NPDES Pretreatment Categorical Industrial User Inspection
Metal Finishing Point Source Category
40 CFR Part 433

National Database Information	
Inspection Date: 6/30/22	Inspection Type: Pretreatment Categorical Industrial User
Entry/Exit Time: 1:35 pm / 5:06 pm	NPDES ID Number: NDP000001
NAICS Code: 336413, Other Aircraft Parts and Auxiliary Equipment Manufacturing	Inspection ID: 202206_NDP000001
Lead Inspector and affiliation: Emilio Llamozas, EPA Region 8	
Inspector and affiliation: Al Garcia, EPA Region 8	
Inspector and affiliation: Margaret Green, EPA Office of Water	
Inspector and affiliation: Montana Kruske, North Dakota Department Environmental Quality (NDDEQ)	
Inspector and affiliation: Sarah Waldron Feld, NDDEQ	
Inspector and affiliation: Lawrence Hanson, NDDEQ	

Facility Location Information	
Business Name	Goodrich Corporation - a Collins Aerospace System Company
Facility Location	2604 Hwy 20 North, Jamestown, North Dakota 58401
Mailing Address	Same as above
Type of Business/Operations	Cargo systems for aircraft parts and auxiliary equipment manufacturing
Average Production Rate	Depends on the parts
Number of Employees	Approximately 470 employees
Days of Operation	Monday through Sunday
Type/Number of Shifts	There are three shifts. Shift 1 is Monday through Friday 6:00 am to 4:30 pm. Shift 2 is Monday through Thursday 4:20 pm to 2:50 am. Shift 3 is Saturday to Sunday 6:00 am to 6:00 pm.

Facility Representatives	
Name	**Title**
Jill Mazur	Environmental Health and Safety (EHS) Manager
Maite Barroso	EHS Generalist
Michael Hust	EHS Generalist
Antonne Goss	Materials and Process
Warren Slind	Facility and Maintenance Manager

POTW/Receiving Water	
Publicly Owned Treatment Works (POTW) and Permit Number	City of Jamestown Publicly Owned Treatment Works (ND0023370)
Ultimate Receiving Water(s)	James River

Areas Evaluated During Inspection		
Permit	**Self-Monitoring Program**	**Pretreatment**
Records	Compliance Schedule	Pollution Prevention
Facility Site Review	Laboratory	Stormwater
Effluent/Receiving Waters	**Operations and Maintenance**	Combined Sewer Overflow
Flow Measurement	Sludge Handling/Disposal	Sanitary Sewer Overflow

Report Review and Signature		
Drafter Signature/Name	Address/Phone Number	Date
Emilio Llamozas	**U.S. EPA Region 8** **1595 Wynkoop Street** **8ENF-W-NW** **Denver, Colorado 80202** **303-312-6407**	**07/27/2022**
Reviewer Signature/Name	Address/Phone Number	Date
Al Garcia	**U.S. EPA Region 8** **1595 Wynkoop Street** **8WD-CWW** **Denver, Colorado 80202** **303-312-6382**	**07/27/2022**
Supervisor Signature/Name	Address/Phone Number	Date
Boeglin, Michael Digitally signed by Boeglin, Michael Date: 2022.07.31 22:22:29 -06'00' **Mike Boeglin**	**U.S. EPA Region 8** **1595 Wynkoop Street** **8ENF-W-NW** **Denver, Colorado 80202** **303-312-6250**	**07/31/2022**

General Inspection and Facility Information

Inspection Description

On June 30, 2022, at approximately 1:35 pm, the Environmental Protection Agency (EPA) inspectors, Emilio Llamozas, Al Garcia and Maggie Green, and North Dakota Department of Environmental Quality (NDDEQ) inspectors Montana Kruske, Sarah Waldron Feld and Lawrence Hanson (inspectors) arrived at Goodrich Corporation (Goodrich or facility) in Jamestown, North Dakota, to conduct a Significant Industrial User (SIU) inspection. The SIU inspection was conducted as part of the EPA Pretreatment audit of the State of North Dakota's Pretreatment Program. The EPA SIU inspection consisted of an evaluation of the wastestreams generated from the unit operations and processes at the facility, including potential for spills and slug discharges and an evaluation of Goodrich's compliance with the requirements under 40 C.F.R. Part 433 for the Metal Finishing Point Source Category.

The inspectors met with Jill Mazur, Environmental Health and Safety Manager, Maite Barroso, Environmental Health and Safety Generalist, Michael Hust, Environmental Health and Safety Generalist and Antonne Goss, Materials and Process Representative to have an opening conference to discuss the inspection of the facility. After presenting their inspector credentials and explaining the purpose of the inspection, the inspectors proceeded to ask a series of

questions to help them understand the unit processes on site and evaluate Goodrich's compliance with the pretreatment regulations.

The inspectors then toured sections of the production areas to observe the areas that generate wastewater, or pose spill or slug discharge risks. The inspectors also inspected the wastewater treatment system to evaluate compliance with the pretreatment regulations. Throughout the inspection, the inspectors noted their observations in a checklist. Photographs taken during the inspection are included in the attached photo log. Goodrich has claimed that the photos contain confidential and/or proprietary information.

The inspectors then returned to the conference room and held a closing conference with Ms. Mazur, Ms. Barroso and Mr. Hust. The inspection concluded when the inspectors left the site at approximately 5:06 pm.

After the onsite inspection, the inspectors reviewed the slug discharge control plan, solvent management plan, discharge monitoring reports (DMRs), associated laboratory analysis, and wastewater flow data from January 2021 to December 2021. The inspectors also reviewed the cyanide exceedance in the first half of 2020. On July 27, 2022, the EPA sent an email to Ms. Mazur with the preliminary findings from the inspection and records review.

Process/Operations

Facility operations include the production and assembly of aircraft components such as roller trays, rails, ball panels, side guides, locks, stops, latches, caster panels/channels, and electrical/electromechanical assemblies such as power drive units, lateral guides, and control systems. Goodrich also designs, develops, fabricates, and tests the electrical drive units for the assemblies. Cargo components are manufactured for commercial aircraft systems, and structural components are manufactured for commercial and military aircraft application. Components are machined on site with aluminum alloy, stainless steel, and titanium. Approximately 90% of the components made at the facility use aluminum alloy. Metal components are treated and finished in chemical process lines, and ultimately painted with protective coatings.

The machining process involves cutting the aluminum alloy, stainless steel and titanium to specified components (tray or skin). The metal shavings from the machining process are recycled. The machining process involves coolant. There are approximately 25 machines that have coolant in a close loop system. The coolant in each machine varies between 55 and 500 gallons depending on the size of the machine. Preventative maintenance is performed on the machines on a set schedule. Used coolant is removed and added to the evaporator. After evaporation, the used coolant is move to a 2,000-gallon tank and hauled offsite by a third party (Safety Kleen).

The machined parts are then sent to the process lines. There are two anodizing lines for the aluminum alloy parts. Steel parts go through a passivation process. Titanium parts are sent offsite for treatment and then sent back to the facility for painting. There is also an Alodine process line in the first anodizing line for aluminum alloy parts. The facility also has a penetrant etch process line for some products, which is part of the first anodizing line. The wastewater from the rinse tanks is treated onsite in the wastewater treatment system and the spent chemical in the chemical tanks is hauled offsite as hazardous waste. Below is a table for the first anodizing line (also called the Mainline) with the tank identification numbers, tank contents and the volume of the tanks.

First Anodizing Line or Mainline (Sulfuric/Boric-Sulfuric/Alodine)		
Tank #	Tank Contents	Capacity Gallons
1A	Aquavantage 3887 GD	3,120
1B	DI Rinse	3,120
2	Alkaline Clean	2,752
3	DI Rinse	2,752
5	Caustic Etch	2,752
6	DI Rinse	2,752
7	Deoxidizer	2,752
8	DI Rinse	2,752
8A	City Water	70
9	Alodine 1200S	100
9A	DI Rinse	2,064
10	DI Rinse	2,064
12	PTFE Teflon	2,200
13	Boric/Sulfuric Anodize	2,752
14	DI Rinse	2,409
15	Sulfuric/Hard Anodize	2,752
16	DI Rinse	2,409
17	Dilute Chromate Seal	2,752
22	Hot DI Water Seal	70

First Anodizing Process Line

The first anodizing process line (photo 2) involves the following steps:

Stage 1 – Soap water line with oil coalescer
Stage 2 – Rinse
Stage 3 – Alkaline clean
Stage 4 – Rinse
Stage 5 – Deoxidizing
Stage 6 – Rinse
Stage 7 – Either a sulfuric 2, sulfuric 3 or boric acid Alodine
Stage 8 – Rinse
Stage 9 – Seal with hot water, dilute chromate seal or teflon seal
Stage 10 – Drying

Alodine Process Line

Alodine process line involves the following steps:

Stages 1–3 - the same as the first anodizing process line described above.
Stage 4 – Alodine 1200 S (photo 4)

Penetrant Etch Process Line

Penetrant Etch process line is also part of the first anodizing line and involves the following steps:

Stage 1 – Aqueous degrease dip tank
Stage 2 – Rinse
Stage 3 – Alkaline clean
Stage 4 – Rinse
Stage 5 – Deoxidizing
Stage 6 – Caustic etch (photo 3)
Stage 7 – Deoxidizing
Stage 8 – Final rinse

Below is a table for the second anodizing line (also called the PAA line) with the tank identification numbers, tank contents and the volume of the tanks.

Second Anodizing Line or PAA line (Phosphoric Acid Anodize)		
Tank #	Tank Contents	Capacity Gallons
PA1	Alkaline Clean	2,100
PA2	DI Rinse	2,100
PA3	Phosphoric Deoxidizer	2,100
PA4	DI Rinse	2,100
PA5	Phosphoric Anodize	2,100
PA6	DI Rinse	2,100

Second Anodizing Process Line

The second anodizing process line (photo 1) involves the following steps:

Stage 1 – Solvent cloth (spent cloths are sent to the satellite container and disposed offsite by Veolia)
Stage 2 – Alkaline rinse
Stage 3 – Rinse
Stage 4 – Deoxidizing with phosphoric acid through an electrolytic process
Stage 5 – Rinse
Stage 6 – Phosphoric acid electrolytic process
Stage 7 – Rinse
Stage 8 – Drying

Below is a table for the passivating line with the tank identification numbers, tank contents and the volume of the tanks.

Passivating line		
Tank #	Tank Contents	Capacity Gallons
A1	Alkaline Clean	105
R1	DI Rinse	105
SR1	DI Spray Rinse	105
R2A	DI Rinse	105
R2B	DI Rinse	105
P1	Passivation	50
R3	DI Rinse	105

Passivation Process Line

The Passivation process line (photo 8) goes through the following steps:

Stage 1 – Cloth removal with solvents

Stage 2 – Alkaline

Stage 3 – Rinse

Stage 4 – Spray rinse

Stage 5 – Nitric acid passivation (not electrolytic)

Stage 6 – Counterflow rinse

Stage 7 – Hot water rinse

City water is applied as an overflowing, nonrecirculating rinse; demineralized rinses are fed with Deionized water that can be recirculated in order to conserve water. The wastewater from the rinse overflows in the metal finishing process (first anodizing line, Alodine process, penetrant etch process, second anodizing line and the passivation process) flow to the ion exchange deionizing (DI) units for water recycling. The wastewater from the DI units is sent to the wastewater treatment system.

Describe any substantial changes in manufacturing processes (or planned changes):

On May 30, 2019, Goodrich notified North Dakota of the upgrades to the wastewater treatment system (WWTS), which included:

- Installing the new ion exchange system.
- Changing the continuous treatment system to a batch treatment system to treat backwash and regeneration wastewater from the facility.
- All components of the WWTS including pretreatment equipment, instrumentation and controls, control panels, pumps, tanks and sludge-processing equipment.

Wastewater Treatment/Managment

Describe the wastewater treatment system or wastewater management:

The wastewater from the rinse overflows in the metal finishing processes (first anodizing line, Alodine process, penetrant etch process, second anodizing line and the passivation process) goes to the DI ion exchange units for water

recycling. The facility has three DI units (DI unit A, DI unit B and DI unit C). DI unit A consists of a sock filter that collects solids followed by a cation media and an anode media. Regeneration occurs once a week. The cation media is regenerated with 55-gallons of hydrochloric acid and the anion media is regenerated with 55-gallons of sodium hydroxide. The recycled water is fed back to the process water line. DI unit B consist of a sock filter and two carbon columns. The columns are backwashed about every three days and regenerated every two weeks using approximately 600 gallons per backwash. DI unit C or "The Beast" (photos 5 and 6) is the more aggressive water recycle unit. DI unit C includes a sand media column followed by a carbon column. The water then flows through a sock filter and then through an anion column and a cation column. The columns are backwashed every three hours and the cation/anion columns regenerated every three days to a week depending on production.

The wastewater from the DI units flows to Tanks T2 and T3 (photo 7). Tank T2 collects the acidic wastewater from the DI units and Tank T3 collects the basic pH wastewater from the DI units. The wastewater is then sent to either Batch Tank A or Batch Tank B for treatment (photo 9). The same treatment process occurs in Batch Tank A and Batch Tank B. First step in the batch treatment process, is to reduce the pH of the wastewater to approximately 2.5 by adding sulfuric acid. Sodium bisulfate is also added to remove chromium 6+. The pH of the wastewater is then increased between 6.5 and 10. Calcium chloride is added as a flocculant to allow the suspended solids to settle. After chemical treatment, the effluent flows from Batch Tank A or B (depending on which tank is being used) to the filter press through a high, medium and low height pipes on the Batch Tank to allow the cleaner water to go through the filter press first. The solids in the filter press (photo 10) are collected in filter sacks and sent to the 90-day hazardous waste storage satellite area. The facility generates approximately 44,000 pounds of filtercake per year. The filter sacks are disposed offsite as hazardous waste listed as F006 and F019.

The effluent from the filter press then goes through two filter bag socks to remove additional solids and then goes through the flow and pH meters before it is discharged to the City of Jamestown (photo 11). The facility collects their compliance samples via an ISCO sampler after the filter bag socks. The facility usually discharges 6,000 gallons of wastewater per day with a maximum of 9,000 gallons per day.

The facility has one Reverse Osmosis (RO) unit. The RO water is used as a coolant in the cutting machines. Some of the RO water is also used for rinse water in DI unit A. The RO reject water does not get treated in the wastewater treatment system and is discharge to the City. The facility usually generates 700 gallons per day of RO reject water.

The facility's pretreatment system has no bypasses; any spills are looped back into treatment. Additional wastestreams not covered by the permit include non-contact cooling water (discharged to wastewater evaporator), water treatment, steam condensate, and blowdown from heating and cooling equipment.

Chemicals/ Raw Materials Overview

The facility has a chemical storage area for acids and a chemical storage area for bases (photo 12). The following chemicals are stored at the facility:

Acids stored on acid side	Bases stored on base side
Hydrochloric Acid 31% 20 Be	Sodium Hydroxide 50%
Phosphoric Acid 85%	AquaVantage 3887GD
Bonderite 16R	300L
Bonderite 6MU	Carrier II Magnaflux
Sulfuric Acid 93% 66 Be	Glycerine 99.7%
Sulfuric Acid 50%	Skydrol Hydraulic Fluid
Nitric Acid 67% 42 Be	Oakite 160
Bonderite 1500	Sodium Chloride
Glycolic Acid 70%	Bonderite 4215
Calcium Chloride	
PTFE	
Boric Acid	
Bondering 600	
Alodine 1200S	
Sodium Benzoate	

Spills from the base storage room go to the 6,000-gallon Pit B and spills from the acids storage room go to the 6,000-gallon Pit A. If a spill occurred, Goodrich would engage a third party contractor to empty and dispose the contents of Pit A or Pit B.

The facility also has a Pit C that has a capacity of 6,000 gallons, which collects wastewater from the process (DI regeneration and drain rinse outs) and sends it to Tank T2.

Applicable Regulated Operation(s) 433.10(a)

Y/N	6 Core Operations[1]	Describe and List Associated Ancillary Operations[1,2]
N	**Electroplating**	The facility used to perform electroplating, but discontinued the process in 2018.
N	**Electroless Plating**	N/A
Y	**Anodizing**	The facility has two anodizing process lines. See description above.
Y	**Coating (chromating, phosphating, and coloring)**	The facility has a passivation process line and an Alodine process line. See description above
Y	**Chemical Etching and Milling**	The facility has a penetrant etch process line. See description above.
N	**Printed Circuit Board Manufacture**	N/A

1. **For a description of core and ancillary operations, see Table 3.1 of the EPA's 1984 *Guidance Manual for Electroplating and Metal Finishing*.**
2. **40 Ancillary Operations: cleaning, machining, grinding, polishing, tumbling, burnishing, impact deformation, pressure deformation, shearing, heat treating, thermal cutting, welding, brazing, soldering, flame spraying, sand blasting, other abrasive jet machining, electric discharge machining, electrochemical machining, electron beam machining, laser beam machining, plasma arc machining, ultrasonic machining, sintering, laminating, hot dip coating, sputtering, vapor plating, thermal infusion, salt bath descaling, solvent degreasing, paint stripping, painting, electrostatic painting, electropainting, vacuum metalizing, assembly, calibration, testing, and mechanical plating.**

How long has the facility been in operation?
If the facility has been in operation prior to the date for new sources (8/31/82), are they an existing source? Do they meet the definition of a new source (see 403.3(m) and guidance)?

The facility began electroplating operations in 1976 and metal finishing operations in 1982. Addition of phosphoric acid anodizing operations in 1998, classify the facility as a new source under the metal finishing subcategory of 40 CFR 433. Chemical etching and coating operations conducted by the facility are included in this subcategory as described in 40 CFR 433.10(a).

Do any of the following categories apply to the facility's operations? If yes, 40 CFR 433 does not apply, and the listed category applies. (40 CFR 433.10(b) and (c))

- **Nonferrous metal smelting and refining (40 CFR part 421)**
- **Coil coating (40 CFR part 465)**
- **Porcelain enameling (40 CFR part 466)**
- **Battery manufacturing (40 CFR part 461)**
- **Iron and steel (40 CFR part 420)**
- **Metal casting foundries (40 CFR part 464)**
- **Aluminum forming (40 CFR part 467)**
- **Copper forming (40 CFR part 468)**
- **Plastic molding and forming (40 CFR part 463)**
- **Nonferrous forming (40 CFR part 471)**
- **Electrical and electronic components (40 CFR part 469)**
- **Metallic platemaking and gravure cylinder preparation conducted within or for printing and publishing facilities (no applicable category)**

Electroplating – only for existing job shops (facility owns ≤50% of the materials) and existing independent printed circuit board manufacturers (40 CFR part 413)

The categories above do not appear to apply to Goodrich.

Facility Operations/Observations	Notes
Do all wastewaters from core and ancillary processes flow through the monitoring point? (433.10 and 403.17)	Yes
Do the monitoring location and self-monitoring sampling days appear to produce results that are representative of the discharge? (403.12(g)(3))	Yes
Is the monitoring location free from dilution? (403.6(d) and 403.12(g)(3))	Yes
Is the IU augmenting the use of process wastewater to achieve compliance? (433.17(c))	No
Is the cyanide monitoring point after treatment and before dilution with other streams? (433.12(c))	Yes
If the facility has submitted a toxic organic management plan in order to certify in lieu of monitoring for TTOs, are they following it? (433.12(a))	A Toxic Organic Management Plan (TOMP) is maintained in lieu of monitoring for Total Toxic Organics (TTO). Goodrich submitted a TOMP on August 20, 2015. Since then the TMP has been updated with the latest version of the TOMP submitted to NDDEQ on 6/29/2022.

Sampling and Reporting	Notes
Where DMRs submitted on time in June and December of the previous calendar year? (403.12(e))	The DMRs submitted in 2021 were submitted on time.
Where all parameters monitored? (403.12(e) and 433.17)	Yes
Where all parameters reported correctly?	Yes
Does the DMR include measured or estimated average and maximum daily flows? (403.12(e))	The facility has a flow meter used to report the measured flow rate.

Sampling and Reporting	Notes
Are appropriate sample types collected? • **Grab - pH, cyanide, total phenols, oil and grease, sulfide, and volatile organic compounds (some may be lab or field composited)** • **All other pollutants - 24-hour composite samples through flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the EPA** **(403.12(g)(3))**	Yes. Grab samples are collected for pH and cyanide. Flow proportional composite samples are collected for metals. Individual pH readings are recorded every 5-minutes during periods of discharge.
Do sample collection and analysis meet requirements in 40 CFR 136 (hold time, preservation, container type, method)? **(403.12(g)(5))**	Yes
Where DMRs signed and certified by required personnel? **(403.12(l))**	Yes
Is the IU sampling at the required frequency (min 2/year)? **(403.12(e))**	All parameters are sampled on a semi-annual basis. The inline pH meter records individual pH readings every 5-minutes during periods of discharge.
If the IU is sampling more frequently than required, are the results included in the report? **(403.12(g)(6))**	In 2021, Goodrich did not take additional samples then what was required in the permit.
If the IU is certifying for TTOs in lieu of monitoring, did they: **1. submit to the EPA a request to certify and a solvent management, and** **2. receive permission from the EPA to certify?** **(433.12(c))**	Yes. Goodrich submitted a solvent management plan or TOMP to the state and got approval to submit TTO certifications. The latest solvent management plan was dated June 29, 2022.
Do sampling records contain: • **The date, exact place, method, and time of sampling and the names of the person or persons taking the samples;** • **The dates analyses were performed;** • **Who performed the analyses;** • **The analytical techniques/methods use; and** • **The results of such analyses.**	Yes

Sampling and Reporting	Notes
• **Record keeping requirements** **(403.12(o)(1))**	
Are records kept for at least 3 years? **(403.12(o)(2))**	Yes
If IU sampling indicates a violation, was the Control Authority notified within 24 hours of the IU becoming aware of the violation? The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Control Authority within 30 days after becoming aware of the violation. **(403.12(g)(2))**	No. See Finding 2 below for additional information.
Was POTW notified immediately of all discharges that could cause problems to the POTW, including any slug loadings, as defined by §403.5(b)? **If no, were there such instances where the POTW should have been notified?** **(403.12(f))**	Not applicable. The facility representative indicated that there were no slug loading discharges to the POTW.
Is the facility required to have a slug discharge control plan? If yes, it must contain to following: • **Description of discharge practices, including non-routine batch Discharges;** • **Description of stored chemicals;** • **Procedures for immediately notifying the POTW of Slug Discharges, including any Discharge that would violate a prohibition under §403.5(b) with procedures for follow-up written notification within five days; and** • **If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.** **(403.8(f)(2)(vi))**	NDDEQ received an updated slug discharge control plan from Goodrich on October 5, 2020. The newest version of the slug discharge control plan was dated June 30, 2022. The slug discharge control plan dated June 30, 2022 was missing some required elements. See Finding 3 below for additional information.

Sampling and Reporting	Notes
Did the IU promptly notify the EPA and the POTW in advance of any substantial change in the volume or character of pollutants in their discharge? **(403.12(j))**	On May 30, 2019, Goodrich notified the State of the upgrades to the WWTS, which included: • Installing the new ion exchange system. • Changing the continuous treatment system to a batch treatment system to treat backwash and regeneration wastewater from the facility. • All components of the WWTS including pretreatment equipment, instrumentation and controls, control panels, pumps, tanks and sludge-processing equipment.
Did the IU submit notification of hazardous waste discharge? If no, should they have? **(403.12(j) and (p))**	Not applicable. The facility representatives indicated that no hazardous waste was discharge from the facility.
Did the IU submit notification of bypass? If no, should they have? **(403.17)**	Not applicable. The facility representatives indicated that no bypasses have occurred from the facility.
Did the IU submit a complete baseline monitoring report (180 days before discharge) and a 90-day compliance report? **(403.12(b) and (d))**	These reports were submitted several years ago and were not part of the scope of review for this inspection. The baseline monitoring report was submitted in February 2010.

Significant Noncompliance Evaluation (403.8(f)(2)(viii))	Notes
If effluent violations have occurred, is the IU in significant non-compliance (SNC) for chronic or technical review criteria?	Yes, the facility was in SNC for chronic and technical review criteria for the cyanide exceedance that occurred in the first half of 2020. See Finding 1 below for additional information.
Has the IU caused or contributed to pass through or interference? **If yes, evaluate for SNC.**	No
Has any discharge from the IU resulted in imminent endangerment to human health, welfare or to the environment? **If yes, evaluate for SNC.**	No
Has the IU failed to meet a compliance milestone contained in an Order within 90 days? **If yes, evaluate for SNC.**	No
Has the IU failed to provide, within 45 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules?	No

Significant Noncompliance Evaluation (403.8(f)(2)(viii))	Notes
If yes, evaluate for SNC.	
Has the IU failed to accurately report noncompliance? **If yes, evaluate for SNC.**	No

Findings, Corrective Actions and Recommendations

Finding #1: Goodrich exceeded its cyanide monthly average effluent limit for the month of May 2020 causing the facility to be in significant non-compliance.

Goodrich took eight grab cyanide samples on May 19, 2020. The May 19, 2020 cyanide samples included: two grab samples at 10:30 am, two grab samples at 11:30 am, two grab samples at 12:30 pm, and two grab samples at 1:30 pm. A set of four cyanide samples was analyzed by MVTL and the other set of four cyanide samples was analyzed by PACE Analytical. There were no other cyanide samples collected between January 1, 2020 and June 30, 2020. The average of the eight cyanide samples collected on May 19, 2020 was 1.04 mg/L. The value is less than the cyanide daily maximum permit limit of 1.20 mg/L, but exceeded the cyanide monthly average effluent limit of 0.65 mg/L.

The chronic significant non-compliance (SNC) threshold is where 66 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement. Therefore, the facility is in chronic SNC for the period from January 1, 2020 to June 30, 2020 because 100% percent of the cyanide samples exceeded the cyanide monthly average effluent limit of 0.65 mg/L.

Technical Review Criteria violations are those in which 33 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period equal or exceed the product of the numeric Pretreatment Standard or Requirement multiplied by the applicable Technical Review Criteria (Technical Review Criteria = 1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH). The Technical Review Criteria threshold for cyanide is the cyanide limit multiplied by 1.2 (0.65 mg/L x 1.2 = 0.78 mg/L). Therefore, the facility is also in SNC for Technical Review Criteria because the samples taken on May 19, 2020 had a cyanide concentration of 1.04 mg/L, which is greater than the Technical Review Criteria for cyanide of 0.78 mg/L. There were no other cyanide samples collected between January 1, 2020 and June 30, 2020.

Pursuant to the requirements of 40 C.F.R. §403.8(f)(2)(viii); NDDEQ as the Control Authority is required to provide a public notice in the newspaper(s) for Goodrich because it has demonstrated SNC with Industrial Pretreatment standards and requirements for the cyanide exceedance in calendar year 2020.

Pretreatment Requirement:

The State pretreatment regulations found at 33.1-16-01.1-04 state, “Industrial users shall comply with all applicable pretreatment standards and requirements.”

40 C.F.R. §433.17(a) states, “Except as provided in 40 CFR 403.7, any new source subject to this subpart that introduces pollutants into a publicly owned treatment works must comply with 40 CFR part 403 and achieve the following pretreatment standards for new sources (PSNS):

Pollutant or Pollutant Property	Pretreatment standards Milligrams per liter (mg/l)	
	Maximum for any one day	Monthly average shall not exceed
Cyanide	1.20	0.65

Section I.B Table 1 of the Goodrich industrial user permit states, “Effluent Limitations and Monitoring Requirements for Outfall 001A.

Parameter	Effluent Limitations	
	Daily Maximum	Monthly Max Average
Cyanide (mg/L)	1.20	0.65

APPENDIX A. Procedures. 8 of CHAPTER 33.1-16-01.1 of the State Pretreatment Regulations and 40 C.F.R. §403.8(f)(2)(viii) state, “Comply with the public participation requirements of 40 CFR part 25 in the enforcement of National Pretreatment Standards. These procedures shall include provision for at least annual public notification in a newspaper(s) of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW of Industrial Users which, at any time during the previous 12 months, were in significant noncompliance with applicable Pretreatment requirements. For the purposes of this provision, a Significant Industrial User (or any Industrial User which violates paragraphs (f)(2)(viii)(C), (D), or (H) of this section) is in significant noncompliance if its violation meets one or more of the following criteria:

(A) Chronic violations of wastewater Discharge limits, defined here as those in which 66 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period exceed (by any magnitude) a numeric Pretreatment Standard or Requirement, including instantaneous limits, as defined by 40 CFR 403.3(l);

(B) Technical Review Criteria (TRC) violations, defined here as those in which 33 percent or more of all of the measurements taken for the same pollutant parameter during a 6-month period equal or exceed the product of the numeric Pretreatment Standard or Requirement including instantaneous limits, as defined by 40 CFR 403.3(l) multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH)

(C) Any other violation of a Pretreatment Standard or Requirement as defined by 40 CFR 403.3(l) (daily maximum, long-term average, instantaneous limit, or narrative Standard) that the POTW determines has caused, alone or in combination with other Discharges, Interference or Pass Through (including endangering the health of POTW personnel or the general public);

(D) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority under paragraph (f)(1)(vi)(B) of this section to halt or prevent such a discharge;

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

(F) Failure to provide, within 45 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

(G) Failure to accurately report noncompliance;

(H) Any other violation or group of violations, which may include a violation of Best Management Practices, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment program."

Corrective Action:
On July 27, 2020, Goodrich provided a notification letter to NDDEQ regarding the cyanide exceedance and indicated that after receiving the cyanide exceedance results on June 8, 2020, the facility modified their internal sampling procedure to test every wastewater batch for cyanide prior to treatment. Batches with cyanide concentrations that would exceed the monthly average or daily maximum discharge limits were isolated and shipped as hazardous waste to a RCRA permitted facility.

On July 25, 2022, Goodrich also indicated that the chemical that contained cyanide was last used at the facility on June 11, 2020. The amount added on June 11, 2020 was two gallons. The facility has not used this chemical since the June 11, 2020 date. The cyanide samples from the second half of 2020, two samples in 2021, and first half of 2022 show compliance with the cyanide limit. Goodrich's long term solution to the May 2020 cyanide exceedances was to stop using chemicals that contain cyanide.

Ensure future compliance with the facility's effluent limits, including the cyanide monthly average effluent limit. No further response is needed at this time.

Finding #2: Goodrich failed to notify the Control Authority (NDDEQ) within 24 hours of becoming aware of the cyanide monthly average effluent violation and failed to resample and provide the results of the resampling within 30 days of becoming aware of the violation.
Goodrich took eight grab cyanide samples on May 19, 2020. The May 19, 2020 cyanide samples included: two grab samples at 10:30 am, two grab samples at 11:30 am, two grab samples at 12:30 pm, and two grab samples at 1:30 pm. The set of four cyanide samples were analyzed by MVTL and the other set of four cyanide samples were analyzed by PACE Analytical. The average of the eight cyanide samples collected on May 19, 2020 was 1.04 mg/L. The value is less than the cyanide daily maximum permit limit of 1.20 mg/L, but exceeded the cyanide monthly average effluent limit of 0.65 mg/L. The facility received the sample results from the laboratory on June 8, 2020. The facility provided notification of the exceedance to NDDEQ on July 27, 2020 went it submitted its self-monitoring report to NDDEQ. This was 49 days after becoming aware of the cyanide violation on June 8, 2020. The July 27, 2020 explained that after receiving the cyanide exceedance results on June 8, 2020, the facility modified their internal sampling procedure to test every wastewater batch for cyanide prior to treatment. Batches with cyanide concentrations that would exceed the monthly average or daily maximum discharge limits are isolated and shipped as hazardous waste to a RCRA permitted facility.

The next cyanide sample was collected on November 4, 2020, which was 149 days after becoming aware of the cyanide exceedance on June 8, 2020. The results of the sample were non-detect at a detection limit of 0.02 mg/L. The November 4, 2020 cyanide results were provided to NDDEQ on January 27, 2021 when the self-monitoring report for the second half of 2020 was submitted. This was 233 days after becoming aware of the cyanide violation on June 8, 2020.

Goodrich failed to notify the NDDEQ within 24 hours of becoming aware of the violation. Additionally, the facility failed to resample and provide the results of the resampling within 30 days of becoming aware of the violation.

Pretreatment Requirement:
The State pretreatment regulations found at 33.1-16-01.1-12(4)(a) state, "Periodic compliance reports submitted to the department shall be submitted on a periodic compliance reporting form, which will be supplied to the user by the department. If the publicly owned treatment works is the control authority, periodic compliance reports shall require, at a minimum, the data listed in 40 CFR part 403.12(e) and part 403.12(g)"

40 C.F.R. §403.12(g)(2) states, "If sampling performed by an Industrial User indicates a violation, the User shall notify the Control Authority within 24 hours of becoming aware of the violation. The User shall also repeat the sampling and analysis and submit the results of the repeat analysis to the Control Authority within 30 days after becoming aware of the violation..."

Section III.G of the Goodrich industrial user permit states, "The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances."

Section III.G of the Goodrich industrial user permit states, "If sampling performed by an industrial user indicates a violation, the user shall repeat the sampling and analysis and submit the results of the repeat analysis to the department within 30 days after becoming aware of a violation as instructed in 40 CFR 403.12(g)(2)."

Corrective Action:
Ensure that notifications to the Control Authority (NDDEQ) are made within 24 hours of becoming aware of the violation and that the results of repeat of the sampling and analysis are provided to the Control Authority within 30 days after becoming aware of the violation. In a response to the EPA and NDDEQ, provide a narrative explaining how this corrective action has been implemented.

Finding #3: The facility's slug discharge control plan was missing some required elements.
The slug discharge control plan dated June 30, 2022 was missing the following elements:

- A description of how spent chemical solutions used in the metal finishing processes (first anodizing line, Alodine process, penetrant etch process, second anodizing line and the passivation process) are handled to prevent non-routine batch discharges to the POTW. During the inspection, facility representatives indicated that the spent chemicals in the chemical tanks are hauled offsite as hazardous waste. This disposal procedure must be captured in the slug discharge control plan.
- A description of how spills in the acid and base storage rooms are handled. During the inspection, facility representatives indicated that spills from the base storage room go to the 6,000-gallon Pit B and spills from the acids storage room go to the 6,000-gallon Pit A. The facility representatives also indicated that if a spill occurred, Goodrich would engage a third party contractor to empty and dispose the contents of Pit A or Pit B. These procedures must be captured in the slug discharge control plan.

Pretreatment Requirement:
According to the requirements at 40 C.F.R. §403.8(f)(2)(vi), if the control authority decides that a slug control plan is needed, the plan shall contain, at a minimum, the following elements:

(A) Description of discharge practices, including non-routine batch Discharges;

(B) Description of stored chemicals;

(C) Procedures for immediately notifying the POTW of Slug Discharges, including any Discharge that would violate a prohibition under §403.5(b) with procedures for follow-up written notification within five days;

(D) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.

The Special Conditions Section of the Goodrich industrial user permit states, "The permittee must maintain an up to date spill and slug discharge control plan as detailed in NDAC 33.1-16-01.1 Appendix A, representing best management practices to prevent release of pollutants to the Publicly Owned Treatment Works (POTW) and/or waters of the state and minimizing damages if a slug discharge or spill occurs."

Corrective Action:

Update the facility's slug discharge control plan to include all the requirements of the permit and 40 C.F.R. §403.8(f)(2)(vi) including a description of how spent chemical solutions used in the metal finishing processes are handled to prevent non-routine batch discharges to the POTW and a description of how spills in the acid and base storage rooms are handled. Provide a copy of the facility's updated slug discharge control plan to the EPA and NDDEQ. In a response to the EPA and NDDEQ, provide a narrative explaining how this corrective action has been implemented.