 40 CFR § 403.8(f)(1)(iii)(B)(3) requires that the permit must be enforceable and at a minimum contain “Effluent limits, including Best Management Practices, based on applicable general Pretreatment Standards in part 403 of this chapter, categorical Pretreatment Standards, local limits, and State and local law.”

- i. The permit contains limits from categorical standards and local limits; a justification for categorical standards and why certain limits were applied was not found in documents provided.
- ii. The Metal Finishing Categorical Pretreatment Standards at 40 CFR § 433.12(a) and (b) state that in lieu of monitoring for TTOs, the City may allow Doosan Bobcat to develop a Toxics Organic Management Plan (TOMP) and certify the following: “Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation [or pretreatment standard] for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the permitting [or control] authority.” Section B.10 of the permit contains conditions for developing a TOMP and certifying for TTOs.
 1. Doosan Bobcat is currently certifying for TTOs in lieu of monitoring but has not developed a TOMP. This is violation of the Metal Finishing Categorical Pretreatment Standards at 40 CFR 433.12(a) and (b). The City shall require the SIU to sample TTOs at a minimum frequency of 2/year until the SIU develops and submits to the City for approval a TOMP that identifies the toxic organic compounds used; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures for ensuring that toxic organics do not routinely spill or leak into the wastewater. is submitted and approved by the POTW.
- d. The Pretreatment regulations at 40 C.F.R. § 403.12(e)(1) require Doosan Bobcat to sample permit-limited pollutants at least twice per year, unless required more frequently by the City The permit establishes a monitoring frequency for TTO at once per year. The permit needs to be modified to require sampling for TTO at a frequency of twice per year.
- e. During EPA’s review of the Doosan Bobcat permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Doosan Bobcat permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.

3. For both total chromium and nickel, the City applied the local limit as the most stringent monthly average limit. It does not appear that the 1994 local limits development allow the City to apply the local limits as enforceable monthly limits. The City needs to provide documentation to EPA that the 1994 local were developed using chronic standards that allow the expression of local limits as monthly averages. If not, then the monthly average from the categorical standard needs to be applied in the permit.
 - a. Similarly, the City applied the cadmium local limit at 0.09 mg/L as the most stringent monthly average. In addition to the uncertainty if this is technically valid, the monthly average categorical standard for cadmium from 40 CFR part 433 is 0.07 mg/L and therefore, more stringent. The permit needs to be modified to apply the most stringent monthly average limit at 0.07 mg/L.
4. The Doosan Bobcat inspection report cover letter dated March 9, 2022 addressed the need for the facility to have a slug discharge control plan. However, the cover letter did not identify a submittal date for this plan. During EPA's review of the Pretreatment records, a slug plan was not found. Additionally, based on EPA's inspection of the Doosan Bobcat facility, a slug discharge control plan is necessary to address potential slug discharges from chemical storage/handling, and process tanks in the facility.

8.4.5 East Side Jersey Dairy

1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to "Identify the character and volume of pollutants contributed to the POTW." The facility inspection reports for East Side Jersey Dairy need more detail and should capture current conditions in the dairy operations such as wastewater discharges and potential for dilution wastestreams from identified unregulated wastestreams (e.g. cooling water). In addition, the City needs to ensure it reviews and evaluates appropriate records and document the results of its review in the inspection report.
 - a. It is unclear from the inspection how much wastewater the City is receiving from East Side Jersey Dairy. The inspection only identified water usage flows and no internal process flows or discharge flows. In addition, the inspection report mentions cooling water but does not indicate the disposal or management method. The inspection report should clearly identify all wastewater discharged to the POTW and include representative flow data.
2. As stated in #8.4.1(2), the City does not develop fact sheets or permit rationales that justify the permit limits and conditions. Examples of the East Side Jersey Dairy permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas:
 - a. The East Side Jersey Dairy permit does not adequately describe the monitoring point. The fact sheet/permit rationale should provide adequate description of the monitoring point, including photos and an evaluation of sampling protocol to ensure representative sampling based on the East Side Jersey Dairy's current discharge. The fact sheet should also establish appropriate sampling and analytical QA/QC to ensure the data generated

- from sampling events are in control and enforceable.
- b. The East Side Jersey Dairy permit has BOD and TSS monitoring without limits or “report only” in the Pollutant limits table. There is no justification on if this is a pollutant of concern. In addition, EPA recommends Pretreatment programs evaluate compliance and data histories of previous permits and the SIU compliance with those limits. This will help determine if local limits pollutants are currently pollutants of concern and whether sampling frequencies or types need to be adjusted, based on current conditions at the facility.
 - c. The East Side Jersey Dairy transferred ownership on April 29, 2020 and based on EPA’s review, it does not appear that the City transferred the existing permit or issued a new permit to the new owner. The municipal ordinance does not allow transfers and the City needs to ensure the permit is appropriately issued to the new owner.
 - d. During EPA’s review of the East Side Jersey Dairy permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the East Side Jersey Dairy permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.
3. Part B.4 of the East Side Jersey Dairy permit requires semiannual monitoring but requires sampling specifically in May and October. The permit states in Part B.9 that “All results of the sampling and analysis required by Item No. 4 of section B of this permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month in which the sample was taken.” This inconsistency in the permit language results in unclear monitoring periods and DMR due dates.
 - a. The East Side Jersey Dairy sampled in March 2022, September 2021 and April 2021 but failed to sample in May 2021, October 2021 and May 2022, as required by the permit. The City is required to provide an enforcement response for the failure to sample in May and October 2021 and May 2022 and report in compliance with the industrial user permit, per its ERP.
 4. The slug discharge control plan submitted to the City from the East Side Jersey Dairy does not include all minimum elements required in a slug control plan, as required in 40 C.F.R. § 403.8(f)(2)(vi) of the Pretreatment regulations. The slug discharge control plan needs to be updated to include a description of discharge practices and description of stored chemicals at the facility. In addition, EPA recommends the City require the SIU add detail regarding processes and chemicals stored as well as how other operations could potentially slug load (e.g. the truck washing which was identified in the inspection report as a potential cause of prior pH violations).

8.4.6 Coca Cola Bottling

1. The 2021 inspection was conducted on September 15, 2021 and the inspection report was not completed until March 9, 2022. EPA is unclear on if the delay in issuing the 2021 inspection report is due to lack of focus on report writing or due to resource issues. EPA recommends the inspection reports be issued within 45 to 60 days to ensure the reports capture information gathered during the inspection and the report are timely.
2. As stated in #8.4.1(2), the City does not develop fact sheets or permit rationales that justify the permit limits and conditions. Examples of the Coca Cola Bottling permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas:
 - a. The City determined that Coca Cola Bottling needed a slug discharge control plan. However, the SIU's permit do not include slug discharge control plan requirements.
 - b. The permit requires pH sampling twice every six months. Coca Cola Bottling has installed a continuous pH meter and this continuous pH data must be reported to the City under the additional monitoring provision of the permit.
 - c. During EPA's review of the Coca Cola Bottling permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the Coca Cola Bottling permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.
3. The permit requires samples be collected in May and October of each year. Coca Cola Bottling sampled its effluent on September 9-10, 2020, April 7, 2021, September 22, 2021, and March 23-24, 2022 and did not sample in October 2020, May 2021, October 2021 and May 2022, as required in the permit. The City did not identify these violations in the reviews of the self-monitoring reports. The City is required to take an enforcement response for these violations in accordance with its ERP.

8.4.7 High Plains Coating and Fabrication

1. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(ii) require the City to "Identify the character and volume of pollutants contributed to the POTW." The SIU inspection reports include minimal descriptions of the facility's unit operations. The High Plains Coating and Fabrication inspection report did not specify the wastewaters generated at the facility and the method of disposal. The report also indicated that chemicals are stored in close proximity to the drains but did not describe the slug potential.
2. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(iii), require an approved Pretreatment program to notify Industrial Users of applicable

Pretreatment Standards and any applicable requirements under sections 204(b) and 405 of the Act and subtitles C and D of the Resource Conservation and Recovery Act. There are no records indicating notification of the 2021 annual inspection to High Plains Coating and Fabrication.

3. As stated in #8.4.1(2), the City does not develop fact sheets or permit rationales that justify the permit limits and conditions. Examples of the High Plains Coating and Fabrication permit limits/conditions in which documentation is necessary to provide clarity of justification include the following areas:
 - a. High Plains Coating and Fabrication is a metal finishing facility that maintains zero discharge of its generated regulated wastewater and is issued a zero-discharge permit. However, the zero-discharge permit includes metal finishing and local limits in the event the facility discharges to the sanitary sewer. EPA recommends the City re-evaluate its zero-discharge permit and remove any provisions that allow discharges. If a zero-discharge facility anticipates the need to discharge in the future, it would then apply for a discharge permit. Enclosed with this audit report is the EPA Region 8 Zero Discharge Permit Template.
 - b. The High Plains Coating and Fabrication permit was effective on September 1, 2020 and expires on July 31, 2025. There was no industrial waste survey questionnaire or permit application in the Pretreatment records. The municipal ordinance at §11.1-06-02(2) requires “All industrial users shall complete and file with the pretreatment coordinator an application in the form prescribed by the pretreatment coordinator and accompanied by a fee set by the board.”
 - i. Determine if High Plains Coating and Fabrication submitted a permit application, in compliance with §11.1-06-02(2) of the municipal ordinance.
 - c. During EPA’s review of the High Plains Coating and Fabrication permit, the permit conditions for the permit template discussed in §8.3(1-13) were also identified. As discussed in §8.3(14) of this audit report, the High Plains Coating and Fabrication permit needs to be evaluated to incorporate permit conditions or provide clarity on permit language to ensure the permit complies with the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment Regulations.
4. The permit requires High Plains Coating and Fabrication to submit annual reports that cover the calendar year from January 1 through December 31 of each calendar year. The 2020 annual report was signed on September 28, 2020 and received by the City on October 6, 2020. The 2021 annual report was signed on November 24, 2021 and received by the City on November 30, 2021. Annual compliance reports must be submitted after the monitoring period ends on December 31 to ensure that the facility is certifying compliance for the complete monitoring period.
 - a. The City did not provide an enforcement response to High Plains Coating and Fabrication for the failure to submit a complete annual report for 2020

and 2021. The City is required to provide an enforcement response in accordance with its ERP. In addition, the City needs to require High Plains Coating and Fabrication submit complete annual 2020 and 2021 reports that cover the entire compliance period from January 1 through December 31.

9.0 Significant Industrial User Facility Inspections

9.1 Regulatory Background

The General Pretreatment Regulations at 40 C.F.R. § 403.8(f)(1)(v) states that the POTW shall have the legal authority to:

“Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a Discharge source or treatment system is located or in which records are required to be kept under §403.12(o) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of the Act;”

40 C.F.R. § 403.8(f)(2)(v) of the Pretreatment Regulations requires the POTW to inspect its SIUs at least once per year. 40 C.F.R. § 403.8(f)(2)(ii) require the City to “Identify the character and volume of pollutants contributed to the POTW.” 40 C.F.R. § 403.8(f)(2)(vii) establishes the standard of evidence collection during sampling or inspection activities:

“Investigate instances of noncompliance with Pretreatment Standards and Requirements, as indicated in the reports and notices required under §403.12, or indicated by analysis, inspection, and surveillance activities described in paragraph (f)(2)(v) of this section. Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions.”

Typically, an inspector is the only representative from the POTW that regularly appears at the IU’s facility and significantly represents the POTW’s role as a responsible public agency, observing the actions and evaluating the performance of the regulated industry.

9.2 Right of Entry

The City has established the authority for right of entry in §13.10.701 of the municipal ordinance:

“A. The director shall have the right to enter the premises of any industrial user to determine whether the industrial user is complying with all requirements of this chapter and any control mechanism or order issued hereunder. Industrial users shall allow the director ready access to all parts of the premises for the purposes of inspection, identifying the character or volume of pollutants, sampling, records examination and copying, photographs, noncompliance investigation, and the performance of any additional duties.

B. Where an industrial user has security measures in force that require proper identification

and clearance before entry into its premises, the industrial user shall make necessary arrangements with its security personnel so that, upon presentation of City of Bismarck staff identification, staff will be permitted to enter without delay for the purposes of performing specific responsibilities.

C. The director may require the industrial user to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the industrial user at its own expense. All devices used to measure flow and quality shall be calibrated to ensure their accuracy.

D. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the industrial user at the written or verbal request of the director and shall not be replaced. The costs of clearing such access shall be borne by the industrial user.

E. Unreasonable delays in allowing the director access to the industrial user's premises shall be a violation of this chapter.”

The municipal ordinance adequately establishes the right of entry authority for the City, as required in 40 C.F.R. § 403.8(f)(1)(v) of the Pretreatment Regulations.

9.3 Facility Inspection Records – Background

40 C.F.R. § 403.8(f)(2)(vii) of the Pretreatment Regulations requires the POTW to meet the criterion for evidence collection “with sufficient care to produce evidence admissible in enforcement proceedings or in judicial actions.” This is performed during facility inspections by adequate documentation in the inspection report of the observations, surveillance, inspections, sampling performed, and analysis gathered during facility inspections. A complete and well-developed inspection report that provides a current characterization of the facility will benefit the POTW’s Pretreatment program for programmatic decisions such as categorical determinations, slug discharge/spill potential, changes at the facility that may affect the current permit conditions, sampling frequencies, etc.

As discussed in §2.11.2 of the *Industrial User Inspection and Sampling Manual for POTWs*, EPA-831B17001, January 2017, the inspection report generated from the facility inspections should accomplish the following three objectives: 1) organize and coordinate all information in a comprehensive, usable manner for use by the POTW’s compliance personnel; 2) identify areas that may require follow-up activity; and 3) provide significant background information on the facility that can be reviewed prior to conducting subsequent inspections at the facility. The quality of this documentation will, to a large degree, determine how effective these follow-up activities will be at the facility. The information in the inspection report must be presented in a clear, concise, and well-organized manner.

The Industrial User Inspection and Sampling Manual for POTWs describes the information necessary to characterize a facility in §§2.10.3 and 2.12. The manual also discusses the records to review at a facility to help determine the facility’s compliance in §2.10.8. It is important for Pretreatment programs to capture the following information during facility

inspections to characterize the facility, and document facility changes to ensure the SIU's permit addresses current conditions:

- Chemical storage areas, including potential spill concerns during chemical receiving and transfer/handling.
- Process tanks or processing areas – detailed descriptions of the process including tank contents, capacities.
- Wastestream generation from the process areas and disposal/discharge practices – frequency of discharge rinse water tanks, whether spent chemical solutions tanks discharged to the POTW or hauled off site, proximity to floor/trench drains, slug discharge control and spill containment measures, etc.
- Wastestream management (treatment, recycling, hauling off site, evaporation, etc.).
- Waste treatment system.
- Wastestream or hazardous waste storage areas, including potential spill concerns.
- Discharge monitoring points.
 - Evaluation of the sampling/monitoring protocols to determine if these are appropriate to provide representative data of the wastewaters regulated by the permit.

A facility inspection of a permitted SIU should include a review of relevant records used to support compliance with the permit conditions and that may not be reported in the self-monitoring compliance reports such as pH and continuous flow monitoring records, tank change out logs, analytical reports, waste manifests, operation and maintenance logs, etc. A detailed facility inspection report with descriptions of tank contents, capacities, generated wastestreams, plumbing, and management of the wastestreams will benefit the POTW to establish the baseline for the year and to determine if any changes will impact the permit conditions/limits or associated documents such as the slug discharge control plan, spill plan, treatment system operation manual or sampling protocol.

During the Pretreatment audit, the EPA discussed inspection procedures with the City, including EPA's procedures. The EPA performs facility inspections by gathering verbal information in an opening conference, then performing a walkthrough to visually confirm the information gathered during the opening interview. The EPA structures its information gathering by following the raw materials/chemical supply through the unit operations and ultimately to the finished product or service. A closing conference is performed to gather follow-up information, review records, and to provide preliminary conclusions to the facility.

9.4 Evaluation of the City's Inspection Reports/Records

The EPA evaluated the inspection reports and other records related to the facility inspection for the SIU annual facility inspections of six permitted SIUs. As discussed in § 8.4.1(1) of this audit report, the SIU inspection reports provides minimal characterization of the facility and needs to be improved to include information regarding the facility's chemical storage/handling, process, (sources, flow volume and types of discharges) wastewater generation, slug discharge potential, waste treatment methods, sampling procedures, and review of records in the annual inspection report. The inspection reports should also

include digital photos to further support information gathered during the inspection.

9.5 Notification of Applicable Pretreatment Standards

The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(iii) require the City to notify IUs of applicable Pretreatment Standards and Requirements. As discussed in §§ 8.4.2 of this audit report, EPA found that some SIUs had no records that indicated notification of applicable Pretreatment Standards and Requirements or observations/findings from the inspection. The City is required to provide adequate notification to the SIUs after the annual facility inspection regarding findings or current conditions that may change the applicability of the Pretreatment Standards or applicable requirements. This notification may be included in a follow up letter or by providing a copy of the inspection report to the SIU.

9.6 Facility Inspections

During the audit, Doosan Bobcat was inspected by the EPA, NDDEQ and City personnel. The inspection reports for Doosan Bobcat was emailed to the facility on July 26, 2022 with a read receipt from the facility received that same day. The Bobcat inspection report is enclosed with this audit report.

10.0 Control Authority Compliance Monitoring

10.1 Regulatory Background

40 C.F.R. § 403.8(f)(1)(v) of the Pretreatment Regulations requires the POTW to have the legal authority to “Carry out all inspection, surveillance, and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and requirements.” Further, 40 C.F.R. § 403.8(f)(2)(v) require a POTW to “Randomly sample and analyze the effluent from Industrial Users and conduct surveillance activities in order to identify, independent of information supplied by Industrial Users, occasional and continuing noncompliance with Pretreatment Standards. Inspect and sample the effluent from each Significant Industrial User at least once a year.”

The standard to which POTWs are held for purposes of evidence collection during a Control Authority monitoring event is outlined in 40 C.F.R. § 403.8(f)(2)(vii): “Sample taking and analysis and the collection of other information shall be performed with sufficient care to produce evidence which is admissible in enforcement proceedings or judicial actions.”

In addition, a POTW is required to ensure the Control Authority monitoring events are based on representative conditions at the monitoring point, to ensure that these sampling events are legally defensible and of the same quality as required for self-monitoring events. 40 C.F.R. § 403.12(g)(3) of the Pretreatment Regulations require, “The reports ...must be based upon data obtained through appropriate sampling and analysis performed during the period covered by the report, which data are representative of conditions occurring during the reporting period.”

An enforceable sample must be representative of the nature and character of the discharges during the reporting period and is required to be representative in composition to that of the larger volume of wastewater being discharged. A POTW is required to implement a Control Authority monitoring program that meets the compliance monitoring requirements of the Pretreatment Regulations, provides representative data for compliance determinations, and that would be legally defensible in court, if such an enforcement action is taken by the POTW. In addition, representative and legally defensible data helps the POTW support other program objectives such as local limits evaluation, and permit development or reissuance.

10.2 Sampling Plan and Protocols

As required in 40 C.F.R. § 403.8(f)(2), the POTW shall “develop and implement procedures to ensure compliance with the requirements of a Pretreatment Program.” The development and implementation of a sampling plan or procedures ensures the POTW is appropriately and consistently performing sampling or monitoring events, as well as providing enforceable data that is representative of the discharge conditions at the facility. The sampling plan should include the following:

- purpose and objective of the sampling program,
- specific sampling protocols at each facility sampling location to ensure representative sampling, and
- appropriate QA/QC procedures to ensure legally defensible data.

10.2.1 Site-Specific Sampling Protocols

The sampling protocols must include specific procedures used at each facility to ensure adequate and representative sampling protocols. The development of the sampling protocols will ensure the sampling events are performed in accordance with appropriate standards and procedures and produce quality data that is legally defensible.

At a minimum, the specific sampling protocols at each sampling location should include the following:

- Sampling locations – should include all monitoring points included in the SIU’s permit, including the use of digital photos for each monitoring point.
- Type of sample – the POTW is required to ensure the sampling event is representative of the SIU’s discharge, as required by 40 C.F.R. §403.12(g)(3). The type of sample will be dependent on the parameter to be sampled and discharge characteristics. The type of sample could include specifications for use of automatic samplers (including programming to provide representative sampling) or manual sampling techniques.
- Type of Flow Measurement – if applicable
- Parameters for Analysis – based on the SIU’s permit
- Sample Volume
- Type of Sample Containers
- Sample Preservation Techniques

- Sample Identification and Chain of Custody Procedures
- QA/QC Procedures

10.2.2 Quality Assurance/Quality Control (QA/QC)

QA and QC are tools which are necessary in a sampling program to maintain a level of quality, such as legally defensible data, in the measurement, documentation, and interpretation of sampling data. The QA/QC procedures are used to obtain data that are both precise (degree of closeness between two or more samples) and accurate (degree of closeness between the results obtained from the sample analysis and the true value that should have been obtained). Proper implementation of QA/QC procedures will result in an increase in the POTW's confidence in the validity of the reported analytical data.

The QA/QC procedures used to ensure data collected is valid and legally defensible include, but are not limited to the following:

- equipment maintenance/calibration,
- proper sampling bottles, proper sampling techniques that are adequate and representative of the discharge from the facility,
- field blanks, equipment blanks, method blanks, standards, blind duplicates, and
- ensuring sampling personnel are adequately trained.

10.3 *The EPA Evaluation of the City's Control Authority Monitoring*

10.3.1 SOPs

The City developed IU-specific sampling plans that includes site-specific sampling at each IU. The IU sampling plans include sampling techniques/procedures, equipment, and an identification of the sampling location. This provides the City consistent sampling at each SIU. The City needs to incorporate QA/QC into each IU sampling plan such as equipment blanks, trip blanks, sample duplicates, matrix spikes, control standards to ensure the sampling and analytical techniques are in control and compliance with 40 CFR 136. In addition, the sampling plan should be evaluated to ensure the site-specific sampling protocols at the SIUs that are representative and current, based on the SIU's wastewater discharge for the production day.

10.3.2 City's Control Authority Monitoring

Based on the EPA's review of the Pretreatment records, the City samples the permitted SIUs at least once per year for all permit-limited parameters, with the exception of Hg and BTEX at the Bismarck Landfill, as identified in §8.4.2(6) and nonylphenols at Ameripride, as identified in §8.4.3(5) of this audit report. As a result, the City does not meet the Control Authority monitoring frequency required in 40 C.F.R. § 403.8(f)(2)(v).

11.0 **Enforcement**

11.1 *Regulatory Background*

The EPA establishes the regulatory requirement to develop and implement an Enforcement

Response Plan (ERP) in 40 C.F.R. § 403.8(f)(5)(i-iv) of the Pretreatment Regulations. The regulations state:

“The POTW shall develop and implement an enforcement response plan. This plan shall contain detailed procedures indicating how a POTW will investigate and respond to instances of industrial user noncompliance. The plan shall, at a minimum:

- (i) Describe how the POTW will investigate instances of noncompliance.
- (ii) Describe the types of escalating enforcement responses the POTW will take in response to all anticipated types of industrial user violations and the time periods within which responses will take place.
- (iii) Identify (by title) the official(s) responsible for each type of response.
- (iv) Adequately reflect the POTW's primary responsibility to enforce all applicable pretreatment requirements and standards.”

The development and implementation of an ERP is an important component of an effective Pretreatment Program. Although a successful Pretreatment program should provide outreach to facilities in the service area regarding the applicability of the Pretreatment Standards and compliance with these standards, in many situations, enforcement is a necessary driving force for successful pretreatment program implementation.

The ERP establishes a framework for POTWs to formalize procedures for investigating and responding to instances of IU noncompliance and to ensure that POTWs enforce against IUs objectively, consistently, and equitably. A well-developed ERP should help the POTW decide what resources are needed to enforce the Pretreatment Standards/Requirements and assist in dealing with IU violations. In addition, the ERP will provide notice to the IUs regarding the POTW’s responsibility to respond to violations of Pretreatment Standards/Requirements.

11.2 Enforcement Legal Authority

The EPA evaluated the City’s enforcement authority and remedies found in its municipal ordinance.

- 1. Civil penalties established in §11.1-08-01
- 2. Injunctive relief provisions established in §11.1-07-05
- 3. Authority to enforce against falsification/tampering established in §11.1-08-04
- 4. Notice of violations authority established in §§11.1-07-01 and 11/1-07-03
- 5. Administrative orders authority established in §11.1-07-01
- 6. Show cause hearing provisions in §11.1-07-04
- 7. Suspensions of service provisions in §11.1-07-04.1
- 8. Permit termination provisions established in §11.1-07-02
- 9. Publication of IUs in significant noncompliance in §11.1-07-06

11.3 Enforcement Response Plan

The City submitted its ERP to the EPA for review, prior to the audit. Based on the EPA’s

review, the ERP needs to be updated to include the following, in accordance with 40 C.F.R. § 403.8(f)(5)(i-iv) (*Note: EPA Comments are included in the attached City of Bismarck - ERP Checklist and embedded in the Bismarck Enforcement Response Plan-EPA that are enclosed with the audit report*):

- Permitting Overview (Section 4.1): Table 2.1 SIUs is out of date.
- The ERG Table is missing enforcement remedies for violations of Pretreatment Standards that result in SNC:
 - Violation of Permits limits/Pretreatment Standards and Requirements that result in SNC is absent (SNC Criteria #s A and B)
 - Any other violation of a Pretreatment Standard or Requirement as defined by 40 CFR § 403.3(l) that the POTW determines has caused Interference or Pass Through (including endangering the health of POTW personnel or the general public) (SNC Criteria # C)
 - Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority (SNC Criteria # D)
 - Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance (SNC Criteria # E)
 - Reporting Violations that are over 30 days and/or result in SNC (SNC Criteria #F)
 - Failure to accurately report noncompliance (SNC Criteria # G)
 - Any other violation or group of violations, which may include a violation of Best Management Practices, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment program (SNC Criteria # H)
- The ERG Table is missing enforcement remedies for anticipated types of violations common to Pretreatment Programs:
 - Failure to Notify – the ERG table only lists failure to notify of changed discharge. Other notifications for 24-hour, slug discharge, potential problems, hazardous waste, upset and bypass are absent.
 - Analytical deficiencies such as hold time exceeded, not reportable data, failing QA/QC
 - Violations specific to BMP-based sector control programs such as the FOG program.
 - Violations specific to trucked/hailed waste, such as illicit discharge, illegal access, failure to provide records, poor housekeeping at discharge site, etc.

11.4 Compliance Evaluation

Based on EPA's review and specific violations in SIU permits that were not identified, as described in §8.4 of this audit report, the City needs to ensure it adequately evaluates for compliance with permit limits and conditions established in the SIU permits.

11.5 SNC Calculations and Public Participation

40 C.F.R. § 403.8(f)(2)(viii) of the Pretreatment Regulations require a POTW to comply with the public participation requirements in the enforcement of National Pretreatment Standards. These procedures shall include a provision for at least annual public notification in a newspaper of general circulation, that provides meaningful public notice within the jurisdictions served by the POTW, of IUs which, at any time during the previous 12 months, were in SNC with applicable Pretreatment requirements. The SNC determinations are both calculation of numeric Pretreatment Standards, as listed in 40 C.F.R. § 403.8(f)(2)(viii)(A-D) and determination of violations of the narrative Pretreatment Standards, as listed in 40 C.F.R. § 403.8(f)(2)(viii)(E-H).

According to the City, it performs SNC calculations for numeric criteria and determines SNC for the narrative criteria, as applicable but has not had an SIU in SNC for a number of years. Based on EPA's review of the Pretreatment records and the number of potential SNC violations that were not identified during the City's compliance evaluation, the City needs to ensure it performs SNC determinations of numeric and narrative criteria, as necessary.

12.0 Trucked and Hauled Waste

12.1 Regulatory Background

In addition to receiving wastes through the collection system, many POTWs accept trucked and hauled wastes. As stated in 40 C.F.R. § 403.1(b)(1), pollutants from nondomestic sources that are transported to the POTW by truck or rail are also subject to the Pretreatment Regulations. They may also be subject to categorical Pretreatment Standards. Therefore, hauled wastes from CIUs or hauled waste that otherwise qualifies the discharger as an IU must be regulated in accordance with the requirements of the Pretreatment Regulations, including any applicable requirements for permitting and inspecting the generating facility. Hauled wastes, like wastes received through the collection system, have the potential to negatively affect the POTW, making regulatory control of the wastes necessary.

Most wastewaters hauled or trucked to a POTW are domestic septage, typically from homes outside the POTW's service area, but compatible in nature. Because such discharges are predominantly compatible wastes, treatment at a POTW is the most appropriate disposal method. The biosolids regulations at 40 C.F.R. § 503.9(f) define domestic septage as the liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar system that holds only domestic sewage. Domestic septage does not include liquid or solid material removed from any system that receives either commercial wastewater or industrial wastewater, and it does not include grease removed from a restaurant grease trap.

The POTW cannot know for certain the nature and concentration of the trucked wastes and the impact on the POTW without implementing some type of control or surveillance program. Unlike discharges from IUs directly connected to the POTW, the makeup of a load of hauled waste is virtually unknown without some type of monitoring, be it visual or

analytical. Even compatible loads of domestic septage can cause problems for a POTW due to high strength or discharge rate. Domestic septage can be partially digested, higher in metals concentrations than normal domestic wastes, or contain small amounts of household contaminants (e.g., cleaners). Similarly, disinfectants used in portable toilets have the potential to affect POTW operations.

Receipt of hauled hazardous waste (as defined in Resource Conservation and Recovery Act (RCRA)) might not only affect POTW operations but also could subject the POTW to additional reporting requirements. The Domestic Sewage Exclusion, specified in 40 C.F.R. § 261.4(a)(1)(ii), provides that hazardous wastes mixed with domestic sewage and under control of the Pretreatment program are exempt from the RCRA waste regulations. However, hazardous wastes received by truck or rail (or dedicated pipe) at the treatment plant are not exempt from the regulations. POTWs that accept hazardous wastes from those sources are subject to *permit by rule* status under RCRA [40 C.F.R. § 270.60(c)] provided that certain requirements are met. The POTW must be in compliance with all its NPDES permit requirements and the waste must comply with all federal, state, and local pretreatment requirements.

12.2 Legal Authority

The City has adopted the Federal specific discharge prohibitions for trucked and hauled wastes found in 40 C.F.R. § 403.5(b)(8) of the Pretreatment Regulations. This is incorporated by the City in §11.1-03-01(15) of the municipal ordinance:

“Any trucked or hauled pollutants, except at discharge points designated by the Pretreatment Coordinator.”

The City has established the trucked and hauled prohibition except at designated points. However, as discussed during the audit, EPA recommends the City establish truck and hauled waste requirements in the municipal ordinance that specifically identifies the designated trucked/hauled waste discharge point, access and use and type of waste allowed and control provisions.

12.3 Trucked and Hauled Waste Disposal Location and Control Mechanisms

The City accepts domestic and porta-potty trucked and hauled waste from the service area. According to information gathered during the audit, the City provided service to the following trucked/hauled waste companies in 2021 and received about 40,000 gallons/month in the November-April Winter months and about 97,000 gallons/month in the March – October summer months:

- Can Clean
- Big Muddy
- Professional Pumping Services
- Spiffy Buff
- Poop Patrol

- D&B Portables

Companies that discharge trucked/hailed waste to the City are required to sign a 1-page agreement that establishes sampling, billing, training and discharge/disposal requirements. The companies are required to undergo documented training with the POTW operators prior to discharging at the disposal site. The truck operators are required to call and notify the operator prior to entry to the disposal site. The disposal site is open daily from 6 a.m. to 8 p.m. The trucks enter the Headworks building by entering a keypad code, specific to the company. The disposal site is an engineered location within the Headworks building where the truck operators are able to drive in their trucks and access a trough drain accessed by a metal hatch door (Figure 5). The truck operators are required to provide a sample of every load and the City provides a visual observation, at a minimum and period laboratory analysis for metals and other pollutants. The trucked and hauled waste is combined into the headworks influent flow, where it is bar screened and de-gritted, as described in §2.0 of this audit report. The EPA Guidance Manual titled Control of Hauled Wastes to POTWs -EPA833-B-98-003, September 1990 is enclosed with this audit report.

As discussed during the audit, the City should evaluate RV dump stations in the service area of the POTW to ensure they are in control and do not allow illicit trucked waste to be discharged.



Figure 5 – Bismarck POTW – Septic Disposal Site

13.0 Best Management Practices – Sector Control Programs

13.1 Regulatory Background

BMPs are defined in 40 C.F.R. § 403.3(e) as “schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 C.F.R. § 403.5(a)(1) [General Prohibitions] and (b) [Specific Prohibitions]. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.”

40 C.F.R. § 403.5(c)(4) states, “POTWs may develop Best Management Practices (BMPs) to implement paragraphs (c)(1) [develop limits to implement the general/specific prohibitions] and (c)(2) [develop and enforce specific effluent limits for industrial users that contribute pollutants that may result in Interference and Pass-Through] of this section. Such BMPs shall be considered local limits and Pretreatment Standards for the purposes of this part and section 307(d) of the Act.” The regulations establish that BMPs are enforceable Pretreatment Standards.

13.2 Authority in Rules and Regulations

As discussed in §4.0 of this audit report, BMPs are established in the FOG Control Section §11.1-04-03(1) of the ordinance and the currently only applies to the FOG sector. The BMP needs to be established for the Pretreatment program and needs to state that BMPs shall be considered local limits and Pretreatment Standards for the purposes of this part and section 307(d) of the Act.

- BMP definition in §11.1-04-03(1) – FOG Section only.
- BMPs needs to be established as a permit condition.
- BMP recordkeeping requirements needs to be established.
- BMPs needs to be established as an SNC criterion.

13.3 Fats, Oils and Grease (FOG) BMP Sector Control Program

Based on EPA’s review of the City’s FOG program, this is a strength of the Pretreatment program. It appears that the City has identified the food service establishments within the service area and has provided outreach/compliance assistance and requirements for FOG control, based on BMPs for installation/sizing, operation and maintenance of the grease interceptors, appropriate housekeeping/good operating practices within the kitchen and appropriate recordkeeping

The City provides compliance assistance/outreach to the facilities that require sand interceptors to properly control their contribution of petroleum-based FOG. EPA recommends the City evaluate this program to determine if additional control is necessary, based on worker health and safety and maintenance concerns in the collection system and at the POTW.

13.4 Dental Amalgam BMP Sector Control Program

The Dental Amalgam Rule, found in 40 C.F.R. Part 441, was promulgated as a final rule with new source dental facilities required to be in compliance with the Pretreatment Standards as of July 14, 2017, and existing source dental facilities required to be in compliance as of June 14, 2020. Compliance with the rule requires the installation of an ISO1143 amalgam separator or equivalent device, and compliance with the following two BMPs:

- Prohibition on the use of oxidizing or chlorine-containing line cleaners; and
- Ensuring all amalgam process wastewater including chair-side traps, screens, vacuum pump filters, dental tools, cuspidors or collection devices are treated through the amalgam separator.

In addition, the new and existing dental facilities are required in 40 C.F.R. § 441.50 of the Dental Amalgam Rule to provide a report that characterizes the dental facility and certifies compliance. The new source dental facilities are required to be in compliance upon discharge and submit a one-time compliance report within 90 days of startup.

The City has identified forty-three dental facilities in the service area and has received one-time compliance reports within the deadline required by the Rule.