NPDES Inspection Report – Pretreatment Categorical Industrial User

National Database Information	
Inspection Entry Date/Time: **11/16/2024 at 8:10 am**	Inspection Type: **Pretreatment Categorical Industrial User (CIU)**
Inspection Closing Date/Time: **11/16/2024 at 1:00 pm**	NPDES ID Number: **COP900099 - CDPHE COPF00105 – EPA**
Inspection ID: **202411_COP900099/COPF00105**	
Lead inspector and affiliation: **Stephanie Passarelli, EPA Region 8**	
Inspector and affiliation: **Al Garcia, EPA Region 8**	
Inspector and affiliation: **Althea Wilson, EPA Region 8**	

Facility Location Information (*Name/Location/ Mailing Address*)	
Site/Facility Name & Location: **Golden Aluminum** **1405 E. 14th St.** **Ft. Lupton, Colorado 80621**	Mail Report (Electronic Delivery) to: **Amanda Harderson, EHS Manager, Golden Aluminum** **AmandaHarderson@goldenaluminum.com**

Contact Information	
	Name(s)/Title
Person/Company meeting definition of Owner/Operator	**Golden Aluminum**
Facility Contacts: *(indicate primary lead and present during inspection)*	**Amanda Harderson / EHS Manager / Golden Aluminum**
	Tarah Bjaaland / EHS Coordinator / Golden Aluminum
	Luis Montenegro / Plant Manager / Golden Aluminum
	David Voigt / Operations Manager / Golden Aluminum
	Austin Legarda / Maintenance Lead / Golden Aluminum
Authorized Official(s)	**Luis Montenegro / Plant Manager / Golden Aluminum**

Areas Evaluated During Inspection		
Permit	Effluent/Receiving Waters	Compliance Schedule
Records/Reports	Flow Measurement	**Pollution Prevention**
Facility Site Review	**Self-Monitoring Program**	Laboratory
Stormwater	**Operations and Maintenance**	**Pretreatment**

Report Review and Signature		
Drafter Name	Date	Address/Phone Number
STEPHANIE PASSARELLI Digitally signed by STEPHANIE PASSARELLI Date: 2024.02.26 17:53:22 -07'00'	**02/14/2024**	**U.S. EPA Region 8** **1595 Wynkoop Street** **8ENF-W-NW** **Denver, Colorado 80202** **303-312-6803**
Reviewer Name	Date	Address/Phone Number
Al Garcia	**02/15/2024**	**U.S. EPA Region 8** **1595 Wynkoop Street** **8WD-CWW** **Denver, Colorado 80202** **303-312-6382**
Management Reviewer Signature	Date	Address/Phone Number
EMILIO LLAMOZAS Digitally signed by EMILIO LLAMOZAS Date: 2024.02.26 08:51:54 -07'00' **Emilio Llamozas, NPDES and Wetlands Enforcement Section Supervisor**		**U.S. EPA Region 8** **1595 Wynkoop Street** **8ENF-W-NW** **Denver, Colorado 80202** **303-312-6407**

Inspection Narrative and Site Description

Introduction

On Thursday, November 16, 2024, U.S. Environmental Protection Agency (EPA) inspectors Stephanie Passarelli, Al Garcia, and Althea Wilson (inspectors) conducted a pretreatment categorical industrial user (CIU) inspection of the Golden Aluminum (facility) located at 1405 E. 14th St, Ft. Lupton, Colorado. The purpose of the inspection was to evaluate Golden Aluminum's compliance with the requirements in 40 CFR Parts 403, 467 and 465 for the General Pretreatment Regulations, Aluminum Forming, and Coil Coating Point Source Categories, respectively.

Upon arrival at 0810, EPA inspectors presented their credentials to Ms. Amanda Harderson, Environmental Health and Safety (EHS) Manager; Ms. Tarah Bjaaland, EHS Coordinator; Luis Montenegro, Plant Manager; and Lisa Vaughn, Human Resources Manager, the facility representatives. The facility inspection consisted of an opening interview, a facility visual walk through of the operations and processes, records review, and a closing conference. Throughout the inspection, inspectors noted observations on checklists.

The EPA inspectors interviewed facility representatives on the associated operations/processes starting from the raw material and chemicals through to the finished products, including the management or treatment of discharged and non-discharged wastestreams. After the opening conference, EPA inspectors walked through the facility, led by Mr. David Voigt, to visually observe the operations discussed in the opening interview. The applicable records were submitted to EPA prior to the onsite inspection; an overview of the records and questions were reviewed after the facility tour. The closing conference was held to discuss the findings and observations of the facility inspection. In addition, EPA provided guidance regarding applicable Pretreatment Regulations and an update on renewing the current control mechanism to be issued by EPA. The inspectors left the facility at approximately, 1:00 pm.

An EPA pretreatment permit application form was forwarded to the Golden Aluminum contact on November 17, 2023. Questions on the application were directed to the EPA Region 8 Pretreatment Coordinator, Al Garcia at 303-312-6385 or garcia.al@epa.gov. In December 2023, EPA was contacted by Metro Water Recovery regarding pending transfer of wastewater flow from City of Fort Lupton to the Metro Water Recovery North Treatment Plant, and as a result, Metro Water Recovery will be the Control Authority for IUs discharging in Fort Lupton. At the time of this report, EPA is coordinating with Metro Water Recovery Pretreatment Program and Golden Aluminum regarding potential transfer of the control mechanism following transfer of flow.

Facility Description and Process Overview

Golden Aluminum is an aluminum sheet coil manufacturing facility located at 1405 E. 14th St. Ft. Lupton, Colorado. The facility operates 24 hours per day, 7 days per week, and 365 days per year, but may occasionally stop operations to replace equipment. There are two 12-hour shifts; a day shift from 6am-6pm and a night shift from 6pm-6am. The office staff work Monday through Friday. The facility has approximately 175 employees during dayshift, and twenty employees during the night shift.

Golden Aluminum uses prime aluminum ingots, dross sows, and scrap material such as flashing to create aluminum coiled sheets used in a variety of applications such as food and beverage containers, automotive sheet metal, and raw material used in building and consumer products. Previously, the facility recycled used beverage containers as a source material, shredding the material, and using the delacquering kiln to remove paint from cans. The shredding and delacquering kiln line were taken offline in 2020. The facility had intended to restart the process line, however, has since found aluminum scrap material to be a cheaper form of aluminum, and do not intend to restart the line unless cost of raw material changes. There is no wastewater generated from the delacquering line.

Aluminum ingots, dross sows and scrap aluminum are placed into one of three furnaces to melt the material into molten aluminum – two furnaces were in operation at the time of walk-through. The facility can make alloys by adding manganese, magnesium, beryllium, or chromate to the aluminum.

The molten aluminum proceeds to degassing station where chlorine, argon, and nitrogen gases are injected, gases bubble to surface to remove any impurities and form a dross. The dross pieces are skimmed from surface into a collection tray. The dross pieces are sent to a recycler to remove contaminants, and reclaimed aluminum is returned to the facility for use in melting line.

The molten aluminum is then sent to the casting process line (Photo 137). Molten material is formed into ¾-in sheets by being placed in copper casters blocks for heat extraction and sprayed with cooling water to solidify the aluminum. The cooling water used in this process does not come in contact with the aluminum sheets; water from the blocks is collected in two (2) 2,000-gallon collection tanks, located in the basement directly below the casters. The “upper” water collection tank is used for the top caster blocks, and the “lower” collection tank used for the bottom caster blocks, collects cooling water. The water is recirculated and reused in the cooling process until operators visually determine cooling water to be dirty or cloudy in appearance. Facility representatives indicated the cooling water collected in both tanks are emptied approximately once a week by discharging tank through a trench to a sump in the basement. The sump contains a pump with a manual switch valve, which pumps the sump contents to the City sewer. Wastewater from the cooling water tanks is not treated prior to discharge. Inspectors were unable to visually confirm the collection and discharge set-up during the inspection due to maintenance activities that prevented access to the basement.

Following casting, the formed and coiled sheets enter either the hot mill or cold mill unit operations to gauge the coils. In the hot mill unit, the aluminum sheet passes through two stands that apply pressure to achieve desired thickness, compressing sheets to a 1/8-inch thickness. The hot mill unit uses a water-based coolant, consisting of 1% mineral oil, that is sprayed on the rolls to press the aluminum sheets. The hot mill coolant is captured in a sump below-grade. Dirty coolant is filtered (photo 138) and stored for reuse in a separate clean coolant tank which is then directed back to the hot mill process as needed. A coolant additive is stored in a 275-gallon tote on the production floor (photo #139) and metered to the tanks. Facility representatives indicated the water-based coolant is tested daily to verify viscosity, pH and remove any bacteria. Waste coolant and any used filters are removed from site approximately once a month.

The cold mill process reduces the thickness of coil sheets through rolling (photo #143). Some sheets

may go through the cold mill process two or three times to reduce size to desired thickness. Heat is generated in the process of rolling and a mineral oil coolant is used for the cold mill process. The mineral oil coolant is stored in a separate building and piped to supply process tank located below grade. Used cold mill coolant is captured in an identical used coolant tank next to the supply tank, filtered, and reused, and disposed of off-site when spent. (photos #141 and #142)

After the cold mill process, sheets are rolled back into coils and may be sent to annealing furnaces that provide a heat soaking stage to reduce potential for oxidation and alter the mechanical properties of the metal. Coils are moved to cold mill process for further gauging depending on customer specifications. The coils may pass back to cold mill and the annealing process as needed and take between 10 and 24 hours to be completed. There is no water used in this process.

Coils from the cold mill process are sent to the tension leveler unit to apply tension on the sheets. A spray oil lubricant is used as needed; any spent lubricant waste is hauled off-site similar as in the cold mill process. After tension leveling, coils are sent to the Wash line or Coating line. No wastewater is generated in the tension leveling unit.

Wash Line – wastewater to Outfall P001

The Wash line uses potassium hydroxide (KOH) and water to remove oil, lubricants and any remaining residue from the milling process. Coils are unrolled and washed in wash line towers (photo #146). The wash tower consists of a 1,200-gallon basin of wash cleansing hydroxide solution and is adjacent to rinse tower also with 1,200-gallon basin of rinse water. Both towers are contained within a recessed vault providing additional secondary containment and pumped to the waste treatment when drained. The wastewater from the washing and rinsing when discharged are collected and pumped to T2 Tank in the Wastewater Treatment (WWT) and sampled as Outfall P001 waste stream.

The KOH solution is stored in a 275-gallon tote on a secondary containment pallet and placed adjacent to the wash/rinse towers. The tote and secondary containment were placed on the trench drain also leading to sump and drain which would be pumped to P001 (photos #144 and #145).

Following washing, coils are either sent to the coating line or packaged and prepared for shipment to customers.

Coating Line – wastewater to Outfall P002

The Coating line consists of five process tanks to wash and coat the coils, all waste streams from this process line are sent to T1 Tank in WWT and sampled at outfall P002. The five processes on the chrome line include:

Stage 1: Wash tank is a continuous spray of potassium hydroxide (KOH). The coils are unrolled and washed with KOH and water. Chemical storage is in 275-gal tote, adjacent to the wash tank, and sits on a partial secondary containment pallet on the back (east) site of coating line. Tank one, approximately 1,600 gallons, is emptied every two to three-months for cleaning and discharged through trench to wastewater treatment (photos 147 and 156);

Stage 2: Coils are rinsed clean with continuous flow of water; overflow is directed to the wastewater treatment. Tank 2 is approximately 1,000 gallons (photos 148 and 155);

Stage 3: Chromate conversion coating – A solution of chrome and hydrofluoric acid is sprayed on the top and bottom of coils as they pass through the tank leaving a thin coating. Overspray is collected in the basin and flows to waste treatment at approximately 250 mL/minute per facility representatives. The solution is monitored daily to ensure can continue to be reused. Once no longer useable, the contents of the 1,900-gallon tank are emptied, and the tank is cleaned – approximately every one to two months. Per facility representatives, waste liquids are pumped to barrels and hauled off-site as hazardous waste, spent liquid is sent to waste treatment system (photos 149 and 154).

Chrome chemical storage is located on the back (east) side of the chrome line in two- 275-gallon totes. There was no secondary containment for either tote (photo 154), and totes were stored in close proximity to the trench drain that leads to the waste treatment, line P002.

Stage 4 and Stage 5: DI Rinse - Tank 4 (photos 150 and 153) and Tank 5 (photos 151 and 152) are two rinse tanks used to remove excess chrome. Clean DI rinse water is introduced into tank 5, and back flows to tank 4 as initial dirty rinse; any overflow from tank 4 proceeds to wastewater treatment. Rinse tanks continuously overflow to pipe leading to wastewater treatment, tanks are recharged as needed while process is running.

As noted in prior EPA inspections, totes used to refill chrome process Tank 1 and Tank 3 were observed adjacent to the Coating line and discharge trench without secondary containment. The facility representatives reiterated personnel having difficulties accessing the totes for distribution of chemicals when placed on secondary containment pallets. The slug discharge plan identifies that any leaks or spills would flow into the T1 Tank in wastewater treatment. Golden Aluminum has noted in their Slug Discharge Control Plan, T1 is a 4,500-gallon tank, and requires manual discharge. Therefore, T1 could serve as the secondary containment in the event of any spills or slugs from the coating line. If needed, the facility could drain T1 into totes if high concentrations of chemicals were spilled, and totes could be hauled off-site by waste hauler.

Additionally, adjacent to the coating line is a collection tank for cooling water from heat exchangers on hydraulic systems. The holding tank collects all cooling water and discharges directly to the trench drain (photo #157) which leads to the sump to wastewater treatment.

<u>Quench line – wastewater to Outfall P003</u>
After the Coating line, the coils are moved to the coating room for contact coating. The coated aluminum passes through a series of ovens to dry the paint and remove volatiles. The sheets are quenched using spray city tap water. Quench water is captured in a sump, sent through flowmeter, and down the drain at Outfall P003 (photo #158).

<u>Wastewater Treatment (WWT)</u>
Wastestream generated from processes described above are sent to wastewater treatment and stored in either 4,500-gallon capacity tank: T1, or 1,800-gallon capacity tank T2, and treated prior to sampling and discharged to the City of Fort Lupton.

Monitoring P001. The T2 tank collects waste stream directly from the Wash line (photo #159). Wastewater is monitored using an inline pH probe, which is calibrated daily and set for pH 7. The wastestream is neutralized using sulfuric acid, and once it reaches its designated capacity, the float triggers its release. Wastestream passes through the flowmeter, sampling point P001 and then discharged to City's sanitary sewer (photo #167).

Monitoring P002. Collective waste streams from the coating line tanks, stages 1-5, are directed to T1 tank for initial holding (photo #160). Wastewater is transferred from T1 to chrome reduction tank located on the mezzanine (photo #163). Sulfuric acid and sodium metabisulfate are used to lower the pH to aid in chrome reduction – pH and oxidation reduction potential (ORP) are monitored in the chrome reduction tank. The wastewater is then transferred to the neutralization tank where lime or caustic soda is added to adjust the pH. Wastewater is transferred to the next tank where polymer and flocculant are added, and then passed onto the clarifier to allow solids to settle out (photo #164). The floc settles out in the clarifier and collects as sludge on bottom of the clarifier. Sludge is pumped to the filter press (photo #165), allowed to dry into cake, collected in 20-yard dumpster, and hauled off site approximately every two weeks per facility representatives. Any liquids remaining from the filter press are directed through floor trench back to the T1 for further treatment.
From the clarifier, wastewater is directed through a media filter tank, pH is checked again before passing through flowmeter, and discharge monitoring Point P002 and then discharged to the City's sanitary sewer (photo #167).

Monitoring P003. Wastewater from the quench line is pumped from the collection tank to flowmeter, through monitoring point P003 and then discharged to the City's sanitary sewer (photo #168).

Pretreatment Categorization

Wastewater generated from Golden Aluminum's processes are regulated under the General Pretreatment Regulations (40 CFR 403), and categorical pretreatment standards. Due to the coil coating process, wastewater generated from Coating and Quench line are subject to categorical pretreatment standards in Coil Coating Pretreatment Standards, Subpart C - Aluminum (40 CFR 465.35).

Aluminum Forming pretreatment standards apply at Golden Aluminum due to the facility operations of rolling, and related operations of heat treatment, casting, and surface treatment. Specifically, the cold mill process of rolling with neat oils 40 CFR 467.16, Subpart A – Rolling with Neat Oils is applicable, and the wastewater from Washing line is considered the ancillary operation of cleaning or etching rinse. The hot mill process uses an emulsion lubricant, which would be considered the process of rolling with emulsions (40 CFR 467, Subpart B – Rolling with Emulsions), but no wastewater is generated from the hot mill process, and therefore, no wastewater is regulated under Subpart B.

Facilities may generate wastewater from Coil Coating and Aluminum Forming processes at the same plant. Coil Coating regulations were deemed to be most appropriate for the waste streams associated with the Coil Coating operations. The Table below summarizes the outfalls designated in the CDPHE permit (COP900099), and the applicable pretreatment standards at each outfall.

Outfall	Wastewater source and applicable pretreatment standards
P001	Wastewater from the Washing line. Subject to Aluminum Forming Pretreatment Standards (40 CFR 467, Subpart A – Cleaning or Etching Rinse)
P002	Wastewater from the Coating line. Subject to Coil Coating Pretreatment Standards (40 CFR 465, Subpart C- Aluminum)
P003	Wastewater from the Quench line. Subject to Coil Coating Pretreatment Standards (40 CFR 465, Subpart C- Aluminum)

Sample Collection

Wastewater samples are collected once per month at the designated sampling manifolds for each Outfall (P001/P002/P003). Composite samples are collected by aliquots taken every 15 minutes for 24 hours. The sampler uses a 2.5-gallon carboy to collect the composite samples, and the sample is poured into pre-preserved laboratory bottles (nitric acid for metals). Grab samples are collected for cyanide and laboratory bottles are pre-preserved with sodium hydroxide. Four individual grab samples are collected over 24-hours for the TTO samples and composited in the laboratory.

Records Review

Inspectors provided access to a shared folder on Microsoft OneDrive (OneDrive) to allow for Golden Aluminum representatives to upload requested file records prior to the inspection date. Files included discharge monitoring report (DMR) data between April 2021 and October 2023, aluminum production records, pH calibration records, Slug Discharge Control Plan (SDCP) spill plans, and waste hauling records.

Inspectors reviewed the DMRs and associated laboratory records, chains-of-custody (COC), and pounds of aluminum production data from April-2021 to October-2023. The chromium, cyanide and zinc samples are analyzed by Colorado Analytical Laboratories, Inc., The Total Toxic Organics (TTO) collected in August 2023 was also analyzed by Colorado Analytical Laboratories. The SDCP, waste hauling records, and pH logs were also reviewed prior to on-site visit and discussed with facility representatives.

Closing and Follow-Up

The inspectors held a closing conference with Ms. Harderson and Ms. Bjaaland. EPA inspectors informed the facility contacts of the preliminary findings that were noted during the inspection. On November 17, 2024, EPA sent the facility an application for Notice of Discharge Requirements and requested completion by January 31, 2024.

On December 8, 2023, EPA received notification of a chrome exceedance at monitoring point P002 for the sample collected from the coating/paint line. The facility had conducted a preliminary investigation and indicated the potential cause of exceedance was related to work that had recently been conducted on the Tank 3 heater prior to sample collection.

On January 12, 2024, EPA received notification of a second chrome exceedance at monitoring point P002 for samples collected at the coating/paint line. A call was held with the EPA inspectors and facility representatives who indicated recent staffing changes, cleaning of tanks, an increase in

chromate used due to vendor's recommendations, and reduced production during the month of December, could all have contributed to the elevated levels. Any findings or corrective actions in response to the noted chrome exceedances will be addressed separate from this inspection report.

Findings, Corrective Actions and Recommendations

Finding #1: The facility's control mechanism had expired. EPA discussed with Golden Aluminum the need for a current control mechanism. The control mechanism in place was issued by the Colorado Department of Public Health and Environment (CDPHE) – who does not have a delegated Pretreatment program – and had expired in 2018.

Pretreatment Requirement:
The process wastewater discharged from Golden Aluminum is subject to the Aluminum Forming and Coil Coating point source categories as found in 40 CFR 467 and 465.

Corrective Action:
Since the November inspection, EPA has coordinated with Metro Water Recovery to discuss the transfer of wastewater from City of Fort Lupton to the Metro Water Recovery North Treatment Plant, which has an approved Pretreatment Program. EPA, Metro Water Recovery, and Golden Aluminum personnel are in contact, and coordinating completion of the appropriate application to ensure coverage. Metro Water Recovery has requested Golden Aluminum complete Metro's Notice of Discharge Requirements application to be submitted to Metro Water Recovery by April 30, 2024. In your response to the EPA, indicate how the facility will proceed with required documentation to address this finding.

Finding #2: The facility's Slug Discharge Plan is outdated and does not provide current emergency contact's information. EPA review of the facility's submitted SDCP, which was last updated in 2021, showed personnel and contact information from prior facility staff and none of the current personnel or contact information was listed. In addition, emergency procedures were last reviewed and certified in 2017; it was unclear if same procedures were still in effective and in place at the facility.

Pretreatment Requirement:
40 CFR §403.8(f)(2)(vi)(A-D) defines elements to be included should an SDCP be required, and shall contain: "(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; and (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."

Corrective Action:
Ensure SDCP has been reviewed and updated to include new staff and current emergency contact numbers throughout. Review SDCP to verify all emergency procedures are current and reflective of today's condition, sign and certify. In your response to the EPA, indicate how the facility has reviewed and updated the SDCP to address this finding.

Finding #3: Cooling Water from heat exchangers is added to wastewater treatment T1 and is not a regulated wastestream. Adjacent to the coating line is a collection tank for cooling water from heat exchangers on hydraulic systems. The holding tank collects all cooling water and discharges directly to the trench drain (photo #157) which leads to the sump to wastewater and discharge through monitoring point P002.

Pretreatment Requirement:
40 CFR §403.6(d) states, "***Dilution prohibited as substitute for treatment***. Except where expressly authorized to do so by an applicable Pretreatment Standard or Requirement, no Industrial User shall ever increase the use of process water, or in any other way attempt to dilute a Discharge as a partial or complete substitute for adequate treatment to achieve compliance with a Pretreatment Standard or Requirement. The Control Authority may impose mass limitations on Industrial Users which are using dilution to meet applicable Pretreatment Standards or Requirements, or in other cases where the imposition of mass limitations is appropriate."

Corrective Action:
Ensure wastestream being sampled is representative of regulated processes. Additional water added to the regulated wastestream could result in dilution and/or introduction of contaminants not related to regulated processes. In your response to the EPA, indicate how the facility has adjusted process to prevent additional water being added to regulated wastestreams.

Finding #4: Wastewater generated from the cooling of the casting blocks in the casting operation discharges to the City of Fort Lupton is subject to the Aluminum Forming Point Source Category.
Golden Aluminum uses prime aluminum ingots, and scrap material such as flashing and used beverage containers to create aluminum coiled sheets. Aluminum scrap and prime ingots are placed into three smelting furnaces to melt the material into molten aluminum. The molten aluminum is cast into a sheet using copper casters blocks for heat extraction. The caster blocks used to create the sheets are cooled with water sprayed onto the blocks that constantly rotate on the top and bottom of the sheet. Cooling water is used to cool the blocks and does not touch the aluminum sheets. Cooling water is vacuumed off the caster blocks and collected in two (2) tanks, each 2,000 gallons, located in the basement under the casting operation. One water collection tank is used for the top caster blocks and one is used for bottom caster blocks. The water is recirculated and reused for approximately four casting events, or approximately every 10 days. Occasionally, some contaminants can be vacuumed off the blocks. Operators use visual observations of the water, such as dirt or cloudy appearance, to determine when to discharge a cooling water tank. The entire capacity of the cooling water tank is discharged to the sanitary sewer without treatment.

The casting operation performed at the facility and wastewater generated from the cooling of the casting block was not designated as a categorical pretreatment outfall in the CDPHE permit. Casting is an integral part of the aluminum forming operation. According to EPA's website on Aluminum Forming Effluent Guidelines (https://www.epa.gov/eg/aluminum-forming-effluent-guidelines), the information on casting states, "If the aluminum is a remelted primary aluminum product and is cast at a facility for subsequent forming of aluminum, then the casting of remelted aluminum is subject to the Aluminum Forming Category limitations."

The Aluminum Forming applicability (40 CFR 467.01) states, "Casting aluminum when performed as an integral part of aluminum forming and located onsite at an aluminum forming plant is considered an aluminum forming operation and is covered under these guidelines. When aluminum forming is performed on the same site as primary aluminum reduction the casting shall be regulated by the nonferrous metals guidelines if there is no cooling of the aluminum prior to casting. If the aluminum is cooled prior to casting then the casting shall be regulated by the aluminum forming guidelines."

Ancillary operations regulated under Subpart A- Rolling with Neat Oils subcategory include continuous rod casting, continuous sheet casting, solution heat treatment, and cleaning and etching. The definition in 40 CFR 467.02 states, "Continuous casting is the production of sheet, rod, or other long shapes by solidifying the metal while it is being poured through an open-ended mold using little or no contact cooling water. Continuous casting of rod and sheet generates spent lubricants and rod casting also generates contact cooling water."

Based on the core process of rolling with neat oils and ancillary operation of continuous casting, it appears the wastewater generated from the cooling of the casting blocks in the casting operation is subject to the Aluminum Forming Pretreatment Standards. Currently, the wastewater is discharged to the City of Fort Lupton sanitary sewer through an unmonitored and unregulated discharge point in the basement of the casting operations. This wastestream should be addressed in the new control mechanism for Golden Aluminum that will replace the CDPHE discharge permit. Determination of applicable pretreatment regulations and the accompanying limits will be addressed in the control mechanism.

Pretreatment Requirement:

Aluminum Forming Point Source Category

40 CFR §467.01(a) states, "Aluminum forming includes commonly recognized forming operations such as rolling, drawing, extruding, and forging and related operations such as heat treatment, casting, and surface treatments…Casting aluminum when performed as an integral part of aluminum forming and located onsite at an aluminum forming plant is considered an aluminum forming operation and is covered under these guidelines. When aluminum forming is performed on the same site as primary aluminum reduction the casting shall be regulated by the nonferrous metals guidelines if there is no cooling of the aluminum prior to casting. If the aluminum is cooled prior to casting then the casting shall be regulated by the aluminum forming guidelines."

Aluminum Forming Point Source Category, Subpart A – Rolling with Neat Oils Subcategory

40 CFR §467.11 has Specialized definitions and states, "(b) The term "ancillary operation" shall mean any operation not previously included in the core, performed on-site, following or preceding the rolling operation. The ancillary operations shall include continuous rod casting, continuous sheet casting, solution heat treatment, cleaning or etching."

Aluminum Forming Point Source Category

40 CFR §467.02(d) states, "*Continuous casting* is the production of sheet, rod, or other long shapes by solidifying the metal while it is being poured through an open-ended mold using

little or no contact cooling water. Continuous casting of rod and sheet generates spent lubricants and rod casting also generates contact cooling water."

Corrective Action:
Identify all wastewaters generated from the aluminum forming manufacturing operations. In preparation for the transfer of wastewater from City of Fort Lupton to Metro Water Recovery, Metro Water Recovery has requested submittal of a Notice of Discharge Requirement application to be submitted to Metro Water Recovery by April 30, 2024. In your response to EPA, indicate how the facility will proceed with required documentation to address this finding.

Finding #5: Discharge Monitoring Reports (DMR) were submitted late for several monitoring periods.
The monthly DMRs are due at the end of the reporting period month. EPA inspectors reviewed DMR data submitted into EPA's Integrated Compliance Information System (ICIS) database from April 2021 through October 2023. EPA noted several instances where monitoring data was submitted late:

- The May 2021 report was due on June 30, 2021, and was submitted on July 28, 2021. Therefore, the report was 28 days late.
- The August 2022 report was due on September 30, 2022, and was submitted on October 5, 2022. Therefore, the report was 5 days late.
- The November 2022 report was due on December 31, 2022, and was submitted on January 5, 2023. Therefore, the report was 5 days late.
- The January 2023 report was due on February 28, 2023, and was submitted on March 10, 2023. Therefore, the report was 10 days late.

Pretreatment Requirement:
Part A.1 of the COP900099 permit identifies the Monthly Reporting requirements and states, "On a MONTHLY basis, the Industrial User shall summarize the results of all analyses performed in accordance with the Tables above, and any additional analyses of the discharge points performed during the reporting period. The results shall be submitted on the Self- Monitoring Form with additional sheets attached to the Self-Monitoring Form with all results."

Corrective Action:
Ensure DMR data is reported within the required timeframe. No response is necessary.

Finding #6: The production-based effluent calculations were incorrectly reported in the DMR submittals listed below.
EPA inspectors reviewed Golden Aluminum's submitted monthly DMR data for Outfalls P001, P002, and P003, and associated laboratory records, chains-of-custody, and pounds of aluminum production data from the period of April-2021 to October-2023. The following discrepancies in submitted DMR reporting of effluent monitoring were identified:

(a) 2021-July, Outfall P003, - Data entry error
The DMR reported values for flow were 4,193,666 gal/day for Daily Max and 1,449,457

gal/day for Monthly Average. These values differed from those shown on Golden Aluminum's production worksheet and appear to be the same values reported by Golden Aluminum for the aluminum processed during July 2021. The production worksheet for July 2021 for the Quench line indicate Daily Max flow was 25,200 gal/day, and Monthly Average flow was 495,000 gal/day.

(b) 2021-September, Outfall P001 – Reporting error Chromium and Zinc

Golden Aluminum reported the analytical values rather than calculated production-based effluent rates. The DMR submitted values for Chromium at P001 were 0.0882 mg/L for Daily Max, and 0.0882 mg/L for Monthly Average. The zinc DMR reported values were 0.022 mg/L for daily max and 0.022 mg/L for monthly average. One sample was collected at P001 during September 2021. Using the wastewater flow (649 gal/day), concentration of each pollutant reported by the lab, the aluminum processed (42,323 lb/day) and the conversion factor, the Chromium daily max and monthly average for September 2021 at P001 is calculated to be 0.0141 lb/million off lbs Al and 0.0141 lb/million off lbs Al respectively. The calculated daily max and monthly average for Zinc is 0.0064 lb/million off lbs Al and 0.0064 lb/million off lbs Al respectively. No effluent violations were noted with corrected calculated production-based effluent rates.

(c) 2021-September, Outfall P002 – Reporting error Chromium and Zinc

Golden Aluminum reported the analytical values rather than calculated production-based effluent rates. The DMR submitted values for Chromium at P002 were 0.0157 mg/L for Daily Max, and 0.0157 mg/L for Monthly Average. The zinc DMR reported values were 0.0510 mg/L for daily max and 0.0510 mg/L for monthly average. One sample was collected at P002 during September 2021. Using the wastewater flow at P002 (7,518 gal/day), concentration of each pollutant reported by the lab, the aluminum processed (2,177,729 ft^2/day) and the conversion factor, the Chromium daily max and monthly average for September 2021 at P002 is calculated to be 0.0045 lb/Mft^2 and 0.0045 lb/Mft^2 respectively. The calculated daily max and monthly average for Zinc is 0.0015 lb/Mft^2 and 0.0015 lb/Mft^2 respectively. No effluent violations were noted with corrected calculated production-based effluent rates.

(d) 2021-October, Outfall P001 – Calculation error Chromium and Zinc

The DMR submitted values for Chromium at P002 were 0.0180 mg/L for Daily Max, and 0.0180 mg/L for Monthly Average. The zinc DMR reported values were 0.0104 mg/L for daily max and 0.0104 mg/L for monthly average. One sample was collected at P001 during October 2021. Using the wastewater flow at P001 (2,890 gal/day), concentration of each pollutant reported by the lab, the aluminum processed (138,195 lb/day) and the conversion factor, the Chromium daily max and monthly average for October 2021 at P001 is calculated to be 0.0136 lb/million off lbs Al and 0.0136 lb/million off lbs Al respectively. Likewise, the calculated daily max and monthly average for Zinc is calculated to be 0.0078 lb/million off lbs Al and 0.0078 lb/million off lbs Al respectively. No effluent violations were noted with corrected calculated production-based effluent rates.

(e) **2022-January, Outfall P001, P002 and P003 – Reporting error**

The DMR submitted values are inconsistent with calculated production-based effluent using Golden Aluminum's production worksheet flow, aluminum processed and analytical results for January 2022. DMR values reported at P001, P002 and P003 appear to be identical to values reported on the December 2021 DMR.

(f) **2022-November, Outfall P001 – Reporting error Chromium and Zinc and exceedance of the**

chromium production-based limits

Golden Aluminum reported the analytical results rather than calculated production-based effluent rates. The DMR submitted values for Chromium at P001 were 0.5845 mg/L for Daily Max, and 0.5845 mg/L for Monthly Average. The zinc DMR reported values were 0.179 mg/L for daily max and 0.179 mg/L for monthly average. One sample was collected at P001 during November 2022. Using the wastewater flow at P001 (781 gal/day), concentration of each pollutant reported by the lab, the aluminum processed (14,628 lb/day) and the conversion factor, the Chromium daily max and monthly average for November 2022 at P001 is calculated to be 0.2603 lb/million off lbs Al and 0.2603 lb/million off lbs Al respectively. The calculated daily max and monthly average for Zinc is 0.0797 lb/million off lbs Al and 0.0797 lb/million off lbs Al respectively. The calculated production-based effluent rates resulted in an exceedance of the Chromium monthly average limit (0.260 > 0.21 lb/million off lbs Al).

(g) **2022-November, Outfall P002 – Reporting error Zinc**

Golden Aluminum reported the analytical results rather than calculated production-based results. The DMR submitted values for Zinc at P002 were 0.02 mg/L for Daily Max, and 0.02 mg/L for Monthly Average. One sample was collected at P002 during November 2022. Using the wastewater flow at P002 (2,827 gal/day), concentration of pollutant reported by the lab, the aluminum processed (2,792,203 lb/day) and the conversion factor, the Zinc daily max and monthly average for November 2022 at P002 is calculated to be 0.0002 lb/Mft^2 and 0.0002 lb/Mft^2 respectively. No effluent violations were noted with corrected calculated production-based effluent rates.

Pretreatment Requirement:

40 CFR §465.35 – Coil Coating, Subpart C - Aluminum

Pollutant or pollutant property	PSNS			
	Maximum for any 1 day		Maximum for monthly average	
	mg/m^2 (pounds per 1 million ft^2) of area processed			
Chromium	0.18	(0.037)	0.072	(0.015)
Cyanide	0.095	(0.02)	0.038	(0.008)
Zinc	0.49	(0.10)	0.20	(0.041)

40 CFR §467.16 – Aluminum Forming, Subpart A, Cleaning or Etching Rinse

Cleaning or Etching Rinse

Pollutant or pollutant property	PSNS	
	Maximum for any 1 day	Maximum for monthly average
	mg/off-kg (lb/million off-lbs) of aluminum cleaned or etched	
Chromium	0.52	0.21
Cyanide	0.28	0.11
Zinc	1.42	0.59
TTO	0.96	
Oil and grease (alternate monitoring parameter)	13.91	13.91

COP900099 permit, Part A. Limitation and Monitoring Requirements

Limitations & Monitoring for Discharge **Point 001**:			
Parameter	Units	Numeric Limitations	
		Daily Maximum	Monthly Average
Total Chromium	Million off-lbs of aluminum cleaned or etched	0.52	0.21
Total Cyanide	Million off-lbs of aluminum cleaned or etched	0.28	0.11
Total Zinc	Million off-lbs of aluminum cleaned or etched	1.42	0.59
Total Toxic Organics	Million off-lbs of aluminum cleaned or etched	0.96	---
Oil and Grease	Million off-lbs of aluminum cleaned or etched	13.91	13.91

Limitations & Monitoring for Discharge **Point 002**:			
Parameter	Units	Numeric Limitations	
		Daily Maximum	Monthly Average
Total Chromium	lbs/1 million ft^2 of area processed	0.037	0.015
Total Cyanide	lbs/1 million ft^2 of area processed	0.02	0.008
Total Zinc	lbs/1 million ft^2 of area processed	0.10	0.041

Limitations & Monitoring for Discharge **Point 003**:			
Parameter	Units	Numeric Limitations	
		Daily Maximum	Monthly Average
Total Chromium	lbs/1 million ft^2 of area processed	0.037	0.015
Total Cyanide	lbs/1 million ft^2 of area processed	0.02	0.008
Total Zinc	lbs/1 million ft^2 of area processed	0.10	0.041

Corrective Action:
Ensure the production-based calculations for effluent parameters at Outfalls P001, P002, and P003 are calculated correctly and accurately reported in the DMR submittals. Correct the above noted DMR submissions with the accurate production-based effluent calculations for Outfalls P001, P002 and P003 for zinc and chromium. In your response to the EPA, indicate how the facility has addressed this finding.

Finding #7: Exceedance of effluent violations were not reported within the required time, and repeat sampling was not conducted within 30 days.
In reviewing the DMR submittals, effluent exceedances of chromium were identified at monitoring point P001 for the following months:

2022-November: Exceedance of monthly average (0.260 lb/million off lbs Al > 0.21 lb/million off lbs Al)
2023-January: Exceedance of Monthly Avg (0.4754 lb/million off lbs Al > 0.21 lb/million off lbs Al)
2023-July: Exceedance of Daily Max (1.2720 lb/million off lbs Al> 0.52 lb/million off lbs Al)
2023-July: Exceedance of Monthly Avg (1.2720 lb/million off lbs Al> 0.52 lb/million off lbs Al)

Notification of the effluent exceedance was not reported to EPA, and a repeat sample was not collected within 30 days for the July 2023 exceedance.

Pretreatment Requirement:
Part E.2 of the COP900099 permit identifies the Notice of Effluent Violation requirements and states, "If sampling performed by the Industrial User indicates a violation, the User shall notify the Director, the EPA, and the POTW **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 Director, the EPA, and the POTW within 30 days after becoming aware of the violation, except the Industrial User is not required to resample if the Director or the EPA performs sampling of the Industrial User between the time when the user performs its initial sampling and the time when the user receives the results of this sampling."

Corrective Action:
Ensure reporting of effluent exceedances is reported to EPA and the POTW within 24 hours of becoming aware of the violations. Likewise, a repeat sample should be collected with 30 days of becoming aware of the violation. Provide a description for what caused the effluent exceedances listed above and what corrective actions were implemented.

Finding #8: Sample preservation of cooling to ≤6 °C, as required by 40 CFR 136, was not completed for several cyanide samples collected.
EPA inspectors reviewed the April-2021 – October 2023 monthly DMR data submitted for Outfalls P001, P002, and P003, and associated laboratory records, chains-of-custody, and pounds of aluminum production data. According to 40 CFR 403, all sampling and analyses are to be performed according to specified methods in 40 CFR 136 – Guidelines Establishing Test Procedures for the Analysis of Pollutants. In the DMR and laboratory records reviewed, the following samples were not preserved to ≤6 °C:

1. The April 30, 2021, cyanide sample for P001, P002 and P003 were received by the laboratory with a temperature of 22 °C. According to the chain of custody, there was no ice in the cooler.

2. The May 20, 2021, cyanide samples for P001, P002 and P003 were received by the laboratory with a temperature of 8.4 °C. According to the chain of custody, there was ice present in the cooler.

3. The June 9, 2021, cyanide samples for P001, P002 and P003 were received by the laboratory with a temperature of 12 °C. According to the chain of custody, there was ice present in the cooler.

4. The October 12, 2023, cyanide samples for P001, P002 and P003 were received by the laboratory with a temperature of 14 °C. According to the chain of custody, there was ice present in the cooler.

Pretreatment Requirement:
40 CFR §403.12(g)(5) states, "All analyses shall be performed in accordance with procedures established by the Administrator pursuant to section 304(h) of the Act and contained in 40 CFR part 136 and amendments thereto or with any other test procedures approved by the Administrator.

40 CFR §136.3 Table II – Required Containers, Preservation Techniques, and Holding Times identifies that samples collected for Cyanide analysis be preserved by: cool ≤6 °C, NaOH to pH >10, and reducing agent if oxidizer present.

40 CFR §136.3 Table II – Required Containers, Preservation Techniques, and Holding Times identifies that Table 1C-Organic Tests be preserved by: cool ≤6 °C.

Corrective Action:
Ensure 40 CFR Part 136 sampling and preservations requirements are followed, and that cyanide samples are cooled to ≤6 °C. In your response to the EPA, indicate how the facility manages the samples under their chain of custody, including information about ice usage and sample management prior to delivery to the laboratory, and potential inconsistent use of ice. Also indicate in the response how the facility has addressed this finding.