Permit Modification Fact Sheet

Changes from the previous permit fact sheet are highlighted in grey.

General Information

Permit Number:	**WI-0054500-08-1**
Permittee Name:	**Metallics Inc**
Address:	W7274 County HWY Z
City/State/Zip:	Onalaska WI 54650
Discharge Location:	Outfall 003 is located on the west bank of Halfway Creek approximately 50 feet upstream from County HWY Z, and approximately one-quarter mile upstream of the mouth of Halfway Creek, which discharges into Lake Onalaska.
Receiving Water:	Halfway Creek and the groundwater of the Black River Basin in La Crosse County Via Outfall 003, 43.9163384ºN, 91.2593269ºW; And Outfall 005, 43.9165729ºN, 91.2675628ºW
StreamFlow ($Q_{7,10}$):	3.2 cubic feet per second (cfs)
Stream Classification:	Warm water sport fish community, non-public water supply. Halfway Creek is designated as a cold-water stream upstream of the discharge at Cth DH

Facility Description

Metallics, Inc. (Metallics) manufactures anodized, etched and screen printed nameplates, and vinyl, polyester and polycarbonate decals. The facility manufactures hundreds of different decal and nameplate designs according to customer specifications. Manufacturing operations include etching, painting, anodizing, dying, cleaning and machining metal sheets. Screen printing on metal and plastic sheets is also performed. While most nameplates are made from aluminum, stainless steel and brass are also used. Approximately 209,000 metal sheets, up to 18 inches long by 16 inches wide, are processed each year.

Metallics operates a wastewater treatment system on site and segregates its wastewater prior to treatment. The system provides two, primarily batch-oriented, treatment trains. Both treatment trains use hydrated lime to elevate pH to the point at which dissolved metals precipitate as solid metal hydroxides. Subsequent sedimentation and filtration are implemented to meet applicable effluent limits. Low quantity, high-concentration acid baths from etching and anodizing are routed through the batch-acid treatment train. High quantity, low-concentration blends of water and acid waste are routed through the rinse-water treatment train. Waste constituents treated through the two trains include hydrochloric, hydrofluoric, sulfuric, acetic, and phosphoric acids, ferric chloride, and nickel acetate. Effluent liquid from both treatment trains is hauled to the La Crosse Publicly Owned Treatment Works.

Etching and anodizing rinse waters, and water softener recharge waste enter the treatment system at the neutralization tank, prior to the facility's clarifier. These wastewaters are then treated with primary and secondary polishing filters prior to being discharged with non-contact cooling water to Halfway Creek via Outfall 003. Dewatered solids from the treatment plant are hauled to a waste disposal facility out of state.

While Metallics softens water used by its anodizing and dye line, only regeneration wastes from the anodizing line water softener are routed to the facility's treatment system. Until the summer of 2000, Metallics routed the inkwell line's 2nd stage aqueous cleaner and 3rd stage rinse water, sheet prep rinse waters and bath dumps, screen reclamation (image removal) wastewaters and screen making wastewaters to an on-site subsurface septic tank and drainage field. Metallics now routes these wastes to a holding tank prior to hauling to the La Crosse POTW. Metallics' current discharge to

Halfway Creek via Outfall 003 averages 9,000 gallons per day (gpd) of treated process wastewater and 31,000 gpd of noncontact cooling water.

Substantial Compliance Determination

Submitted by Julia Stephenson, Compliance Engineer, November 20, 2023-

Enforcement During Last Permit:

A Notice of Noncompliance was issued 11/20/2022 due to late reporting and under reporting of required parameters at Sample Points 003, 005, 102 and 103. This has begun to turn around, as the October 2022 Discharge Monitoring Report was received on time with just 3 sample results missing. It should be noted that due to unexpected circumstances, certain samples were not being taken and reports were not submitted at the appropriate times during 2022. Corrective actions include hiring an EHS Manager to take over the reporting responsibilities and to become the new Operator-in-Charge at the facility.

After a desk top review of all discharge monitoring reports, compliance schedule items, and a site visit on 09/20/2022, this facility has been found to be in substantial compliance with their current permit.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, Waste Type/sample Contents and Treatment Description (as applicable)**
003	About 35,000 gpd, Oct 2014-Sept 2022	Noncontact cooling waters and treated process wastewaters discharged to Halfway Creek via Outfall 003. Equations for calculated parameters are listed within the surface water section of the permit. Additional equations are included in the Standard Requirements section, subsection 5.3.2. Composite samples shall be collected via 24-hr flow prop composite sampler at the first manhole upgradient from Outfall 003.
~~005~~	~~About 180 gpd for days reported, Oct 2014-Sept 2022~~	~~At Sampling Point 005, boiler blowdown shall be sampled during normal blowdown and prior to discharge to the seepage pit located adjacent to the boiler building (Building 21 is attached to and north of Building 20, which houses the boiler.)~~
102	About 27800 gpd for days reported, Oct 2014-Sept 2022	At Sampling Point 102, production facility noncontact cooling waters shall be sampled after mixing, but prior to combining with treated process wastewaters and discharge to Halfway Creek via Outfall 003. Flow shall be monitored via analog meter located in the etch/anodize room. Grab samples shall be collected from the sample tap in the northwest corner of the reclaim area. Composite samples shall be manually collected from the same location as grab samples and mixed on a flow proportional basis.
103	About 6700 gpd for days reported, Oct 2014-Sept 2022	At Sampling Point 103, treated process wastewaters shall be sampled prior to combining with noncontact cooling waters and discharge to Halfway Creek via Outfall 003. Grab samples shall be collected from the sampler installed in the treatment plant prior to the stream leaving the facility. Composite samples shall be manually collected from the same location as grab samples, and mixed on a flow proportional basis.

Sample Point Designation		
Sample Point Number	**Discharge Flow, Units, and Averaging Period**	**Sample Point Location, Waste Type/sample Contents and Treatment Description (as applicable)**
105	NA	Field blank results for mercury monitoring shall be reported under Sampling Point 105, MERCURY FIELD BLANK.

1 Inplant - Proposed Monitoring and Limitations

1.1 Sample Point Number: 102- PRODUCTION NCCW

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		gpd	Daily	Continuous	Report flow as "0" (zero) in eDMR for days when no discharge occurs.
Oil & Grease (Hexane)		mg/L	Annual	Grab	
pH Field		su	Annual	Grab	
Temperature		deg F	Monthly	Grab	See permit section 1.2.1.2.
Copper, Total Recoverable		ug/L	Monthly	Grab	See permit section 1.2.1.2.
Mercury, Total Recoverable		ng/L	Quarterly	Grab	See permit sections 1.2.1.1 and 1.2.1.2.
Phosphorus, Total		mg/L	Monthly	Grab	See permit section 1.2.1.2.
Zinc, Total Recoverable		ug/L	Annual	Grab	See permit section 1.2.1.2.
~~PFOS~~		~~ng/L~~	~~Monthly~~	~~Grab~~	~~Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.~~
~~PFOA~~		~~ng/L~~	~~Monthly~~	~~Grab~~	~~Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.~~

1.1.1 Changes from Previous Permit:

Flow Rate- Sample type changed from weekly to daily for accounting purposes.

Mercury, Total Recoverable- Monitoring required throughout the permit term to gather enough data for analysis prior to next reissuance.

Phosphorus, Total- Total phosphorus shall be monitored monthly throughout the permit term for calculation of loads discharged from Outfall 003.

Selenium, Total Recoverable- Monitoring for selenium during the previous permit term showed no reasonable potential to cause or contribute to an exceedance of the water quality criterion, and thus has been removed from permit requirements.

Zinc, Total Recoverable- Monitoring for total recoverable zinc has been added to Sample Point 102 to account for any zinc potentially present in the NCCW which may be discharged via Outfall 003.

PFOS and PFOA- ~~Monthly monitoring is included in the permit in accordance with s. NR 106.98(2)(d), Wis. Adm. Code.~~ Monitoring has been removed at sample point 102. PFAS monitoring is now required only at sample point 003.

1.1.2 Explanation of Limits and Monitoring Requirements

Flow Rate, Temperature, Copper, Mercury, Phosphorus, and Zinc- Monitoring of listed parameters are required at sample point 102 for the purposes of calculating and reporting the characteristics of the combined discharge of cooling water and treated process wastewater at Outfall 003.

Oil & Grease (Hexane)- Annual monitoring of oil and grease is required at sample point 102 to confirm that NCCW is not contributing to any potential loads of oil and grease discharged at Outfall 003.

pH- pH monitoring is carried over from the previous permit term.

1.2 Sample Point Number: 103- TREATED PROCESS WASTEWATER

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		gpd	Daily	Continuous	
Suspended Solids, Total	Daily Max	60 mg/L	Monthly	24-Hr Flow Prop Comp	TBEL
Suspended Solids, Total	Monthly Avg	31 mg/L	Monthly	24-Hr Flow Prop Comp	TBEL
Oil & Grease (Hexane)	Daily Max	52 mg/L	Quarterly	Grab	TBEL
Oil & Grease (Hexane)	Monthly Avg	26 mg/L	Quarterly	Grab	TBEL
pH (Minimum)	Daily Min	4.0 su	Daily	Continuous	TBEL. See permit section 1.2.2.3.
pH (Maximum)	Daily Max	11 su	Daily	Continuous	TBEL. See permit section 1.2.2.3.
pH Total Exceedance Time Minutes	Monthly Total	446 minutes	Daily	Calculated	Total monthly and single event exceedance times are applicable to pH limits of 6.0 to 9.5 s.u. See permit section 1.2.2.3.

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
pH Exceedances Greater Than 60 Minutes	Monthly Total	0 Number	Daily	Calculated	Total monthly and single event exceedance times are applicable to pH limits of 6.0 to 9.5 s.u. See permit section 1.2.2.3.
Temperature		deg F	Monthly	Grab	See permit section 1.2.2.4.
Nitrogen, Ammonia (NH3-N) Total		mg/L	Quarterly	24-Hr Flow Prop Comp	Monitoring only January 1, 2026- December 31, 2026.
Cadmium, Total Recoverable	Daily Max	110 ug/L	Annual	24-Hr Flow Prop Comp	TBEL
Cadmium, Total Recoverable	Monthly Avg	70 ug/L	Annual	24-Hr Flow Prop Comp	TBEL
Chromium, Total Recoverable	Daily Max	2,770 ug/L	Annual	24-Hr Flow Prop Comp	TBEL
Chromium, Total Recoverable	Monthly Avg	1,710 ug/L	Annual	24-Hr Flow Prop Comp	TBEL
Copper, Total Recoverable	Daily Max	3,380 ug/L	Monthly	24-Hr Flow Prop Comp	TBEL. See permit section 1.2.2.4.
Copper, Total Recoverable	Monthly Avg	2,070 ug/L	Monthly	24-Hr Flow Prop Comp	TBEL
Cyanide, Amenable		ug/L	Quarterly	Grab	See permit section 1.2.2.5.
Cyanide, Total	Daily Max	1,200 ug/L	Quarterly	Grab	TBEL
Cyanide, Total	Monthly Avg	650 ug/L	Quarterly	Grab	TBEL
Lead, Total Recoverable	Daily Max	690 ug/L	Quarterly	24-Hr Flow Prop Comp	TBEL
Lead, Total Recoverable	Monthly Avg	430 ug/L	Quarterly	24-Hr Flow Prop Comp	TBEL
Mercury, Total Recoverable		ng/L	Quarterly	Grab	See permit sections 1.2.2.1 and 1.2.2.4.
Nickel, Total Recoverable	Daily Max	3,980 ug/L	Quarterly	24-Hr Flow Prop Comp	TBEL
Nickel, Total Recoverable	Monthly Avg	2,380 ug/L	Quarterly	24-Hr Flow Prop Comp	TBEL
Silver, Total Recoverable	Daily Max	430 ug/L	Annual	24-Hr Flow Prop Comp	TBEL
Silver, Total	Monthly Avg	240 ug/L	Annual	24-Hr Flow	TBEL

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Recoverable				Prop Comp	
Zinc, Total Recoverable	Daily Max	2,610 ug/L	Annual	24-Hr Flow Prop Comp	TBEL. See permit section 1.2.2.4.
Zinc, Total Recoverable	Monthly Avg	1,480 ug/L	Annual	24-Hr Flow Prop Comp	TBEL
Phosphorus, Total		mg/L	Monthly	24-Hr Flow Prop Comp	See permit section 1.2.2.4.
Bis(2-Ethylhexyl) phthalate		ug/L	Annual	24-Hr Flow Prop Comp	TTO Parameter. See permit section 1.2.2.6.
Diethyl phthalate		ug/L	Annual	24-Hr Flow Prop Comp	TTO Parameter. See permit section 1.2.2.6.
Ethylbenzene		ug/L	Annual	24-Hr Flow Prop Comp	TTO Parameter. See permit section 1.2.2.6.
Isophorone		ug/L	Annual	24-Hr Flow Prop Comp	TTO Parameter. See permit section 1.2.2.6.
Methylene chloride		ug/L	Annual	24-Hr Flow Prop Comp	TTO Parameter. See permit section 1.2.2.6.
Naphthalene		ug/L	Annual	24-Hr Flow Prop Comp	TTO Parameter. See permit section 1.2.2.6.
Toluene		ug/L	Annual	24-Hr Flow Prop Comp	TTO Parameter. See permit section 1.2.2.6.
Total Toxic Organics	Daily Max	2.13 mg/L	Annual	Calculated	
~~PFOS~~		~~ng/L~~	~~Monthly~~	~~Grab~~	~~Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.~~
~~PFOA~~		~~ng/L~~	~~Monthly~~	~~Grab~~	~~Monitoring only. See PFOS/PFOA Minimization Plan Determination of Need schedule.~~

1.2.1 Changes from Previous Permit:

Cadmium, Total Recoverable- Cadmium limits have been reduced to align with new source performance standards outlined in ch. NR 261, Wis. Adm. Code.

Mercury, Total Recoverable- Monitoring required throughout the permit term to gather enough data for analysis prior to next reissuance.

Selenium, Total Recoverable- Monitoring for selenium during the previous permit term showed no reasonable potential to cause or contribute to an exceedance of the water quality criterion, and thus has been removed from permit requirements.

Phosphorus, Total- Total phosphorus shall be monitored monthly throughout the permit term for calculation of loads discharged via Outfall 003.

PFOS and PFOA – ~~Monthly monitoring is included in the permit in accordance with s. NR 106.98(2)(d), Wis. Adm. Code.~~ Monitoring has been removed at sample point 103. PFAS monitoring is now required only at sample point 003.

Solids, Total Suspended – The monitoring frequency has been reduced from weekly to monthly.

1.2.2 Explanation of Limits and Monitoring Requirements

Flow Rate, Temperature, Copper, Mercury, Phosphorus, and Zinc- Monitoring of listed parameters are required at sample point 102 for the purposes of calculating and reporting the characteristics of the combined discharge of cooling water and treated process wastewater at Outfall 003.

Technology-based Effluent Limits- Previous permit issuances assigned Best Available Technology effluent limits outlined in ch. NR 261, Wis. Adm. Code for cadmium, chromium, copper, silver, total cyanide, lead, nickel, zinc and TTO. Best practicable treatment technology standards were then assigned for oil & grease, TSS and pH. Based on the definition of "new source" in ch. NR 261, Wis. Adm. Code, this facility should have been assigned New Source Performance Standards (NSPS) for all listed parameters. Technology-based effluent limitations (TBELs) for oil & grease, pH, TSS, chromium, copper, silver, total cyanide, lead, nickel, zinc and TTO remain unchanged from current limits as there is no difference in limits between the previously defined standards and the NSPS for these limits. Cadmium has been updated to align with the limits of Table 3, ch. NR 261, Wis. Adm. Code. The facility is currently discharging at levels well below the NSPS for cadmium, therefore, the Department does not foresee compliance issues related to the corrected limits.

In addition, s. NR 261.12 (2)(c) prohibits permittees from augmenting the use of process wastewater or otherwise dilute the wastewater as a partial or total substitute for adequate treatment to achieve compliance technology-based effluent limitations.

pH- As stated above, TBELs for pH remain unchanged at 6.0 s.u. minimum and 9.5 s.u. maximum. Consistent with the current permit, the proposed permit allows the pH of the discharge at Sampling Point 103 to fall outside of the permitted pH range for a total of 446 minutes in one month. However, continuous excursions of more than sixty minutes and excursions outside the range of 4.0 to 11.0 s.u. are not allowed. Pursuant to s. NR 205.06, Wis. Adm. Code, such limited excursions of the permitted pH range are allowed when pH is monitored continuously. Section 102.05 (3)(h), Wis. Adm. Code, establishes the instantaneous pH limits of 4.0 s.u. minimum and 11 s.u. maximum.

Total Toxic Organics (TTO) Monitoring- Consistent with s. NR 261.13 (1)(c), Wis. Adm. Code, which requires testing only for those pollutants listed in s. NR 215.03 A through E that are reasonably expected to be present in the discharge, the proposed permit requires testing for bis (2-ethylhexyl) phthalate, diethyl phthalate, ethylbenzene, isophorone, methylene chloride, naphthalene and toluene when Metallics samples for TTOs. Metallics detected all of these parameters, except methylene chloride, either as a result of permit required monitoring during the term of the current permit when performing the effluent testing required by the permit reissuance application, or as a result of both. Because methylene chloride was detected and just added to the TTO list during reissuance of the current permit, it is prudent to retain this parameter on the TTO list for this next permit term. Consequently, the list of TTO parameters for which Metallics must sample are the same as in the previous permit.

Should Metallics test for toxic organic parameters in addition to those listed in the proposed permit, the test results should be included in the TTO calculation if they are quantifiable and greater than 10 µg/L. If additional toxic organic pollutants are present due to changes in materials used at the facility, Metallics must notify the Department of the process change, amend its solvent management plan, and submit the amended plan to the Department.

1.3 Sample Point Number: 105- MERCURY FIELD BLANK

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Mercury, Total Recoverable		ng/L	Quarterly	Blank	

1.3.1 Changes from Previous Permit:

Mercury, Total Recoverable- Monitoring required throughout the permit term to gather enough data for analysis prior to next reissuance.

1.3.2 Explanation of Limits and Monitoring Requirements

Mercury monitoring is included in the proposed permit pursuant to s. NR 106.145, Wis. Adm. Code. Required field blanks for Mercury monitoring per ss. NR 106.145(9) and (10), Wis. Adm. Code, requirements. The permittee shall collect a mercury field blank for each set of mercury samples (a set of samples may include a combination of influent, effluent or other samples all collected on the same day). The permittee shall report results of field blanks to the department on the facility's eDMR.

2 Surface Water - Proposed Monitoring and Limitations

2.1 Sample Point Number: 003- 102 and 103 COMBINED

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Flow Rate		gpd	Daily	Calculated	See permit section 2.2.1.2 for equation.
Temperature		deg F	Monthly	Calculated	See permit section 2.2.1.3 for equation.
Cadmium, Total Recoverable	Daily Max	67 ug/L	Annual	Calculated	See permit section 2.2.1.4 for equation.
Cadmium, Total Recoverable	Monthly Avg	67 ug/L	Annual	Calculated	
Cadmium, Total Recoverable	Daily Max	0.04 lbs/day	Annual	Calculated	
Copper, Total Recoverable	Daily Max	81 ug/L	Monthly	Calculated	See permit section 2.2.1.5 for equation.
Copper, Total Recoverable	Monthly Avg	81 ug/L	Monthly	Calculated	
Copper, Total Recoverable	Daily Max	0.045 lbs/day	Monthly	Calculated	

Monitoring Requirements and Limitations					
Parameter	**Limit Type**	**Limit and Units**	**Sample Frequency**	**Sample Type**	**Notes**
Cyanide, Amenable	Daily Max	92 ug/L	Quarterly	Calculated	See permit section 2.2.1.4 for equation. See 2.2.1.6.
Cyanide, Amenable	Monthly Avg	92 ug/L	Quarterly	Calculated	See permit section 2.2.1.6.
Cyanide, Amenable	Daily Max	0.036 lbs/day	Quarterly	Calculated	See permit section 2.2.1.6.
Mercury, Total Recoverable		ng/L	Quarterly	Calculated	See permit section 2.2.1.5 for equation.
Phosphorus, Total	Monthly Avg	0.225 mg/L	Monthly	Calculated	Limit effective upon permit reissuance. See permit section 2.2.1.5 for equation. See permit section 2.2.1.7 for final WQBELs.
Zinc, Total Recoverable	Daily Max	590 ug/L	Annual	Calculated	See permit section 2.2.1.4 for equation.
Zinc, Total Recoverable	Monthly Avg	590 ug/L	Annual	Calculated	
Zinc, Total Recoverable	Daily Max	0.27 lbs/day	Annual	Calculated	
PFOS		ng/L	Quarterly	Calculated	See permit section 2.2.1.10.
PFOA		ng/L	Quarterly	Calculated	See permit section 2.2.1.10.
Acute WET		TUa	See Listed Qtr(s)	Composite	See permit section 2.2.1.11.
Chronic WET		rTUc	See Listed Qtr(s)	Composite	See permit section 2.2.1.11.

2.1.1 Changes from Previous Permit

Effluent limitations and monitoring requirements were re-evaluated for the proposed permit term. Requirements in state statute and administrative codes, as well as recommendations contained in the Monitoring Frequencies for Individual Wastewater Permits guidance (April 12, 2021) were considered when determining appropriate monitoring frequencies for pollutants that have final effluent limits in effect during this permit term.

The following changes were made to surface water monitoring requirements after consideration of all applicable factors:

Flow Rate- Sample type changed from weekly to daily for accounting purposes.

Cadmium, Total Recoverable; Copper, Total Recoverable; Cyanide, Amenable; Zinc, Total Recoverable- Monthly average limits added to comply with the expression of limits requirements in ss. NR 106.07 and NR 205.065(7), Wis. Adm. Code.

Mercury, Total Recoverable- Monitoring required throughout the permit term. Data will be used to analyze reasonable potential at the time of the next reissuance.

Phosphorus, Total Recoverable- Monthly average and six-month average concentration limits have been added, as well as a six-month average mass limit.

Acute WET- Sample type has been changed from composite to 24-hr flow prop composite.

Selenium, Total Recoverable- Monitoring for selenium during the previous permit term showed no reasonable potential to cause or contribute to an exceedance of the water quality criterion, and thus has been removed from permit requirements.

PFOS and PFOA – ~~Monthly monitoring is included in the permit in accordance with s. NR 106.98(2)(d), Wis. Adm. Code.~~ The monitoring frequency for PFOS and PFOA has been reduced from monthly to quarterly. Additionally, an alternate sampling method has been approved for PFOS and PFOA monitoring at Sampling Point 003. Flow proportional composite samples from Sampling Point 102 and 103 shall be combined into one sample before sending to the lab for analysis for PFOS and PFOA. Results of the combined sample analysis shall be reported at Sampling Point 003.

2.1.2 Explanation of Limits and Monitoring Requirements

Water Quality Based Limits and WET Requirements and Disinfection

Refer to the WQBEL memo for the detailed calculations, prepared by the Water Quality Bureau, dated November 22, 2019, used for this reissuance.

Temperature- Requirements for Temperature are included in NR 102 Subchapter II Water Quality Standards for Temperature and NR 106 Subchapter V Effluent Limitations for Temperature. Thermal discharges must meet the Public Health criterion of 120 degrees F and the Fish & Aquatic Life criteria which are established to protect aquatic communities from lethal and sub-lethal thermal effects. No limits are included in the permit at this time.

Cadmium, Total Recoverable; Copper, Total Recoverable; Cyanide, Amenable; Zinc, Total Recoverable

Mercury- Requirements for mercury are included in s. NR 106.145 Wis. Adm. Code. No limit is necessary at this time.

Phosphorus- Phosphorus requirements are based on the Phosphorus Rules that became effective 12/1/2010 as detailed in NR 102 Water Quality Standards and NR 217 Effluent Standards and Limitations for Phosphorus. Chapter NR 217 of the Wis. Adm. Code addresses point source dischargers of phosphorus to surface waters. The code categorically limits industrial dischargers of more than 60 pounds of phosphorus per month and municipal dischargers of more than 150 pounds of phosphorus per month to 1.0 mg/L unless an alternative limit is approved. NR 217 also specifies WQBELs (water quality based effluent limits) for discharges of phosphorus to surface waters of the state from publicly and privately owned wastewater facilities, noncontact cooling water discharges which contain phosphorus, concentrated animal feeding operations that discharge through alternative treatment facilities and a facility/site that is regulated under NR 216 where the standards in NR151 and 216 are not sufficient to meet phosphorus criteria. WQBELs for phosphorus are needed whenever the discharge contains phosphorus at concentrations or loadings that will cause or contribute to an exceedance of the water quality standards.

The Department has determined that current phosphorous loadings will cause or contribute to an exceedance of water quality standards and has included phosphorus limits and a compliance schedule in the facility's permit to meet WQBELs for phosphorus pursuant to s. NR 217.17, Wis. Adm. Code. For the reasons explained in the April 30, 2012 paper entitled 'Justification for Use of Monthly, Growing Season and Annual Average Periods for Expression of WPDES Permit Limits for Phosphorus Discharges in Wisconsin', WDNR has determined that it is impracticable to express the phosphorus WQBEL for the permittee as a maximum daily, weekly or monthly values. The final effluent limit for phosphorus is expressed as a six-month average. It is also expressed as a monthly average equal to three times the derived WQBEL. This final effluent limit was derived from and complies with the applicable water quality criterion. Please see the phosphorus compliance schedule included in the Schedules section.

PFOS and PFOA – NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. At the first reissuance of a WPDES permit after August 1, 2022, the new rule requires WPDES permits for industrial dischargers to be evaluated on a case-by-case basis to determine if monitoring is required pursuant to s. NR 106.98(2)(d), Wis. Adm. Code. The department evaluated the need for PFOS and PFOA monitoring taking into consideration industry type and other potential sources of PFOS or PFOA. Based on information available at the time the proposed permit was drafted, it was identified that the industrial discharger category may be a potential source of

PFOS/PFOA. Therefore, monthly monitoring is included. The initial determination of need sampling shall be conducted for up to two years in order to determine if the permitted discharge has the reasonable potential to cause or contribute to an exceedance of the PFOS or PFOA standards under s. NR 102.04(8)(d)1, Wis. Adm. Code.

Pursuant to s. NR 205.066, Wis. Adm. Code, the department may specify the monitoring frequency for PFOS and PFOA on a case-by-case basis after the initial 24 months of sampling.

After a review of the data submitted with the Year 2 Report on Effluent Discharges, the department has determined that it is warranted to reduce the sampling frequency in this case. The department is requiring continued monitoring of these compounds at sample point 003 to complete the permit term to ensure that the current effluent quality is maintained. At the next permit reissuance, the department will make another determination as to whether further reduction or removal of monitoring is warranted, based on the continued sampling results.

Whole Effluent Toxicity (WET)- Whole effluent toxicity (WET) testing requirements and limits are determined in accordance with ss. NR 106.08 and NR 106.09 Wis. Adm. Code, as revised August 2016. (See the current version of the Whole Effluent Toxicity Program Guidance Document and checklist and WET information, guidance and test methods at http://dnr.wi.gov/topic/wastewater/wet.html). Chronic and acute WET tests are scheduled for the following quarters: October 01-December 31, 2023; April 01-June 30, 2024; January 01 -March 31, 2025; July 01-September 30, 2026; October 01-December 31, 2027.

~~3 Land Treatment – Proposed Monitoring and Limitations~~

~~3.1 Sample Point Number: 005- BOILER BLOWDOWN~~

~~Monitoring Requirements and Limitations~~					
~~Parameter~~	~~Limit Type~~	~~Limit and Units~~	~~Sample Frequency~~	~~Sample Type~~	~~Notes~~
~~Flow Rate~~		~~gpd~~	~~Quarterly~~	~~Estimated~~	
~~COD, Filtered~~		~~mg/L~~	~~Annual~~	~~Grab~~	
~~pH Field~~		~~su~~	~~Annual~~	~~Grab~~	
~~Copper Dissolved~~		~~ug/L~~	~~Annual~~	~~Grab~~	
~~Iron Dissolved~~		~~mg/L~~	~~Annual~~	~~Grab~~	
~~Lead Dissolved~~		~~ug/L~~	~~Annual~~	~~Grab~~	
~~Nitrogen, Nitrite + Nitrate Total~~		~~mg/L~~	~~Annual~~	~~Grab~~	
~~Solids, Total Dissolved~~		~~mg/L~~	~~Annual~~	~~Grab~~	
~~Sulfate Dissolved~~		~~mg/L~~	~~Annual~~	~~Grab~~	

3.1.1 Changes from Previous Permit:

~~**Additives**- No longer included as part of the permit's monitoring table. The facility is still required to maintaining a log of additive usage per permit section 3.2.~~

Sample Point 005- This sample point was removed from the permit by request of the permittee, in a letter dated February 28, 2025. In the letter, the permittee indicated that sampling point 005 was previously used to sample boiler blowdown prior to discharge to a seepage pit. However, the facility's steam boiler has been replaced with two smaller hot water

boilers which do not required blowdown operations or discharge to the seepage pit. The original steam boiler and seepage pit have been disconnected; therefore, this sample point has been inactivated and may no longer be used.

~~3.1.2 Explanation of Limits and Monitoring Requirements~~

~~Monitoring of industrial land treatment systems is regulated by ch NR 214, Wis. Adm. Code. Monitoring has been included in the permit to assess potential impact to groundwater and whether additional monitoring is necessary to protect water quality. Considering flow volume is under 100 gallons/day and all compounds are either below LOD or below s. NR 140.10 Wis Adm. Code preventative action limits, no groundwater monitoring is required at this time pursuant to s. NR 214.06 Wis. Adm. Code.~~

4 Schedules

4.1 Toxic Organic Management Plan

Required Action	Due Date
Submit Toxic Organic Management Plan: The permittee shall submit an updated toxic organic management plan. The plan shall specify the toxic organic compounds used, the method of disposal used and procedures used to ensure that toxic organics do not spill or leak into the wastewater.	12/31/2025

4.1.1 Explanation of Schedule

To allow the Department to track submittal of the updated Toxic Organic Management (TOM) Plan, a compliance schedule with a submittal date of December 31, 2025 is included in the proposed permit. This permit condition ensures timely updating of the plan and ensures that the plan will be available for the Department to review during the next permit reissuance process. Pursuant to s. NR 261.13 (1)(b), Wis. Adm. Code, the toxic organic management plan should specify the toxic organic compounds used at the facility; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures for ensuring that toxic organics do not routinely spill or leak into the wastewater.

4.2 Water Quality Based Effluent Limits (WQBELs) for Total Phosphorus

The permittee shall comply with the WQBELs for Phosphorus as specified. No later than 14 days following each compliance date, the permittee shall notify the Department in writing of its compliance or noncompliance. If a submittal is required, a timely submittal fulfills the notification requirement.

Required Action	Due Date
Operational Evaluation Report: The permittee shall prepare and submit to the Department for approval an operational evaluation report. The report shall include an evaluation of collected effluent data, possible source reduction measures, operational improvements or other minor facility modifications that will optimize reductions in phosphorus discharges from the treatment plant during the period prior to complying with final phosphorus WQBELs and, where possible, enable compliance with final phosphorus WQBELs by January 01, 2026. The report shall provide a plan and schedule for implementation of the measures, improvements, and modifications as soon as possible, but not later than January 01, 2026 and state whether the measures, improvements, and modifications will enable compliance with final phosphorus WQBELs. Regardless of whether they are expected to result in compliance, the permittee shall implement the measures, improvements, and modifications in accordance with the plan and schedule specified in the operational evaluation report.	01/01/2024

If the operational evaluation report concludes that the facility can achieve final phosphorus WQBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the permittee shall comply with the final phosphorus WQBEL by January 01, 2026 and is not required to comply with the milestones identified below for years 3 through 9 of this compliance schedule ('Preliminary Compliance Alternatives Plan', 'Final Compliance Alternatives Plan', 'Final Plans and Specifications', 'Treatment Plant Upgrade to Meet WQBELs', 'Complete Construction', 'Achieve Compliance'). STUDY OF FEASIBLE ALTERNATIVES - If the Operational Evaluation Report concludes that the permittee cannot achieve final phosphorus WQBELs with source reduction measures, operational improvements and other minor facility modifications, the permittee shall initiate a study of feasible alternatives for meeting final phosphorus WQBELs and comply with the remaining required actions of this schedule of compliance. If the Department disagrees with the conclusion of the report, and determines that the permittee can achieve final phosphorus WQBELs using the existing treatment system with only source reduction measures, operational improvements, and minor facility modifications, the Department may reopen and modify the permit to include an implementation schedule for achieving the final phosphorus WQBELs sooner than January 01, 2032.	
Compliance Alternatives, Source Reduction, Improvements and Modifications Status: The permittee shall submit a 'Compliance Alternatives, Source Reduction, Operational Improvements and Minor Facility Modification' status report to the Department. The report shall provide an update on the permittee's: (1) progress implementing source reduction measures, operational improvements, and minor facility modifications to optimize reductions in phosphorus discharges and, to the extent that such measures, improvements, and modifications will not enable compliance with the WQBELs, (2) status evaluating feasible alternatives for meeting phosphorus WQBELs.	01/01/2025
Preliminary Compliance Alternatives Plan: The permittee shall submit a preliminary compliance alternatives plan to the Department. If the plan concludes upgrading of the permittee's wastewater treatment facility is necessary to achieve final phosphorus WQBELs, the submittal shall include a preliminary engineering design report. If the plan concludes Adaptive Management will be used, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 without the Adaptive Management Plan. If water quality trading will be undertaken, the plan must state that trading will be pursued.	01/01/2026
Final Compliance Alternatives Plan: The permittee shall submit a final compliance alternatives plan to the Department. If the plan concludes upgrading of the permittee's wastewater treatment is necessary to meet final phosphorus WQBELs, the submittal shall include a final engineering design report addressing the treatment plant upgrades, and a facility plan if required pursuant to ch. NR 110, Wis. Adm. Code. If the plan concludes Adaptive Management will be implemented, the submittal shall include a completed Watershed Adaptive Management Request Form 3200-139 and an engineering report addressing any treatment system upgrades necessary to meet interim limits pursuant to s. NR 217.18, Wis. Adm. Code. If the plan concludes water quality trading will be used, the submittal shall identify potential trading partners. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.	01/01/2027

Progress Report on Plans & Specifications: Submit progress report regarding the progress of preparing final plans and specifications. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.	01/01/2028
Final Plans and Specifications: Unless the permit has been modified, revoked and reissued, or reissued to include Adaptive Management or Water Quality Trading measures or to include a revised schedule based on factors in s. NR 217.17, Wis. Adm. Code, the permittee shall submit final construction plans to the Department for approval pursuant to s. 281.41, Stats., specifying treatment plant upgrades that must be constructed to achieve compliance with final phosphorus WQBELs, and a schedule for completing construction of the upgrades by the complete construction date specified below. (Note: Permit modification, revocation and reissuance, and reissuance are subject to s. 283.53(2), Stats.) Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.	01/01/2029
Treatment Plant Upgrade to Meet WQBELs: The permittee shall initiate construction of the upgrades. The permittee shall obtain approval of the final construction plans and schedule from the Department pursuant to s. 281.41. Stats. Upon approval of the final construction plans and schedule by the Department pursuant to s. 281.41, Stats., the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.	04/01/2029
Complete Construction: The permittee shall complete construction of wastewater treatment system upgrades. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.	12/31/2029
Achieve Compliance: The permittee shall achieve compliance with final phosphorus WQBELs. Note: See 'Alternative Approaches to Phosphorus WQBEL Compliance' in the Surface Water section of this permit.	01/01/2030

4.2.1 Explanation of Schedule

A compliance schedule is included in the permit to provide time for the permittee to investigate options for meeting new effluent phosphorus water quality-based effluent limits while coming into compliance with the limits as soon as reasonably possible.

4.3 PFOS/PFOA Minimization Plan Determination of Need

Required Action	Due Date
Report on Effluent Discharge: Submit a report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations. This analysis should also include a comparison to the applicable narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code. This report shall include all PFOS and PFOA data collected including any voluntary influent, intake, in-plant, collection system sampling, and blank sample results.	02/28/2024
Report on Effluent Discharge and Evaluation of Need: Submit a final report on effluent PFOS and PFOA concentrations and include an analysis of trends in monthly and annual average PFOS and PFOA concentrations of data collected over the last 24 months. The report shall also provide a comparison on the likelihood of the facility needing to develop a PFOS/PFOA minimization plan. This report shall include all PFOS and PFOA data collected including any voluntary influent, intake,	02/28/2025

in-plant, collection system sampling, and blank sample results. The permittee shall also submit a request to the department to evaluate the need for a PFOS/PFOA minimization plan. If the Department determines a PFOS/PFOA minimization plan is needed based on a reasonable potential evaluation, the permittee will be required to develop a minimization plan for Department approval no later than 90 days after written notification was sent from the Department. The Department will modify or revoke and reissue the permit to include PFOS/PFOA minimization plan reporting requirements along with a schedule of compliance to meet WQBELs. Effluent monitoring of PFOS and PFOA shall continue as specified in the permit until the modified permit is issued. If, however, the Department determines there is no reasonable potential for the facility to discharge PFOS or PFOA above the narrative standard in s. NR 102.04(8)(d), Wis. Adm. Code, no further action is required and effluent monitoring of PFOS and PFOA shall continue as specified in the permit.	

4.3.1 Explanation of Schedule

As stated above, NR 106 Subchapter VIII – Permit Requirements for PFOS and PFOA Dischargers became effective on August 1, 2022. S. NR 106.98, Wis. Adm. Code, specifies steps to generate data in order to determine the need for reducing PFOS and PFOA in the discharge. Data generated per the effluent monitoring requirements will be used to determine the need for developing a PFOS/PFOA minimization plan. As part of the schedule, the permittee is required to submit two annual Reports on Effluent Discharge.

If the department determines that a minimization plan is needed, the permit will be modified or revoked/reissued to include additional requirements.

4.4 Sample Point Upgrades

Required Action	Due Date
Submit Progress Report: The facility shall evaluate potential upgrades to Sample Point 003 to accommodate 24-hr flow proportional composite sampling of combined process and NCCW discharge and submit a report outlining expected timelines for any selected sample point upgrades. The Department may open the facility's permit for modification to reflect changes made to the sampling process as a result of this upgrade. If the facility decides against making upgrades to Sample Point 003 the facility shall notify the Department and continue sampling as outlined in the permit.	01/01/2024

4.4.1 Explanation of Schedule

The wastewater operator in charge at the facility submitted a request via email on September 20, 2022 to change sampling protocols such that parameters calculated for outfall 003 could be sampled as combined discharge via the manhole located at 003. This schedule has been included to give the facility time to assess any upgrades needed to support regular monitoring at 003 prior to adjusting permit requirements. If the facility decides to implement sampling of combined discharge at 003, the department will modify the permit to include updated monitoring protocols.

5 Attachments:

~~Water Quality Based Effluent Limitations, Shaun Shields, Water Resources Engineer, November 22, 2019~~

PFOS and PFOA Water Quality-Based Effluent Limitations for the Metallics Inc WPDES Permit No. (WI-0054500) in La Crosse County, by Amy Garbe, PE, Wastewater Engineer, dated March 17, 2025

6 Proposed Expiration Date:

February 28, 2028

7 Justification Of Any Waivers From Permit Application Requirements

No waivers made for permit application requirements.

Prepared By:

Amanda Perdzock Wastewater Specialist

Date: February 14, 2023

Revised By: Sarah Donoughe, Wastewater Specialist-Adv

Date: April 28, 2025

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

DATE: March 17, 2025

TO: Sarah Donoughe – NER

FROM: Kari Fleming – WY/3

SUBJECT: PFOS and PFOA Water Quality-Based Effluent Limitations for the Metallics Inc WPDES Permit No. (WI-0054500) in La Crosse County

This is in response to your request for an evaluation of the need for PFOS and PFOA limitations for Metallics Inc. The industrial facility discharges effluent to Halfway Creek, located in the Lower Black River Watershed in the Black River Basin.

The current permit, effective since March 2023, has monitoring only for PFOS and PFOA. The following review is based on new regulations which are now in effect throughout the state of Wisconsin and recommendations are made in accordance with chapters NR 102, 104, 105, 106, 207, and 217 of the Wisconsin Administrative Code, where applicable.

Receiving Water Information

- Name: Halfway Creek
- Classification: Warm water sport fish community, non-public water supply. Halfway Creek is designated as a cold-water stream upstream of the discharge at Cth DH.
- Flow: The following 7-Q10 and 7-Q2 values are from USGS for Station BK44, near where Outfall 003 is located. The Harmonic Mean has been estimated as recommended in State of Wisconsin Water Quality Rules Implementation Plan (Publ. WT-511-98)
  7-Q10 = 3.2 cfs (cubic feet per second)
  7-Q2 = 5.9 cfs
  Harmonic Mean Flow = 9.9 cfs
- % of Flow used to calculate limits: 25%

Effluent Information

- Flow rate(s):
  Maximum annual average = 0.0494 MGD (Million Gallons per Day)
  For reference, the actual average flow from March 2023 through January 2025 was 0.0130 MGD.

- Water source: Private wells are used to source both process wastewater and NCCW. Water withdrawal factor (f) = 0
- Effluent characterization: This facility is categorized as a primary industrial discharge

The following table lists the statistics for Outfall 003 effluent PFOS and PFOA levels from April 2021 and March 2023 through June 2024. Results from July 2024 through January 2025 were not included in the statistics calculations pursuant s. NR 106.98(4)(b)2., Wis. Adm. Code.

Oufall 003	PFOS ng/L	PFOA ng/L
Mean*	0.063	0.066
Std	0.36	0.126

Sample Size	19	21
Range	<0.287 – <1.6	<0.213 – <2.6

*Results below the level of detection (LOD) were included as zeroes in calculation of average.

Data was collected at the individual sample points for the NCCW (Sample Point 102) and Process Wastewater (Sample Point 103) at the same frequency as Outfall 003. Though not utilized in evaluating reasonable potential, results are included in Attachment 1.

Water Quality Based Limit – PFOS and PFOA

Administrative rules for PFOS and PFOA took effect on August 1, 2022. These rule revisions include additions to ch. NR 102 (s. NR 102.05), Wis. Adm. Code, which establish PFOS and PFOA standards for surface waters. Revisions to ch. NR 106 (s. NR 106, Subchapter VIII), Wis. Adm. Code establish procedures for determining water quality based effluent limits for PFOS and PFOA, based on the applicable standards in ch. NR 102, Wis. Adm. Code.

PFOS

Due to PFOS being a bioaccumulating compound of concern (BCC), no mixing zone is allowed pursuant s. NR 106.98(4), Wis. Adm. Code. Therefore, the effluent limit for PFOS is set equal to criteria (8 ng/L).

PFOA

The conservation of mass equation is described in s. NR 106.06(4)(b)1. Wis. Adm. Code, and includes variables of water quality criterion (WQC), receiving water flow rate (Qs), effluent flow rate (Qe), and upstream PFOA concentrations (Cs) provided below.

$$\text{Limitation} = [(WQC)(Qs+(1-f)\ Qe) - (Qs-f\ Qe)\ (Cs)]/Qe$$

Where:

WQC = 95 ng/L for Halfway Creek
Qs = 25% of the harmonic mean pursuant s. NR 106.06(4)©10., Wis. Adm. Code = 2.48 cfs
Cs = background concentration of PFOA in the receiving water pursuant to s. NR 106.06(4)(e), Wis. Adm. Code
Qe = effluent flow rate = 0.0494 MGD = 0.076 cfs
f = the fraction of effluent withdrawn from the receiving water = 0

After substituting the appropriate variables, the calculated PFOA limit is 3,171 ng/L.

Reasonable Potential Determination

In accordance with s. NR 106.98(4)(b), Wis. Adm. Code, **the discharge does not have reasonable potential to cause or contribute to an exceedance of the water quality criterion for PFOS** because the arithmetic average of reported effluent PFOS data is less than 1/5th of the calculated WQBEL (8 ng/L). Therefore, **a WQBEL is not required.**

The discharge does not have reasonable potential to cause or contribute to an exceedance of the water quality criterion for PFOA because the arithmetic average of reported effluent PFOA data is less than 1/5th the calculated WQBEL (3,171 ng/L). Therefore, **a WQBEL is not required.**

Conclusions

The discharge has no reasonable potential to cause or contribute to an exceedance of the water quality

criterion for PFOS nor PFOA. Therefore, no WQBELs are required.

Pursuant to s. NR 205.066, Wis. Adm. Code, the department may specify the monitoring frequency for PFOS and PFOA on a case-by-case basis after the initial 24 months of sampling. **After a review of the available data, the department has determined that it is warranted to reduce the sampling frequency at Outfall 003 in this case to quarterly and remove monitoring at sample points 102 and 103.**

If there are any questions or comments on these recommendations, please contact Amy Garbe by telephone at (608) 716-9968 or by email at Amy.Garbe@wisconsin.gov.

Attachment (1) – PFOS and PFOA Data

PREPARED BY: Amy Garbe date: 3/17/25

Amy Garbe, P.E., Wastewater Engineer

cc: Katie Jo Jerzak, P.E., Basin Engineer – WCR/Eau Claire
Nate Willis, P.E., PFAS Implementation Coordinator – CO

Attachment 1 – PFOS and PFOA Data

	Outfall 003		Sample Point 102		Sample Point 103	
	PFOS Data	PFOA Data	PFOS Data	PFOA Data	PFOS Data	PFOA Data
Apr-21	0.129	0.25				
Mar-23	<0.4177	<0.5177	<0.42	<0.52	<0.41	<0.51
Apr-23	<0.5678	<0.6961	<0.43	<0.53	<0.82	<1
May-23	<0.41	<0.51	<0.41	<0.51	<0.41	<0.51
Jun-23	<0.43	<0.53	<0.43	<0.53	<0.43	<0.53
Jul-23	<0.41	<0.51	<0.41	<0.51	<0.41	<0.51
Aug-23	<0.288	<0.213	<0.288	<0.213	<0.288	<0.213
Sep-23	<0.287	0.257	<0.287	0.257	<0.287	0.257
Oct-23	<0.301	0.359	<0.301	0.359	<0.301	0.359
Nov-23	<0.2977	<0.2417	<0.299	<0.222	<0.296	0.269
Dec-23	<0.413	0.305	<0.413	<0.305	<0.413	<0.305
Jan-24	0.42	<0.52	0.42	0.52	0.42	0.52
Feb-24	<0.32	<0.55	<0.32	<0.55	<0.32	<0.55
Mar-24	<0.32	<0.55	<0.32	<0.55	<0.32	<0.55
Apr-24	<0.32	<0.55	<0.32	<0.55	<0.32	<0.55
May-24	<1.6	<2.6	<1.6	<2.6	<1.6	<2.6
Jun-24	0.84	<0.56	0.84	<0.56	0.84	<0.56
Jul-24	<16	<26	<16	<26	<16	<26
Aug-24	<78	<130	<78	<130	<78	<130
Sep-24	<78	<130	<78	<130	<78	<130
Oct-24	<78	<130	<78	<130	<78	<130
Nov-24	<78	<130	<78	<130	<78	<130
Dec-24	<78	<130	<78	<130	<78	<130
Jan-25	<78	<130	<78	<130	<78	<130