1610 North 2nd Street
Suite 201
Milwaukee, WI 53212
US
T 414.272.2426
F 414.272.4408

July 15, 2019

Conor Neal, Geologist
EPA Region 5
Land & Chemicals Division
77 West Jackson Blvd, LU-9J
Chicago, IL 60604-3590

Subject: ***Quarterly Progress Report (April through June 2019)***
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP, Stanton Street Facility, Marinette, Wisconsin
WID 006 125 215

Dear Mr. Neal:

Section VI, 21, b (Page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009, requires Tyco Fire Products LP (Tyco) to submit quarterly progress reports to the U.S. Environmental Protection Agency (EPA) 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 April 1 through June 30, 2019 and presents a brief description of the work completed to date, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC and subsequent agreements.

Work Completed During this Reporting Period

Operation of the groundwater collection and treatment system (GWCTS) continued through the second quarter of 2019. Attachment 1 summarizes the operational data, and Attachment 2 contains the Discharge Monitoring Reports.

Pump down operations with the temporary system started on April 15, 2019 in the former Salt Vault and former 8th Street Slip areas under management of Endpoint Solutions. Details of the pump down operations are being reported to the Agencies in biweekly summary reports.

Cover area and phyto plot inspections were completed on June 14, 2019. There were no issues or findings to address.

The location for the new ChemDesign building was finalized and will require changes to RCRA remedy components. The new building will affect two monitoring wells (MW043S and MW043M), one piezometer (PZ10), cover in Area K, and approximately 90 trees in the phyto plot Zone 1. The memorandum submitted on May 28, 2019, *Changes to RCRA Site Components Due to Proposed ChemDesign Building,* describes the impacts and recommended approach for each component.

Drilling activities were completed from June 6 to June 15, 2019 and included:

- Five new shallow monitoring wells (MW107S, MW121S, MW122S, MW123S, and MW124S) were installed in the Main Plant to provide an enhanced monitoring well network along the vertical barrier

wall near the Menominee River with approximately 200-foot (or better) spacing, as indicated in the Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update (Jacobs Engineering Group Inc. [Jacobs] 2019).

- Monitoring well MW118D was abandoned in 2018, replaced, and renamed MW118D-R.
- MW118S and MW118M, which were damaged by a snowplow in winter 2018-2019, were repaired.
- MW068S was converted from a flush-mount well to a stickup.
- Groundwater grab samples were collected near former monitoring well locations MW008S and TW-2 for volatile organic compounds (VOCs) to aid in the upcoming vapor intrusion assessment.

The spring barrier wall groundwater monitoring and sampling event was completed the week of June 24, 2019. Additional samples were collected for total dissolved solids per EPA request in the five-year review comments, and VOCs were added to aid in the upcoming vapor intrusion assessment.

Pressure transducer-related activities were completed on June 28, 2019 and included:

- Transducers were installed at recently installed monitoring wells (MW107S, MW121S, MW122S, MW123S, MW124S, and MW118D-R) and reset at MW118S, which was repaired.
- Quarterly transducer data downloads were initiated. The data download activities were unable to be completed, and the data at the 12 remaining transducers will be downloaded in July 2019.
- Manual groundwater elevation data were obtained at each transducer location where download was completed for calibration of the data at the time of the installation/download.
- Three transducers on the outside of the vertical barrier wall (MW003S, MW102S, and MW100S) were removed after the download to prepare for upcoming per- and polyfluoroalkyl substances sampling at the end of July 2019 as part of another Tyco project.

Additional Activities

The Wisconsin Pollutant Discharge and Elimination System (WPDES) variance permit is on hold until the path forward on industrial outfall OF001 is determined. This also has delayed moving forward with the conveyance system construction work for the permanent pump down program approach.

A project status meeting was held on May 13, 2019 at the Jacobs office in Milwaukee, Wisconsin to discuss the following:

- Review of sediment conditions and arsenic migration pathways work plan
- *Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update* and response to the Agencies' comments
- December *2018 Five-Year Technical Review Report* and the Agencies' comments and responses
- Other project status items (pump down program, WPDES variance permit status, and proposed ChemDesign building)

Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of the WPDES permits obtained from WDNR for operation of the GWCTS. The GWCTS operates under WPDES Permit WI-0001040-07-0. Attachment 2 includes the GWCTS monthly WPDES Discharge Monitoring Reports for March 2019 through May 2019 and December 2018 that was inadvertently left off the April 2019 quarterly report. Attachment 1 contains additional data on the GWCTS operations.

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 are being reported to the Agencies in biweekly summary reports.

Drilling installation details are being compiled and will be summarized in a memorandum to be submitted separately. Spring barrier wall groundwater monitoring event data are not yet available and will be included in the annual report. Groundwater elevation data recorded by installed transducers during the second quarter of 2019 are being compiled and evaluated. The transducer data will be provided in the annual report.

Problems Encountered

Menominee River water levels have been high again during spring 2019, continuing a trend from the last 2 years, with heavy spring rainfalls being the main contributing factor. During May and June 2019, the river water elevation was continuously in excess of the top of the vertical barrier wall in the Wetlands Area of the site, as well as periodically at the weirs in the Main Plant area. This contributed to increased groundwater levels in those areas. The GWCTS and phyto plots are working to manage the groundwater load at the site; however, operations and maintenance issues with the GWCTS have limited operational run time. Plans are being made to bring in a Jacobs subject matter expert to help troubleshoot the system in July 2019.

During the spring barrier wall groundwater sampling event, the following were encountered:

- MW047 and MW100 monitoring well nests were only accessible (because of flooding in the area) for water levels. No analytical sampling was completed, except for total dissolved solids at the medium depth wells that were sampled using a bailer, because it was determined that personnel and the necessary sampling equipment could not safely access the area.
- MW048S and MW022S/M were not accessible because of the dense vegetation and high water levels. MW049S/M was looked at as a replacement well for MW022S/M but also was not accessible.
- The river staff gauge was recently damaged, likely due to high river conditions. The staff gauge was not able to be accessed for repairs during the sampling event and therefore was not available for measurement. Plans will be made to fix or replace the staff gauge in third quarter 2019.
- MW107D is a flush-mount well and, during the most recent sampling event, it was filled with water, due to the high water table and rain entering the vault through the surface. MW107D is in the middle of a pavement/parking area that the facility uses frequently for equipment laydown, which makes converting this well to a stickup completion infeasible. While the water in the vault can be easily removed and the well sampled, the flush-mount completion and high traffic in this location mean this well cannot be outfitted with a transducer, and as such, the data required for U.S. Geological Survey SeriesSEE analysis cannot be collected. Given the presence of two additional bedrock wells in the area (MW118D [150 feet to the northwest] and MW108D [325 feet to the southeast]) where continuous head elevation monitoring using transducers is being performed and where the SeriesSEE analysis will be conducted, Tyco recommends MW107D be eliminated as a SeriesSEE transducer location at this time.

Schedule of Upcoming Activities

The following is a summary of activities to be conducted during the next reporting period.

- Submit the quarterly progress report
- Initiate construction of new ChemDesign building and related changes to RCRA remedy components
- Complete the vertical barrier wall inspection (delayed to concurrently include the underwater inspection)
- Survey newly installed monitoring wells

- Submit well installation summary memorandum
- Address any inspection findings for the vertical barrier wall and monitoring wells/staff gauge
- Continue pump down operations in the former Salt Vault and former 8th Street Slip areas
- Submit response to comments and *Revised Five-Year Technical Review Report*
- Submit Vapor Intrusion Assessment
- Submit *Stormwater Construction Completion Report*
- Conduct transducer data download activities
- Conduct *Arsenic Migration Pathways Evaluation Work Plan* field activities
- Continue evaluating WPDES variance permit options that will determine path forward on conveyance and GWCTS improvements

List of Key Correspondence and Document Submittals

Table 1. Documents Submitted
Quarterly Progress Report (April to June 2019), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Email on Enhanced Plan and Work Plan Extension Discussion	USEPA	April 5, 2019
Revision 1 - Final Conveyance Design Drawings and Specifications	WDNR	April 8, 2019
Quarterly Progress Report	USEPA	April 17, 2019
Biweekly Summary Report for Pump Down Program	USEPA	May 6, 2019
Biweekly Summary Report for Pump Down Program	USEPA	May 17, 2019
Email Regarding Tyco May 13, 2019 Project Status Meeting - Presentation Materials, Meeting Notes, and Proposed Schedule	USEPA	May 24, 2019
Technical Memorandum: *Changes to RCRA Site Components Due to Proposed ChemDesign Building*	USEPA	May 28, 2019
Biweekly Summary Report for Pump Down Program	USEPA	May 29, 2019
Email Notification – Upcoming Drilling and Groundwater Sampling Work	USEPA	May 31, 2019
Biweekly Summary Report for Pump Down Program	USEPA	June 14, 2019
Technical Memorandum: *Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update*	USEPA	June 24, 2019
Arsenic Migration Pathways Evaluation Work Plan	USEPA	June 24, 2019
Biweekly Summary Report for Pump Down Program	USEPA	June 26, 2019

Table 2. Correspondence from Agency
Quarterly Progress Report (April through June 2019) Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Submitted To	Date Submitted
Email Approval on Enhanced Plan and Work Plan Extension Discussion	USEPA	April 5, 2019
Revision 1 - Final Conveyance Design Drawings and Specifications Conditional Approval	WDNR	April 30, 2019
Email Approval of Technical Memorandum: *Changes to RCRA Site Components Due to Proposed ChemDesign Building*	USEPA	June 20, 2019

If you have any questions or require additional information, please contact me at 262-644-6167 of Jeffrey Danko at 414-524-3344.

Respectfully Yours,

Jacobs Engineering Group Inc.

Heather Ziegelbauer
Project Manager

Attachments

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

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

Document Control No.: D3235600.266

Attachment 1
Groundwater Collection and Treatment System Operation Summary

Groundwater Collection and Treatment System Operations for Tyco Fire Products LP, Marinette, Wisconsin, April 1 through June 30, 2019

Groundwater collection and treatment system (GWCTS) operations from April 1 through June 30, 2019 at the Tyco facility on Stanton Street in Marinette, Wisconsin are summarized below.

- The GWCTS operated for 16 days in April 2019, 6 days in May 2019, and 5 days in June 2019, for a total of 27 days.
- Approximately 60,145 gallons of reject water were produced during system operations and subsequently disposed of offsite.
- The precipitation recorded from the weather station in Marinette, Wisconsin was 12.08 inches of rain and 6.5 inches of snow (http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail).
- An estimated 84,744 gallons of water were discharged to the Menominee River as effluent under the WPDES permit.
- An estimated 86,608 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 lists the water volumes extracted from each area of the site for this quarter.

Table 2. Extraction Well Data Summary (April through June 2019)
Groundwater Collection and Treatment System
Tyco Fire Products LP Facility, Marinette, Wisconsin

Extraction Well	Gallons Run, Second Quarter 2019 (April 1 through June 30, 2019)
EW-1	17,360
EW-2	21
EW-3	16
EW-4	1,070
EW-5	22,490
EW-6	45,650
EW-7	0
Total	**86,608**

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

eReport Certify - TYCO FIRE PRODUCTS LP - 446520

Facility Name
TYCO FIRE PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
413434
Reporting Period
12/1/2018 to 12/31/2018
Enter Certification Code
psehansint
E-Mail was sent to
afleury@tycoint.com
Return To List
Certification complete.

The Official Internet site for the Wisconsin Department of Natural Resources

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Questions or comments about this e-form : Contact Us

eReport Certify - TYCO FIRE PRODUCTS LP - 446520

Facility Name
TYCO FIRE PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
413434
Reporting Period
12/1/2018 to 12/31/2018
Enter Certification Code
psehansint
E-Mail was sent to
afleury@tycoint.com
Certify
Return To List
Without leaving THIS page, check E-Mail address for message containing Certification code. Enter code and click 'Certify' button to complete Submittal.
Submittal of this form is required by section 283.55, Wis. Stats., and chapters NR 205 and NR 214 or NR 204, Wis. Admin. Code.

Personally identifiable information collected on this form may be used for purposes other than that for which it was originally collected. Under Wisconsin's open records laws, DNR is required to provide all non-confidential information to any person who requests it. Such information may be provided to the public in written or electronic form. Information reported may be made available to the public via a DNR web page.

I certify under penalty of law that this form submitted to DNR on 1/16/2019 for the period 12/1/2018 to 12/31/2018 and identified by the DOC ID number listed above was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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: 715-735-7411
Reporting Period: 12/01/2018 - 12/31/2018
Form Due Date: 01/21/2019
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	413434
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Nicole E Krueger
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	0.120950		54	6.7	7.1
	2	0.071230		50	6.7	7.1
	3	0.140310		56	6.6	6.9
	4	0.120340		55	6.9	7.6
	5	0.129900		57	7.2	7.5
	6	0.138810		56	7.3	7.6
	7	0.091180		55	7.3	7.8
	8	0.003410		54	7.8	8.2
	9	0.011970		55	7.6	8.2
	10	0.104500		55	7.3	7.7
	11	0.125320		54	7.3	7.6
	12	0.146790		53	7.1	7.7
	13	0.118260		55	7.0	7.3
	14	0.065240		55	7.1	7.6
	15	0.0		57	7.7	8.1
	16	0.042830		58	7.5	8.2
	17	0.124360	2.4	56	7.3	7.7
	18	0.129010		55	7.2	7.6
	19	0.123870		55	7.2	7.6
	20	0.127900		54	7.2	7.4
	21	0.072260		52	7.4	7.7
	22	0.0		51	7.7	8.0
	23	0.0		51	7.9	8.0
	24	0.0		52	7.9	8.0
	25	0.004830		52	7.6	8.0
	26	0.116110		52	6.9	7.5
	27	0.195850		52	6.7	7.1
	28	0.075970		52	6.8	7.0
	29	0.0		47	7.0	7.2
	30	0.0		47	7.3	7.5
	31	0.0		49	7.4	7.6

	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	0.077458065	2.4	53.419354839	7.24516129	7.616129032
	Monthly Total					
	Daily Max	0.19585	2.4	58	7.9	8.2
	Daily Min	0	2.4	47	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		0.12			
	LOQ		0.39			
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460			

	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			0.14	230	32
	4					
	5					
	6					
	7					
	8					
	9					
	10			0.18	260	44
	11					
	12					
	13					
	14					
	15					
	16					
	17			0.14	250	24
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26			0.17	250	71
	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**					0.1575		247.5		42.75	
	Monthly Total										
	Daily Max					0.18		260		71	
	Daily Min					0.14		230		24	
	Rolling 12 Month Avg					0.2					
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	0.03744	7.8	0.009126	<0.49	<3.0
	4					
	5					
	6					
	7					
	8					
	9					
	10	0.03828	17	0.0002514	0.68	
	11					
	12					
	13					
	14					
	15					
	16					
	17	0.02496	12	0.01248	<0.49	
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26	0.06887	15	0.01455	0.66	
	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	0.0423875		12.95		0.00910185		0.335		0	
	Monthly Total										
	Daily Max	0.06887		17		0.01455		0.68		<3	
	Daily Min	0.02496		7.8		0.0002514		<0.49		<3	
	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		3	
	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			0.009486	5.0	
	2					
	3			0.024781	5.5	2.2
	4			0.018288	<1.9	2.5
	5			0.018264	2.5	
	6			0.019629	5.0	
	7			0.018548	4.0	
	8					
	9					
	10	20		0.009522	10.0	2.9
	11			0.017064	7.5	4.2
	12			0.015734	6.0	
	13			0.016838	4.0	
	14			0.009316	13.0	
	15					
	16					
	17		1.4	0.013325	44.0	<1.6
	18			0.018257	4.0	2.6
	19			0.014473	<1.9	
	20			0.015259	<1.9	
	21			0.012765	<1.9	
	22					
	23					
	24					
	25					
	26			0.009233	4.5	2.4
	27			0.015175	2.0	1.9
	28			0.008069	2.0	
	29			0.000742	10.0	
	30					
	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	20	1.4	0.0142384	6.45	2.3375
	Monthly Total					
	Daily Max	20	1.4	0.024781	44	4.2
	Daily Min	20	1.4	0.000742	<1.9	<1.6
	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	0.12			1.4
	LOQ	100	0.39			5.9
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460		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	2.4	130	90	
	2					
	3	<0.49	<2.2	80	82	<3.0
	4					
	5					
	6					
	7					
	8					
	9					
	10	<0.49	<2.2	75	160	
	11	0.56	<2.2	68	150	
	12					
	13					
	14					
	15					
	16					
	17	<0.49	<2.2	28	88	
	18	<0.49	<2.2	28	90	
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26	<0.49	<2.2	6.4	150	
	27	<0.49	<2.2	13	75	
	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	0.07		0.3		53.55		110.625		0	
	Monthly Total										
	Daily Max	0.56		2.4		130		160		<3	
	Daily Min	<0.49		<2.2		6.4		75		<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	7.7	<1.3	<1.1	6.7	7.3
	2					
	3	5.5	<1.3	<1.1	7.3	7.6
	4				6.9	7.9
	5				6.6	7.3
	6				6.4	7.9
	7				7.1	8.1
	8					
	9					
	10	21	<1.3	<1.1	7.0	8.5
	11	9.3	1.6	<1.1	6.8	8.8
	12				6.4	7.1
	13				6.8	7.6
	14				6.6	8.8
	15					
	16					
	17	12	<1.3	<1.1	6.6	8.7
	18	12	<1.3	<1.1	6.6	7.6
	19				6.5	7.2
	20				6.8	7.2
	21				6.4	8.0
	22					
	23					
	24					
	25					
	26	7.7	<1.3	<1.1	7.0	8.8
	27	5.6	<1.3	<1.1	6.8	7.4
	28				6.6	7.4
	29				6.7	7.1
	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	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	10.1		0.2		0		6.73		7.815	
	Monthly Total										
	Daily Max	21		1.6		<1.1		7.3		8.8	
	Daily Min	5.5		<1.3		<1.1		6.4		7.1	
	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					<0.12
	18					
	19					
	20					
	21					
	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					<0.12
	Daily Min					<0.12
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					0.12
	LOQ					0.39
	QC Exceedance	N	N	N	N	N
	Lab Certification					721026460

	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					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10	0.006300	2.0	40	6.0	8.9
	11					
	12					
	13	0.020467			6.0	6.5
	14	0.004261			6.0	6.4
	15					
	16					
	17	0.001430	<1.9	130	6.0	7.1
	18	0.008005			6.4	8.6
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26	0.008198			6.0	6.0
	27	0.004506	<1.9	55	6.0	6.5
	28					
	29					
	30					
	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	0.007595286	0.666666667	75	6.057142857	7.142857143
	Monthly Total					
	Daily Max	0.020467	2	130	6.4	8.9
	Daily Min	0.00143	<1.9	40	6	6
	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 not running during the first week of sampling due to maintenance issues so there were no results.

Laboratory Quality Control Comments

eReport Certify - TYCO FIRE PRODUCTS LP - 450473

Facility Name
TYCO FIRE PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
417202
Reporting Period
3/1/2019 to 3/31/2019
Enter Certification Code
asconephor
E-Mail was sent to
afleury@tycoint.com
Return To List
Certification complete.

The Official Internet site for the Wisconsin Department of Natural Resources

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Questions or comments about this e-form : Contact Us

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: 715-735-7411
Reporting Period: 03/01/2019 - 03/31/2019
Form Due Date: 04/21/2019
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	417202
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Nicole E Krueger
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	0.10318		57	6.6	6.9
	2	0.08400		50	6.8	7.1
	3	0.07464		43	6.8	7.1
	4	0.11308		50	6.7	7.0
	5	0.11197		49	6.7	7.0
	6	0.12937		51	6.9	7.1
	7	0.10797		49	6.9	7.1
	8	0.09782		49	7.1	7.3
	9	0.07668		66	7.2	7.5
	10	0.09521		65	7.2	7.9
	11	0.11931		50	7.0	7.2
	12	0.17258		52	7.1	7.3
	13	0.17003		48	7.1	7.5
	14	0.17545		50	6.9	7.3
	15	0.10680		47	7.0	7.2
	16	0.05168		50	7.1	7.4
	17	0.04527		50	7.0	7.5
	18	0.11550		53	7.0	7.3
	19	0.11911		56	6.9	7.0
	20	0.09727		55	6.7	6.9
	21	0.09704		55	6.7	6.8
	22	0.07412		72	6.7	6.9
	23	0.10047		54	6.7	7.2
	24	0.08687		51	6.8	7.1
	25	0.08344		55	6.6	6.8
	26	0.09610	1.7	56	6.6	7.6
	27	0.11725		58	7.4	7.6
	28	0.13214		56	7.5	7.6
	29	0.06499		54	7.6	8.2
	30	0.01543		53	7.8	8.3
	31	0.02810		53	7.8	8.2

	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	0.098802258	1.7	53.451612903	6.996774194	7.319354839
	Monthly Total					
	Daily Max	0.17545	1.7	72	7.8	8.3
	Daily Min	0.01543	1.7	43	6.6	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		0.12			
	LOQ		0.39			
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460			

	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			0.096		14
	5					
	6					
	7					
	8					
	9					
	10					
	11			0.21	190	12
	12					
	13					
	14					
	15					
	16					
	17					
	18			0.16	330	35
	19					
	20					
	21					
	22					
	23					
	24					
	25			0.073	270	46
	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					0.13475		263.333333333		26.75	
	Monthly Total										
	Daily Max					0.21		330		46	
	Daily Min					0.073		190		12	
	Rolling 12 Month Avg					0.2					
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	0.001316	10	0.0094	0.54	<3.0
	5					
	6					
	7					
	8					
	9					
	10					
	11	0.01188	12	0.01188	<0.49	
	12					
	13					
	14					
	15					
	16					
	17					
	18	0.0336	8.4	0.008064	0.66	
	19					
	20					
	21					
	22					
	23					
	24					
	25	0.0322	16	0.0112	<0.49	
	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	0.019749	11.6	0.010136	0.3	0
	Monthly Total					
	Daily Max	0.0336	16	0.01188	0.66	<3
	Daily Min	0.001316	8.4	0.008064	<0.49	<3
	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	3
	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			0.02029	2.5	
	2			0.01069	<1.9	
	3					
	4			0.03567	2.0	<1.5
	5			0.02398	2.0	2.0
	6			0.03208	4.5	
	7			0.02707	7.5	
	8			0.01819	<1.9	3.5
	9			0.00255	3.0	
	10					
	11			0.02497	<1.9	4.9
	12			0.02395	2.0	
	13			0.01723	<1.9	
	14			0.07986	2.0	
	15			0.01153	3.0	<1.5
	16			0.00725	9.5	
	17					
	18	10		0.02284	4.0	1.9
	19			0.03469	3.5	
	20			0.02855	7.0	
	21			0.02716	5.0	
	22			0.02206	4.0	
	23			0.01170	4.0	
	24					
	25			0.02502	4.0	<1.4
	26		12	0.01947	3.5	2.1
	27			0.02395	2.5	
	28			0.02340	<1.9	
	29			0.01296	2.5	
	30					
	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	12	0.0234844	3.12	1.8
	Monthly Total					
	Daily Max	10	12	0.07986	9.5	4.9
	Daily Min	10	12	0.00255	<1.9	<1.4
	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	0.12			1.4
	LOQ	100	0.39			6
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460		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	7.9	55	<3.0
	2	0.57	<2.2	8.1	74	
	3					
	4					
	5					
	6					
	7					
	8	<0.49	<2.2	21	77	
	9	<0.49	<2.2	29	360	
	10					
	11					
	12					
	13					
	14					
	15	0.72	<2.2	34	270	
	16					
	17					
	18	0.56	<2.2	46	1600	
	19					
	20					
	21					
	22	<0.49	<2.2	6.2	37	
	23	<0.49	<2.2	2.0	33	
	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	0.23125		0		19.275		313.25		0	
	Monthly Total										
	Daily Max	0.72		<2.2		46		1600		<3	
	Daily Min	<0.49		<2.2		2		33		<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	6.1	<1.3	<1.1	6.6	7.8
	2	12.0	<1.3	<1.1	6.5	7.3
	3					
	4				6.5	7.4
	5				6.4	7.2
	6				6.6	7.8
	7				6.5	8.6
	8	6.8	<1.3	<1.1	7.0	7.4
	9	6.6	<1.3	<1.1	7.4	7.6
	10					
	11				6.7	7.7
	12				7.0	7.6
	13				6.9	7.6
	14				6.6	7.6
	15	8.3	<1.3	<1.1	7.0	8.0
	16				6.8	8.0
	17					
	18	<1.7	2.3	<1.1	6.5	7.8
	19				6.3	7.7
	20				6.3	8.1
	21				6.5	7.7
	22	8.6	<1.3	<1.1	6.8	8.0
	23	4.0	<1.3	<1.1	6.5	7.2
	24					
	25				6.4	7.2
	26				6.6	8.1
	27				6.0	7.2
	28				6.0	6.8
	29				6.0	7.0
	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	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	6.55		0.2875		0		6.576		7.616	
	Monthly Total										
	Daily Max	12		2.3		<1.1		7.4		8.6	
	Daily Min	<1.7		<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					
	24					
	25					
	26					<0.12
	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					<0.12
	Daily Min					<0.12
	Rolling 12 Month Avg					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	LOD					0.12
	LOQ					0.39
	QC Exceedance	N	N	N	N	N
	Lab Certification					721026460

	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					
	2					
	3					
	4	0.013599	<1.9	47	6.7	7.3
	5	0.002572			7.2	7.3
	6	0.007539			7.2	8.6
	7	0.002551			8.2	8.4
	8					
	9					
	10					
	11	0.012747	<1.9	31	7.0	8.2
	12	0.000642			7.4	8.5
	13	0.006464			8.3	8.5
	14					
	15	0.005288			8.3	8.5
	16					
	17					
	18	0.009508			8.5	8.7
	19	0.005196			7.3	8.9
	20					
	21					
	22	0.004074			6.8	8.7
	23	0.003892			8.0	8.2
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	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**	0.006172667		0		39		7.575		8.316666667	
	Monthly Total										
	Daily Max	0.013599		<1.9		47		8.5		8.9	
	Daily Min	0.000642		<1.9		31		6.7		7.3	
	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

For OF003 there was no sampling done on the third and fourth weeks because the system did not stay running for a full 24 hour sample period.

Laboratory Quality Control Comments

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: 715-735-7411
Reporting Period: 04/01/2019 - 04/30/2019
Form Due Date: 05/21/2019
Permit Number: 0001040

Date Received:	
DOC:	422914
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Nicole E Krueger
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	0.099190		55	7.4	8.3
	2	0.088130		58	7.3	7.5
	3	0.113360		58	7.2	7.5
	4	0.120210		57	7.3	7.4
	5	0.086030		58	7.2	7.6
	6	0.092720		56	7.3	8.4
	7	0.117140		55	7.1	8.0
	8	0.144450		57	7.1	7.2
	9	0.119900		57	7.1	7.5
	10	0.124900		56	7.2	7.4
	11	0.150210		55	7.2	7.4
	12	0.163720			6.8	7.1
	13	0.095130			6.9	7.1
	14	0.059700			7.0	7.3
	15	0.148550			6.9	7.0
	16	0.130350		58	6.9	7.0
	17	0.361000	2.5	56	6.9	7.1
	18	0.115080		58	6.9	7.1
	19	0.057060		54	7.0	7.1
	20	0.002190		58	7.1	7.4
	21	0.014580		79	7.1	7.6
	22	0.191370		64	7.2	7.6
	23	0.123990		59	7.1	7.2
	24	0.125600		59	7.1	7.2
	25	0.162200		58	7.1	7.3
	26	0.099090		60	7.1	7.2
	27	0.116120		89	7.0	7.1
	28	0.092510		60	6.9	7.2
	29	0.139240		56	7.0	7.2
	30	0.155130		59	7.0	7.7
	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**	0.120295	2.5	59.576923077	7.08	7.39
	Monthly Total					
	Daily Max	0.361	2.5	89	7.4	8.4
	Daily Min	0.00219	2.5	54	6.8	7
	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**		0.12			
	LOQ		0.39			
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460			

	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			0.16	310	43
	4					
	5					
	6					
	7					
	8			0.34	240	77
	9					
	10					
	11					
	12					
	13					
	14					
	15			0.18	250	74
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23			0.14	260	58
	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**					0.205		265		63	
	Monthly Total										
	Daily Max					0.34		310		77	
	Daily Min					0.14		240		43	
	Rolling 12 Month Avg					0.2					
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	0.004085	7.2	0.00684	<0.49	<5.0
	4					
	5					
	6					
	7					
	8	0.0924	13	0.0156	<0.49	
	9					
	10					
	11					
	12					
	13					
	14					
	15	0.09176	8.7	0.010788	0.67	
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23	0.05974	11	0.01133	0.68	
	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**	0.06199625		9.975		0.0111395		0.3375		0	
	Monthly Total										
	Daily Max	0.0924		13		0.0156		0.68		<5	
	Daily Min	0.004085		7.2		0.00684		<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			0.0237	4.5	2.0
	2			0.0247	3.5	2.7
	3			0.0225	4.0	
	4			0.0279	3.0	
	5			0.0209	3.5	
	6			0.0167	4.0	
	7					
	8			0.0284	2.5	2.1
	9			0.0200	3.5	2.2
	10			0.0297	3.5	
	11			0.0263	4.0	
	12			0.0208	<1.9	
	13			0.0198	<1.9	
	14					
	15	10		0.0367	2.0	
	16			0.0299	2.5	3.0
	17		15	0.0248	<1.9	2.5
	18			0.0250	3.0	
	19			0.0059	3.5	
	20					
	21					
	22			0.0242	2.5	
	23			0.0249	2.0	2.7
	24			0.0256	2.0	1.4
	25			0.0207	2.5	
	26			0.0161	2.0	
	27			0.0156	2.5	
	28					
	29			0.0252	2.0	
	30			0.0251	2.5	
	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		15		0.023244		2.6		2.325	
	Monthly Total										
	Daily Max	10		15		0.0367		4.5		3	
	Daily Min	10		15		0.0059		<1.9		1.4	
	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		0.12						1.4	
	LOQ	100		0.39						5.9	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			721026460				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	5.5	130	<3.0
	2	<0.49	11	3.9	67	
	3					
	4					
	5					
	6					
	7					
	8	<0.49	<2.2	1.5	45	
	9	<0.49	<2.2	3.6	43	
	10					
	11					
	12					
	13					
	14					
	15	<0.49	<2.2	1.6	37	
	16	<0.49	<2.2	3.8	21	
	17					
	18					
	19					
	20					
	21					
	22	<0.49	<2.2	4.3	63	
	23	<0.49	<2.2	3.3	35	
	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		1.375		3.4375		55.125		0	
	Monthly Total										
	Daily Max	<0.49		11		5.5		130		<3	
	Daily Min	<0.49		<2.2		1.5		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**	3.8	<1.3	<1.1	6.6	7.1
	2	4.3	<1.3	<1.1	6.1	8.1
	3				7.0	8.3
	4				6.7	7.4
	5				6.6	7.4
	6				6.9	7.3
	7					
	8	3.6	<1.3	<1.1	6.6	7.2
	9	5.3	<1.3	<1.1	6.5	7.7
	10				6.4	7.2
	11				6.2	7.2
	12				6.2	7.2
	13				6.1	6.6
	14					
	15	2.4	1.3	<1.1	6.4	7.2
	16	3.5	<1.3	<1.1	6.3	8.2
	17				6.2	7.7
	18				6.2	7.6
	19				6.6	6.7
	20					
	21					
	22	6.3	<1.3	<1.1	6.2	7.3
	23	5.5	<1.3	<1.1	6.2	8.0
	24				6.1	6.5
	25				6.0	7.1
	26				6.3	7.2
	27				6.7	6.8
	28					
	29				6.7	7.8
	30				6.8	8.4
	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**	4.3375		0.1625		0		6.424		7.408	
	Monthly Total										
	Daily Max	6.3		1.3		<1.1		7		8.4	
	Daily Min	2.4		<1.3		<1.1		6		6.5	
	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					<0.12
	18					
	19					
	20					
	21					
	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					<0.12
	Daily Min					<0.12
	Rolling 12 Month Avg					
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	**LOD**					0.12
	LOQ					0.39
	QC Exceedance	N	N	N	N	N
	Lab Certification					721026460

	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					
	2					
	3					
	4					
	5					
	6					
	7					
	8	0.001146			8.6	8.8
	9	0.008275	2.0	36	8.0	8.4
	10					
	11	0.001996			7.8	7.9
	12	0.005087			7.0	8.2
	13					
	14					
	15	0.004813	<1.9	32	7.5	7.6
	16	0.003495			7.5	7.6
	17	0.004198			7.4	7.5
	18	0.000721			7.3	7.4
	19	0.004319			7.2	7.4
	20					
	21					
	22	0.002453			7.5	7.7
	23	0.003820			7.5	7.9
	24	0.003870	<1.9	21	8.2	8.4
	25	0.002918			8.2	8.9
	26					
	27					
	28					
	29	0.006844			8.0	8.2
	30	0.002712			8.0	8.3
	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**	0.0037778		0.666666667		29.666666667		7.713333333		8.013333333	
	Monthly Total										
	Daily Max	0.008275		2		36		8.6		8.9	
	Daily Min	0.000721		<1.9		21		7		7.4	
	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

For OF001 the temperature chart stopped on the days of April 12-15 so, there were no readings and the operator did not notice it until then.
For OF003 there was no sampling done the first week because the system was down for mechanical issues.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 5/14/2019 1:36:24 PM

eReport Certify - TYCO FIRE PRODUCTS LP - 460403

Facility Name
TYCO FIRE PRODUCTS LP
Form Type
Wastewater Discharge Monitoring Long Report
DOC ID
422915
Reporting Period
5/1/2019 to 5/31/2019
Enter Certification Code
ncheistory
E-Mail was sent to
afleury@tycoint.com
Return To List
Certification complete.

The Official Internet site for the Wisconsin Department of Natural Resources

101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

Questions or comments about this e-form : Contact Us

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: 715-735-7411
Reporting Period: 05/01/2019 - 05/31/2019
Form Due Date: 06/21/2019
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	422915
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Nicole E Krueger
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	0.17557		59	6.9	7.3
	2	0.13546		61	6.8	7.2
	3	0.10671		60	7.1	7.6
	4	0.06529		60	7.0	7.5
	5	0.05551		75	7.2	7.5
	6	0.15996		61	6.8	7.2
	7	0.13191		62	7.0	7.4
	8	0.29500		61	6.6	7.4
	9	0.22413		58	6.6	6.9
	10	0.09536		60	6.9	7.1
	11	0.07719		60	6.8	7.1
	12	0.04544		61	6.9	7.1
	13	0.10756		61	6.8	6.9
	14	0.10432		63	6.8	6.9
	15	0.09939		62	6.7	7.5
	16	0.11089	3.7	63	7.0	7.3
	17	0.04545		61	6.9	7.2
	18	0.12627		59	6.9	7.3
	19	0.17296		53	6.3	6.7
	20	0.12968		78	6.5	6.8
	21	0.17556		65	6.7	7.4
	22	0.12902		64	7.1	7.5
	23	0.11963		64	7.0	7.2
	24	0.10560		64	6.8	7.1
	25	0.06144		68	6.7	6.9
	26	0.00430		71	6.9	7.3
	27	0.21314		68	6.6	7.2
	28	0.12532		64	6.7	7.1
	29	0.12636		67	6.6	7.1
	30	0.11375		66	6.6	6.8
	31	0.09860		64	6.6	6.9

	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	0.120540968	3.7	63.322580645	6.8	7.174193548
	Monthly Total					
	Daily Max	0.295	3.7	78	7.2	7.6
	Daily Min	0.0043	3.7	53	6.3	6.7
	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		0.12			
	LOQ		0.39			
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460			

	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			0.27	180	45
	2					
	3					
	4					
	5					
	6					
	7					
	8			0.60	190	77
	9					
	10					
	11					
	12					
	13					
	14					
	15			0.15	270	42
	16					
	17					
	18					
	19					
	20					
	21					
	22			0.18	240	67
	23					
	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**					0.3		220		57.75	
	Monthly Total										
	Daily Max					0.6		270		77	
	Daily Min					0.15		180		42	
	Rolling 12 Month Avg					0.2					
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	0.0657	10	0.0146	<0.49	<5.0
	2					
	3					
	4					
	5					
	6					
	7					
	8	0.18942	14	0.03444	1.1	
	9					
	10					
	11					
	12					
	13					
	14					
	15	0.03486	7.9	0.006557	0.64	
	16					
	17					
	18					
	19					
	20					
	21					
	22	0.07236	8.5	0.00918	0.89	
	23					
	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	0.090585	10.1	0.01619425	0.6575	0
	Monthly Total					
	Daily Max	0.18942	14	0.03444	1.1	<5
	Daily Min	0.03486	7.9	0.006557	<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			0.02603	4.0	4.1
	2			0.02534	4.0	4.2
	3			0.00988	4.0	
	4			0.00601	5.0	
	5					
	6			0.03078	3.5	
	7			0.02245	3.0	
	8			0.01357	6.0	4.8
	9			0.02645	6.0	3.8
	10			0.00903	5.5	
	11			0.01158	4.0	
	12					
	13			0.04618	3.0	
	14			0.05161	6.0	
	15			0.04068	3.0	
	16		11	0.04383	3.5	3.3
	17			0.02512	3.5	1.5
	18					
	19					
	20			0.04399	5.0	
	21			0.05418	2.0	
	22			0.05167	3.5	2.9
	23			0.04296	3.5	<1.5
	24			0.03117	2.0	
	25	25		0.01307	2.5	
	26					
	27					
	28			0.04321	2.5	
	29			0.03607	2.5	
	30			0.03659	3.0	
	31			0.01902	5.0	

	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	25	11	0.0304188	3.82	3.075
	Monthly Total					
	Daily Max	25	11	0.05418	6	4.8
	Daily Min	25	11	0.00601	2	<1.5
	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	0.12			1.5
	LOQ	100	0.39			5.8
	QC Exceedance	N	N	N	N	N
	Lab Certification		721026460		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	6.5	60	<3.0
	2	<0.49	<2.2	8.4	69	
	3					
	4					
	5					
	6					
	7					
	8	<0.49	<2.2	6.2	62	
	9	<0.49	<2.2	4.1	59	
	10					
	11					
	12					
	13					
	14					
	15	<0.49	<2.2	8.7	35	
	16	<0.49	<2.2	9.3	50	
	17					
	18					
	19					
	20					
	21					
	22	<0.49	<2.2	5.4	35	
	23	<0.49	<2.2	<1.5	37	
	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		6.075		50.875		0	
	Monthly Total										
	Daily Max	<0.49		<2.2		9.3		69		<3	
	Daily Min	<0.49		<2.2		<1.5		35		<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	2.6	<1.3	<1.1	6.5	7.8
	2	4.0	<1.3	<1.1	6.5	7.7
	3				6.7	7.6
	4				6.9	7.6
	5					
	6				6.8	8.4
	7				6.6	7.5
	8	6.5	1.7	<1.1	6.5	8.4
	9	4.9	<1.3	<1.1	6.8	9.0
	10				6.4	7.0
	11				6.8	7.0
	12					
	13				6.7	7.9
	14				6.7	7.3
	15	4.5	<1.3	<1.1	6.4	6.9
	16	5.1	<1.3	<1.1	6.5	7.7
	17				6.8	6.9
	18					
	19					
	20				6.7	7.4
	21				6.4	7.9
	22	3.5	<1.3	<1.1	6.5	7.4
	23	3.0	<1.3	<1.1	6.4	7.4
	24				6.6	7.6
	25				6.8	8.0
	26					
	27					
	28				6.8	7.5
	29				6.6	7.3
	30				6.4	7.2
	31				6.4	7.2

	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**	4.2625		0.2125		0		6.608		7.584	
	Monthly Total										
	Daily Max	6.5		1.7		<1.1		6.9		9	
	Daily Min	2.6		<1.3		<1.1		6.4		6.9	
	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					<0.12
	17					
	18					
	19					
	20					
	21					
	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					<0.12
	Daily Min					<0.12
	Rolling 12 Month Avg					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
	Rolling 12 Month Avg					
QA/QC Information	LOD					0.12
	LOQ					0.39
	QC Exceedance	N	N	N	N	N
	Lab Certification					721026460

	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	0.002289	<1.9	18	7.1	7.3
	2	0.002670			7.8	8.8
	3	0.002163			7.9	8.4
	4	0.001008			7.5	7.7
	5					
	6	0.002599			6.9	7.4
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29	0.001718			7.1	7.2
	30					
	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**	0.0020745		0		18		7.383333333		7.8	
	Monthly Total										
	Daily Max	0.00267		<1.9		18		7.9		8.8	
	Daily Min	0.001008		<1.9		18		6.9		7.2	
	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		
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	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

The Ground water system (OF003) only ran the first week of the month so, that is the only sampling done for the month of May. Working on maintenance issues.

Laboratory Quality Control Comments