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January 15, 2021

Christopher Black
U.S. Environmental Protection Agency Region 5
Land, Chemicals & Redevelopment Division
77 West Jackson Blvd, LR-16J
Chicago, IL 60604-3590

Subject: ***Quarterly Progress Report (October through December 2020)***
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP, Stanton Street Facility, Marinette, Wisconsin
WID 006 125 215

Dear Mr. Black:

In accordance with Section VI, 21, b (Page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009[1], Tyco Fire Products LP (Tyco) has prepared this quarterly progress report for the U.S. Environmental Protection Agency (USEPA) Region 5 and the Wisconsin Department of Natural Resources (WDNR) (collectively referred herein as the Agencies). The reports are required to document activities conducted as part of the Resource Conservation and Recovery Act (RCRA) corrective actions at the Tyco facility on Stanton Street in Marinette, Wisconsin. This report covers the period from October 1 through December 31, 2020 and presents a brief description of the work performed, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC and subsequent agreements.

Work Completed During this Reporting Period

Attachment 1 summarizes the operational data for the groundwater collection and treatment system (GWCTS) during the fourth quarter 2020, and Attachment 2 contains the monthly Discharge Monitoring Reports. Operations continue to include bypassing the first two reaction tanks and the lamella with direct connection of the equalization tank to Reaction Tank 3, then Reaction Tank 4, and then to the microfilter. The GWCTS operated continuously except for weekend and holiday downtime days and one longer maintenance shutdown between December 17 and December 28, 2020. Initially, the shutdown was a result of a network issue that was resolved on December 21, 2020; however, the system then was shut down for the holidays and started back up on December 28, 2020. Despite two less operating days, total volumes extracted and treated during the reporting period were higher when compared to the previous quarter. The overall volume of groundwater extracted was 851,062 gallons.

[1] U.S. Environmental Protection Agency. 2009. Resource Conservation and Recovery Act Administrative Order on Consent, Ansul, Incorporated. EPA Docket No. RCRA-05-2009-0007542-S-02-001. February 26.

As indicated in the previous quarterly report[2], extraction well EW-1 in the Wetlands Area that was turned off temporarily in early September 2020 to allow the focus to be on the Main Plant extraction wells was turned back on October 19, 2020.

Pump down operations with the temporary system continued through fourth quarter 2020 in the former Salt Vault and former 8th Street Slip areas. Operations continued under management of Endpoint Solutions of Franklin, Wisconsin. From September 26, 2020 to January 1, 2021, as part of the pump down program, 287,650 gallons were extracted and disposed of offsite. Details of the pump down operations are reported to the Agencies in biweekly summary reports.

The fall barrier wall groundwater monitoring semiannual water level event was completed on October 12, 2020.

Pressure transducer-related activities were completed on October 13, 2020. These activities included downloading data from each transducer and collecting manual water levels at the time of transducer download. Monitoring well nests MW047 and MW100 were not accessible because of dense vegetation and river levels.

Tyco submitted two response letters on October 30, 2020 to respond to Agency comments that were received in an email with two letters from USEPA Project Manager Christopher Black on September 30, 2020 for both the *2019 Barrier Wall Groundwater Monitoring Annual Report*[3] and *Arsenic Migration Pathways Evaluation Report*[4].

Additional Activities

The new ChemDesign building construction and related changes to RCRA remedy components continued in fourth quarter 2020. Work is complete, and ChemDesign took occupancy on November 1, 2020. There were no changes from the May 28, 2019 memorandum *Changes to RCRA Site Components Due to Proposed ChemDesign Building*.

A project status teleconference meeting was held on December 10, 2020 with USEPA, WDNR, Tyco, and Jacobs Engineering Group Inc. This was a follow-up meeting to complete the status update that was started on August 27, 2020.

The final Wisconsin Pollutant Discharge and Elimination System (WPDES) variance permit was received from WDNR on December 23, 2020 and became effective January 1, 2021. Construction of two horizontal wells for the conveyance system, part of the permanent pump down program, started on December 3, 2020. Construction of these wells was completed in early January 2021. The remainder of conveyance design and construction work will begin in 2021. The associated design efforts for the GWCTS improvements will be initiated in winter 2021.

Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of the WPDES permits obtained from WDNR for operating the GWCTS. The GWCTS operates under WPDES Permit

[2] Jacobs Engineering Group Inc. 2020. *Quarterly Progress Report (July through September 2020).* October 15.
[3] Jacobs Engineering Group Inc. 2020. *2019 Barrier Wall Groundwater Monitoring Annual Report.* March 17.
[4] Jacobs Engineering Group Inc. 2020. *Arsenic Migration Pathways Evaluation Report.* March 9.

WI-0001040-07-0. Attachment 2 includes the GWCTS monthly WPDES Discharge Monitoring Reports for September through November 2020. Attachment 1 contains additional data on the GWCTS operations.

Weekly groundwater elevation data were collected from monitoring wells in the former 8th Street Slip and former Salt Vault areas in accordance with the pump down program requirements and have been reported to the Agencies in the biweekly summary reports.

Fall barrier wall groundwater elevation measurements were collected on October 12 and October 13, 2020. Continuous groundwater elevation data recorded by transducers are being compiled and evaluated. These data will be included in the annual report.

Problems Encountered

Menomonee River Levels

Menominee River water levels declined relative to the previous quarter but remained well above typical levels through fourth quarter 2020. During the reporting period, the river level remained above the top of the vertical barrier wall in the Wetlands Area of the site. River levels continued to periodically exceed the weir elevations in the Main Plant area until October 13, 2020; during the rest of the quarter, river levels remained below the weirs. Permanent weir gates designed to limit river water inflow in these areas were installed in early October 2020 by MJB Industries, Inc. at the two westernmost weirs and the easternmost weir. The second weir in the east does not require a gate, as the ground elevation is slightly higher in this area.

Fall Barrier Wall Groundwater Monitoring and Transducer Download

During the October 2020 barrier wall groundwater elevation gauging event and transducer download, the following were encountered:

- MW048S and monitoring well nests MW047 and MW100 were not accessible because of the dense vegetation and river levels. (Proposed transducer location MW048S has been inaccessible in 2019 and 2020, and consistent with the June 2019 *Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update*[5], this transducer location may not end up being installed.)
- MW040M and MW107D are flush-mount wells in areas where water was ponded because of rain and river levels. As such, water level gauging was not completed at these locations. MW107M became accessible the morning of October 13, 2020, however water was observed above the top of casing.
- Data from the MW107D non-vented transducer was pulled later in the day on October 13, 2020 when it became accessible during the transducer download event. While this area has intermittently had standing water present since its installation, the data appear to be accurately recording fluctuations in hydraulic head.

Schedule of Upcoming Activities

The following summarizes activities to be conducted during the next reporting period:

- Submit the quarterly progress report

[5] Jacobs Engineering Group Inc. 2019. *Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update.* June 24.

- Continue pump down program operations in the former Salt Vault and former 8th Street Slip areas
- Continue operating the GWCTS
- Finalize conveyance improvements design, complete construction on the horizontal wells, and initiate construction on the pump house at the former Salt Vault
- Initiate GWCTS improvements design
- Submit *Revised Vapor Intrusion Assessment and Work Plan*
- Submit *2020 Barrier Wall Groundwater Monitoring Annual Report*

List of Key Correspondence and Document Submittals

Project-related documents submitted to and received from the Agencies during the fourth quarter of 2020 are summarized in Tables 1 and 2, respectively.

Table 1. Documents Submitted

Quarterly Progress Report (October through December 2020), Tyco Fire Products LP Facility, Marinette, WI

Description of Submittal	Submitted To	Date Submitted
Biweekly Summary Report for Pump Down Program	USEPA	October 2, 2020
Copy of FX Building Phase I ESA	USEPA	October 14, 2020
Quarterly Progress Report (Third Quarter 2020)	USEPA	October 15, 2020
Biweekly Summary Report for Pump Down Program	USEPA	October 15, 2020
Email – Response to Draft WPDES Variance Permit Comments	WDNR	October 23, 2020
Biweekly Summary Report for Pump Down Program	USEPA	October 29, 2020
Email – Updated Mercury Pollutant Minimization Plan (part of response to Draft WPDES Variance Comments)	WDNR	October 29, 2020
Response to Agencies Review of *2019 Barrier Wall Groundwater Monitoring Annual Report* dated March 17, 2020	USEPA	October 30, 2020
Response to USEPA and WDNR Review of *Arsenic Migration Pathways Evaluation Report* dated March 9, 2020	USEPA	October 30, 2020
Biweekly Summary Report for Pump Down Program	USEPA	November 13, 2020
Biweekly Summary Report for Pump Down Program	USEPA	November 25, 2020
Email – Draft Reserves for 2021	USEPA	December 5, 2020
Biweekly Summary Report for Pump Down Program	USEPA	December 8, 2020
Biweekly Summary Report for Pump Down Program	USEPA	December 25, 2020

Table 2. Correspondence from Agency

Quarterly Progress Report (October through December 2020), Tyco Fire Products LP Facility, Marinette, WI

Description of Correspondence	Submitted By	Date Submitted
USEPA Request for Documents RE: sale of 15 Acre Parcel to KKIL, LLC	USEPA	October 13, 2020
Email – Draft WPDES Variance Permit Comments for Tyco Review	WDNR	October 14, 2020
Issued Final WPDES Permit No. WI-0001040-08-0 (effective January 1, 2021 to December 31, 2025)	WDNR	December 23, 2020

If you have any questions or require additional information, please contact me at 262-644-6167 or Jeffrey Danko at 262-349-2528.

Respectfully Yours,

Jacobs Engineering Group Inc.

Heather Ziegelbauer
Project Manager

cc: Angela Carey, WDNR
Ryan Suennen, Tyco Fire Products
Jeff Danko, Johnson Controls
Mariel Carter, Stephenson Public Library

Attachments

1 Groundwater Collection and Treatment System Operation Summary
2 Discharge Monitoring Reports for the Groundwater Collection and Treatment System

Document Control No.: D3394600.282

Attachment 1
Groundwater Collection and Treatment System Operation Summary

Groundwater Collection and Treatment System Operations for Tyco Fire Products LP, Marinette, Wisconsin, October 1 through December 31, 2020

The following summarizes groundwater collection and treatment system (GWCTS) operations from October 1 through December 31, 2020 at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The GWCTS operated for 22 days in October 2020, 21 days in November 2020, and 18 days in September 2020, for a total of 61 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin was 5.46 inches of rain and 6.4 inches of snow (http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail).
- An estimated 851,062 gallons of groundwater were extracted (not including volumes extracted as part of the pump down program) from the site during the reporting period. Table 1-1 lists the water volumes extracted from each area of the site for this quarter based on the recorded data.
- During the reporting period, an estimated 861,892 gallons of water were discharged to the Menominee River as effluent under the Wisconsin Pollutant Discharge and Elimination System permit.
- Approximately 335,200 gallons of reject water were produced this reporting period during system operations and subsequently disposed of offsite.

Table 1-1. Extraction Well Data Summary (October through December 2020)

GWCTS Operations, Tyco Fire Products LP Facility, Marinette, WI

Extraction Well	Gallons Run, Fourth Quarter 2020 (October 1 through December 31, 2020)
EW-1	62,832
EW-2	0
EW-3	0
EW-4	16,535
EW-5	238,271
EW-6	253,480
EW-7	279,944
Total	**851,062**

Attachment 2
Discharge Monitoring Reports for the Groundwater Collection and Treatment System

Wastewater Discharge Monitoring Long Report

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 09/01/2020 - 09/30/2020
Form Due Date: 10/21/2020
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	452768
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
	Sample Type	CONTINUOUS	GRAB	GRAB	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	0.17413		81	6.6	7.1
	2	0.13664		80	6.8	7.1
	3	0.10013		77	6.8	7.2
	4	0.01732		82	7.2	8.2
	5	0.01404		84	7.6	8.0
	6	0.02424		84	7.8	8.1
	7	0.05638		85	6.9	8.0
	8	0.15140		75	6.6	7.0
	9	0.30122		71	6.6	7.0
	10	0.04683		77	6.8	7.2
	11	0.05617		82	7.1	7.8
	12	0.13467		76	7.4	7.8
	13	0.02404		82	7.6	8.2
	14	0.09988		82	7.0	7.8
	15	0.13499		79	7.2	8.0
	16	0.11531		77	7.1	7.4
	17	0.11461		76	7.0	7.3
	18	0.08846		75	7.2	7.3
	19	0.00145		80	7.2	7.8
	20	0.04507		80	6.9	7.6
	21	0.11631		75	6.6	6.9
	22	0.11288		76	6.8	7.0
	23	0.10892	<0.16	77	6.7	7.5
	24	0.03617		75	7.2	7.8
	25	0.01862			7.2	7.6
	26	0.04133			6.9	7.6
	27	0.02618			7.3	7.5
	28	0.07007		76	7.1	7.6
	29	0.11247		75	6.8	7.4
	30	0.11746		73	6.7	6.9
	31					

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
Summary Values	**Monthly Avg**	0.086579667	0	78.222222222	7.023333333	7.523333333
	Monthly Total					
	Daily Max	0.30122	<0.16	85	7.8	8.2
	Daily Min	0.00145	<0.16	71	6.6	6.9
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					11 0
	Daily Min				4 0	
	Rolling 12 Month Avg					
QA/QC Information	**LOD**		0.16			
	LOQ		0.5			
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	379	376	388	231	35
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Phosphorus, Total	Hardness, Total as CaCO3	Arsenic, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1			0.32	360	49
	2					
	3					
	4					
	5					
	6					
	7					
	8			0.48	370	39
	9					
	10					
	11					
	12					
	13					
	14					
	15			0.20	460	38
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23			0.24	320	33
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	379		376		388		231		35	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Phosphorus, Total		Hardness, Total as CaCO3		Arsenic, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					0.31		377.5		39.75	
	Monthly Total										
	Daily Max					0.48		460		49	
	Daily Min					0.2		320		33	
	Rolling 12 Month Avg					0.5					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0								
	Daily Max			0	0					680	0
	Daily Min										
	Rolling 12 Month Avg					1	0				
QA/QC Information	**LOD**					0.024				2.1	
	LOQ					0.05				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	35	147	147	87	152
	Description	Arsenic, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cadmium, Total Recoverable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	ug/L
	Sample Type	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	0.07105	28	0.0406	<0.49	<5.0
	2					
	3					
	4					
	5					
	6					
	7					
	8	0.04914	26	0.03276	<0.49	
	9					
	10					
	11					
	12					
	13					
	14					
	15	0.31692	31	0.03503	<0.49	
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23	0.03003	37	0.03367	<0.49	
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	35		147		147		87		152	
	Description	Arsenic, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cadmium, Total Recoverable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.116785		30.5		0.035515		0		0	
	Monthly Total										
	Daily Max	0.31692		37		0.0406		<0.49		<5	
	Daily Min	0.03003		26		0.03276		<0.49		<5	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	12	0	69	0	0.98	0				
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**			1.7				0.49		5	
	LOQ			5				1		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010		999580010	

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
	Sample Type	GRAB	GRAB	CONTINUOUS	24 HR COMP	GRAB
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	2/WEEK
Sample Results	Day 1			0.020000	<1.9	<1.3
	2			0.014952	2.5	<1.3
	3			0.010479	2.0	
	4					
	5					
	6					
	7					
	8	<20		0.033015	<1.9	<1.3
	9			0.022876	<1.9	<1.3
	10			0.009990	3.0	
	11			0.000811	5.5	
	12					
	13					
	14			0.025593	2.5	
	15			0.036654	<1.9	<1.3
	16			0.018702	<1.9	<1.3
	17			0.017640	2.0	
	18			0.005857	3.0	
	19					
	20					
	21			0.037597	2.0	
	22			0.024808	2.0	
	23		<0.16	0.015218	<1.9	<1.3
	24			0.003934	2.5	<1.3
	25			0.001176	<1.9	
	26					
	27					
	28			0.021557	<1.9	
	29			0.022200	<1.9	
	30			0.024327	<1.9	
	31					

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
Summary Values	**Monthly Avg**	0	0	0.0183693	1.35	0
	Monthly Total					
	Daily Max	<20	<0.16	0.037597	5.5	<1.3
	Daily Min	<20	<0.16	0.000811	<1.9	<1.3
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**				31 0	26 0
	Monthly Total					
	Daily Max				60 0	52 0
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**	30	0.16			1.3
	LOQ	100	0.5			5.1
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010		999580010	999580010

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	87	133	315	553	155
	Description	Cadmium, Total Recoverable	Chromium, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Cyanide, Total
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	GRAB
	Frequency	2/WEEK	MONTHLY	2/WEEK	2/WEEK	MONTHLY
Sample Results	**Day 1**	<0.49	<2.2	10	58	<3.0
	2	<0.49	<2.2	9.5	49	
	3					
	4					
	5					
	6					
	7					
	8	<0.49	<2.2	5.8	160	
	9	<0.49	<2.2	3.2	52	
	10					
	11					
	12					
	13					
	14					
	15	<0.49	<2.2	4.3	47	
	16	<0.49	<2.2	5.1	43	
	17					
	18					
	19					
	20					
	21					
	22	<0.49	<2.2	3.0	45	
	23	<0.49	<2.2	2.2	31	
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	87		133		315		553		155	
	Description	Cadmium, Total Recoverable		Chromium, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Cyanide, Total	
	Units	ug/L		ug/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0		0		5.3875		60.625		0	
	Monthly Total										
	Daily Max	<0.49		<2.2		10		160		<3	
	Daily Min	<0.49		<2.2		2.2		31		<3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	260	0	1710	0	2380	0	1480	0	650	0
	Monthly Total										
	Daily Max	690	0	2770	0	3980	0	2610	0	1200	0
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	0.49		2.2		1.5		3.6		3	
	LOQ	1		5		5		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	264	430	374	373
	Description	Copper, Total Recoverable	Lead, Total Recoverable	Silver, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	ug/L	ug/L	ug/L	su	su
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	2/WEEK	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	3.1	2.6	<1.1	6.4	6.8
	2	3.4	1.9	<1.1	6.2	6.8
	3				6.3	7.2
	4					
	5					
	6					
	7					
	8	4.3	2.1	<1.1	7.0	7.3
	9	4.7	<1.3	<1.1	6.7	7.5
	10				6.3	7.2
	11				6.3	7.2
	12					
	13					
	14				7.0	7.4
	15	5.3	<1.3	<1.1	6.4	7.3
	16	7.6	1.3	<1.1	6.2	6.8
	17				6.2	7.5
	18				6.3	7.1
	19					
	20					
	21				6.8	7.3
	22	2.9	3.2	<1.1	6.5	6.8
	23	3.3	2.5	<1.1	6.2	6.8
	24				6.1	6.8
	25				6.0	6.8
	26					
	27					
	28				6.6	7.8
	29				6.6	7.8
	30				6.4	7.1
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		264		430		374		373	
	Description	Copper, Total Recoverable		Lead, Total Recoverable		Silver, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	ug/L		ug/L		ug/L		su		su	
Summary Values	**Monthly Avg**	4.325		1.7		0		6.425		7.165	
	Monthly Total										
	Daily Max	7.6		3.2		<1.1		7		7.8	
	Daily Min	2.9		<1.3		<1.1		6		6.8	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	2070	0	430	0	240	0				
	Monthly Total										
	Daily Max	3380	0	690	0	430	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	1.7		1.3		1.1					
	LOQ	5		2.5		2.5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	507	40	490
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Total Toxic Organics	Benzene	Tetrachloroethylene
	Units	minutes	Number	ug/L	ug/L	ug/L
	Sample Type	CALCULATED	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		507		40		490	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Total Toxic Organics		Benzene		Tetrachloroethylene	
	Units	minutes		Number		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0	0	0						
	Daily Max					2130					
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
	Sample Type	24 HR COMP	CONTINUOUS	24 HR COMP	24 HR COMP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					3.72
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**					3.72
	Monthly Total					
	Daily Max					3.72
	Daily Min					3.72
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					0.16
	LOQ					0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification					999580010

	Sample Point	003	003	003	003	003
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
	Sample Type	CONTINUOUS	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1	0.010365	<1.9	28	8.2	8.9
	2	0.011752			7.2	8.3
	3	0.012900			8.0	8.8
	4	0.007798			8.3	8.5
	5	0				
	6	0				
	7	0				
	8	0.021647	<1.9	62	8.1	8.8
	9	0.012285			6.5	7.2
	10	0.022140			6.5	7.0
	11	0.013575			6.7	6.9
	12	0.010090			6.6	7.0
	13	0.006307			6.0	6.2
	14	0.038971			8.7	9.0
	15	0				
	16	0				
	17	0				
	18	0				
	19	0				
	20	0				
	21	0				
	22	0				
	23	0				
	24	0.014700			6.0	8.3
	25	0.008961			7.3	8.6
	26	0				
	27	0				
	28	0.011145			6.0	8.5
	29	0.015773	<1.9	40	6.2	7.7
	30	0.014387			6.7	8.4
	31					

	Sample Point	003		003		003		003		003	
	Description	Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg	
	Parameter	211		457		35		374		373	
	Description	Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	MGD		mg/L		ug/L		su		su	
Summary Values	**Monthly Avg**	0.007759867		0		43.333333333		7.0625		8.00625	
	Monthly Total										
	Daily Max	0.038971		<1.9		62		8.7		9	
	Daily Min	0		<1.9		28		6		6.2	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max					680	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**					2.1					
	LOQ					5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010					

	Sample Point	003	003
	Description	Future remedial action dischg	Future remedial action dischg
	Parameter	379	376
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	**Day 1**		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		
	31		

	Sample Point	003		003	
	Description	Future remedial action dischg		Future remedial action dischg	
	Parameter	379		376	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	minutes		Number	
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
	Rolling 12 Month Avg				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total	446	0		
	Daily Max			0	0
	Daily Min				
	Rolling 12 Month Avg				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N		N	
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

1. Based on my inquiry of the person or persons directly responsible for managing compiliance with the permit limitation for TTO I certify that to the best of my knowledge and belief no dumping of concentrated toxic organics into the wastewaters has
2. occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the department.

General Remarks

OF003 was shut down during the third week sampling due to the pH probes not working properly on the Effluent tank and we had to wait on the replacements to arrive and to be installed by Honeywell. So, there will be no TSS or Arsenic readings during this time. All is working good now.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 10/19/2020 3:11:41 PM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 10/01/2020 - 10/31/2020
Form Due Date: 11/21/2020
Permit Number: 0001040

Date Received:	
DOC:	456537
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
	Sample Type	CONTINUOUS	GRAB	GRAB	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	0.10916		72	6.6	6.9
	2	0.06034		71	7.0	7.5
	3	0.04737		73	6.8	7.4
	4	0.04858		70	6.8	7.1
	5	0.11540		71	6.8	7.1
	6	0.13005		72	6.8	7.2
	7	0.10995		72	6.9	7.2
	8	0.10907		75	7.0	7.6
	9	0.05489		74	6.9	7.2
	10	0.01182		75	7.1	7.3
	11	0.05324		74	7.0	7.3
	12	0.15716		70	6.5	7.0
	13	0.12257		73	7.0	7.5
	14	0.13258		71	6.7	7.1
	15	0.13777		70	6.8	7.2
	16	0.06017		68	7.0	7.2
	17	0.08847		72	6.9	7.8
	18	0.10017		68	6.6	6.9
	19	0.15721		74	6.7	7.8
	20	0.19447		75	6.7	8.0
	21	0.15266	<0.16	70	6.0	6.8
	22	0.39413		70	6.2	6.8
	23	0.09371		63	6.3	7.5
	24	0.04904		63	6.4	6.6
	25	0.06550		67	6.6	6.8
	26	0.13075		65	6.3	6.8
	27	0.13610		67	6.6	7.4
	28	0.13887		67	7.0	7.5
	29	0.12806		65	7.1	7.5
	30	0.08865		68	7.4	8.0
	31	0.06416		68	7.5	8.1

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
Summary Values	**Monthly Avg**	0.111034516	0	70.096774194	6.774193548	7.293548387
	Monthly Total					
	Daily Max	0.39413	<0.16	75	7.5	8.1
	Daily Min	0.01182	<0.16	63	6	6.6
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					11 0
	Daily Min				4 0	
	Rolling 12 Month Avg					
QA/QC Information	**LOD**		0.16			
	LOQ		0.5			
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	379	376	388	231	35
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Phosphorus, Total	Hardness, Total as CaCO3	Arsenic, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5			0.20	390	38
	6					
	7					
	8			0.21	240	31
	9					
	10					
	11					
	12					
	13					
	14					
	15			0.14	340	22
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26			0.30	260	44
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	379		376		388		231		35	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Phosphorus, Total		Hardness, Total as CaCO3		Arsenic, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					0.2125		307.5		33.75	
	Monthly Total										
	Daily Max					0.3		390		44	
	Daily Min					0.14		240		22	
	Rolling 12 Month Avg					0.5					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0								
	Daily Max			0	0					680	0
	Daily Min										
	Rolling 12 Month Avg					1	0				
QA/QC Information	**LOD**					0.024				2.1	
	LOQ					0.05				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	35	147	147	87	152
	Description	Arsenic, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cadmium, Total Recoverable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	ug/L
	Sample Type	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5	0.03648	32	0.03072	<0.49	<5.0
	6					
	7					
	8	0.02821	42	0.03822	0.69	
	9					
	10					
	11					
	12					
	13					
	14					
	15	0.0253	31	0.03565	<0.49	
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26	0.04796	26	0.02834	<0.49	
	27					
	28					
	29					
	30					
	31					

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	35	147	147	87	152
	Description	Arsenic, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cadmium, Total Recoverable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	ug/L
Summary Values	**Monthly Avg**	0.0344875	32.75	0.0332325	0.1725	0
	Monthly Total					
	Daily Max	0.04796	42	0.03822	0.69	<5
	Daily Min	0.0253	26	0.02834	<0.49	<5
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max	12 0	69 0	0.98 0		
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**		1.7		0.49	5
	LOQ		5		1	10
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010		999580010	999580010

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
	Sample Type	GRAB	GRAB	CONTINUOUS	24 HR COMP	GRAB
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	2/WEEK
Sample Results	Day 1			0.019830	2.5	<1.3
	2			0.010865	2.5	<1.3
	3					
	4					
	5			0.025345	3.0	
	6			0.033859	2.5	
	7			0.019268	3.0	
	8			0.013700	2.5	<1.3
	9	10		0.006647	2.5	<1.3
	10					
	11					
	12			0.028549	<1.9	
	13			0.019251	2.0	
	14			0.026082	2.0	
	15			0.035154	<1.9	<1.3
	16			0.006754	3.0	<1.3
	17					
	18					
	19			0.047337	<1.9	
	20			0.036126	<1.9	
	21		0.94	0.028398	3.0	
	22			0.020124	<1.9	<1.3
	23			0.006653	3.0	1.9
	24					
	25					
	26			0.021215	<1.9	
	27			0.018715	<1.9	
	28			0.022879	<1.9	
	29			0.015340	<1.9	
	30			0.008083	9.0	
	31					

	Sample Point	001		001		101		101		101	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	112		280		211		457		342	
	Description	Chlorine, Total Residual		Mercury, Total Recoverable		Flow Rate		Suspended Solids, Total		Oil & Grease (Freon)	
	Units	ug/L		ng/L		MGD		mg/L		mg/L	
Summary Values	**Monthly Avg**	10		0.94		0.021371545		1.840909091		0.2375	
	Monthly Total										
	Daily Max	10		0.94		0.047337		9		1.9	
	Daily Min	10		0.94		0.006647		<1.9		<1.3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**							31	0	26	0
	Monthly Total										
	Daily Max							60	0	52	0
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	30		0.16						1.3	
	LOQ	100		0.5						5.1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	87	133	315	553	155
	Description	Cadmium, Total Recoverable	Chromium, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Cyanide, Total
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	GRAB
	Frequency	2/WEEK	MONTHLY	2/WEEK	2/WEEK	MONTHLY
Sample Results	**Day 1**	<0.49	<2.2	6.1	55	
	2	<0.49	<2.2	5.3	51	
	3					
	4					
	5					<3.0
	6					
	7					
	8	<0.49	<2.2	5.9	50	
	9	<0.49	<2.2	3.4	44	
	10					
	11					
	12					
	13					
	14					
	15	<0.49	<2.2	3.2	27	
	16	<0.49	<2.2	3.1	21	
	17					
	18					
	19					
	20					
	21					
	22	<0.49	<2.2	2.8	62	
	23	<0.49	<2.2	3.8	110	
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	87		133		315		553		155	
	Description	Cadmium, Total Recoverable		Chromium, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Cyanide, Total	
	Units	ug/L		ug/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0		0		4.2		52.5		0	
	Monthly Total										
	Daily Max	<0.49		<2.2		6.1		110		<3	
	Daily Min	<0.49		<2.2		2.8		21		<3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	260	0	1710	0	2380	0	1480	0	650	0
	Monthly Total										
	Daily Max	690	0	2770	0	3980	0	2610	0	1200	0
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	0.49		2.2		1.5		3.6		3	
	LOQ	1		5		5		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	264	430	374	373
	Description	Copper, Total Recoverable	Lead, Total Recoverable	Silver, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	ug/L	ug/L	ug/L	su	su
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	2/WEEK	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	**Day 1**	4.5	2.6	<1.1	6.6	7.2
	2	6.1	2.3	<1.1	6.3	7.1
	3					
	4					
	5				6.5	7.2
	6				7.0	7.4
	7				6.3	7.2
	8	4.4	<1.3	<1.1	6.3	6.9
	9	3.0	1.7	<1.1	6.7	7.0
	10					
	11					
	12				6.3	7.0
	13				6.2	7.4
	14				6.2	7.0
	15	3.6	<1.3	<1.1	6.1	7.0
	16	3.5	<1.3	<1.1	6.3	7.0
	17					
	18					
	19				6.7	7.2
	20				6.5	7.4
	21				6.4	7.1
	22	4.0	1.4	<1.1	6.5	6.9
	23	6.4	<1.3	<1.1	6.3	7.0
	24					
	25					
	26				6.6	8.7
	27				6.5	8.6
	28				6.5	7.6
	29				6.4	7.8
	30				6.4	6.8
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		264		430		374		373	
	Description	Copper, Total Recoverable		Lead, Total Recoverable		Silver, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	ug/L		ug/L		ug/L		su		su	
Summary Values	**Monthly Avg**	4.4375		1		0		6.436363636		7.295454545	
	Monthly Total										
	Daily Max	6.4		2.6		<1.1		7		8.7	
	Daily Min	3		<1.3		<1.1		6.1		6.8	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	2070	0	430	0	240	0				
	Monthly Total										
	Daily Max	3380	0	690	0	430	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	1.7		1.3		1.1					
	LOQ	5		2.5		2.5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	507	40	490
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Total Toxic Organics	Benzene	Tetrachloroethylene
	Units	minutes	Number	ug/L	ug/L	ug/L
	Sample Type	CALCULATED	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		507		40		490	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Total Toxic Organics		Benzene		Tetrachloroethylene	
	Units	minutes		Number		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0	0	0						
	Daily Max					2130					
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
	Sample Type	24 HR COMP	CONTINUOUS	24 HR COMP	24 HR COMP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					<0.16
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**					0
	Monthly Total					
	Daily Max					<0.16
	Daily Min					<0.16
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					0.16
	LOQ					0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification					999580010

	Sample Point	003	003	003	003	003
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
	Sample Type	CONTINUOUS	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1	0.016773			6.7	8.2
	2	0.015210			7.4	8.1
	3	0				
	4	0				
	5	0.014294	<1.9	45	6.0	7.0
	6	0.020622			6.5	8.4
	7	0.017070			7.6	8.5
	8	0.017145			7.7	8.4
	9	0.005343			8.1	8.4
	10	0				
	11	0				
	12	0.014087	<1.9	39	6.0	8.5
	13	0.017280			6.3	8.8
	14	0.017764			6.2	6.6
	15	0.013835			6.4	6.8
	16	0.012624			6.6	7.9
	17	0				
	18	0				
	19	0.002165	<1.9	36	6.7	7.2
	20	0.015682			6.5	7.0
	21	0.015182			6.2	6.4
	22	0.012896			6.1	6.3
	23	0.010911			6.2	6.6
	24	0				
	25	0				
	26	0.008562			6.0	7.4
	27	0.015682	<1.9	36	6.2	8.9
	28	0.016527			6.0	8.5
	29	0.011805			6.7	9.0
	30	0.012690			6.7	7.7
	31	0				

	Sample Point	003		003		003		003		003	
	Description	Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg	
	Parameter	211		457		35		374		373	
	Description	Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	MGD		mg/L		ug/L		su		su	
Summary Values	**Monthly Avg**	0.009811258		0		39		6.581818182		7.754545455	
	Monthly Total										
	Daily Max	0.020622		<1.9		45		8.1		9	
	Daily Min	0		<1.9		36		6		6.3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max					680	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**					2.1					
	LOQ					5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010					

	Sample Point	003	003
	Description	Future remedial action dischg	Future remedial action dischg
	Parameter	379	376
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	**Day 1**		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		
	31		

	Sample Point	003		003	
	Description	Future remedial action dischg		Future remedial action dischg	
	Parameter	379		376	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	minutes		Number	
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
	Rolling 12 Month Avg				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total	446	0		
	Daily Max			0	0
	Daily Min				
	Rolling 12 Month Avg				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N		N	
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

1. Based on my inquiry of the person or persons directly responsible for managing compiliance with the permit limitation for TTO I certify that to the best of my knowledge and belief no dumping of concentrated toxic organics into the wastewaters has
2. occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the department.

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 11/16/2020 1:57:59 PM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 11/01/2020 - 11/30/2020
Form Due Date: 12/21/2020
Permit Number: 0001040

Date Received:	
DOC:	456538
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
	Sample Type	CONTINUOUS	GRAB	GRAB	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	0.06319		70	7.6	8.1
	2	0.12948		65	7.2	7.8
	3	0.13103		67	6.8	7.6
	4	0.13979		68	6.7	7.0
	5	0.12608		65	6.8	7.1
	6	0.09490		69	7.0	7.3
	7	0.04673		72	7.2	7.4
	8	0.07248		70	7.0	7.3
	9	0.16283		64	6.7	7.0
	10	0.29533		64	6.2	6.8
	11	0.12585		64	6.7	7.0
	12	0.14515		64	6.6	6.8
	13	0.09867		62	6.5	7.1
	14	0.13922		68	6.4	6.8
	15	0.20372		63	6.4	7.5
	16	0.12288		64	6.8	7.1
	17	0.13106		63	7.0	7.2
	18	0.13953		62	6.9	7.2
	19	0.10715		63	6.9	7.3
	20	0.04563		62	7.3	7.5
	21	0.05482		65	7.2	7.8
	22	0.06300		64	7.4	7.6
	23	0.05892		64	7.2	7.6
	24	0.09208		64	6.9	7.4
	25	0.03138		62	6.9	7.3
	26	0.03353		63	7.3	7.5
	27	0.02494		65	7.4	7.8
	28	0.02957		67	7.6	8.0
	29	0.05845		65	7.4	7.8
	30	0.12455	<0.16	59	7.1	7.4
	31					

	Sample Point	001	703	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	Intake Water Monitoring	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	211	280	487	374	373
	Description	Flow Rate	Mercury, Total Recoverable	Temperature	pH (Minimum)	pH (Maximum)
	Units	MGD	ng/L	degF	su	su
Summary Values	**Monthly Avg**	0.103064667	0	64.9	6.97	7.37
	Monthly Total					
	Daily Max	0.29533	<0.16	72	7.6	8.1
	Daily Min	0.02494	<0.16	59	6.2	6.8
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					11 / 0
	Daily Min				4 / 0	
	Rolling 12 Month Avg					
QA/QC Information	**LOD**		0.16			
	LOQ		0.5			
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	379	376	388	231	35
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Phosphorus, Total	Hardness, Total as CaCO3	Arsenic, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2			0.81	310	33
	3					
	4					
	5					
	6					
	7					
	8					
	9			0.58	230	53
	10					
	11					
	12					
	13					
	14					
	15					
	16			0.34	430	48
	17					
	18					
	19					
	20					
	21					
	22					
	23			0.29	380	95
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	379		376		388		231		35	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Phosphorus, Total		Hardness, Total as CaCO3		Arsenic, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					0.505		337.5		57.25	
	Monthly Total										
	Daily Max					0.81		430		95	
	Daily Min					0.29		230		33	
	Rolling 12 Month Avg					0.5					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0								
	Daily Max			0	0					680	0
	Daily Min										
	Rolling 12 Month Avg					1	0				
QA/QC Information	**LOD**					0.024				2.1	
	LOQ					0.05				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	001	001	001	001	001
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER
	Parameter	35	147	147	87	152
	Description	Arsenic, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cadmium, Total Recoverable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	ug/L
	Sample Type	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2	0.03564	29	0.03132	<0.49	<5.0
	3					
	4					
	5					
	6					
	7					
	8					
	9	0.07208	33	0.04488	<0.49	
	10					
	11					
	12					
	13					
	14					
	15					
	16	0.04896	26	0.02652	<0.49	
	17					
	18					
	19					
	20					
	21					
	22					
	23	0.04655	37	0.01813	<0.49	
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER		PRIOR TO MENOMINEE RIVER	
	Parameter	35		147		147		87		152	
	Description	Arsenic, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cadmium, Total Recoverable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.0508075		31.25		0.0302125		0		0	
	Monthly Total										
	Daily Max	0.07208		37		0.04488		<0.49		<5	
	Daily Min	0.03564		26		0.01813		<0.49		<5	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	12	0	69	0	0.98	0				
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**			1.7				0.49		5	
	LOQ			5				1		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010		999580010	

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
	Sample Type	GRAB	GRAB	CONTINUOUS	24 HR COMP	GRAB
	Frequency	MONTHLY	MONTHLY	DAILY	DAILY	2/WEEK
Sample Results	Day 1					
	2			0.019370	2.0	<1.3
	3			0.020718	2.0	
	4			0.022367	3.0	<1.3
	5			0.016677	2.0	
	6			0.008493	2.5	
	7					
	8					
	9			0.026343	<1.9	<1.3
	10			0.027537	<1.9	<1.3
	11			0.021540	<1.9	
	12			0.023269	12.0	
	13			0.009498	4.0	
	14					
	15					
	16			0.024068	2.5	<1.3
	17			0.022107	2.0	<1.3
	18			0.028257	<1.9	
	19			0.015271	2.5	
	20					
	21					
	22					
	23			0.011670	<1.9	<1.3
	24			0.010760	<1.9	<1.3
	25	15				
	26					
	27					
	28					
	29					
	30		0.5	0.032482	2.0	
	31					

	Sample Point	001	001	101	101	101
	Description	PRIOR TO MENOMINEE RIVER	PRIOR TO MENOMINEE RIVER	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	112	280	211	457	342
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	Flow Rate	Suspended Solids, Total	Oil & Grease (Freon)
	Units	ug/L	ng/L	MGD	mg/L	mg/L
Summary Values	**Monthly Avg**	15	0.5	0.020025118	2.147058824	0
	Monthly Total					
	Daily Max	15	0.5	0.032482	12	<1.3
	Daily Min	15	0.5	0.008493	<1.9	<1.3
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**				31 0	26 0
	Monthly Total					
	Daily Max				60 0	52 0
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**	30	0.16			1.3
	LOQ	100	0.5			5
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010		999580010	999580010

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	87	133	315	553	155
	Description	Cadmium, Total Recoverable	Chromium, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Cyanide, Total
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	GRAB
	Frequency	2/WEEK	MONTHLY	2/WEEK	2/WEEK	MONTHLY
Sample Results	**Day 1**					
	2	<0.49	<2.2	34	67	<3.0
	3	<0.49	<2.2	19	54	
	4					
	5					
	6					
	7					
	8					
	9	<0.49	<2.2	8.4	280	
	10	<0.49	<2.2	4.8	74	
	11					
	12					
	13					
	14					
	15					
	16	<0.49	<2.2	12	370	
	17	<0.49	<2.2	9.3	120	
	18					
	19					
	20					
	21					
	22					
	23	<0.49	<2.2	6.5	100	
	24	<0.49	<2.2	1.7	68	
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	87		133		315		553		155	
	Description	Cadmium, Total Recoverable		Chromium, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Cyanide, Total	
	Units	ug/L		ug/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0		0		11.9625		141.625		0	
	Monthly Total										
	Daily Max	<0.49		<2.2		34		370		<3	
	Daily Min	<0.49		<2.2		1.7		54		<3	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	260	0	1710	0	2380	0	1480	0	650	0
	Monthly Total										
	Daily Max	690	0	2770	0	3980	0	2610	0	1200	0
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	0.49		2.2		1.5		3.6		3	
	LOQ	1		5		5		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	264	430	374	373
	Description	Copper, Total Recoverable	Lead, Total Recoverable	Silver, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	ug/L	ug/L	ug/L	su	su
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	2/WEEK	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	**Day 1**					
	2	5.3	2.9	<1.1	6.6	7.3
	3	5.1	2.4	<1.1	6.2	7.4
	4				6.4	6.8
	5				6.6	7.6
	6				6.4	7.5
	7					
	8					
	9	2.3	<1.3	<1.1	6.4	7.2
	10	2.3	<1.3	<1.1	6.3	6.9
	11				6.2	6.9
	12				6.5	7.6
	13				6.4	7.0
	14					
	15					
	16	3.5	1.6	<1.1	6.4	7.2
	17	3.1	2.2	<1.1	6.3	7.2
	18				6.0	7.0
	19				6.3	7.2
	20					
	21					
	22					
	23	2.4	<1.3	<1.1	6.4	6.9
	24	3.1	<1.3	<1.1	6.1	7.0
	25					
	26					
	27					
	28					
	29					
	30				6.6	7.4
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		264		430		374		373	
	Description	Copper, Total Recoverable		Lead, Total Recoverable		Silver, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	ug/L		ug/L		ug/L		su		su	
Summary Values	**Monthly Avg**	3.3875		1.1375		0		6.358823529		7.182352941	
	Monthly Total										
	Daily Max	5.3		2.9		<1.1		6.6		7.6	
	Daily Min	2.3		<1.3		<1.1		6		6.8	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**	2070	0	430	0	240	0				
	Monthly Total										
	Daily Max	3380	0	690	0	430	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**	1.7		1.3		1.1					
	LOQ	5		2.5		2.5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	507	40	490
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Total Toxic Organics	Benzene	Tetrachloroethylene
	Units	minutes	Number	ug/L	ug/L	ug/L
	Sample Type	CALCULATED	CALCULATED	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	DAILY	DAILY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		507		40		490	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Total Toxic Organics		Benzene		Tetrachloroethylene	
	Units	minutes		Number		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total	446	0	0	0						
	Daily Max					2130					
	Daily Min										
	Rolling 12 Month Avg										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
	Sample Type	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP	24 HR COMP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	500	561	200	508	285
	Description	Toluene	1,1,1-Trichloro- ethane	Ethylbenzene	Trichloro- ethylene	Methylene chloride
	Units	ug/L	ug/L	ug/L	ug/L	ug/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
	Sample Type	24 HR COMP	CONTINUOUS	24 HR COMP	24 HR COMP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					<0.16
	31					

	Sample Point	101	106	106	106	107
	Description	Metal Finishing Effluent	Future remedial action ww	Future remedial action ww	Future remedial action ww	Mercury Field Blank Results
	Parameter	167	211	35	457	280
	Description	Di-n-butyl phthalate (dibutyl phthalate)	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	ug/L	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**					0
	Monthly Total					
	Daily Max					<0.16
	Daily Min					<0.16
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					0.16
	LOQ					0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification					999580010

	Sample Point	003	003	003	003	003
	Description	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg	Future remedial action dischg
	Parameter	211	457	35	374	373
	Description	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	pH (Minimum)	pH (Maximum)
	Units	MGD	mg/L	ug/L	su	su
	Sample Type	CONTINUOUS	24 HR COMP	24 HR COMP	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1	0				
	2	0.011436	<1.9	49	6.6	8.9
	3	0.012012			6.9	8.9
	4	0.007975			6.4	9.0
	5	0.009886			6.5	6.6
	6	0				
	7	0				
	8	0				
	9	0.008987	<1.9	27	6.0	6.2
	10	0.014128			6.0	9.0
	11	0.014942			6.1	9.0
	12	0.013308			6.7	8.8
	13	0.012843			6.8	8.7
	14	0.007859			6.6	9.0
	15	0.008686			6.5	7.7
	16	0.010394			6.2	6.9
	17	0.005406			6.0	6.3
	18	0.021862	<1.9	62	6.3	8.8
	19	0.013312			6.4	8.3
	20	0.006297			6.7	8.9
	21	0.008512			6.2	8.0
	22	0.006453			7.1	8.4
	23	0.013397	<1.9	63	6.9	8.7
	24	0.014341			7.2	8.5
	25	0				
	26	0				
	27	0				
	28	0				
	29	0				
	30	0.016059			6.6	7.3
	31					

	Sample Point	003		003		003		003		003	
	Description	Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg		Future remedial action dischg	
	Parameter	211		457		35		374		373	
	Description	Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		pH (Minimum)		pH (Maximum)	
	Units	MGD		mg/L		ug/L		su		su	
Summary Values	**Monthly Avg**	0.0079365		0		50.25		6.50952381		8.185714286	
	Monthly Total										
	Daily Max	0.021862		<1.9		63		7.2		9	
	Daily Min	0		<1.9		27		6		6.2	
	Rolling 12 Month Avg										
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max					680	0			11	0
	Daily Min							4	0		
	Rolling 12 Month Avg										
QA/QC Information	**LOD**					2.1					
	LOQ					5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010					

	Sample Point	003	003
	Description	Future remedial action dischg	Future remedial action dischg
	Parameter	379	376
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY
Sample Results	**Day 1**		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		
	31		

	Sample Point	003		003	
	Description	Future remedial action dischg		Future remedial action dischg	
	Parameter	379		376	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	minutes		Number	
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
	Rolling 12 Month Avg				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total	446	0		
	Daily Max			0	0
	Daily Min				
	Rolling 12 Month Avg				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance	N		N	
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

1. Based on my inquiry of the person or persons directly responsible for managing compiliance with the permit limitation for TTO I certify that to the best of my knowledge and belief no dumping of concentrated toxic organics into the wastewaters has
2. occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the solvent management plan submitted to the department.

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 12/14/2020 3:35:53 PM