UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO ATTENTION OF
ECW-15J

VIA ELECTRONIC MAIL

Amy R. Underwood, General Manager
Downers Grove Sanitary District
2710 Curtiss Street
Downers Grove, Illinois 60515

Subject: June 27 to 29, 2023, Pretreatment Compliance Inspection Report for the Downers Grove Sanitary District, Illinois; NPDES Permit Number: IL0028380

Dear Ms. Underwood:

Please find enclosed a copy of the inspection report generated as a result of the pretreatment compliance inspection of the Downers Grove Sanitary District, Illinois, conducted by the U.S. Environmental Protection Agency from June 27 to 29, 2023. The purpose of the inspection was to conduct a review of the Downers Grove's pretreatment program implementation. During the inspection, EPA observed several areas of concern; these are listed in the enclosed report. Please provide a written response to the areas of concern identified in the report within 30 days. In your response, please include a description of actions taken to correct any issues documented in the inspection report. Your response should be submitted electronically to choi.sangsook@epa.gov and r5pretreatment@epa.gov. Where it is infeasible to submit electronically, you may mail the information to:

Sangsook Choi, Water Enforcement and Compliance Branch, EPA Region 5
77 W. Jackson Blvd. (ECW-15J)
Chicago, Illinois 60604-3590

If you have any questions or concerns regarding this letter, or the inspection report, please contact Ms. Choi at (312) 353-1869 or at choi.sangsook@epa.gov.

Sincerely,

RYAN BAHR Digitally signed by RYAN BAHR
Date: 2023.09.06 15:54:56 -05'00'

Ryan J. Bahr, Supervisor
Section 2
Water Enforcement and Compliance Assurance Branch

Enclosure

Pretreatment Compliance Inspection: Downers Grove Sanitary District, Illinois

Control Authority Name and Address
Downers Grove Sanitary District
2710 Curtiss Street
Downers Grove, Illinois 60515

NPDES Permit Number: IL0028380

Responsible Official
Amy R. Underwood, General Manager

Inspection Participants

Downers Grove Sanitary District
Amy R. Underwood, General Manager
Reese Berry, Laboratory Supervisor

Baxter and Woodman
Nichole Schaeffer, Environmental Department Manager

U.S. **EPA**
Sangsook Choi, Environmental Engineer
Valerie Dooling, Environmental Engineer

Lead US EPA Inspector: Sangsook Choi

Inspector Signature: Sangsook Choi Digitally signed by Sangsook Choi Date: 2023.09.06 15:17:54 -05'00'

Approver Name and Title: Ryan Bahr, Section 2 Supervisor, Water Enforcement and Compliance Assurance Branch

Approver Signature and Date: RYAN BAHR Digitally signed by RYAN BAHR Date: 2023.09.06 15:54:18 -05'00'

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SECTION 1.0: INTRODUCTION

The U.S. Environmental Protection Agency conducted a Federal Pretreatment Compliance Inspection (PCI) of the Downers Grove Sanitary District, Illinois (Downers Grove, District, or DGSD) from June 27 to 29, 2023. The purpose of the inspection was to evaluate the procedures and implementation of the Downers Grove's pretreatment program. The Downers Grove has a National Pollutant Discharge Elimination System (NPDES) Permit. Special Condition 12 of NPDES Permit No. IL0028380 require Downers Grove to operate its approved industrial pretreatment program. The industrial pretreatment program was approved on June 28, 1985. EPA's inspection consisted of:

1. Review of requested submittals prior to on-site inspection;
2. Interviews and discussion with Downers Grove staff and consultant manager;
3. Industrial User (IU) file reviews; and
4. A site visit at one IU: Rexnord Industries

On June 27, 2023, inspectors Valerie Dooling and Sangsook Choi arrived at the Downers Grove Sanitary District, at 2710 Curtiss Street. We met Amy R. Underwood, General Manager, Reese Berry, Laboratory Supervisor, and Nichole Schaeffer, consultant manager. EPA inspectors presented their credentials and had an opening conference and CBI was also discussed.

SECTION 2.0: SITE BACKGROUND AND PRELIMINARY REVIEW

Downers Grove Sanitary District is engaged in treating domestic and industrial wastewater and has a wastewater treatment plant (WWTP). The sewer system is a 100% separated system and no combined system exist.

Downers Grove Sanitary District WWTP has a design flow rate of 11 million gallons per day (MGD) and an actual flow rate of 9.8 MGD. It has the following treatment processes:

1. Primary—fine screens, grit tanks, and primary clarifiers;
2. Secondary—activated sludge/aeration tanks and secondary clarifiers;
3. Tertiary—sand filters, disinfection and dechlorination.

The District provided its latest Wastewater Treatment Plant Schematic. (See attachment 1)

SECTION 3.0: SUPPLEMENTAL DATA REVIEW/INTERVIEW

A. Pretreatment Program Modification:

There were no substantial changes to the pretreatment program that were not approved by EPA, Approval Authority. A Local Limit Technical evaluation for silver was submitted on August 31, 2022, and approved by EPA on December 12, 2022. The Enforcement Response Policy (ERP) has not been amended in recent years. The Sewer Use Ordinance (SUO) was adopted in November of 2022.

B. Legal Authority:

The SUO was passed in November 2022, and Downers Grove has one year to implement. The permits for the IUs were already modified and will be effective in November 2023. The DGSD owns 250 miles of sewers, the WWTP and nine (9) lift stations and is not part of the Village of Downers Grove. There are no intergovernmental /jurisdictional agreements. In addition to the Downers Grove area, DGSD provides services to parts of Westmont, Darrien, Lombard, Oakbrook, Lisle, Woodridge and unincorporated areas. The District also informed us that the Downers Grove Sanitary District's service area is determined by IEPA and the last time the boarders changed was in the 1990s. The District provided a map and list of the Downers Grove Sanitary District's service area. (See Attachment 2)

In June 2008, U.S. EPA approved a modification to the Districts approved pretreatment program to incorporate the Streamlining Rule requirements.

The DGSD has a 3-person board appointed by the County. There are 41 employees for the District.

Surcharge program

Every restaurant is in the surcharge program. Ultra brewing is the latest applicant to connect to the sewer system. If a restaurant has a grease trap, it will be alerted and added to the surcharge program. There are two food processers that are connected to the sewer: Flavor Chem and Pepperidge farm. According to DGSD, the food processers do not have potential to cause upset, so they were not listed as SIUs.

The SUO does not have local limits for BOD and TSS ; it only sets surcharge limits for these parameters. The District included these parameters in its local limits evaluation and determined a local limits were not needed.

The District conducts unannounced sampling for BOD, TSS, FOG, and pH. The District does three days of composite sampling twice every five years (permit cycle) for FlavorChem and Pepperidge Farms and for 256 other sampling sites included in the surcharge program. If there are FOG or pH exceedances, the District discusses cleaning manifest of grease traps with grease trap codes. 99% of customers that are surcharged are restaurants. We requested a list of IUs and zero discharge IUs based on the Districts industrial waste survey.

The District indicated that many zero discharge IUs have their floor drains plugged. Bales Mold Service, Inc. had been permitted to have unplugged floor drains until November 2021. At that time, the District issued a Notice of Violation and the floor drains are now plugged at the Bales facility.

The District is actively investigating facilities following receipt of responses to its Industrial Waste Suvey (IWS.) Arrow Gear, a zero discharge facility has it floor drains plugged but identified another process in its response to the IWS and Downers Grove is investigating. Arrow Gear disclosed the

volume of discharge on the survey. Arrow Gear now has a chemical etch process that is fully contained and uses constant rinse water. The District has not determined the industrial category yet and stated that the previous contact at Arrow Gear did not disclose the new process 1 ½ years ago in response to that IWS.

The Lovejoy facility does not have any categorical processes onsite and is not discharging process wastewater. The Mar-Cor facility plans to terminate its permit in 1 to 6 months. They have not discharged in the last 3 to 5 months.

Good Samaritan Hospital got rid of its x-ray processing units and sends out biohazardous waste and pharmaceutical waste. They have a cafeteria and a grease interceptor. These changes occurred over 8 years ago but the hospital requested to retain its permit.

The Rexnord facility permit is expiring in October and the permit is out for renewal currently. Rexnord has hauled waste manifest which is verified onsite during the inspection. Rexnord was plating in the previous building which was removed in 2018-2019. Currently it is cleaning and milling products onsite. Rexnord has black oxide and etch lines but the wastewater from these processes is hauled away. There are dedicated sampling points onsite.

C. IU Characterization:
Downers Grove's definition of a significant industrial user (SIU) is similar to the definition written in 40 C.F.R. § 403.3(v).

Downers Grove may determine that a categorical IU (CIU) is a non-significant CIU (NSCIU) under 40 C.F.R. § 403.3(v)(2). Downers Grove has determined that one of its CIUs is an NSCIU, Bales Mold Service, Inc. because it is a zero discharge.

The District is currently conducting a comprehensive industrial user survey in 2023. The last survey was conducted in 2020-2021. The Downers Grove Sanitary District gets new users' information from the District's code of enforcement and billing departments. New connections need to be reviewed by code enforcement and are issued a sewer use permit. Existing connections are identified by the billing departments when the owner or tenant of a property switches. The code enforcement staff gets notified of planning/zoning meetings for the Villages that the District serves, and ensures that the District is aware of any new customers or change in zoning.

Semi-annually, the District's pretreatment coordinator (Lab Supervisor, Mr. Reese Berry) drives through all the industrial and commercial areas within the District's boundaries looking for any unexpected changes in property use.

Currently, Downers Grove has two SIUs (Bales Mold Services, Inc. and Rexnord) and two other regulated noncategorical IUs (Mar-Cor Purification and Good Samaritan Hospital). The two SIUs are also CIUs (Bales Mold Services and Rexnords).

D. Hauled Waste:
The District accepts grease separator waste and food processing waste. Haulers discharge into a grease receiving station which provides enough detention such that the contents of the grease receiving station

can be pumped into one anaerobic digester evenly across the entire day. Grease haulers must submit applications along with sampling analysis. The purpose of the hauled grease waste program is to create digester biogas with the overall goal to run with net zero energy. The biogass is used in the District's combined heat and power (CHP) engines to produce electricity. This was started in 2009-2012 as a trial with grease. In 2014, the CHP system was put into place.

The hauling permit states that each hauler must comply with the SUO. The hauled FOG and food waste is tested initially to determine if it has high Chemical Oxygen Demand (COD) and to ensue there is no sulfur. High sulfur could damage the engines and the District would have to change the media too frequently. When a hauler first applies, it brings a sample which is tested for total solids, volatiles, sulfur, COD and total phosphorus. If the sample is too solid it won't flow through the pipe and the District will not accept it.

The District accepts grease waste under a strict schedule to ensure enough digester gas is created to produce electricity so that the WWTP operates as a net zero energy facility.

E. Application of Pretreatment Standards and Requirements

Downers Grove Sanitary District evaluated its local limits in August 2022 and considered twelve additional pollutants in the analysis and determined that local limits were not needed for those twelve pollutants as the influent loads for those pollutants were significantly less than 60% of the calculated maximum allowable industrial loadings (MAHLs). Those twelve pollutants were BOD, Total Suspended Solids, Ammonia-Nitrogen, Barium, Fluoride, Iron, Dissolved Iron, Phenols, Selenium, Antimony, Manganese, and Molybdenum.

The November 27, 2022, Pretreatment Ordinance in Section 3.3 Specific Limitations on Discharge has the following local limits identified:

Pollutants	**Maximum Concentration**	**Notes**
Arsenic	0.52 mg/l	
Cadmium	0.28 mg/l	
Chromium	27.0 mg/l	
Hexavalent Chromium	0.81 mg/l	Grab sample
Copper	2.54 mg/l	
Cyanide	1.34 mg/l	Grab sample
Lead	2.15 mg/l	
Mercury	0.0005 mg/l	
Nickel	4.27 mg/l	
Silver	0.36 mg/l	
Zinc	2.61 mg/l	
pH	5.5 – 9.0 Standard Units	Grab sample
FOG	100 mg/l	Section 3.2 (C)(14) Prohibited Discharge Standards

F. Compliance Monitoring:
Downers Grove samples semi-annually for all local limited parameters and the industry samples semi-annually per permit and conducts an annual site inspection.

During each IU inspection, Downers Grove staff review all data and reports for the last three years with IU staff and determine if there were any operational updates or proposed changes and checks waste hauler manifests. Finally, staff walks through the IU facility and inspects manufacturing, chemical storage, and pretreatment facilities.

Downers Grove collects samples for metals and cyanide, and measure pH at each IU. Downers Grove sends those samples to a contract laboratory for analysis. The contract laboratory has quality assurance and quality controls (QA/QC) measures in place that are documented in its lab reports.

Downers Grove requires all SIUs to have a slug discharge control plan and asks for any updates during the annual inspection.

G. Enforcement:
Downers Grove's definition of a significant noncompliance (SNC) is similar to the definition written in 40 C.F.R. § 403.8(f)(2)(viii) except Technical Review Criteria (TRC) violation exceeding the product of the daily maximum or monthly average limit times the applicable TRC (TRC = 1.2).

The District issued an NOV to Rexnord in May 2023 for a pH violation. After the IU self-reported the exceedance, they notified the District within 10 hours (24 hours required) and the District required Rexnord to take another pH reading internally. The District required Rexnord to conduct a lab test the next day. There could have been a debris buildup in the sample tub. Now the sample tubs are cleaned monthly and hauled out. Rexnord did not report any additional pH exceedances .

The District stated that no industries are in SNC. Bales Mold Service had one exceedance of Nickel in August 2021 and Rexnord had one Chromium exceedance in 2020 and one pH exceedance in 2023.

H. Data Management/Public Participation:
Confidential Business Information (CBI) is kept in hard copy only and kept in a locked file cabinet with the door locked and it is not scanned. It is labeled confidential.

I. Resources:
The District's pretreatment program is primarily implemented by the District's Laboratory Supervisor. The General Manager provides administrative assistance, as needed. The District's two lab analysts assist with sample collection. The District office staff may assist with clerical or billing assistance.

Downers Grove devoted 0.13 FTE in 2022 to implement its pretreatment program. The District has access to 8 composite samplers, a lab van, 500 feet of tubing, and Personal Protective Equipment. Downers Grove replaces its sampling equipment every 10-15 years.

Downers Grove's annual budget for its pretreatment program for FY2023-24 is $35,300. Funding is expected to increase in FY2025-26 to $73,000 for purchasing a van.

J. Environmental Effectiveness/Pollution Prevention

The District maintains a spreadsheet of the semi-annual metals and priority pollutant analysis of its influent, effluent and biosolids, and reviews it to see if anything has significantly changed for determining the effectiveness of pretreatment controls.

The District has a Class A sludge (public distribution) since the 1980s and since 2016 also maintains a Class B sludge for land application.

SECTION 4.0: FILE REVIEWS

4.1 IU Identification

IU Permit Number	IU Name	IU Type	Avg total flow (gpd)	Avg process flow (gpd)	Visited During Audit?	Reviewer	Categorical Pretreatment Standard
Discharge Permit No. 16	Bales Mold Service, Inc	Non Significant CIU	280 GPD of sanitary discharged to sewer	900 GPD (evaporation and hauled); Zero GPD discharged to sewer.	No	Valerie Dooling	40 CFR 413 ELECTROPLATING POINT SOURCE CATEGORY (Job shop)
Discharge Permit No. 1	Rexnord Industries	CIU	10,230 - 15,300 gallons per day	1026 to 1500 gallons per day	Yes	Sangsook Choi	40 CFR 433 METAL FINISHING POINT SOURCE CATEGORY

4.2 Facility Information

Bales Mold Service, Inc
2824 Hitchcock Avenue
Downers Grove, Illinois 60515

Job shop for metal plating and finishing of molds used in plastic extrusion. Plating is done using various chromium, copper and nickel solutions that may contain cyanide. Process wastewater is generated from plating rinses, sand blasting, laboratory testing and general facility cleaning. Process wastewater is collected and pumped to evaporators to concentrate the waste. Some rinses are used to

make up in tank with high rates of evaporation. The concentrated wastes and waste plating and cleaning solutions are hauled offsite for treatment and disposal. There is no pretreatment onsite and the IU is prohibited from discharging process water to the sewer. The point of discharge (of domestic) to the sanitary sewer system is 15 feet west of the DGSD Manhole Number 3-A-62. There is another manhole on the discharge line from the building designated Manhole 001. This is the sampling point used for monitoring of (domestic) discharge for compliance with the permit limits.

Rexnord Industries
2400 Curtiss St.
Downers Grove, Illinois 60515

Manufactures roller bearings used in military and commercial applications. Operations carried out in the plant are: heat treating, machining, grinding, tumbler finishing, rinsing, washing, and assembly. The point of discharge is at District's Manhole Number II-A-4-S and has six sampling points: 001-A, 001-B, 001-C, 001-D, 001-E, and 001-F.

Containerized discharges: hauled off-site for disposal for the following sources: Teflon Area (Rinse Tanks 5 and 6), D-Carbonizer process water, Black Oxide process water, Nital Etch process water and Unit #471- Tumbler. These flows are not permitted for discharge to the sanitary sewer and must be hauled off-site for disposal.

4.3 IU Evaluation

A. Issuance of IU Control Mechanism

Statement of duration (≤ 5 years)

The Rexnord Permit has indicated in the Section VI. Term of the Permit:

> "The term of this permit shall be from the issuance date to the stated expiration date. Provided, however, that the permit is contingent upon the issuance of an NPDES Permit to the District. Provided further that in the event a valid law, regulation, or ordinance requires the amendment of the terms and conditions of this permit, prior to its anticipated expiration date, the District may amend this permit upon thirty (30) day written notice to the Permittee."

Statement of Non-transferability

Section V. General Condition E states:

> "This permit is issued to the named Permittee for the specific operations permitted and is not transferable or assignable without the approval of the District." The Rexnord and Bales permits each include provisions for non-transferability of the permit.

Applicable effluent limits (local limits, categorical standards, Best Management Practices)

Bales Mold Service, Inc - The effluent limits that are in the DGSD ordinance are all listed in the IU permit. Per the 9/28/2006 Boornazian Appendix B Footnote 6, Job shop electroplaters fall under 40 CFR 433 PSNS. The Bales facility began operation in 1984 after the 8/31/82 new source date for 40 CFR 433. The requirements of 433.17 (PSNS) have different pollutant effluent limits than the effluent limits included in the permit listed for 40 CFR 413.

The 433 limits for cadmium is 0.11mg//L and the IU permit lists 0.28mg/L. The 433 limits for Chromium is 2.77mg/L and the IU permit is 27.0mg/L. The 433 Nickel limits is 3.98mg/L and the IU permit is 4.27mg/L. The 433 Cyanide limit is 1.20 and the IU permit limit is 1.34mg/L. The IU permit does not have a TTO limit but the 433 limit for TTO is 2.13 mg/l or certification and TOMP. The IU permit requires the certification statement, but the CA does not have a copy of the IU's TOMP.

Rexnord Industries – The permit does not separately identify Categorical Discharge Limitations and Local Limits. It is unclear in the permit which limit is the most stringent limit that is applied to the end of the process.

The most stringent limit for Chromium is the categorical limit (2.77 mg/l) and should be applied at the end of the pipe, Outfall 001-A, instead of the Local limit of 27.0 mg/l. The categorical limits are also more stringent for Cadmium, Lead and Nickel.

Self-monitoring requirements

Identification of pollutants to be monitored
Bales Mold Service, Inc - Electroplating 40 CFR 413 PSNS standards are only applicable for job shop electroplaters who were in operation prior to the 40 CFR 433 New Source date of 8/31/82. Job shop electroplaters that are "New Sources must comply with PSNS in 40 CFR Part 433.17 (metal finishing). 40 CFR 433.17 includes categorical limits for Chromium, Copper, Nickel, Silver, Zinc pollutants and these limits are not included in the IU permit.

Process for seeking a waiver for pollutant not present or expected to be present (for CIUs only)
Bales Mold Service, Inc - The fact sheet states that Cadmium, Silver, Arsenic, Mercury and

hexavalent chromium are not expected to be present in the wastestream. The pollutants that are expected to be present in the wastestream are not all listed in the permit (total chromium, copper, nickel, zinc).

Sampling frequency
Rexnord Industries - Sampling frequency is only identified for Cadmium, Chromium, Copper, Nickel and Zinc, and pH, flow, oil & Grease (FOG). The sampling frequency is not identified for Cyanide, Lead, and Silver.

Statement of applicable civil and criminal penalties
Bales Mold Service, Inc - The IU permit lists monetary penalties for failure to comply but does not list any potential criminal penalties.

Rexnord Industries – There is no civil and criminal penalties statement in its Permit as required per 40 CFR 403.8(f)(1)(iii)(B)(5): Statement of applicable civil and criminal penalties for violation of Pretreatment Standards and requirements, and any applicable compliance schedule.

The IU permit did not have language that the CA can seek or assess civil or criminal penalties of $1,000 a day for each violation.

B. CA Application of IU Pretreatment Standards:

IU Categorization
Calculation and application of categorical standards
Bales Mold Service, Inc - See previous comments regarding 40 CFR 433 limits.

Application of limits for all regulated pollutants
Bales Mold Service, Inc - See previous comments regarding list of all applicable pollutant limits in the permit.

Application of local limits
Rexnord Industries - There was no required monitoring for Local Limit pollutants.

Application of most stringent limit
Bales Mold Service, Inc – 40 CFR 433.17 has monthly and daily limits. For the compliance samples taken once every 6 months, the most stringent would be: Cadmium 0.07mg/L instead of the 0.28mg/L listed in the IU permit. Chromium, total 1.71mg/L instead of the 27.0mg/L listed in the permit; Copper 2.07mg/L instead of the 2.54mg/L listed in the permit; Nickel 2.38mg/L instead of the 4.27mg/L listed in the permit; Silver .24mg/L instead of the .36mg/L listed in the permit; Zinc 1.48mg/L instead of the 2.61 mg/L listed in the permit; Cyanide 0.65mg/L instead of the 2.7mg/L listed in the permit; and TTO 2.13 instead of the 4.57 listed in the permit.

Rexnord Industries - The most stringent limit for Chromium is the categorical limit (2.77 mg/l) and to be applied to the at the end of the pipe, Outfall 001-A, instead of the Local limit of 27.0 mg/l. The categorical limits are also more stringent for Cadmium, Lead and Nickel.

General Comments -
Rexnord Industries – The wastewater from the following processes: black oxide, nital etching, FAA rinse, touch plating process, washers in heat treat and ultrasonic rinse wastewater are held in a containment vessel for offsite disposal.

C. CA Compliance Monitoring

Analysis for all regulated parameters
Bales Mold Service, Inc - The CA did not sample for TTO. The IU submitted a waiver in lieu of TTO but the TOMP was not present. The CA did not sample for hexavalent chromium. Hexavalent chromium is listed in the IU permit.

Rexnord Industries – DGSD did not monitor for regulated Cyanide, Lead, nor Silver. The rationale provided was "Not expected to be present in the Discharge." The Silver local limit became more stringent in the most recently approved local limits analysis. Downers Grove does not monitor for TTOs. There was not a TOMP present.

D. CA Enforcement Activities

Downers Grove issued a NOV for a Chromium violation in 2020 for Rexnord and a NOV for a Nickel violation in Aug 2021 for Bales.

Calculation of SNC
Rexnord Industries - Every 6-month this SIU monitors and analyzes for regulated parameters. Since there is only one sample conducted, any analytical results should be subject to both the daily maximum limit and the monthly average limit. For the Chromium violation reported on May 8, 2020, the result was 2.95 mg/l. In this situation, this result is subject to the monthly average limit of 1.71 mg/l. For Chromium, a violation is considered SNC when semiannual sampling equals or exceed the product of the daily maximum or average limit times the applicable TRC (TRC = 1.4 for BOD, TSS and FOG, and 1.2 for all other pollutants except pH). The Chromium violation met the SNC definition, but DGSD did not determine that that the facility was in SNC.

Publication of SNC
Bales Mold Service, Inc - Facility was not published for the SNC violation occurring in the 6 months prior to Sept 30, 2021.

Rexnord Industries - The Chromium violation met the SNC definition but was not reported as SNC nor published in a local newspaper.

Adherence to approved ERP
Bales Mold Service, Inc - See above comment concerning publishing SNC.

Rexnord Industries – Rexnord had a Chromium violation that met SNC criteria. DGSD did not determine it to be SNC and did not follow its Enforcement Response Plan as required. The SNC was also not published in a local newspaper.

E. IU Compliance Status

Analysis by IU of all required pollutants in accordance with appropriate sampling techniques and analytical methods
Rexnord Industries - Not all regulated parameters are monitored. Only required to monitor for Cadmium, Chromium, Copper, Nickel, and Zinc semiannually. The permit only specifies those pollutants to monitor and report.

Reporting by IU on all required pollutants
Rexnord Industries - Not all regulated parameters are monitored. Only required to monitor for

Cadmium, Chromium, Copper, Nickel, and Zinc semiannually. The permit only specifies those pollutants to monitor and report.

IU submission/implementation of slug discharge control plan
Bales Mold Service, Inc - The CA did not provide the IU's spill control plan for EPA review.

Noncompliance with discharge limits (but not SNC)
Rexnord Industries - The May 8, 2020, chromium effluent limit violation met SNC TRC criteria. Reported sampling results was 2.94 mg/l. Since there was one sampling done for the past 6 months, this sampling result is subject to the monthly average limit of 1.71 mg/l.

SNC for TRC
Bales Mold Service, Inc - Facility was in SNC during the 6-month period prior to Sept 30, 2021, for a violation that met SNC TRC criteria due to a Nickel exceedance of 16.7mg/L on 8/12/21. Three samples were taken during the period from April - Sept 2021 and one sample exceeded 1.2x the permit limit of 4.27mg/L. Facility is not currently in SNC.

Rexnord Industries - The May 8, 2020, chromium effluent limit violation met SNC TRC criteria. Reported sampling results was 2.94 mg/l. Since there was one sample taken during for the 6-month period, this sampling result is subject to the monthly average limit of 1.71 mg/l.

TRC for chromium is 1.2 X 1.71 mg/l = 2.052 mg/l. The sampling result exceeded the TRC limit of 2.052 mg/l and therefore, it is SNC.

SECTION 5.0: INDUSTRIAL USER SITE VISITS

Rexnord Industries
2400 Curtiss St.
Downers Grove, Illinois 60515

Date of site visit: June 29, 2023

Inspection participants:

Rexnord Industries
Carlos Garcia, EHS Manager

Downers Grove Sanitary District, IL
Amy Underwood, Public Works General Manager

Reese Berry, Laboratory Supervisor/Pretreatment Coordinator

EPA
Valerie Dooling, Environmental Engineer
Sangsook Choi, Environmental Engineer

EPA and Downers Grove staff entered the Rexnord Industries (Rexnord) facility at 9:30 a.m. Downers Grove provided the 2023 Industrial Site Visit Report.
Opening Interview: Rexnord staff stated the following:

- Company operation:
    - Rexnord has 288 employees for 3 shifts.
    - The production staff work from 6:00 am to 2 pm; 2 pm to 10 pm; and 10 pm to 6 am.

The company manufactures roller bearings used in military and commercial applications. industry. Raw materials are bars, tubes, steel castings, etc. Processes include grinding, cutting, deburring, polishing, drilling, heat treat, touch plating, honing, etching, reaming, lathing, milling, lapping, bead blasting, saw cutting, welding, oil soaking, and assembly. Touch plating is not a plating department / process. It is a workstation with bottled chemicals where a worker inspects parts under magnification. If the part has a blemish, they "touch plate" the blemish to repair that imperfection. The chemicals/waste are discarded in a satellite storage drum at the workstation. This is not operational on a daily basis. Carlos Garcia estimated this was a 2-3 day per week operation and can be an all-day job.

Rexnord is subject to 40 CFR Part 433 Metal Finishing Categorical Standards.

- All waste from equipment that is categorical waste is pumped into holding tanks which double as sampling points before the waste is emptied into the sanitary sewer lines of the facility. These sample points are monitored by Rexnord and DGSD for categorical limits. At this time, they are meeting the daily and monthly averages for categorical limits for 40 CFR part 433 at these locations.
- This is a new facility, which was brought online in early 2019. They no longer have the old facility at the same address. It was demolished in late 2018 and early 2019. No significant changes in 2023.
- Wastewater generated discharges to 001A for the whole facility, 001B, 001C, 001D, 001E and 001F for various flows that are covered in the 433 categorical standards**.** DGSD has a list of equipment for each outfall. This was verified for each sampling location during the inspection. 001F is still unused but will remain a discharge point for future expansion if needed. Currently there is no flow from this point.
- Hazardous wastes are in long-term storage at the rear of facility in sunken storage area. Storage of satellite short term wastes is located in each 40 CFR 433 process area but moved to long-term storage when full. The Long-term area has a sunken floor and a pit that spilled materials can be pumped out of via sump pump if needed. This pit is not connected to the storm nor sanitary sewer. It is simply a holding tank in case of spills. These areas are not hooked up to the sanitary sewer lines in the facility.

- Chemical disposal is recorded on several different manifests. Review of these during the visit verified waste removal for Nital Etch, Black Oxide and the other various containerized wastes at different working locations inside the plant.
- Spill Containment and Control plans. Rexnord submitted the Spill Containment and Control Plan in January 2020 and has containment in place at various work sites throughout the plant and spill kits are available.
- Compliance Sampling
    - Semi-annual sampling: Suburban Laboratories, Inc. conducts sampling for pH, Cadmium, Chromium, Copper, Nickel, Oil and Grease, Temperature and Flow.

Walkthrough

We went through the Secondary Seal Division and observed a safety shower and emergency eyewash station, two 50-gallon drums with secondary containment, and a Vibratory Bowl Tumbling Sump Tank and the piping to sample point 001-C; and walked to the Repair Division and observed Sampling Point 001-C and the facility's sewer pipe discharges to a black container which then continues flowing by gravity.

We then walked to the Staking and Tool Room division and observed Sampling Point 001-D which continues flowing by gravity and observed the Abrasive Tumbler Recycling Tank which is a closed loop that does not discharge to the sewer, and observed the Black Oxide Coating System which has six tanks describing the steps, constituents, and the operating temperature. We walked to the HV Bearing Division for the Central Cooling System which had a liquid waste tank and nital etch. We then observed a Filter press system for solid waste that contains Cadmium from the Central Cooling System and saw Sampling Point 001-E and the Sonic Unit tank water recycler. The coolant recycler does not discharge to the sewer. The Fluids Division has solvent storage tanks with spill containments, 55-gallon drums of oil on the stacks, and used oil/water and coolant tanks.

We went outside of the building to observe a manhole designated Sampling Point 001 and saw a concrete connection with wastewater flowing from the building. We went to the Hazardous Waste Storage area and observed that the floor slopes downward into two pits in case of any spills.

SECTION 6.0: SUMMARY OF FINDINGS

A. Areas of Concern

40 C.F.R. Part	Site Background & Inspection Observations	Report Section
403.8(f)(5)(ii)	Downers Grove did not follow it's enforcement response plan (ERP and ERG) for the Technical Review Criteria (TRC) violations that exceeded the product of the daily maximum or monthly average limit times the applicable TRC factor meeting the significant noncompliance (SNC) definition.	3.0 G.

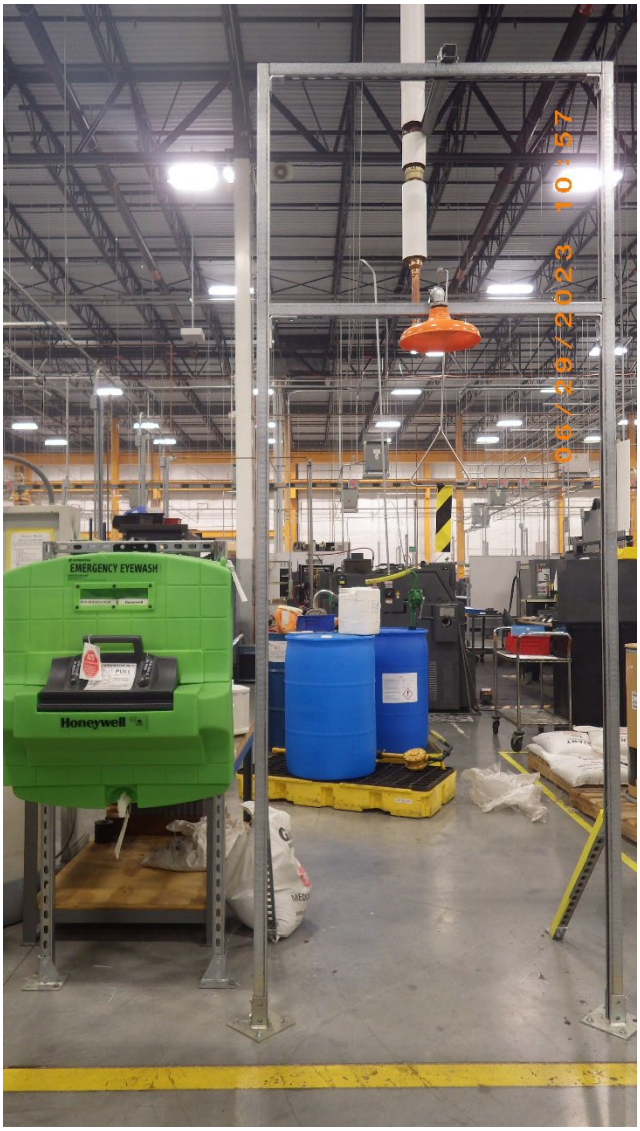
	TRC = 1.2 X Daily or monthly limit (for all pollutants except BOD, TSS, FOG, and pH)	
403.8(f)(1)(ii) and(iii)	403.8(f)(1)(ii) and (iii) require that CAs require compliance with applicable Pretreatment Standards and Requirements by Industrial Users and that CAs control Industrial Users through a permit, order, or similar means Downers Grove has many industries identified under the Surcharge program including food processors, brewing industries, zero dischargers, Arrow Gear, etc. It is not clear how DGSD is controlling these industries or whether there are industries that need to be permitted for discharges to the POTW.	3.0 B
40 C.F.R. Part	**File Reviews**	**Report Section**
403.8(f)(1)(iii)(B)(3) and (4)	Bales Mold Service, Inc. is subject to 40 CFR 433 PSNS and not 413. The requirements of 40 CFR 433.17 (PSNS) have different effluent limits than the effluent limits listed for 413. 40 CFR 433.17 lists Chromium, Copper, Nickel, Silver, and Zinc pollutants that are not on the IU permit.	4.3 A.
403.8(f)(1)(iii)(B)(3)	The Rexnord permit does not separately identify all categorical pollutants effluent limits and Local limits. It is unclear which limit is the most stringent limit.	4.3 A.
403.8(f)(1)(iii)(B)(4)	The Bales Mold Service, Inc. fact sheet stated that Cadmium, Silver, Arsenic, Mercury, and Hexavalent Chromium are not expected to be present in the Wastestream. The other pollutants in the categorical standard are not listed in the permit (total chromium, copper, nickel, and zinc).	4.3 A.
403.8(f)(1)(iii)(B)(4)	The sampling frequency for Rexnord is only identified for Cadmium, Chromium, Copper, Nickel, Zinc, pH, flow and oil & grease (FOG). The sampling frequency is not identified for Cyanide, Lead, and Silver.	4.3 A.
403.8(f)(1)(iii)(B)(5)	403.8(f)(1)(iii)(B)(5) requires that control mechanisms must contain, at a minimum a statement of applicable civil and criminal penalties. The Bales Mold Services IU permit lists potential monetary penalties but does not list any potential criminal penalties.	4.3 A.
403.8(f)(1)(iii)(B)(5)	The Rexnord IU permit does not include a statement on civil and criminal penalties.	4.3 A.
403.8(f)(1)(vi)(A)	The IU permits do not have language, that the CA can seek or assess civil or criminal penalties of $1,000 a day for each violation.	4.3 A.
403.8(f)(1)(ii)	Bales Mold Service, Inc. subject to 40 CFR 433.17 and the most stringent monthly and daily limit should be applied. Since sampling is done every 6 months, the most stringent limit – the monthly limit - applies for compliance purpose.	4.3 B.
403.8(f)(1)(ii)	The Rexnord Industries Permit is required to identify the most stringent categorical effluent limit (monthly limits) applied at the end of the process/pipe.	4.3 B.

403.8(f)(2)(v)(A) and (C)	DGSD did not sample TTOs at least once per permit cycle and a TOMP was not present for Bales Mold Service, Inc. and Rexnord. Hexavalent Chromium was not sampled.	4.3 C.
403.8(f)(2)(viii)	Rexnord's Chromium violation and Bales Mold Service, Inc.'s Nickel violation met TRC SNC criteria using the most stringent average monthly limit times 1.2 (TRC factor) but were not determined to be SNC.	4.3 D.
403.8(f)(2)(viii)	Bales Mold Service, Inc. and Rexnord's SNC violations were not published in a local newspaper.	4.3 D.
403.8(f)(5)	DGSD did not follow the Enforcement Response Guide to designate violations as SNC when those violations exceeded the Technical Review Criteria (TRC). A toxic pollutant violation meets the TRC SNC criteria when the measured value equals or exceeds 1.2 times the limit.	4.3 D.
403.12(e) & (g)(1) & (h), 403.12(g)(5)	Not all regulated parameters are monitored and reported by IUs under categorical pretreatment standards. The Permits only required semi-annually monitoring for Cadmium, Chromium, Copper, Nickel and Zinc. Silver monitoring is not required even through the local limit has changed.	4.3 E.
403.8(f)(2)(viii) (B)	SNC determinations for Bales Mold Service, Inc. and Rexnord did not consider the TRC criteria correctly.	4.3 E.

B. Program Recommendations

40 C.F.R. Part	**Site Background & Inspection Observations & File Reviews**	**Report Section**
403.8(f)(2)(v)(A) and (C)	CAs and CIUs are required to monitor TTOs at least once per permit cycle. This monitoring is also required semi-annually unless IUs prepare and DGSD approves a TOMP in which case compliance for the semiannual monitoring can be achieved with certification statements. DGSD, Bales Mold Service, Inc. and Rexnord. have not monitored for TTOs nor Hexavalent Chromium and did not have TOMPs.	4.3 C.
403.8(f)(1)(ii)	The most stringent categorical effluent limit (monthly limits) is required to be applied at the end of the process/pipe to determine compliance.	4.3 B.

Rexnord Industries
EPA Inspection June 29, 2023
All photos taken by Val Dooling, Environmental Engineer, U.S. EPA
Camera: RICOH WG-4 GPS



1: DGSD0004
Description: Safety shower on top right and emergency eyewash station on left. No drains connected to either. Two 50-gallon drums with secondary containment in the center background.
Location: Secondary Seal division of Rexnord Industries facility
Date/Time: June 29, 2023 10:57AM

2: DGSD0005
Description: Vibratory Bowl Tumbing Sump Tank with two vibratory bowls present. Visable piping that connects the sump tank to facility's sewer prior to sample point 001-C. One 50 gallon drum in secondary containment on right.
Location: Secondary Seal division of Rexnord Industries facility
Date/Time: June 29, 2023 10:58AM

3: DGSD0006
Description: Hand washing station dishcarge connected to 50 gallon drum and is not connected to the facility's sewer pipes.
Location: Repair division of Rexnord Industries facility
Date/Time: June 29, 2023 10:59 AM

4: DGSD0007
Description: Sample point 001-C. Facility's sewer pipe discharges to the black container then continues flowing by gravity. Sampling tubing is placed a few inches off the bottom of the container when the samples are collected by the Control Authority.
Location: Repair division of Rexnord Industries facility
Date/Time: June 29, 2023 11:03AM

5: DGSD0008
Description: Vibra-flow tank for tumblers with pipes that are connected to the facilty's sewer prior to Sample Point 001-C.
Location: Secondary Seal division of Rexnord Industries facility
Date/Time: June 29, 2023 11:11AM

6: DGSD0009
Description: Sample Point 001-D. Facility's sewer pipe discharges to the white container then continues flowing by gravity. Sampling tubing is placed a few inches off the bottom of the container when the samples are collected by the Control Authority.
Location: Staking and Tool Room division of Rexnord Industries facility
Date/Time: June 29, 2023 11:17AM

7: DGSD0010
Description: Interior view of Sampling Point 001-D. The interior is the same setup as Sample Point 001-C.
Location: Staking and Tool Room division of Rexnord Industries facility
Date/Time: June 29, 2023 11:17AM

8: DGSD0011
Description: Abrasive Tumbler recycling tank. Closed loop that does not discharge to Facilty's sewer.
Location: Staking and Tool Room division of Rexnord Industries facility
facility
Date/Time: June 29, 2023 11:18AM

9: DGSD0012
Description: Rear of black oxide tanks includes plumbing to black container. At time of inspection, black container appeared full, since there was liquid visable at the top of the container.
Location: Staking and Tool Room division of Rexnord Industries facility
Date/Time: June 29, 2023 11:23AM

10: DGSD0013
Description: Black Oxide coating system. Six tanks are visable and each tank has a label that describes the step, the consitiuants and the operating temperature.
Location: Staking and Tool Room division of Rexnord Industries facility
Date/Time: June 29, 2023

11: DGSD0014
Description: Central Cooling system on left and liquid waste tank for central cooling system and nital etch on right.
Location: HV Bearing division of Rexnord Industries facility
Date/Time: June 29, 2023 11:32AM

12: DGSD0015
Description: Filter press solid waste that contains cadmium from central cooling system cycling.
Location: HV Bearing division of Rexnord Industries facility
Date/Time: June 29, 2023

13: DGSD0016
Description: Sampling point 001-E and Sonicor Unit tank water recycler. Overflow discharges to blue bin on floor.
Location: HV Bearing division of Rexnord Industries facility
Date/Time: June 29, 2023 11:45AM

14: DGSD0017
Description: Self contined machine coolant recycler. Wastewater is not dicharged to the sewer.
Location: HV Bearing division of Rexnord Industries facility
Date/Time: June 29, 2023 11:49AM

15: DGSD0018
Description: Touch plating station and chemicals stored on and below workspace.
Location: Quality division of Rexnord Industries facility
Date/Time: June 29, 2023 12:12PM

16: DGSD0019
Description: Solvent storage
Location: Fluids division of Rexnord Industries facility
Date/Time: June 29, 2023 12:17PM

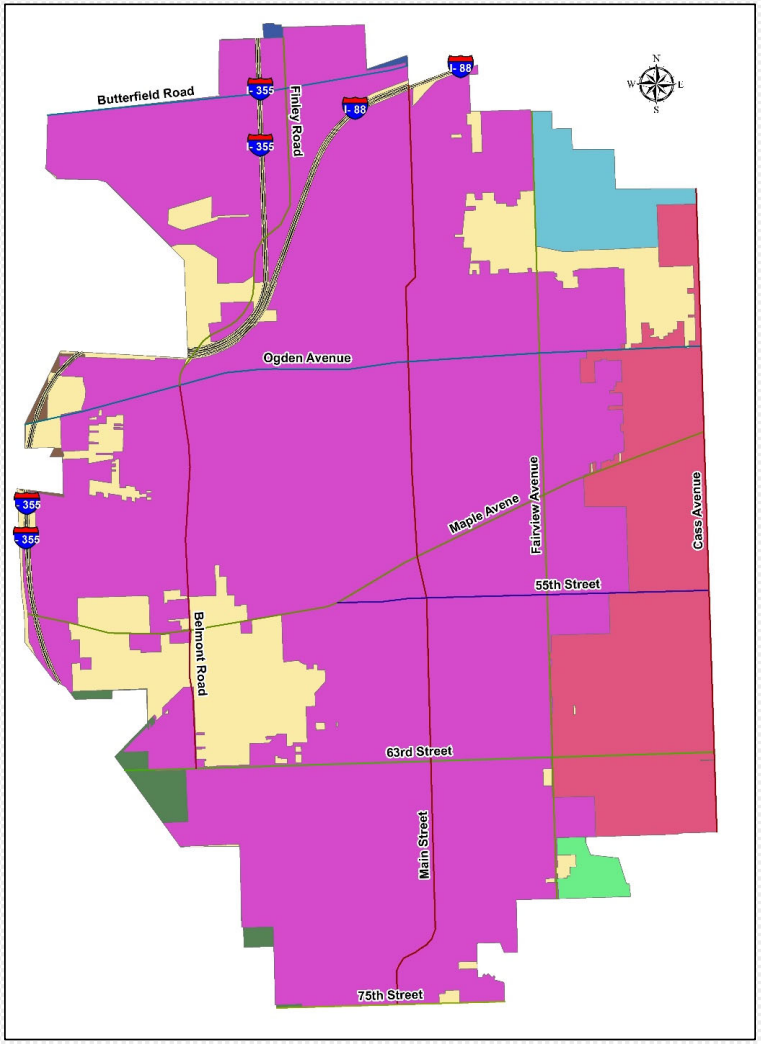
17: DGSD0020
Description: Oil storage
Location: Fluids division of Rexnord Industries facility
Date/Time: June 29, 2023 12:17PM

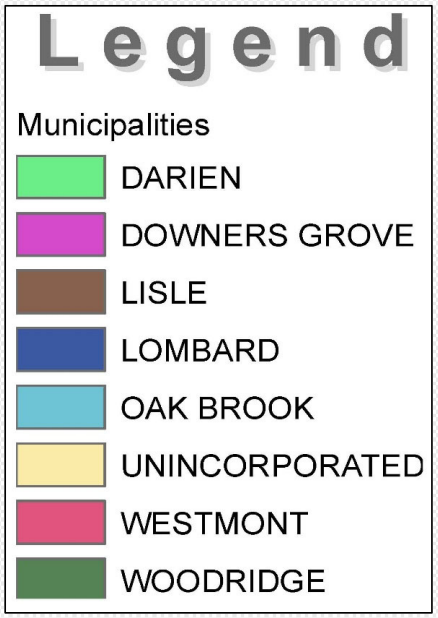
18: DGSD0021
Description: Used oil storage
Location: Fluids division of Rexnord Industries facility
Date/Time: June 29, 2023 12:18PM

19: DGSD0022
Description: View down Sample 001-A manhole outside. Wastewater from the current faciltiy flowing from top of photo to right. On bottom left of manhole concrete indicates where the sewer pipe from the old, unused faciltiy has been sealed closed.
Location: Sampling 001 Manhole outside of Rexnord Industries facility
Date/Time: June 29, 2023 12:27PM

20: DGSD0023
Description: Hazardous waste storage near shipping and receiving area. Floor slopes downward into two pits in case of spill.
Location: Ship and Waste division of Rexnord Industries facility
Date/Time: June 29, 2023 12:40PM

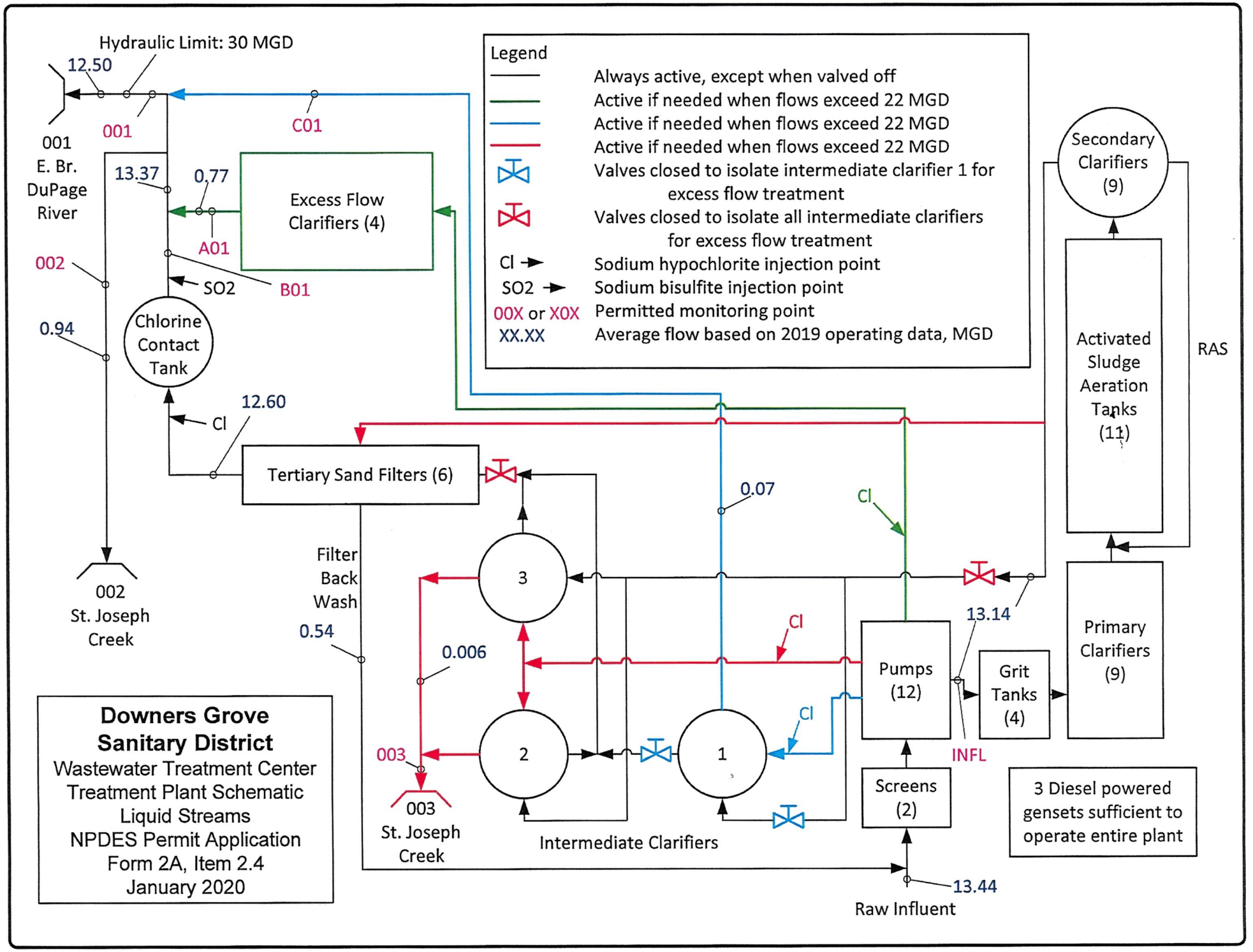
DOWNERS GROVE SANITARY DISTRICT





1998

Facility Planning Area (Last Amended)


Hydraulic Limit: 30 MGD
12.50
001
001
E. Br.
DuPage
River
C01
13.37
0.77
A01
Excess Flow
Clarifiers (4)
002
SO2
B01
0.94
Chlorine
Contact
Tank
Cl
12.60
Tertiary Sand Filters (6)
002
St. Joseph
Creek
Filter
Back
Wash
0.54
0.07
Cl
3
0.006
2
1
003
003
St. Joseph
Creek
Intermediate Clarifiers
Cl
Cl
Pumps
(12)
13.14
INFL
Grit
Tanks
(4)
Primary
Clarifiers
(9)
Screens
(2)
13.44
Raw Influent
Secondary
Clarifiers
(9)
Activated
Sludge
Aeration
Tanks
(11)
RAS
Legend
Always active, except when valved off
Active if needed when flows exceed 22 MGD
Active if needed when flows exceed 22 MGD
Active if needed when flows exceed 22 MGD
Valves closed to isolate intermediate clarifier 1 for excess flow treatment
Valves closed to isolate all intermediate clarifiers for excess flow treatment
Cl → Sodium hypochlorite injection point
SO2 → Sodium bisulfite injection point
00X or X0X Permitted monitoring point
XX.XX Average flow based on 2019 operating data, MGD
Downers Grove Sanitary District
Wastewater Treatment Center
Treatment Plant Schematic
Liquid Streams
NPDES Permit Application
Form 2A, Item 2.4
January 2020
3 Diesel powered gensets sufficient to operate entire plant