

Pretreatment Audit Report

City of Greeley

CO-0040258

Greeley, Colorado

January 29, 2024 to January 31, 2024



Prepared by:

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Pretreatment Audit Summary Table

City of Greeley Pretreatment Audit Report

CO-0040258

January 29, 2024 to January 31, 2024

Pretreatment Audit Findings	Pretreatment Requirement and Corrective Action
<i>Section 4.0 – Municipal Ordinance and Intergovernmental Agreements (IGA)</i>	
1. 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. 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.” Garden City is the only outside jurisdiction contributing non-domestic wastewater to the City’s POTW. The City modified its IGA with Garden City on April 03, 2018 to require Garden City to adopt and incorporate Chapter 14.11 – Industrial Pretreatment into the Garden City municipal code. The 2018 IGA also requires the City to provide notice to Garden City of relevant amendments to the Greeley Municipal Code (such as the 2021 ordinance updates) and Garden City shall update and incorporate the relevant amendments. It appears that the modified IGA with Garden City provides the City authority to implement the Pretreatment program in Garden City. However, it is unclear on whether Garden City has updated its municipal code to incorporate the Greeley 2021 ordinance update, as required by the 2018 Garden City IGA.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1) 2018 Garden City IGA <u>Corrective Action Item</u> Ensure Garden City updated its municipal ordinance to incorporate the City of Greeley 2021 ordinance and provide a status update.
<i>Section 7.0 – Industrial User Inventory and Characterization</i>	
2. 40 C.F.R. § 403.8(f)(2)(i-iii) of the Pretreatment Regulations states, The POTW shall <i>develop and implement</i> procedures to ensure compliance with the requirements of a Pretreatment Program. At a minimum, these procedures shall enable the POTW	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(i-iii) 40 C.F.R. § 403.8(f)(6) <u>Corrective Action Item</u>

to:

- “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.
- “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.
- “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.

In addition, 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

Develop an Industrial User Inventory and Characterization procedure to identify and characterize IUs in the service area of the POTW. The IU Inventory and Characterization SOP needs to also incorporate IU notification procedures for applicable Pretreatment Standards.

Recommendations

The IU Inventory and Characterization SOP should incorporate the following:

- The City’s current procedure for identifying new IU through online access of the Sales Tax Revenue database.
- The EPA recommends the City participate in business development and the building department meetings and applications to gather additional information on new businesses or tenant finishes for existing IUs and incorporate this in the SOP.
 - In addition, the EPA recommends the City incorporate its IU survey into the business license process and request that the City have signature release on the building department’s certificate of occupancy process. This provides the City the ability to evaluate IUs and provide notification of Pretreatment requirements.
- The City’s current strategy of updating its current IU inventory by investigating approximately 1/3 of its service area annually through internet searches, local knowledge of the service area, focused drive-by inspections, IU surveys and facility inspections.
 - The EPA recommends the City determine IUs or sectors of IUs that have the potential to impact the POTW, such as machine shops or metal working IUs that may change their process to include unit operations subject to the Metal Finishing Categorical Pretreatment Standards

to §403.18(d).” Section 5 of the City’s Program Procedures discusses classification of IUs to determine if they need a Pretreatment permit (SIUs/CIUs), are subject to Best Management Practices (BMPs) such as Food Service Establishments/Breweries/Distilleries or are subject to the Dental Amalgam Rule. In addition, section 5.3 of the procedures state: “The City will notify all IUs subject to the Pretreatment Program of any applicable pretreatment standards as well as any regulations under Sections 204(b) and 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act (RCRA) that may be pertinent.” The City has not developed an Industrial User Inventory and Characterization procedure to identify and characterize IUs in the service area of the POTW.	found in 40 CFR 433. • The EPA recommends the City collaborate with the County Health Department, plumbing inspector, collections systems department, and building departments to gather information regarding IUs in the service area and incorporate this in the SOP. The EPA recommends the City also 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. • The City’s current method of notifying IUs of applicable Pretreatment Standards based on the classification of the IUs.
<i>Section 8.0 – Control Mechanism (Permit) Evaluation and Permit Specific Issues</i>	
3. 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 reports 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. This information is important to capture current conditions and determine if control such as an SIU permit or BMPs are necessary or if modifications to existing control mechanism or control plans such as slug discharge control plans or spill plans are necessary. During the audit, EPA provided compliance assistance and training on conducting facility inspections and generating inspections reports that gather information to capture current conditions at the facility that may impact categorical determinations, permit conditions, or control	<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. <u>Recommendation</u> The EPA recommends the City gather digital photos during SIU inspections to provide current photos of areas relevant to the Pretreatment permit, including but not limited to floor drains, unit operations, raw material/chemical storage, applicable chemical handling equipment, wastestreams, treatment.

documents such as the slug discharge control plan.	
4. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(iii) require the City to “Notify Industrial Users identified under paragraph (f)(2)(i) of this section, of applicable Pretreatment Standards...” Based on the EPA’s review of the Pretreatment records, the City provided a follow-up letter to its 2022 inspection reports but the EPA did not find any such follow-up for the 2023 inspections and it was not clear if the City consistently provides follow-up to the IUs regarding applicable Pretreatment Standards.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(iii) <u>Corrective Action Item</u> Provide adequate follow up after an IU inspection to provide notice to the SIU or IU of applicable Pretreatment Standards.
5. The Pretreatment Regulations at 40 C.F.R. § 403.12(e)(1) require “Any Industrial User subject to a categorical Pretreatment Standard after the compliance date of such Pretreatment Standard shall submit to the Control Authority... a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the Discharge, except that the Control Authority may require more detailed reporting of flows” In addition, Part 3.A of the Tri-Mac Transportation permit requires the facility to report total monthly flows in gallons. Based on the EPA’s review, the Pretreatment records did not include monthly total flow data and it is not clear if the facility is providing total monthly flows, as required by the permit.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.12(e)(1) Tri-Mac Transportation Permit, Part 3.A <u>Corrective Action Item</u> Ensure Tri-Mac Transportation provides total monthly flows and all required reporting data specified by the permit.
6. 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 inspection report for Tri-Mac Transportation should provide more detail on the acid/chemical storage/handling/transfer/use. exterior and interior tank cleaning process, heel management, tank brightening process and management/treatment and discharge of process wastestreams.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(ii) <u>Corrective Action Item</u> Provide adequate information and detail in the Tri-Mac Transportation inspection reports to capture current conditions at the SIU such as acid/chemical storage/handling/transfer/use. exterior and interior tank cleaning process, heel management, tank brightening process and management/treatment and discharge of process wastestreams. <u>Recommended</u>

	The EPA recommends the City evaluate the tank brightening process used at Tri-Mac Transportation. The tank brightening process uses Revive E, a strong HF/HCl/H₂SO₄ acid mixture and the EPA did not find information in the Pretreatment records regarding evaluation of the wastestreams generated from tank brightening, the storage and adequate handling/transfer of the acid and required sampling protocols to gather data from the wastestream generated from this process.
7. 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.” Based on the EPA’s review of the 5 Star Coatings fact sheet and the permit, it is not apparent if the City allocated local limits to 5 Star Coatings and if the City determined which Pretreatment Standard is more stringent between the City’s local limits allocation and the Metal Finishing categorical Pretreatment Standards. It is also not apparent if the City evaluated the facility’s potential to exceed hexavalent chrome (Cr⁶⁺), As, Hg, Mo, Se local limits and therefore, establish these as pollutants of concern.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii) <u>Corrective Action Item</u> Provide documentation on pollutants of concern, local limits mass allocations and crosswalk between the mass-based local limits allocated to 5 Star Coating and the categorical Pretreatment Standards to determine which Pretreatment Standard is most stringent.
8. The Pretreatment Regulations at 40 C.F.R. § 403.12(e)(1) require “Any Industrial User subject to a categorical Pretreatment Standard after the compliance date of such Pretreatment Standard shall submit to the Control Authority... a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the Discharge, except that the Control Authority may require more detailed reporting of flows.” In addition, Part 3.A of the permit issued to 5 Star Coatings requires the facility to monitor flow and pH with each batch discharged and report flow/pH data on a quarterly frequency. Based on the EPA’s review	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.12(e)(1) 5 Star Coatings Permit, Part 3.A <u>Corrective Action Item</u> Ensure 5 Star Coatings provides flow and pH data for every discharged batch and ensure this reporting information is maintained in the Pretreatment records.

of the Pretreatment records, this information was not consistently found in the Pretreatment records.	
9. 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.” The EPA performed a facility inspection of 5 Star Coatings on January 30, 2024. During the facility inspection, the EPA observed process wastewater from the phosphate washing operation flowing outside the garage bay doors and pooling on the concrete pad, located south of the building. There also appears to be evidence of corrosion of the concrete in the pad.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(1)(iii) <u>Corrective Action Item</u> Follow up with 5 Star Coatings and ensure the process wastewater generated from the phosphate washing operation is appropriately managed, discharges to outfall 01, and the facility eliminates the potential for process wastewater to discharge outside the building.
10. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(v) require the City 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.” Based on the EPA’s review of the Pretreatment records, the City sampled Florida Cirtech on June 30, 2022 and September 21, 2023 and the analytical results are included in the Pretreatment records. However, the EPA did not find records that confirm the City converted these concentration-based analytical results to determine compliance with the mass-based permit limits.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(v) <u>Corrective Action Item</u> Accurately evaluate Florida Cirtech’s compliance with its mass-based permit limits by converting concentration-based analytical results and maintain compliance evaluation records from the Control Authority monitoring events in the Pretreatment records.
11. The Pretreatment Regulations at 40 C.F.R. § 403.12(e)(1) require “Any Industrial User subject to a categorical Pretreatment Standard after the compliance date of such Pretreatment Standard shall submit to the Control Authority... a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the Discharge, except that the Control Authority may require more detailed reporting of flows.”	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.12(e)(1) Municipal Ordinance, Section 20-476(a) <u>Corrective Action Item</u> Ensure Florida Cirtech calculates compliance with its mass-based permit limits upon receipt of the analytical data and accurately report and certify on its compliance with the Pretreatment Standards with every self-monitoring report.

In addition, Section 20-476(a) of the municipal ordinance requires the following: “An SIU shall submit periodic reports that indicate the nature and concentration of pollutants in its discharge that are limited by a pretreatment standard, along with the measured daily flows.” Based on the review of the Pretreatment records, the EPA could not determine if Florida Cirtech calculated compliance with the mass-based permit limits upon receipt of the analytical data. The required compliance calculations for the mass-based limits were absent for every quarterly SM report in 2022 and 2023. It does not appear that the SIU has experienced violations of the mass-based limits, but the facility is required to report and certify on its compliance with the Pretreatment Standards with every self-monitoring report, as required in Section 20-476(a) of the municipal ordinance.	
12. 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.” In addition, the Pretreatment Regulations at 40 C.F.R. § 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. A Slug Discharge is 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. The EPA performed a facility inspection on January 30, 2024. Based on the observations of the facility inspection, facility has a significant potential for spills or slug discharges to enter the conveyance trench. The facility’s current slug discharge control plan does not provide specific information regarding the potential of slug discharges and spills that may occur to the large conveyance trench. The plan states that spills and slug discharges are dealt with in accordance with the Spill/Slug Release Plan.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(ii) 40 C.F.R. § 403.8(f)(2)(vi) <u>Corrective Action Item</u> Require Florida Cirtech to update its current slug discharge control plan to address management procedures, equipment, and handling to ensure the current spill/slug discharge potential to the conveyance trench is minimized/eliminated or these spill/slug discharges are managed appropriately. <u>Recommended</u> The 2023 inspection report should provide more detail on the blending process, equipment, evaluation of the slug discharge potential in the containment trench, DI regeneration process, and discharge characteristics.

13. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(v) require the City 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.” Based on the EPA’s review of the Pretreatment records, the City sampled Protein for Pets on June 9, 2022, May 24, 2023 and October 23, 2023 and the analytical results are included in the Pretreatment records. However, the EPA did not find records that confirm the City converted these concentration-based analytical results to determine compliance with the mass-based permit limits.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2)(v) <u>Corrective Action Item</u> Accurately evaluate Protein for Pet’s compliance with its mass-based permit limits by converting concentration-based analytical results and maintain compliance evaluation records from the Control Authority monitoring events in the Pretreatment records.
14. The Pretreatment Regulations at 40 C.F.R. § 403.12(e)(1) require “Any Industrial User subject to a categorical Pretreatment Standard after the compliance date of such Pretreatment Standard shall submit to the Control Authority... a report indicating the nature and concentration of pollutants in the effluent which are limited by such categorical Pretreatment Standards. In addition, this report shall include a record of measured or estimated average and maximum daily flows for the reporting period for the Discharge, except that the Control Authority may require more detailed reporting of flows.” In addition, In addition, Section 20-476(a) of the municipal ordinance requires the following: “An SIU shall submit periodic reports that indicate the nature and concentration of pollutants in its discharge that are limited by a pretreatment standard, along with the measured daily flows.” Based on the review of the Pretreatment records, the EPA could not determine if Protein 4 Pets calculated compliance with the mass-based permit limits upon receipt of the analytical data. The required compliance calculations for the mass-based limits were absent for every quarterly SM report in 2022 and 2023.	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.12(e)(1) Municipal Ordinance, Section 20-476(a) <u>Corrective Action Item</u> Ensure Protein for Pets calculates compliance with its mass-based permit limits upon receipt of the analytical data and accurately report and certify on its compliance with the Pretreatment Standards with every self-monitoring report.
15. The Pretreatment Regulations at 40 C.F.R. § 403.12(g)(2) require the following “If sampling performed by an Industrial User indicates a	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.12(g)(2)

violation, the User shall notify the Control Authority within 24 hours of becoming aware of the violation.” This is also required in Section 20-480 of the municipal ordinance “If sampling performed by a user indicates a violation, the user must notify the director in writing or by telephone within 24 hours of becoming aware of the violation.” Based on the EPA’s review of the Pretreatment Records, the SIU exceeded the BOD permit limit on July 21, 2023, July 22, 2023 and September 8, 2023. The City adequately responded to these violations with NOVs. However, the EPA could not find the 24-hour notification for these violations from the SIU, as required in 40 CFR 403.12(g)(2) and Section 20-480 of the City’s municipal ordinance.	Municipal Ordinance, Section 20-480 <u>Corrective Action Item</u> The City needs to require 24-hour notifications upon becoming aware of the violations. If Protein for Pets did not adequately report its noncompliance within the required time frame, then the City needs to provide an enforcement response, according to its ERP.
<i>Section 10.0 – Control Authority Compliance Monitoring</i>	
16. 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. In addition, the Pretreatment Regulations at 40 C.F.R. 403.8(f)(2)(vii) require the City to ensure “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.” The City developed a SOP for Pretreatment sampling that provides an overview of its sampling program and associated maintenance procedures for supporting its sampling program such as sampler cleaning, pH meter calibration logs, tracking	<u>Pretreatment Requirements</u> 40 C.F.R. § 403.8(f)(2) 40 C.F.R. 403.8(f)(2)(vii) <u>Corrective Action Item</u> Update the sampling plans and SIU-specific protocols to include appropriate QA/QC such as equipment blanks, trip blanks, sample duplicates, matrix spikes, control standards to ensure the sampling and analytical techniques are in control and comply with 40 C.F.R. 136. <u>Recommended</u> The EPA recommends the City incorporate digital photos in the SIU-specific sampling protocols.

protocols, wastewater flowmeter accuracy verification forms. The City also developed SIU-specific sampling protocols for each SIU to ensure consistent sampling that is representative for the production day at each SIU. The SIU-specific sampling protocols need to incorporate QA/QC 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.	
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1.0 Introduction

The U.S. Environmental Protection Agency, Region 8 (EPA) conducted an audit of the Pretreatment program, administered by the City of Greeley, CO (City) from January 29, 2024 to January 31, 2024. The Pretreatment audit started on January 29, 2024 at 9:00 a.m. with an opening interview. The closing conference was held on January 31, 2024 at 11:00 a.m. during which the EPA presented the preliminary observations, conclusions, and findings from the audit.

Participants in the audit included:

City of Greeley, CO

Joseph Martinez	Pretreatment Coordinator
Kayla Reed	Pretreatment Specialist
Joe Kunovic	Technical Services Manager
Tyler Eldridge	POTW Superintendent (closing conference only)
Janaya Lieberknecht	Administrative Assistant (closing conference only)

EPA

Al Garcia	Region 8 Pretreatment Coordinator
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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 and the City to discuss issues related to the implementation of the Pretreatment program, including PFAS requirements in the City's National Pollutant Discharge Elimination System (NPDES) permit 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; Article III, Chapter 3, Title 20 – Industrial Pretreatment.
- 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 300 East 8th Street, Greeley, CO 80631. The POTW serves the boundary of the City of Greeley and Garden City, an outside contributing jurisdiction to the City's POTW. The service area for the POTW is shown in Figure 1, a POTW process diagram is shown in Figure 2 and the Google Earth view of the City's POTW, showing the City's North and South Plants, dissected by the Cache la Poudre River is shown in Figure 3. [Note: Leprino's treatment plant is also shown in Figure 3, located east of the City's North Plant.]

A site visit of the POTW was performed during the audit to develop an overview of the City's wastewater treatment plant operation and processes. The information regarding the Greeley POTW and tour was provided by Mr. Joe Kunovic, Technical Services Manager. The POTW receives wastewater from the service area via eight interceptors. The North Poudre interceptor conveys wastewater from the northwest portion of the service area and connects with airport interceptor and flows directly into the POTW's headworks. The other six interceptors which convey wastewater from the southern portion of the service area enter a lift station south of the Cache la Poudre River and is pumped under the river to the POTW's headworks.

The wastewater at the headworks (located in the North Plant) is lifted by three vertical pumps with a design capacity of 12 MGD to the three bar screens with automatic cleaning rakes to remove organic solids and rags from the screens. The solids are washed, compacted and collected in a dumpster. The screened wastewater enters a Pista Grit removal system and grit is collected in the headworks solids dumpster. According to Mr. Kunovic, the City transports a dumpster of headworks solids every other day to the North Weld County Landfill.

The headworks wastewater effluent is split into three primary clarifiers. The primary sludge is pumped to the South plant into one of three anaerobic digesters. The primary effluent is sent to the two selector basins for nutrient removal. The selector basins have anaerobic basins and an anoxic cell to provide nutrient removal of phosphorus using phosphorus accumulating organisms and nitrate removal. The effluent from the selector basins is sent to the four secondary clarifiers. The return activated waste (approximately 60%) is returned to the selector basin and the remaining is wasted to the south plant, where it is thickened to 5% and put into the anaerobic digesters with the sludge from the primary clarifiers.

The secondary effluent is sent to the UV building through two channels, each with three banks of UV lights for disinfection and discharge through an outfall structure to the Cache la Poudre River.

Solids –

The City has three anaerobic digesters but two are in use to receive primary sludge and thickened secondary sludge. The digested sludge is sent to three secondary holding digesters to achieve a sludge age of about 25 days. The aged sludge meets Class B and is

centrifuged and dewatered. The City uses a contractor to transport and land apply the biosolids.

2.1 NPDES Permit

The City's NPDES permit #CO-0040258, issued by the Colorado Department of Public Health and Environment (CDPHE), contains provisions for an EPA-approved Pretreatment program in Part I.B.7. The permit was issued and effective on April 1, 2012 expired on March 31, 2017. The City's NPDES permit is currently administratively extended.

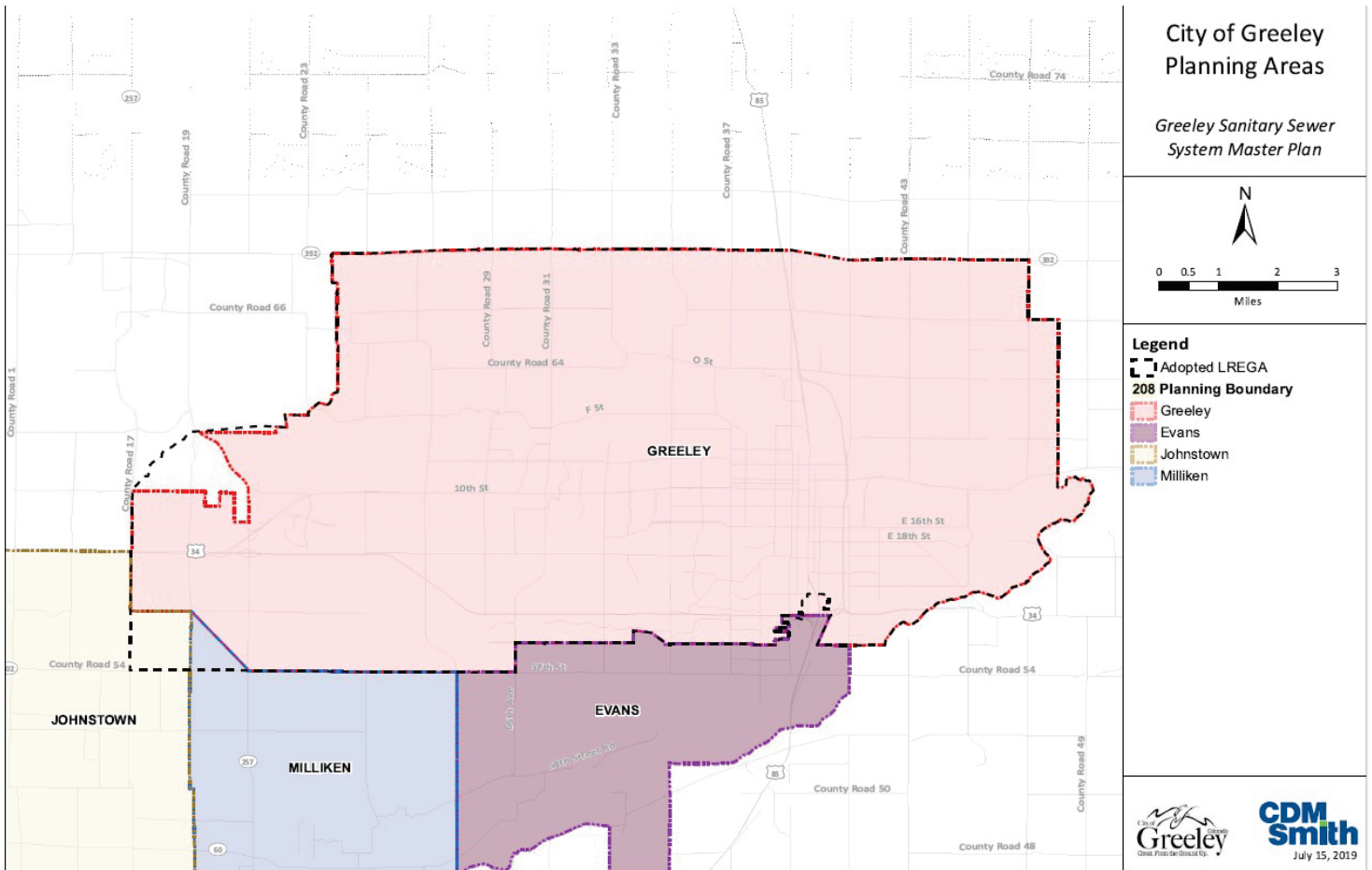


Figure 1 –City of Greeley Service Area

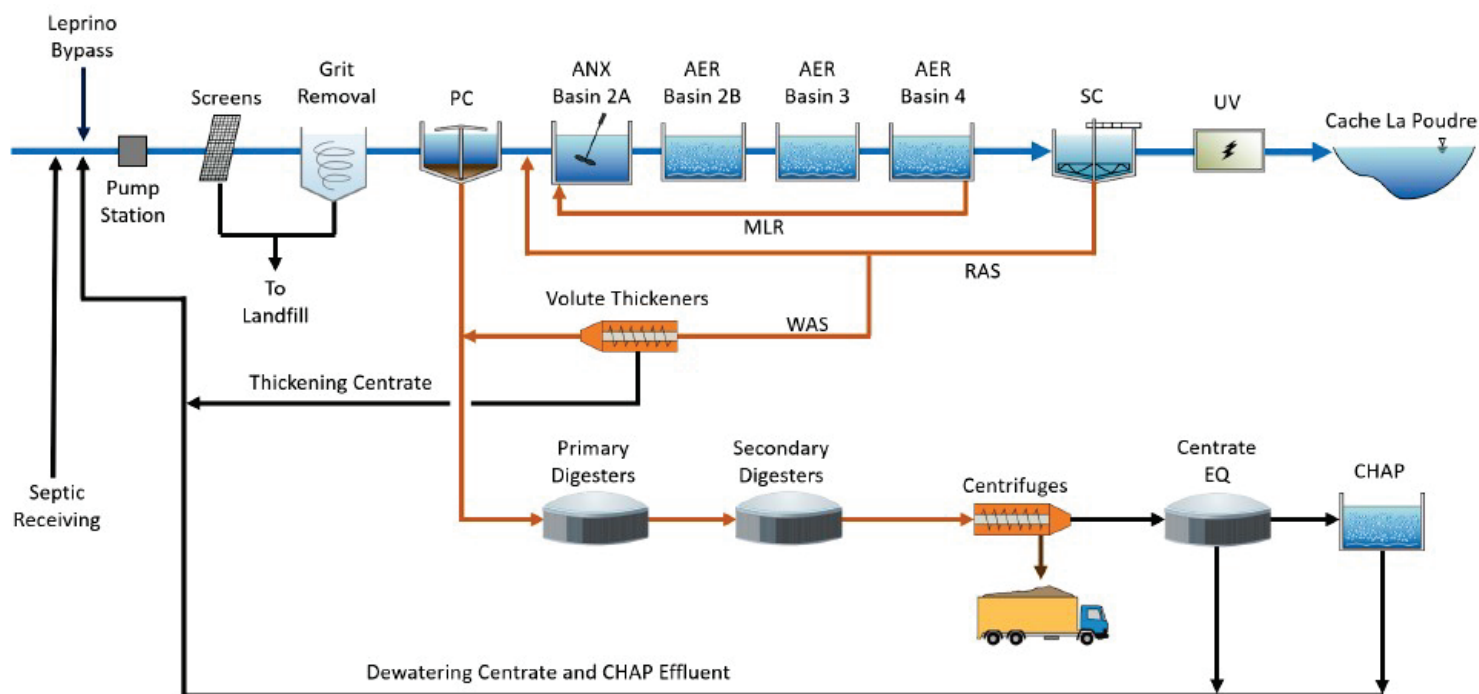


Figure 3 Simplified Process Flow Diagram of Existing Facility
 Figure 2 – Greeley POTW Process Diagram



Figure 3 - City of Greeley POTW- North and South Plants, Google Maps View

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*

According to the FY22 Pretreatment annual report, the City's resource commitment to the Pretreatment program is 2.50 FTE. The Pretreatment Coordinator and Specialist implement all programmatic activities such as the industrial user inventory/characterization, permitting, field activities such as inspections/sampling, compliance evaluation and enforcement. The Pretreatment program is provided implementation support from and reports to the Technical Services Manager. The Technical Services Manager also manages the POTW laboratory and reports to the POTW Superintendent. The POTW Superintendent reports to the Deputy Director and Director of the Water and Sewer who report to the City Manager. In addition to the Pretreatment implementation duties, the personnel in the Pretreatment program conduct POTW sampling in support of the CDPS permit, issued by the CDPHE and participates in investigations of spills or sanitary sewer overflow that occur in the collection system.

The City reported in the FY22 Annual Report that its Pretreatment program is budgeted \$355,843 and is funded by the City's Enterprise Fund, generated from residential and non-residential users in the service area. The City appears to be well equipped to implement the field activities of the Pretreatment program and has portable automatic samplers, sampling equipment, confined space entry equipment, and personal protective equipment. Based on EPA's review of the City's implementation of its Pretreatment program, it appears that the City's current resources and budget is adequate to implement all programmatic activities of the Pretreatment program, in compliance with 40 C.F.R. § 403.8(f)(3).

It appears that the City with its current resources is meeting with food service establishments (FSE) in its service area and requiring interceptors to provide control of oil

and grease loadings to its POTW. However, it does not appear that the City is fully implementing the Fats, Oils and Grease (FOG) program by consistently inspecting grease interceptors and ensuring the FSEs comply with the BMP-based FOG sector control program. The benefits of a fully implemented FOG program is ensuring the FSEs are managing their FOG contributions. This results in a decrease of the FOG loadings to the POTW and minimizing the effects of FOG coating the collection system pipes and equipment as well as obstructions that result in sanitary sewer overflows. The EPA recommends the City determine if a BMP-based sector control program for FOG should be fully implemented and evaluate staffing resources required to fully implement this program, which may include hiring an additional staff person. This additional staff person may also help the City in other field activities associated with the Pretreatment program.

3.3 Examples of Available Pretreatment Training/Resources

The City's current personnel in the Pretreatment program is relatively new to the program and appears to be very open and enthusiastic to acquiring experience in the various programmatic activities of the program. The Technical Manager has a significant amount of experience and is very qualified to provide institutional knowledge and training to the current personnel which is apparent during the EPA's audit. However, the EPA recommends the City participate in available Pretreatment training opportunities to acquire the necessary training to ensure its personnel is qualified to implement the Pretreatment program.

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. The EPA is also available to the City for Pretreatment training opportunities and provided facility inspection training during the Pretreatment audit.

The Region 8 Pretreatment workshop provided by the 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-webinars>. 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 Greeley Municipal Ordinance

The EPA approved the City’s Pretreatment program on December 28, 1984. According to records maintained by the EPA, the City submitted the following updates to its legal authority or municipal ordinance:

- 1991 for the Domestic Sewage Exclusion amendments,
- 1993 to include penalty authority,
- 1995 to incorporate required definitions and specific discharge prohibitions,
- 1996 to upgrade the penalty amounts and to public notice the Enforcement Response Plan (ERP),
- 2008 to incorporate the Pretreatment Streamlining Regulations,
- 2013 to incorporate general permitting authority,
- 2014 to correct Cu and Ag local limits and transfer authority and to incorporate a prohibited discharge standard for certain pharmaceuticals, and
- 2021 to revise the slug discharge definition/conditions and to adopt a revised ERP and permit template. The ordinance was approved by the EPA on November 16, 2021.

The City provided its Pretreatment legal authority found in Title 20, Chapter 3, Article VI-Industrial Pretreatment of the municipal ordinance for the EPA to review (the title of the municipal ordinance was recently converted to Title 20, Chapter 3, Article VI-Industrial Pretreatment from Title 14 – Public Services, Chapter 14.11 – Industrial Pretreatment). Based on the EPA’s review, the Pretreatment Regulations incorporated in Title 20, Chapter 3, Article VI-Industrial Pretreatment of the municipal ordinance provide the City the framework to implement the Pretreatment Regulations in the POTW’s service area.

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 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

Garden City is the only outside jurisdiction contributing non-domestic wastewater to the City’s POTW. The City modified its IGA with Garden City on April 03, 2018 to require Garden City to adopt and incorporate Chapter 14.11 – Industrial Pretreatment into the Garden City municipal code. The 2018 IGA also requires the City to provide notice to Garden City of relevant amendments to the Greeley Municipal Code (such as the 2021 ordinance updates) and Garden City shall update and incorporate the relevant amendments. It appears that the modified IGA with Garden City provides the City authority to implement the Pretreatment program in Garden City, However, it is unclear on whether Garden City has updated its municipal code to incorporate the Greeley 2021 ordinance update. The City needs to provide a status update regarding the current Garden City municipal code.

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 expired on 03/31/2017 and administratively extended by the CDPHE include local limit requirements in Part I.B.7.C.

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 on August 11, 2012 for a 30-day public comment period and approved by the EPA on September 16, 2013. The 2013 local limits were developed by the City using SIU regulated flows located at the permitted monitoring points and are applicable to SIUs. The City's local limits are incorporated in Table 20.424-A found in §20-424(a) of the municipal ordinance.

The local limits applicability language in §20-424(a) is as follows:

“The city has established the following local limits to prevent pass through and interference and to protect beneficial use of biosolids:”

Table 1 – Local Limits (Greeley Municipal Ordinance: Table 20.424-A)

Pollutant	Symbol	Daily Maximum (lbs/day)
Arsenic, Total	As	0.527
Cadmium, Total	Cd	0.316
Chloride	Cl	17,082
Chromium VI	Cr ⁶⁺	7.978
Copper, Total	Cu	6.241
Cyanide	CN	1.170
Lead, Total	Pb	1.528
Mercury, Total	Hg	0.009
Molybdenum, Total	Mo	1.352
Nickel, Total	Ni	4.728
Selenium, Total	Se	1.114
Silver, Total	Ag	4.436
Zinc, Total	Zn	11.711
Biochemical Oxygen Demand	BOD	14,173
Total Suspended Solids	TSS	13,176

5.3.2 Numeric Ordinance Limits

In addition to the established technically-based limits in the municipal ordinance. Table 20-424-B found in found in §20-424(a) establishes BTEX limits:

Table 2 – BTEX Limits (Greeley Municipal Ordinance: Table 20.424-B)

Pollutant	Symbol	Daily (µg/L)	Maximum
Total Benzene, Toluene, Ethylbenzene, Xylenes	BTEX	750	
Benzene	--	50	

The City also established ordinance limits in the specific prohibitions found in §20-421(2):

- §20-421(2)(b) – Wastewater having a pH less than 5.5 or greater than 11.5, or that may otherwise corrode POTW structures or equipment
- §20-421(2)(d) – Wastewaters containing sand or other inorganic particulate matter that will result in a settleable solids concentration greater than 25 milliliters per liter in the user's discharge
- §20-421(2)(r) – Wastewater causing two readings on a combustible gas detection meter at any point in the POTW, of more than five percent, or any single meter reading over ten percent of the lower explosive limit

5.3.3 Dilution Prohibition

The City has incorporated a prohibition on dilution in §20.426 of the municipal ordinance to ensure the IUs are appropriately managing their regulated wastestreams to meet compliance with an applicable Pretreatment Standard or Requirement:

“No User shall ever increase the use of process water, or otherwise attempt to dilute a Discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a Discharge limitation unless expressly authorized by an applicable Pretreatment Standard or Requirement. The Director may impose mass limitations on Users who use dilution, pursuant to an applicable Pretreatment Standard or Requirement or in other cases when the imposition of mass limitations is appropriate.”

The dilution prohibition language in §20.426 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 EPA 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
 - 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 renewed NPDES permit issued by the CDPHE will include the following requirements for a technical evaluation of the local limits:

“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). The Permittee shall continue

to develop these limits as necessary and effectively enforce such limits. 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.

In accordance with 40 CFR 122.44(j)(2)(ii), the permittee shall submit to the Division and Approval Authority a technical evaluation of the need to revise or develop local limits in accordance with 40 CFR 403.5(c) and a local limits package if a technical evaluation reveals that development or revision of local limits is necessary. The evaluation shall include, but not be limited to, a consideration of any new or revised numeric and practice-based effluent limits in this permit.”

The City will be required to provide a technical evaluation of its current local limits within 12 months after renewal of the administratively extended permit.

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. However, the current limits in the ordinance may not address the pollutant of concern.

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 §20.425 of its municipal ordinance:

“The limitations in section 20-424 are intended to prevent pass through and interference and to ensure receiving water and biosolids quality. The city reserves the right to establish, by ordinance or in wastewater discharge permits, more stringent limitations, if necessary, to achieve such protections.”

Based on the EPA’s review of the Pretreatment records, the City has not established site-specific limits in the SIU permits.

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 EPA 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)*

The 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/Quality Assurance-Quality Control (QA-QC), and the Enforcement Response Plan to be priority and required SOPs to ensure consistent implementation of the City’s legal authority. EPA evaluated these priority SOPs and provides 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*).

The 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 a permit application for discharging facilities and an SIU permit template. The permit application appears to provide adequate information and data for the City to develop an appropriate control mechanism. 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

Based on information gathered during the audit, the SIU permit and IU records are located in the Pretreatment Coordinator/Specialist’s office and are maintained for at least three years. The SIUs are chronologically organized and include the relevant records such as permit, permit rationale, control plans, inspections, enforcement actions, correspondence, etc.

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 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).

The SIU self-monitoring reports, notifications and other reports submitted are date stamped by hand as received. The City ensures the reports/notifications are complete, received by the due date and evaluates compliance, based on its review of the information in the reports and notifications. The City documents its compliance evaluation in a self-monitoring report (SMR) compliance checklist.

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 Section 20.513 of the municipal ordinance:

“Information and data on a user obtained from reports, surveys, wastewater discharge permit applications, wastewater discharge permits and monitoring programs, and from the director's inspection and sampling activities, shall be available to the public without restriction, unless the user specifically requests, and is able to demonstrate to the satisfaction of the director, that the release of such materials would divulge information, processes or methods of production entitled to protection as trade secrets under applicable law. The user must assert any such request at the time it submits the materials. When a user requests and demonstrates upon submitting materials that they should be held confidential, the director shall withhold from public inspection those portions of materials such that might disclose trade secrets or secret processes. The director shall, however, make such materials available immediately upon request to governmental agencies for uses related to the CDPS or pretreatment programs, and in enforcement proceedings involving the person furnishing the report. wastewater constituents and characteristics and other effluent data as defined by 40 C.F.R. 2.302, do not constitute confidential information and shall be available to the public without restriction.”

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. Section 5 of the City's Program Procedures discusses classification of IUs to determine if they need a Pretreatment permit (SIUs/CIUs), are subject to BMPs (Food Service Establishments/Breweries/Distilleries) or are subject to the Dental Amalgam Rule. In addition, section 5.3 of the procedures state: “The City will notify all IUs subject to the Pretreatment Program of any applicable pretreatment standards as well as any regulations under Sections 204(b) and 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act (RCRA) that may be pertinent.”

The City has not developed specific procedures to implement 40 C.F.R. § 403.8(f)(2)(i-ii) of the Pretreatment Regulations which require the City to identify and locate all possible Industrial Users (IU) which might be subject to the POTW Pretreatment Program and to identify the character and volume of pollutants contributed to the POTW by the IUs. The City is required to develop an Industrial User Inventory and Characterization procedure to identify and characterize IUs in the service area of the POTW. The IU Inventory and Characterization SOP needs to also incorporate IU notification procedures for applicable Pretreatment Standards.

The IU Inventory and Characterization SOP should incorporate the following:

- The City's current access and procedure for identifying new IU through online access of the Sales Tax Revenue database.
- The EPA recommends the City participate in business development and the building department meetings and applications to gather additional information on new businesses or tenant finishes for existing IUs and incorporate this in the SOP.
 - In addition, the EPA recommends the City incorporate its IU survey into the business license process and request that the City have signature release on the building department's certificate of occupancy process. This provides the City the ability to evaluate IUs and provide notification of Pretreatment requirements.
- The City's current strategy of updating its current IU inventory by investigating approximately 1/3 of its service area annually through internet searches, local

knowledge of the service area, focused drive-by inspections, IU surveys and facility inspections.

- The EPA recommends the City determine IUs or sectors of IUs that have the potential to impact the POTW, such as machine shops or metal working IUs that may change their process to include unit operations subject to the Metal Finishing Categorical Pretreatment Standards found in 40 CFR 433.
- The EPA recommends the City collaborate with the County Health Department, plumbing inspector, collections systems department, and building departments to gather information regarding IUs in the service area and incorporate this in the SOP. The EPA recommends the City also 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.
- The City's current method of notifying IUs of applicable Pretreatment Standards is based on the characterization/classification of the IUs.

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 a current IU inventory of the IUs in its service area for EPA to review. Based on EPA's review, the City's IU inventory is maintained in spreadsheets and currently has about 700 IUs. The spreadsheets provide the site address and a general IU classification. It appears that the IU inventory is current and the City is devoting resources to continually maintaining the inventory and capturing current conditions of IUs in its service area.

However, based on the EPA's review of the City's current IU inventory, there were no Pretreatment records for Emit Technologies located at 2985 1st Avenue. Based on previous inspection of this corporation in a different city, the EPA has identified Emit Technologies as an IU with a potential to generate non-domestic wastewater subject to Pretreatment Standards. The City is required to conduct a facility inspection and provide the inspection report to the EPA.

The EPA currently provides "Pretreatment 101" webinar training, and a training for "Industrial User Inventory and Characterization Procedures," provided in September 2010, and 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.

- Section 20.456(a) –establishes the requirement for SIUs and CIUs to obtain a wastewater discharge permit.
- Section 20.456(b) –establishes the requirement for other IUs to obtain a wastewater discharge permit, as necessary to comply with the ordinance.
- Section 20.459 – contains the permit application contents.
- Sections 20.461— establishes the authority for the City to deny or conditions wastewaters discharged to the public sewers.
- Section 20.464 – establishes the permit conditions to prevent Passthrough or Interference and to protect the POTW, worker health and safety, biosolids and the receiving stream water quality.

8.3 Permit Template Overview

EPA evaluated the City's permit template to ensure the City is incorporating the required permit conditions found in 40 C.F.R. § 403.8(f)(1)(iii)(B)(1-6) of the Pretreatment required Regulations and Section 20.464 of the City's municipal ordinance. The City's permit template was recently evaluated and approved by the EPA on November 16, 2021 and complies with the permit conditions found in the Pretreatment Regulations and incorporated in the City's municipal ordinance.

8.4 *Specific Permit Record Findings*

The City has identified ten IUs in the service area that is determined to be significant industrial users (SIU) and that has been issued a permit under the Pretreatment program. Two of these SIUs has been identified as a CIU subject to the Categorical Pretreatment Standards: 5 Star Coatings is subject to the Metal Finishing PSNS found in 40 CFR 433.17 and Tri-Mac Transportation is subject to the Transportation Equipment Cleaning PSNC found in 40 CFR 442.16. Findings from the EPA's review of the Pretreatment records, including the facility inspection report, statement of basis, permit, compliance evaluation, and enforcement records are listed below:

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. This information is important to capture current conditions and determine if control such as an SIU permit or BMPs are necessary or if modifications to existing control mechanism or control plans such as slug discharge control plans or spill plans are necessary.
 - a. The EPA recommends the City gather digital photos during SIU inspections to provide current photos of areas relevant to the Pretreatment permit, including but not limited to floor drains, unit operations, raw material/chemical storage, applicable chemical handling equipment, wastestreams, and treatment.
 - b. During the audit, EPA provided compliance assistance and training on conducting facility inspections and generating inspections reports that gather information to capture current conditions at the facility that may impact categorical determinations, permit conditions, or control documents such as the slug discharge control plan.
2. The Pretreatment Regulations at 40 C.F.R. § 403.8(f)(2)(iii) require the City to “Notify Industrial Users identified under paragraph (f)(2)(i) of this section, of applicable Pretreatment Standards...” Based on the EPA's review of the Pretreatment records, the City provided a follow-up letter to its 2022 inspection reports but the EPA did not find any such follow-up for the 2023 inspections and it was not clear if the City consistently provides follow-up to the IUs regarding applicable Pretreatment Standards. The City needs to ensure it provides adequate follow up after an inspection to provide notice to the SIU or IU of applicable Pretreatment Standards.
3. Fact Sheets/Permit Rationales: The City should develop permit rationales that

adequately capture current conditions at the SIUs, identifies applicable Pretreatment Standards and justifies permit conditions, including the most stringent permit limits based on an evaluation of all Pretreatment Standards, representative monitoring type/frequencies based on the SIU's wastewater discharge and recent compliance history, slug discharge/spill potential, reporting frequency and reportable data, toxic organic management plan (TOMP) requirement, requirement for slug discharge control plan based on current conditions. The fact sheets should include the local limits allocations to the SIUs, if any and for CIUs, a determination on which Pretreatment Standard is more stringent.

4. Self-Monitoring Reports (SMRs): Section 20-476(a) of the municipal ordinance requires the following: An SIU shall submit periodic reports that indicate the nature and concentration of pollutants in its discharge that are limited by a pretreatment standard, along with the measured daily flows. Based on the review of the SMRs for SIUs with mass-based limits, the EPA could not determine if the SIUs calculated compliance with the mass-based permit limits.
 - a. Section 20-480 of the municipal ordinance requires the following: If sampling performed by a user indicates a violation, the user must notify the director in writing or by telephone within 24 hours of becoming aware of the violation. Based on the EPA's Pretreatment records review, it does not appear that the SIUs with mass-based limits are determining compliance with the mass-based limits on a timely basis and reporting violations within 24 hours of becoming aware.
 - b. The City needs to ensure the SIUs with mass-based limits are calculating compliance with the mass-based permit limits and are reporting appropriately in the self-monitoring reports. In addition, the SIUs with mass-based limits are required to be aware of their compliance with these limits and report within 24 hours of the violation.
5. The Pretreatment records appear to be very well organized and current. The City uses an SMR compliance evaluation sheets to track due dates for the self-monitoring reports and determine compliance with the permit conditions. This SMR compliance evaluation sheets are a useful tool for the City to ensure consistent compliance evaluation.
6. The City should ensure the documentation of its Significant Non-Compliance (SNC) calculations of the numeric criteria and determination of the narrative SNC criteria are included the Pretreatment records.

8.4.2 Tri-Mac Transportation

1. Part 3.A of the permit issued to Tri-Mac Transportation requires the facility to report total monthly flows in gallons. Based on the EPA's review, the Pretreatment records did not include monthly total flow data and it is not clear if the facility is providing total monthly flows, as required by the permit. The City is required to ensure the facility is providing all required reporting information.

2. The EPA recommends the City evaluate the tank brightening process used at Tri-Mac. The tank brightening process uses Revive E, a strong HF/HCl/H₂SO₄ acid mixture and the EPA did not find information in the Pretreatment records regarding evaluation of the wastestreams generated from tank brightening, the storage and adequate handling/transfer of the acid and required sampling protocols to gather data from the wastestream generated from this process.
3. The inspection report should provide more detail on the acid/chemical storage/handling/transfer/use, exterior and interior tank cleaning process, heel management, tank brightening process and management/treatment and discharge of process wastestreams.

8.4.3 5 Star Coatings

1. Based on the EPA's review of the fact sheet and the permit, it is not apparent if the City allocated local limits to the SIU and if the City determined which Pretreatment Standard is more stringent between the City's local limits allocation and the Metal Finishing categorical Pretreatment Standards.
 - a. It is also not apparent if the City evaluated the facility's potential to exceed hexavalent chrome (Cr⁶⁺), As, Hg, Mo, Se local limits and therefore, establish these as pollutants of concern. The City needs to provide documentation on pollutants of concern, local limits mass allocations and crosswalk between the mass-based local limits allocated to this facility and the categorical Pretreatment Standards to determine which Pretreatment Standard is most stringent.
2. Part 3.A of the permit issued to 5 Star Coatings requires the facility to monitor flow and pH with each batch discharged and report flow/pH data on a quarterly frequency. Based on the EPA's review of the Pretreatment records, this information was not consistently found in the Pretreatment records. The EPA recommends the City maintains quarterly flow/pH data in the Pretreatment records or require 5 Star to provide a summary of the pH (min and max pH for each reporting month) and flow (daily average and monthly total for each month) in the quarterly self-monitoring reports.
3. The EPA performed a facility inspection on January 30, 2024. The inspection report was submitted to 5 Star Coatings on February 15, 2024. During the facility inspection, the EPA observed process wastewater from the phosphate washing operation flowing outside the garage bay doors and pooling on the concrete pad, located south of the building. There also appears to be evidence of corrosion of the concrete in the pad. The City needs to follow up with 5 Star Coatings and ensure the process wastewater generated from the phosphate washing operation is appropriately managed, discharges to outfall 01, and the facility eliminates the potential for process wastewater to discharge outside the building.

8.4.4 Florida Cirtech

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 2023 inspection report should provide more detail on the blending process, equipment, evaluation of the slug discharge potential in the containment trench, DI regeneration process, and discharge characteristics.

2. The City has established two monitoring points (02 – blending and 03 for the DI regeneration system) and has allocated mass-based local limits at each monitoring point. The fact sheet should include justification on pollutants of concern/local limits allocation for each monitoring point and current discharge practices to ensure the sampling is representative of the production day’s discharge.
3. Based on the EPA’s review of the Pretreatment records, the City sampled Florida Cirtech on June 30, 2022 and September 21, 2023 and the analytical results are included in the Pretreatment records. However, the EPA did not find records that confirm the City converted these concentration-based analytical results to determine compliance with the mass-based permit limits. The City needs to ensure it determines compliance with the mass-based permit limits and maintain compliance evaluation records from the Control Authority monitoring events in the Pretreatment records.
4. Based on the review of the Pretreatment records, the EPA could not determine if Florida Cirtech calculated compliance with the mass-based permit limits upon receipt of the analytical data. The required compliance calculations for the mass-based limits were absent for every quarterly SMR report in 2022 and 2023. It does not appear that the SIU has experienced violations of the mass-based limits, but the facility is required to report and certify on its compliance with the Pretreatment Standards with every self-monitoring report, as required in Section 20-476(a) of the municipal ordinance.
5. Slug Discharge Control Plan: the facility’s slug discharge control plan does not provide specific information regarding the potential of slug discharges and spills that may occur to the large containment trench. The plan states that spills and slug discharges are dealt with in accordance with the Spill/Slug Release Plan.
 - a. The EPA performed a facility inspection on January 30, 2024. The inspection report was submitted to Florida Cirtech on February 15, 2024. Based on the observations of the facility inspection, facility has a significant potential for spills or slug discharges to enter the containment trench and the slug discharge control plan needs to be updated to address management procedures, equipment, and handling to ensure the spill/slug discharge potential is minimized/eliminated or these spill/slug discharges are managed appropriately.

8.4.5 Protein for Pets

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 2023 inspection reports need to provide more detail on the meat

staging/grinding/blending and washing operations, management of wastewater, including treatment, evaluation of the slug discharge potential and discharge characteristics.

2. Based on the EPA's review of the Pretreatment records, the City sampled Protein for Pets on June 9, 2022, May 24, 2023 and October 23, 2023 and the analytical results are included in the Pretreatment records. However, the EPA did not find records that confirm the City converted these concentration-based analytical results to determine compliance with the mass-based permit limits. The City needs to ensure it determines compliance with the mass-based permit limits and maintain compliance evaluation records from the Control Authority monitoring events in the Pretreatment records.
3. Based on the review of the Pretreatment records, the EPA could not determine if Protein 4 Pets calculated compliance with the mass-based permit limits upon receipt of the analytical data. The required compliance calculations for the mass-based limits were absent for every quarterly SMR in 2022 and 2023. The City needs to require the SIU to sign and certify its compliance with every self-monitoring report, as required in Section 20-476(a) of the municipal ordinance.
4. Based on the EPA's review of the Pretreatment Records, the SIU exceeded the BOD permit limit on July 21, 2023, July 22, 2023 and September 8, 2023. The City adequately responded to these violations with NOV's. However, the EPA could not find the 24-hour notification for these violations from the SIU, as required in 40 CFR 403.12(g)(2) and Section 20-480 of the City's municipal ordinance. The City needs to require 24-hour notifications upon becoming aware of the violations. If this was not adequately reported within the required time frame, then the City needs to provide an enforcement response, according to its ERP.
5. The EPA performed a facility inspection on January 30, 2024. The inspection report was submitted to Protein for Pets on February 15, 2024. There were no findings from the facility inspection.

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 §20.511 of the municipal ordinance:

“Upon presentation of proper credentials, the director may enter the premises of any user to determine the user's compliance with this article and any wastewater discharge permit or order issued hereunder. Users shall allow the director ready access to all parts of the premises to inspect, sample, examine and copy records, and to perform any additional duties related to such compliance issues.

(1) Where a user has security measures in force that require proper identification and clearance before entry into its premises, the user shall make necessary arrangements with its security personnel so that, upon presentation of suitable identification, the director will be permitted to enter without delay for the purpose of performing specific responsibilities.

(2) The director shall have the right to set up on the user's property, or require installation of, any devices necessary to sample and/or measure the user's operations.

(3) The director may require the user to install, in accordance with local construction standards and specifications, such sampling and monitoring equipment and facilities as necessary to ensure compliance with applicable requirements. The user shall maintain sampling and monitoring equipment at all times in a safe and proper operating condition at its own expense.

(4) The director may require the user to install and maintain sampling and monitoring facilities independent of the user's sampling and monitoring facilities to enable the director to independently monitor the user's discharge activities.

(5) At the request of the director, the user shall promptly remove any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled. The user shall bear any costs of clearing such access.

(6) In the event that the director is refused admission to the user's property, the director may discontinue water or wastewater service to the premises until the director has been

afforded reasonable access to the premises to accomplish inspection or sampling.”

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 inspection. As discussed in § 8.4.1(1) of this audit report, the SIU inspection reports provide 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. Based on the EPA's review of the inspection records, it appears that the City is inconsistently providing notification to the SIUs regarding the applicable Pretreatment Standards and applicable corrective action items as a follow-up to the facility inspections. The EPA found SIU notification after the 2022 facility inspections but not after the 2023 inspections. The City needs to ensure it provides adequate follow up after an inspection to provide notice to the SIU or IU of applicable Pretreatment Standards.

9.6 Facility Inspections

During the audit, EPA and the City inspected 5 Star Coatings, Florida Cirtech and Protein

for Pets on January 30, 2024. The inspection reports were submitted to the facilities on February 15, 2024 and are included in this audit report as an enclosure. Areas of concern during the facility inspection are provided in the facility inspection reports for the City to provide follow up.

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 in 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 a SOP for Pretreatment sampling that provides an overview of its sampling program and associated maintenance procedures for supporting its sampling program such as sampler cleaning, pH meter calibration logs, tracking protocols, wastewater flowmeter accuracy verification forms. The City also developed SIU-specific sampling protocols for each SIU to ensure consistent sampling that is representative for the production day at each SIU. The EPA recommends the City incorporate digital photos in the SIU-specific sampling protocols. The SIU-specific sampling protocols need to incorporate QA/QC 1 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.

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 and meets 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 the necessary driving force that makes the Pretreatment program functional.

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/Criminal penalties established in §20.525 and 20.526.
2. Injunctive relief provisions established in §20.524.
3. Authority to enforce against falsification/tampering established in §20.526(b).
4. Notice of violations authority established in §20.515.
5. Compliance orders authority established in §20.516.
6. Consent Orders authority established in §20.518.
7. Cease and Desist Order authority established in §20.519.
8. Administrative penalty authority established in §20.521.
9. Show cause hearing provisions in §20.517.
10. Suspensions of service provisions in §20.520.
11. Search Warrant provisions established in §20.512.
12. Permit termination provisions established in §20.468.
13. Publication of IUs in significant noncompliance in §20.514.

11.3 Enforcement Response Plan

The City submitted its ERP to the EPA for review, prior to the audit. The Enforcement Response Plan (ERP) was recently updated by the City and approved by the EPA on November 16, 2021. Based on the EPA's review, the City's ERP meets the requirements established in the Pretreatment regulations at 40 C.F.R. § 403.8(f)(5)(i-iv) and incorporated in the municipal ordinance:

11.4 Compliance Evaluation

Based on EPA's review described in §8.4.1(4) of this audit report, it appears that the City is consistently evaluating compliance in the self-monitoring reports or notices of violation, with the exception of ensuring the SIUs with mass-based permit limits adequately report their compliance.

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).

Based on EPA's review of the Pretreatment records, the City is calculating numeric SNC and determining narrative SNC as necessary. However, the EPA recommends the City update its SNC Publication checklist to ensure the SNC criteria for late reporting is consistent with the 30 days listed in the Section 20-514(6) of the municipal ordinance.

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 §20.421(a)(2)(i) of the municipal ordinance:

“Trucked or hauled pollutants, except at a discharge point designated by the director in accordance with section 20-434.”

The municipal ordinance further establishes requirements for trucked/hauled waste and satellite RV dump sites in sections 20.434 and 20.435:

Sec. 20-434. - Hauled portable toilet wastewater.

(a) A user may introduce hauled portable toilet wastewater into the POTW only in accordance with its wastewater discharge permit.

(b) Hauled portable toilet wastewater shall comply with all relevant provisions of this chapter, including, but not limited to section 20-421.

(c) All portable toilet wastewater haulers shall obtain wastewater discharge permits. Portable toilet wastewater haulers must submit a waste manifest form for every load.

Sec. 20-435. - Satellite waste dump sites.

(a) Satellite waste dump site operators must obtain a wastewater discharge permit prior to introducing wastewater to the POTW.

(b) Satellite waste dump site operators shall comply with all relevant provisions of this chapter, including, but not limited to section 20-421.

(c) Satellite waste dump site operators must maintain records for all loads disposed of at such operator's site. Such records shall include, at a minimum, the name of the hauler, the hauler's vehicle, the license number, the volume of waste and the hauler's certification that the waste is not RCRA hazardous. Satellite waste dump site operators shall submit such records to the director as required by such operator's wastewater discharge permit.

12.3 Trucked and Hauled Waste Disposal Location and Control Mechanisms

According to information gathered during the audit, The City does not accept trucked and hauled waste and appears to have adequate control of the dedicated RV dump station at the POTW.

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

The City established the authority to implement BMPs in its Rules and Regulations as follows:

- BMP definition in §20.396.
- Authority to implement BMPs in §20.427.
- BMPs are established as Pretreatment Standards in §20-396-Pretreatment Standard definition.
- BMPs established as a permit condition in §20-464(1)(c).
- BMP recordkeeping requirements in §20.486.
- BMPs established as an SNC criterion in §20.514(8).

13.3 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 about 69 dental facilities in its industrial waste survey and has received one-time compliance reports within the deadline required by the Rule. The City adequately tracks the dentists subject to the Rule in a Dental Clinics and Dentists database and the database provides an excellent snapshot of the dental offices, their applicability/compliance status, submittal of one-time compliance reports and characterization.

13.4 FOG Sector Control Program

The City has established sector control requirements for the food service establishments (FSE) in the service area to control FOG. The requirements are established in 20.432(c) of the municipal ordinance:

“The user shall install grease, oil and sand interceptors when, in the opinion of the director, they are necessary to properly handle wastewater containing excessive amounts of grease, oil or sand. All interceptors shall be of the type and capacity specified in the city's building code. Users shall locate all interceptors so they are easily accessible for cleaning and inspection. The user shall inspect, clean, maintain and repair as needed all interceptors at its expense. The user shall make available for inspection by the director all cleaning and maintenance records for a minimum of three years.”

Based on information gathered during the audit, it appears that the City is requiring appropriately sized grease interceptors but is not fully implementing the BMP-based FOG sector control program by inspecting FSEs in the service area and ensuring they operate and maintain their grease interceptors. As mentioned in Section 3.2 of this audit report, the benefits of a fully implemented FOG program is ensuring the FSEs are managing their FOG contributions. This results in a decrease of the FOG loadings to the POTW and minimizing the effects of FOG coating the collection system pipes and equipment as well as obstructions that result in sanitary sewer overflows. The EPA recommends the City determine if a BMP-based sector control program for FOG should be fully implemented and evaluate staffing resources required to fully implement this program, which may include hiring an additional staff person. This additional staff person may also help the City in other field activities associated with the Pretreatment program.

14.0 PFAS Roadmap and Implementation

Harmful per- and poly-fluoroalkyl substances (PFAS) are an urgent public health and environmental issue facing communities across the United States. PFAS have been manufactured and used in a variety of industries in the United States and around the globe since the 1940s, and they are still being used today. Because of the duration and breadth of use, PFAS can be found in surface water, groundwater, soil, and air—from remote rural areas to densely-populated urban centers. A growing body of scientific evidence shows that exposure at certain levels to specific PFAS can adversely impact human health and other living things. Despite these concerns, PFAS are still used in a wide range of consumer products and industrial applications. Every level of government—federal, Tribal, state, and local—needs to exercise increased and sustained leadership to accelerate progress to clean up PFAS contamination, prevent new contamination, and make game-changing breakthroughs in the scientific understanding of PFAS.

14.1 2021 EPA PFAS Strategic Roadmap

On October 18, 2021, the EPA developed the **Agency’s PFAS Strategic Roadmap** — laying out a whole-of-agency approach to addressing PFAS. The roadmap sets timelines by which EPA plans to take specific actions and commits to policies designed to safeguard public health, protect the environment, and hold polluters accountable. The PFAS Strategic Roadmap may be found at the following link: <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>

The EPA’s integrated approach to PFAS is focused on three central directives:

1. **Research.** Invest in research, development, and innovation to increase understanding of PFAS exposures and toxicities, human health and ecological effects, and effective interventions that incorporate the best available science.
2. **Restrict.** Pursue a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment.
3. **Remediate.** Broaden and accelerate the cleanup of PFAS contamination to protect human health and ecological systems.

The EPA’s approach is shaped by the unique challenges to addressing PFAS contamination. The EPA cannot solve the problem of “forever chemicals” by tackling one route of exposure or one use at a time. Rather, the EPA understood that it needed to take a lifecycle approach to PFAS to make meaningful progress. PFAS pollution is not a legacy issue—these chemicals remain in use in U.S. commerce.

The risks posed by PFAS demand that the Agency attack the problem on multiple fronts at the same time. In the 2021 PFAS Roadmap, the EPA is leveraging the full range of statutory authorities to confront the human health and ecological risks of PFAS:

- Water – Clean Act (CWA)

- Solid Waste – Resource Conservation and Recovery Act (RCRA)
- Land – Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Air – Clean Air Act (CAA)
- Chemical Safety and Pollution Prevention – Toxic Substances Control Act (TSCA)

For purposes of this audit, the EPA is addressing the initiatives used in the Office of Water under the Safe Drinking Water Act, the Clean Water Act, the NPDES Permitting program and associated programs under the NPDES regulatory umbrella. The specific PFAS Roadmap commitments and updates may be found at the following link: <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024#ow>

14.1.1 Office of Water

14.1.1.1 Undertake nationwide monitoring for PFAS in drinking water

The Safe Drinking Water Act (SDWA) establishes a data-driven and risk-based process to assess drinking water contaminants of emerging concern. Under SDWA, EPA requires water systems to conduct sampling for unregulated contaminants every five years. The fifth Unregulated Contaminant Monitoring Rule (UCMR 5) was published on December 27, 2021. UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025 from drinking water systems using analytical methods developed by EPA and consensus organizations. This action provides EPA and other interested parties with scientifically valid data on the national occurrence of these contaminants in drinking water. Going forward, EPA will continue to prioritize additional PFAS for inclusion in UCMR 6 and beyond, as techniques to measure these additional substances in drinking water are developed and validated.

14.1.1.2 Establish a national primary drinking water regulation for PFOA and PFOS

Under the SDWA, EPA has the authority to set enforceable National Primary Drinking Water Regulations (NPDWRs) for drinking water contaminants and require monitoring of public water supplies. To date, EPA has regulated more than 90 drinking water contaminants but has not established national drinking water regulations for any PFAS. In March 2021, EPA published the Fourth Regulatory Determinations, including a final determination to regulate Perfluorooctanoic acid (PFOA) and Perfluorooctane sulfonic acid (PFOS) in drinking water.

On March 14, 2023, EPA announced the proposed NPDWR for six PFAS compounds including PFOA, PFOS, perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX Chemicals), perfluorohexane sulfonic acid (PFHxS), and perfluorobutane sulfonic acid (PFBS). The proposed PFAS NPDWR does not require any actions until it is finalized. EPA anticipates finalizing the regulation by the end of 2023. EPA expects that if fully implemented, the rule will prevent thousands of deaths and reduce tens of thousands of serious PFAS-attributable illnesses.

14.1.1.3 Publish the final toxicity assessment for GenX and five additional PFAS

On June 15, 2022, EPA issued final health advisories (HAs) for these two PFAS: 1) HFPO and its ammonium salt (referred to as “GenX chemicals”); and 2) PFBS. In chemical and product manufacturing, GenX chemicals are considered a replacement for PFOA, and PFBS is considered a replacement for PFOS. GenX chemicals have been found in surface water, groundwater, drinking water, rainwater, and air emissions. GenX chemicals are known to impact human health and ecosystems. Scientists have observed liver and kidney toxicity, immune effects, hematological effects, reproductive and developmental effects, and cancer in animals exposed to GenX chemicals.

The Office of Research and Development is also currently developing toxicity assessments for five other PFAS—PFBA, PFHxA, PFHxS, PFNA, and PFDA.

14.1.1.4 Publish health advisories for GenX and PFBS

PFAS contamination has impacted drinking water quality across the country, including in underserved rural areas and communities of color. SDWA authorizes EPA to develop non-enforceable and non-regulatory drinking water health advisories to help Tribes, states, and local governments inform the public and determine whether local actions are needed to address public health impacts in these communities. Health advisories offer a margin of protection by defining a level of drinking water concentration at or below which lifetime exposure is not anticipated to lead to adverse health effects. They include information on health effects, analytical methodologies, and treatment technologies and are designed to protect all lifestages.

On June 15, 2022, EPA issued interim updated drinking water health advisories for PFOA and PFOS that replace those EPA issued in 2016. In addition, EPA published health advisories for GenX and PFBS chemicals. These updated health advisories levels, which are based on new science, will remain in place until EPA establishes a National Primary Drinking Water Regulation. (As identified above the proposed National Primary Drinking Water Regulations were proposed on March 14, 2023.

14.1.1.5 Restrict PFAS discharges from industrial sources through a multi-faceted Effluent Limitations Guidelines program

Effluent Limitations Guidelines (ELGs) are a powerful tool to limit pollutants from entering the nation’s waters. ELGs establish national technology-based regulatory limits on the level of specified pollutants in wastewater discharged into surface waters and into municipal sewage treatment facilities. EPA has been conducting a PFAS multi-industry study to inform the extent and nature of PFAS discharges. Based on this study, EPA is taking a proactive approach to restrict PFAS discharges from multiple industrial categories. EPA plans to make significant progress in its ELG regulatory work by the end of 2024. EPA has established timelines for action—whether it is data collection or rulemaking—on the nine industrial categories in the proposed PFAS Action Act of 2021, as well as other industrial categories such as landfills. EPA’s multi-faceted approach entails:

- Undertake rulemaking to restrict PFAS discharges from industrial categories where EPA has the data to do so, including the guidelines for organic chemicals, plastics and synthetic fibers (OCPSF), metal finishing, and electroplating. Proposed rule is

expected in Summer 2023 for OCPSF and Summer 2024 for metal finishing and electroplating.

- Launch detailed studies on facilities where EPA has preliminary data on PFAS discharges, but the data are currently insufficient to support a potential rulemaking. These include electrical and electronic components, textile mills, and landfills. EPA expects these studies to be complete by Fall 2022 to inform decision making about a future rulemaking by the end of 2022.
- Initiate data reviews for industrial categories for which there is little known information on PFAS discharges, including leather tanning and finishing, plastics molding and forming, and paint formulating. EPA expects to complete these data reviews by Winter 2023 to inform whether there are sufficient data to initiate a potential rulemaking.
- Monitor industrial categories where the phaseout of PFAS is projected by 2024, including pulp, paper, paperboard, and airports. The results of this monitoring, and whether future regulatory action is needed, will be addressed in the Final ELG Plan 15 in Fall 2022.

14.1.1.6 Leverage NPDES permitting to reduce PFAS discharges to waterways

The National Pollutant Discharge Elimination System (NPDES) program interfaces with many pathways by which PFAS travel and are released into the environment and ultimately impact people and water quality.

On December 5, 2022, the EPA issued the **Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs Memo** to the U.S. States to proactively use existing NPDES authorities to reduce discharges of PFAS at the source and obtain more comprehensive information through monitoring on the sources of PFAS and quantity of PFAS discharged by these sources. This memorandum provides EPA's guidance to states and updates the April 28, 2022 guidance to EPA Regions for addressing PFAS discharges when they are authorized to administer the NPDES permitting program or Pretreatment program. The memo provides the following recommendations for POTW NPDES permits and Pretreatment programs:

- POTW NPDES Permits:
 - Quarterly Effluent, Influent and biosolids monitoring using EPA Method 1633
 - Recommended biosolids assessment, based on biosolids monitoring and a PFAS source reduction for IUs in the POTW's service area, if necessary
 - Public notice of downstream drinking systems that are potentially affected by the POTW effluent when the POTW's NPDES permit is renewed or issued.
- Pretreatment Programs:
 - Source Identification: Update IU inventory to include PFAS sources
 - Source Control: Utilize BMPS and pollution prevention to address PFAS discharges to the POTW

- Update IU permits to required quarterly PFAS monitoring
- Develop IU BMPS or local limits for PFAS, where authority exists through the NPDES permit limits or PFAS ELG promulgation.

14.1.1.7 Publish multi-laboratory validated analytical method for 40 PFAS

In September 2021, EPA (in collaboration with the Department of Defense) published a single-laboratory validated method to detect PFAS. The method can measure up to 40 specific PFAS compounds in eight environmental matrices (including wastewater, surface water and biosolids) and has numerous applications, including NPDES compliance monitoring. EPA and DOD are continuing this collaboration to complete a multi-laboratory validation of the method. In response to stakeholder requests to update the method with multi-laboratory validation data as soon as practical, the EPA is releasing multiple revisions of the draft method. These revisions (past, present, and future) are outlined below. It should be noted that none of these revisions significantly changed (or are anticipated to change) the procedure.

- August 2021: EPA posted the initial draft of Method 1633 at this website using the data from the single laboratory validation.
- June 2022: Second draft of Method 1633 included clarification on several issues that the laboratories participating in the multi-laboratory validation thought were vague or confusing.
- December 2022: Third draft of Method 1633 included some multi-laboratory validation data for the wastewater matrix, which added required QC criteria for the wastewater matrix. This revision had some additional clarifications and flexibilities that were responsive to formal comments received from multiple parties.
- July 2023: Fourth draft of Method 1633 incorporates the QC acceptance criteria for all aqueous matrices (surface water, ground water, and wastewater), derived from the multi-lab validation study. A multi-laboratory validation study report (published by DOD) is available below that summarizes the results of the multi-laboratory study for these aqueous matrices.
- The Final version of EPA Method 1633 was published on January 31, 2024 and is a validated analytical method to test for 40 PFAS in wastewater, surface water, groundwater, soil, biosolids, sediment, leachate and fish tissue. The method, while final, will not be required until the EPA formally adopts it through rulemaking.

In addition, on April 8, 2022, the EPA published a new *Adsorbable Organic Fluorine (AOF)* method 1621 that can broadly screen for the presence of PFAS in water at the part per billion level. The new AOF Method 1621 provides an aggregate measurement of chemical substances that contain carbon-fluorine bonds. PFAS are a common source of organofluorines in wastewater. This new method is especially useful for understanding the presence and forms of PFAS in wastewater when used in conjunction with methods that target individual PFAS. EPA's Draft Method 1621 has successfully completed single laboratory validation.

14.1.1.8 Publish updates to PFAS analytical methods to monitor drinking water

Expected Fall 2024 SDWA requires EPA to use scientifically robust and validated analytical methods to assess the occurrence of contaminants of emerging concern, such as an unidentified or newly detected PFAS chemical. EPA will update and validate analytical methods to monitor additional PFAS. First, EPA will review reports of PFAS of concern and seek to procure certified reference standards that are essential for accurate and selective quantitation of emerging PFAS of concern in drinking water samples. EPA will evaluate analytical methods previously published for monitoring PFAS in drinking water (EPA Methods 533 and 537.1) to determine the efficacy of expanding the established target PFAS analyte list to include any emerging PFAS. Upon conclusion of this evaluation, EPA will complete multi-laboratory validation studies and peer review and publish updated EPA PFAS analytical methods for drinking water, making them available to support future drinking water monitoring programs.

14.1.1.9 Publish final recommended ambient water quality criteria for PFAS

Tribes and states use EPA recommended water quality criteria to develop water quality standards to protect and restore waters, issue permits to control PFAS discharges, and assess the cumulative impact of PFAS pollution on local communities. On April 28, 2022, the EPA published proposed national recommended ambient water quality criteria for PFAS to protect aquatic life.

EPA is proposing the first Clean Water Act aquatic life criteria for PFOA- and PFOS—two of the most well-studied chemicals in this group. The criteria are intended to protect aquatic life in the United States from short-term and long-term toxic effects of PFOA and PFOS. Following the comment period, EPA intends to issue final PFOA and PFOS recommended criteria, considering public comments and any new toxicity data. States and Tribes may consider adopting the final criteria into their water quality standards or can adopt other scientifically defensible criteria that are based on local or site-specific conditions.

14.1.1.10 Monitor fish tissue for PFAS from the nation's lakes and evaluate human biomarkers for PFAS

States and Tribes have highlighted fish tissue data in lakes as a critical information need. Food and water consumption are important pathways of PFAS exposure, and PFAS can accumulate in fish tissue. In fact, EPA monitoring to date shows the presence of PFAS, at varying levels, in approximately 100 percent of fish tested in the Great Lakes and large rivers. In Summer 2022, EPA will collect fish tissue in the National Lakes Assessment for the first national study of PFAS in fish tissue in U.S. lakes. This will provide a better understanding of where PFAS fish tissue contamination is occurring, which PFAS are involved, and the severity of the problem. The new data will complement EPA's analyses of PFAS in fish tissue and allow EPA to better understand unique impacts on subsistence fishers, who may eat fish from contaminated waterbodies in higher quantities. EPA's preliminary analysis on whether concentrations of certain PFAS compounds in human blood could be associated with eating fish using the Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey data found a positive correlation. Completing this analysis will help make clear the importance of the fish

consumption pathway for protecting communities. EPA will continue to pursue collaboration with Tribal and federal partners to investigate this issue of mutual interest.

14.1.1.11 Finalize list of PFAS for use in fish advisory programs

EPA will publish a list of PFAS for state and Tribal fish advisory programs that are either known or thought to be in samples of edible freshwater fish in high occurrence nationwide. This list will serve as guidance to state and Tribal fish tissue monitoring and advisory programs so that they know which PFAS to monitor and how to set fish advisories for PFAS that have human health impacts via fish consumption. This information will encourage more robust data collection from fish advisory programs and promote consistency of fish tissue PFAS monitoring results in EPA's publicly accessible Water Quality Portal. By issuing advisories for PFAS, state and Tribal programs can provide high-risk populations, including communities and individuals who depend on subsistence fishing, with more information about how to protect their health.

14.1.1.12 Finalize risk assessment for PFOA and PFOS in biosolids

Biosolids, or sewage sludge, from wastewater treatment facilities can sometimes contain PFAS. When spread on agricultural fields, the PFAS can contaminate crops and livestock. The CWA authorizes EPA to set pollutant limits and monitoring and reporting requirements for contaminants in biosolids if sufficient scientific evidence shows that there is potential harm to human health or the environment. A risk assessment is key to determining the potential harm associated with human exposure to chemicals. EPA will complete the risk assessment for PFOA and PFOS in biosolids by the end of 2024. The risk assessment will serve as the basis for determining whether regulation of PFOA and PFOS in biosolids is appropriate. If EPA determines that a regulation is appropriate, biosolids standards would improve the protection of public health and wildlife health from health effects resulting from exposure to biosolids containing PFOA and PFOS.

14.2 Impact of the NPDES Initiatives on the City's Pretreatment Program

The analytical tools, rules, procedures, and methods developed by the EPA in the PFAS Strategic Roadmap and identified in §§14.1.1.1 through 14.1.1.12 are currently recommendations to identify and control non-domestic or IU sources in a POTW's service area. The requirement to control IUs will occur either when the EPA promulgates categorical Pretreatment Standards for specific IU sectors such as OCPSF, Metal Finishers or other future rulemakings, as identified in §14.1.1.5 or when the NPDES State adopts the EPA National Water Quality Criteria for PFAS and PFOS, identified in §14.1.1.9 as State water quality standards and begin implementing these as NPDES permit limits. However, EPA recommends the City evaluate these recommendations and determine proactive measures to identify PFAS non-domestic sources in its service area and determine appropriate level of control or compliance assistance.

14.3 CDPHE's PFAS Policy 20-1

The Colorado Water Quality Control Commission approved PFAS Policy 20-1 on July 14, 2020 to implement and interpret the narrative standard provisions in the commission's

Regulations No. 31.11(1)(a)(iv) and No. 41.5(A)(1) for PFAS. Section 31.11(1)(a)(iv) of the commission's regulations states, in relevant part, that "state surface waters shall be free from substances attributable to human-caused point source or nonpoint source discharge in amounts, concentrations or combinations which are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life." Section 41.5(A)(1) states that "Groundwater shall be free from pollutants not listed in the tables referred to in section 41.5(B), which alone or in combination with other substances, are in concentrations shown to be...Carcinogenic, mutagenic, teratogenic, or toxic to human beings, and/or,...A danger to the public health, safety, or welfare."

The PFAS Policy 20-1 directs the CDPHE to consider applying policy requirements for all existing and future, domestic and non-domestic, surface water and groundwater discharge permits issued by the division. The policy's approach for interpreting the PFAS narrative standards includes laboratory method and sampling considerations, translating the narrative standards for PFAS, cleanup of contaminated groundwater considerations, implementation in Colorado Discharge System Permits, and Colorado's impaired water list considerations.

The CDPHE began implementation of PFAS Policy 20-1 in 2021 with permit modifications to require monitoring for PFAS and to require preliminary PFAS source identification and is including these policy requirements in renewed/reissued permits.