Note: Information highlighted in yellow is instructions or guidance.

DATA TRACKING AND TECHNICAL FACT SHEET

WPED PRETREATMENT PERMIT REISSUANCE

APPLICANT	Paradigm Manchester Inc.
PERMIT NO.	SP0002247
APPLICATION NO.	201401590
DATE APPLICATION RECEIVED	February 26, 2014
LOCATION ADDRESS	967 Parker Street Manchester, CT06042
FACILITY CONTACT	Timothy Noonan, EH&S Manager - Manchester Office Phone: (860) 647-5198 Cell: (860) 471-3963 Email: Timothy.Noonan@paradigmprecision.com
MAILING ADDRESS	967 Parker Street Manchester, CT06042
DMR CONTACT	Timothy Noonan, EH&S Manager - Manchester Office Phone: (860) 647-5198 Cell: (860) 471-3963 Email: Timothy.Noonan@paradigmprecision.com
PERMIT TERM	5 Years
PERMIT CATEGORY	PRETREATMENT MINOR (MI)
SIC CODE(S)	3724
PERMIT TYPE	Reissuance
OWNERSHIP	Private
PUBLICLY OWNED TREATMENT WORKS ("POTW") THAT RECEIVES THE DISCHARGE	Discharge to the Manchester POTW via its collection system. The POTW discharges to Hockanum River under NPDES Permit No. CT0100293
DEEP STAFF ENGINEER	Stephen Edwards
TENTATIVE DECISION FACT SHEET DATE	When preparing a final version of this, change the language to DATE FACT SHEET PREPARED FOR PERMIT ISSUANCE

SOLVENT MANAGEMENT PLAN

Is the facility operating under an approved solvent management plan (SMP)? ☐ Yes ☐ No ☒ N/A

PERMIT FEES

Application Fee:

Filing Fee	Cost: $1,300	Date Paid: February 26, 2014
Processing Fee	Cost: $13,650	Date Paid: March 9, 2014

Annual Fee:

DISCHARGE CODE	WASTEWATER CATEGORY (per 22a-430-7)	MAXIMUM Gallons Per Day ("GPD") or CATEGORY	DSN	ANNUAL FEE (per 22a-430-7)
519000b	Minor Tumbling and Cleaning	$4,800	201 & 202	$3,925
TOTAL		**$4,800**		**$3,925**

I. APPLICANT

Paradigm Manchester Inc. (Paradigm) manufactures and refurnishes aerospace components. Its 967 Parker Street facility in Manchester (Bldg 1) maintains two discharges to the Manchester POTW: DSN 201-1 consisting of alkaline parts cleaning, acid wash, and tumbling wastewaters and DSN 202-1 consisting of fluorescent dye penetrant inspection rinse waters (non-destruct testing wastewater). These discharges are authorized by the Department of Energy and Environmental Protection's (the Department) Permit No. SP0002247.

Paradigm submitted Application No. 20140590 on February 26, 2014 for the renewal of Permit No. SP0002247. Paradigm public noticed its intent to renew Permit No. SP0002247 in the Hartford Courant on February 19, 2014. The application was determined to be timely and administratively sufficient on February 11, 2015.

II. NATURE OF THE BUSINESS GENERATING THE DISCHARGE

The applicant seeks authorization for the following:

DSN	PROPOSED AVERAGE MONTHLY FLOW (gpd)	PROPOSED MAXIMUM DAILY FLOW (gpd)	PROPOSED WASTESTREAMS	TREATMENT TYPE	DISCHARGE TO
201-1	NA	5,700	Alkaline parts cleaning, acid wash and tumbling wastewater	Tumbling waste is settled for solids removal, all waste is then equalized and batch treated for pH and solids removal	Manchester POTW
202-1	NA	2,000	Non-destruct testing wastewater	NA	Manchester POTW

III. BACKGROUND/PERMIT HISTORY

Paradigm Manchester Inc. was formally known as Unison Engine Components when the permit was issued in 2009.

Paradigm Manchester Inc. is doing business as Paradigm Precision.

Authorizing these discharges under the **General Permit for Miscellaneous Discharges of Sewer Compatible (MISC) Wastewater** was discussed with Paradigm. DSN 201-1 does not qualify for the general permit due to the pH of the acid washing process, but DSN 202-1 does. Paradigm said it would prefer to continue under this permit. DEEP staff concurred given the compliance history of DSN 201-1 (see below) and that it is easier to track compliance with one permit than two.

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Compliance/Enforcement

Effluent Violations: See attached violation report. The proposed permit contains a compliance schedule in Section 7 requiring the Permittee to evaluate and implement process and/or treatment system modifications to ensure consistent compliance with the effluent limitations of Section 4 Table B of the permit (DSN202-1). DSN 202-1 is currently not treated.

Is the Permittee subject to an ongoing enforcement action? ☐ Yes ☑ No

If yes, provide a brief explanation; include discussions of any issues relevant to the activities regulated under the permit.

Does the Permit contain a compliance schedule? ☑ Yes ☐ No

If yes, please check all that apply.

☐ Pollution Prevention ☐ Water Conservation ☐ Remediation

☐ Water Quality Requirement ☑ Treatment Requirement ☐ Other

Modifications

Within the last five years, have there been any permit modifications? ☐ Yes ☑ No

IV. THE ON-SITE WASTEWATER TREATMENT SYSTEM

Tumbling wastewaters are treated for solids removal then combined with alkaline and acid cleaning wastewaters. The combined wastewaters are then treated for pH (two (2) stage) and solids removal (clarifier) before being discharged to the Manchester POTW as DSN 201-1.

Non-destruct testing wastewater (fluorescent dye penetrant inspection wastewater) is not treated prior to being discharged to the Manchester POTW as DSN 202-1.

V. EFFLUENT GUIDELINES

In Connecticut, all discharges must comply, at a minimum, with the general prohibitions of the federal pretreatment standards and section 22a-430-4(t) of the RCSA. State-issued pretreatment permits utilize federal categorical and state regulatory standards and effluent limitations to assure such compliance is achieved. In cases where there exists a site-specific risk for a pollutant to have a negative impact on receiving waters and/or the POTW's operations, including sludge handling or disposal, worker health or safety, or ability to comply with its own NPDES permit, state permits may incorporate local limits that are technically based. No site-specific risks were identified through DEEP's evaluation of the below pollutants of concern. Site-specific technically based effluent limitations are not available for discharges to the Manchester POTW at this time. The permitted effluent limitations can be revised during the permit's term, as necessary to protect the POTW, to reflect more stringent limits which may be developed through a comprehensive local limits evaluation.

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When the permit was issued on March 9, 2009, the discharges from Bldg 1 were categorized as metal finishing wastewaters as defined by 40 CFR 433.10. After reviewing the application and inspecting the facility, staff determined that none of the six primary metal finishing operations listed in 40 CFR 433.10 are performed at the facility. Therefore the discharges from Bldg 1 are not metal finishing wastewaters and 40 CFR 433 is not applicable.

The applicability of 40 CFR 438, metal products and machinery point source category, was investigated. 40 CFR 438 applies to wastewater discharges from oily operations (as defined in 40 CFR 438.2(f)) to surface waters from new and existing facilities, 40 CFR 438.1(a). Staff found that since the discharges authorized by this permit are directed to a POTW, they are not subject to this regulation, 40 CFR 438.1(e)(2).

The applicability of 40 CFR 471, nonferrous metals and metal powders point source category, was investigated. 40 CFR 471 is applicable to discharges to surfaces water bodies or POTWs from metal forming operations and/or metal powder operations, 40 CFR 471.01(a) and (b). It is also applicable to wastewater from casting and chemical/electrochemical surface treatment operations that are integral parts of metal forming processes, 40 CFR 471 .01(c) and (d). Staff found that since the discharges authorized by this permit do not include wastewaters from metal forming or powder coating, or casting and chemical/electrochemical surface treatment operations, they are not subject to this regulation.

Given that the discharges are not subject to federal categorical limits or RCSA Section 22a 430-4(s), ~~L~~limits in the permit were determined on a Case-by-Case Determination using Best Professional Judgment ("BPJ") in accordance with RCSA Sections 22a-430-4(l)(1)(D) and 22a-430-4(m). The limits and conditions contained in RCSA Section 22a-430-4(s), RCSA Section 22a-430-4(m)(4)(D)(vi), 40 CFR 433, the 2009 permit, and the Miscellaneous Discharges of Sewer Compatible (MISC) Wastewater general permit were used for reference and are the limits frequently used for other similar discharges.

VI. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

BASIS FOR LIMITS, STANDARDS OR CONDITIONS		REGULATION	DISCHARGE POINT(S)
☐	Federal Effluent Limitation Guideline ("ELG")		
☐	Pretreatment Standards for Existing Sources ("PSES")		
☐	Pretreatment Standards for New Sources ("PSNS")		
☐	Performance Standards		
☐	Section 22a-430-4(s) of the Regulations of Connecticut State Agencies ("RCSA")		
☒	Case-by-Case Determination using Best Professional Judgment ("BPJ") RCSA Sections 22a-430-4(l)(1)(D) and 22a-430-4(m)		201-1 202-1

BASIS FOR LIMITS, STANDARDS OR CONDITIONS		REGULATION	DISCHARGE POINT(S)
☐	Other (i.e. Department File Information, Treatability Manual, Federal Development Document)		

A. MONITORING PARAMETERS & LIMITS:

DSN 201-1

PARAMETER	40 CFR (NA)		RCSA section 22a-430-4(s)(2)			Local Limits			BPJ		
	Average Monthly (mg/L)	Maximum Daily (mg/L)	Average Monthly (mg/L)	Maximum Daily (mg/L)	Instantaneous (mg/L)	Average Monthly (mg/L)	Maximum Daily (mg/L)	Instantaneous (mg/L)	Average Monthly (mg/L)	Maximum Daily (mg/L)	Instantaneous (mg/L)
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0	6.0
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	1.0	2.0	3.0
Oil Petroleum, Total Recoverable	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
pH (S.U.)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.0 to 10.0
Solids, Total Suspended	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	150
Titanium	NA	NA	NA	NA	NA	NA	NA	NA	2.0	4.0	6.0
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	1.0	2.0	3.0

DSN 202-1

PARAMETER	40 CFR (NA)		RCSA section 22a-430-4(s)(2)			Local Limits			BPJ		
	Average Monthly (mg/L)	Maximum Daily (mg/L)	Average Monthly (mg/L)	Maximum Daily (mg/L)	Instantaneous (mg/L)	Average Monthly (mg/L)	Maximum Daily (mg/L)	Instantaneous (mg/L)	Average Monthly (mg/L)	Maximum Daily (mg/L)	Instantaneous (mg/L)
Aluminum	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0	6.0
Copper	NA	NA	NA	NA	NA	NA	NA	NA	1.0	2.0	3.0
Nickel	NA	NA	NA	NA	NA	NA	NA	NA	1.0	2.0	3.0
Oil Petroleum, Total Recoverable	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100
pH (S.U.)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.0 to 10.0
Solids, Total Suspended	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	600
Titanium	NA	NA	NA	NA	NA	NA	NA	NA	2.0	4.0	6.0
Zinc	NA	NA	NA	NA	NA	NA	NA	NA	1.0	2.0	3.0

NA= Not applicable

B. COMMENTS ON SPECIFIC PARAMETERS:

Aluminum

DSN 201-1: The facility commonly processes aluminum parts. The 2009 permit required DSN 201-1 be monitored for aluminum but did not contain limits. Using best professional judgment, ~~S~~staff determined aluminum is a pollutant of concern in DSN 201-1 and recommends aluminum daily maximum and instantaneous limits consistent with RCSA Section 22a-430-4(s) for NPDES discharges. This is consistent with the limits contained in the discharge permits for Paradigm's other Connecticut facilities; Bldg 3 (SP0002427) and Bldg 4 (SP0001467), which do not have monthly average limits. All three facilities have similar processes and wastewater treatment systems. The Manchester POTW's permit, CT0100293, requires the POTW monitor for aluminum but does not contain aluminum limits. ~~This is consistent with the discharge permits for Paradigm's other Connecticut facilities; Bldg 3 (SP0002427) and Bldg 4 (SP0001467).~~ Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that Paradigm may meet the proposed limits. The maximum concentration of aluminum during that time period was 0.19 mg/l. ~~This is consistent with the discharge permits for Paradigm's other Connecticut facilities; Bldg 3 (SP0002427) and Bldg 4 (SP0001467).~~

DSN 202-1: Same as DSN 201-1. Maximum concentration detected in the discharge was 0.63 mg/l.

Cadmium

DSN 201-1: The 2009 permit included cadmium monitoring and limits. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that cadmium had not been detected in the discharge during that time period. Paradigm confirmed there is no cadmium in either

the raw materials or process chemistry. Staff recommends cadmium monitoring and limits be eliminated.

DSN 202-1: Same as 201-1.

Chromium

DSN 201-1: The 2009 permit included chromium monitoring and limits. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that chromium had only been detected at background levels in the discharge during that time period. The highest concentration reported as 0.054 mg/l. Paradigm confirmed there is no chromium in either the raw materials or process chemistry. Staff recommends cadmium monitoring and limits be eliminated.

DSN 202-1: The 2009 permit included chromium monitoring and limits. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that chromium had only rarely been detected in the discharge during that time period; 0.21 mg/l maximum concentration reported. Paradigm confirmed there is no chromium in either the raw materials or process chemistry. Staff recommends chromium monitoring and limits be eliminated.

Copper

DSN 201-1: The 2009 permit included copper monitoring and limits. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that copper had only been detected in the discharge below background levels during that time period. The highest concentration reported as 0.084 mg/l. Paradigm confirmed there is no ~~chromium~~ copper in either the raw materials or process chemistry. Staff recommends copper monitoring and limits be eliminated.

DSN 202-1: Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that cooper is present in DSN 202-1. The maximum concentration for that time period was reported as 0.569 mg/l. Staff recommends limits consistent with the RCSA Section 22a-430-4(s) and the 2009 permit.

Cyanide

DSN 201-1: Cyanide is not believed present the discharge but was included in the 2009 permit to satisfy the requirements of 40 CFR 433. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that cyanide was not detected in the discharge during that time period. Since it was determined that 40 CFR 433 is no longer applicable to the discharge, staff recommends cyanide monitoring and limits be eliminated.

DSN 202-1: Same as 201-1.

Flow

DSN 201-1: The 2009 permit authorized Paradigm to discharge up 23,900 gallons a day. Paradigm performed an analysis of actual water use at Bldg 1 from 2010 to 2019. They found the maximum daily flow since 2009 recorded was 4,732 gallons. Based on their analysis and projected water needs, Paradigm requested a maximum flow limit of 7,499 gallons per day.

DSN 202-1: The 2009 permit authorized Paradigm to discharge up 4,900 gallons a day. Paradigm's analysis found the highest daily flow since 2009 was 1,491 gallons. Based on that analysis and projected water needs, Paradigm requested a maximum flow limit of 2,499 gallons per day.

Lead

DSN 201-1: The 2009 permit included lead monitoring and limits. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that lead had only been detected at background levels during that time period. The highest concentration reported as 0.0098 mg/l. Paradigm confirmed there is no lead in either the raw materials or process chemistry. Staff recommends lead monitoring and limits be eliminated.

DSN 202-1: Same as 201-1. Maximum concentration detected in the discharge was 0.0758 mg/l.

~~Monitoring Frequency~~

~~DSN 201-1: The 2009 permit required weekly, monthly, and semiannual monitoring. Since the discharge is no longer subject to 40 CFR 433, staff recommends the discharge be monitored quarterly for all parameters, except flow and pH, which will be monitored continuously. This is consistent with the monitoring frequency specified in RCSA Section 22a-430-3(j), the Misc GP for other similar discharges and reflective of the significantly reduced flows.~~

~~DSN 202-1: The 2009 permit required, monthly, quarterly and semiannual monitoring. It was decided that given the history of noncompliance, the monitoring frequency for DSN 202-1 should be increased to monthly.~~

Nickel

DSN 201-1: Nickel is common in the titanium parts processed at the facility. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that nickel had only been detected in the discharge at low levels during that time period. The highest concentration being reported as 0.26 mg/l. Staff determined that given the potential for nickel to be present in the discharge, monitoring should continue. The limits contained in the permit are consistent with the limits contained in RCSA Section 22a-430-4(s) and the 2009 permit.

DSN 202-1: Same as 201-1. Highest concentration detected in the discharge was 0.29 mg/l.

Oil Petroleum, Total Recoverable

DSN 201-1: Total recoverable oil petroleum (oil) is commonly cleaned from the parts at Bldg 1. A review of DMRs from 9/2014 to 6/2019 found the maximum concentration of oil reported in the discharge was 86 mg/l. However the ~~with a~~ median concentration ~~of~~was 3.95 mg/l during the same ~~that~~ time period. The 2009 permit contains ~~l~~limits ~~are~~ consistent with the recommended maximum limit of oil and grease of petroleum and mineral origins, as described in "Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works", USEPA, 1975-628-875~~ and the 2009 permit~~. Compliance monitoring for oil in the 2009 permit and the permits for Paradigm's other Connecticut facilities; Bldg 3 (SP0002427) and Bldg 4 (SP0001467), is performed using grab samples with instantaneous limits. Staff determined grab samples were still adequate to monitor the concentration of oil in the discharge given its size and consistent quality.

DSN 202-1: Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that oil was commonly detected in DSN 202-1. The median concentration reported in the discharge was 19 mg/l with a maximum concentration of 380 mg/l (there were four violations). Limits are consistent with the recommended maximum limit of oil and grease of petroleum and mineral origins, as described in "Treatability of Oil and Grease Discharged to Publicly Owned Treatment Works", USEPA, 1975-628-875 and the 2009 permit~~.~~. Consistent with the 2009 permit and the permits for Paradigm's other Connecticut facilities; Bldg 3 (SP0002427) and Bldg 4 (SP0001467), staff determined grab samples were adequate to monitor the concentration of oil in the discharge.

pH

DSN 201-1: The pH limits are 6.0 S.U. (minimum) and 10.0 S.U. (maximum). These limits are considered to be protective of sanitary sewer systems, and are consistent with the 2009 permit.

DSN 202-1: The pH limits are 6.0 S.U. (minimum) and 10.0 S.U. (maximum). These limits are considered to be protective of sanitary sewer systems, and are consistent with the 2009 permit. Note, DSN 202-1 has not consistently met pH limits. Staff recommends the permit contain a ninety (90) day compliance schedule for Paradigm to submit for the Commissioner's review and written approval a comprehensive and thorough report

which describes actions to be taken by the permittee to achieve compliance with the limitations in Section 4 Table B (DSN 202-1) of this permit.

Silver

DSN 201-1: Silver is not believed present in the discharge but was included in the 2009 permit to satisfy the requirements of 40 CFR 433. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that silver was detected in the discharge once (0.0026 mg/l) during that time period. Since it was determined that 40 CFR 433 is no longer applicable to the discharge, staff recommends silver monitoring and limits be eliminated.

DSN 202-1: Same as DSN 201-1. Maximum concentration detected in the discharge was .024 mg/l.

Solids, Total Suspended

DSN 201-1: The 2009 permit did not include monitoring and limits for total suspended solids (TSS). TSS is a pollutant of concern in wastewaters from tumbling and cleaning operations. Solids removal is one of the primary functions of Bldg 1's wastewater treatment system. Staff recommends quarterly monitoring for TSS with a daily maximum concentration limit of 100.0 mg/l be added to the permit to ensure the wastewater treatment system is operating properly. Staff determined the wastewater treatment system installed to treat DSN 201-1 should meet this limit without difficulty when properly operated. Therefore an average monthly limit was not necessary. An instantaneous limit was calculate by multiplying the maximum monthly limit by 1.5. This is consistent with the limits in RCSA Section 22a-430-4(S).

DSN 202-1: The 2009 permit required DSN 202-1 be monitored for TSS. Staff recommends that DSN 202-1 continue to be monitored for TSS quarterly. Staff further recommends a maximum instantaneous limit of 600 mg/l for consistency with the Misc GP and the discharge permits for Paradigm's other Connecticut facilities; Bldg 3 (SP0002427) and Bldg 4 (SP0001467).

Titanium

DSN 201-1: The facility commonly processes titanium parts. In accordance with RCSA Section22a-430-4(m)(4)(D)(vi) (anti-backsliding), the titanium limits contained in the permit are consistent with the 2009 permit.

DSN 202-1: Same as DSN 201-1.

Total Toxic Organics

DSN 201-1: Total toxic Organics (TTOs) was included in the 2009 permit to satisfy the requirements of 40 CFR 433. Staff reviewed five years of DMR data (9/2014 to 6/2019) and found that TTOs had only been detected at back ground levels. The maximum concentration reported for the discharge during that time period was 0.052 mg/l. Since it was determined that 40 CFR 433 is no longer applicable to the discharge, staff recommends TTOs monitoring and limits be eliminated.

DSN 202-1: TTOs were detected in DSN 202-1 in December of 2015 (6.98 mg/l) and February of 2016 (1.3 mg/l). The lab report for the December 2015 sampling event states there was 6,600 ug/l of chloroform and 380 ug/l of bis(2-ethylhexyl) phthalate in the discharge. Paradigm claims it does not use either substance and bis(2-ethylhexyl) phthalate is generally not associated with the processes performed at the facility. Staff worked with Paradigm to determine that the source of these solvents in the discharge was plumbing work being performed at the time. DSN 202-1 has PVC piping. Bis(2-ethylhexyl) phthalate is widely used as a plasticizer in the manufacturing of PVC. Chloroform is a common component of PVC solvent glues and primers. Given that there is not an ongoing source of these solvents and that it was determined that 40 CFR 433 is no longer applicable to the discharge, staff recommends TTOs monitoring and limits be eliminated.

Zinc

DSN 201-1: A review of five years of DMR data (9/2014 to 6/2019) found zinc has been detected in the discharge. Staff determined that Paradigm should continue to monitor DSN 201-1 for zinc. Staff recommends zinc limits consistent with the limits contained in RCSA Section 22a-430-4(s) and the 2009 permit.

DSN 202-1: Zinc is also present in DSN 202-1. A review of monitoring data found Paradigm has not consistently met zinc limits (see attached violation report). Limits in the permit are consistent with the RCSA Section 22a-430-4(s) and the 2009 permit. Staff recommends the permit contain a ninety (90) day compliance schedule for Paradigm to submit for the Commissioner's review and written approval a comprehensive and thorough report which describes actions taken or to be taken by the permittee to achieve compliance with the limitations in Section 4 Table B (DSN 202-1) of this permit.

Monitoring Frequency

DSN 201-1: The 2009 permit required weekly, monthly, and semiannual monitoring. Since the discharge is no longer subject to 40 CFR 433, staff recommends the discharge be monitored quarterly for all parameters, except flow and pH, which will be monitored continuously. This is consistent with the monitoring frequency specified in RCSA Section 22a-430-3(j), the Misc GP for other similar discharges and reflective of the significantly reduced flows.

DSN 202-1: The 2009 permit required, monthly, quarterly and semiannual monitoring. It was decided that given the history of noncompliance, the monitoring frequency for DSN 202-1 should be increased to monthly.

VII. PERMITS FOR OTHER DISCHARGES

The facility is registered under the Industrial Stormwater general permit, GSI002069.

VIII. COMMENTS RELATED TO THE PUBLIC NOTICE

Notice of Tentative Decision was published in ____ on ____. The comment period ended on _____. The Department has received [no] [the following] written comments on the proposed action: Pick the one that applies.

Comments If Any

The Bureau of Materials Management and Compliance Assurance staff has reviewed the written comments and does not feel that the tentative determination should be modified. Provide Reasons

The Bureau of Materials Management and Compliance Assurance staff has reviewed the written comments and recommends the following changes in the [tentative determination] [draft permit]. Pick the one that applies.

(NOTE: Staff needs to ensure that the language in this section matches what is in the Final Determination Memo)

Use this language if 15 day notice was used: A 15 Day Notice was signed ____. <Company Name> sent email correspondence on____ waiving the fifteen (15) day comment period offered in the notice.

Address whether or not changes were made to the fact sheet or permit from comments made by the POTW or permittee.

The draft permit and its accompanying fact sheet were emailed on October 28, 2019 to Mike Emond, Chief Operator of the City of Manchester Water Pollution Control Facility. The City did not provide comments on the drafts.

Violation Report Majors

PARADIGM MANCHESTER INC. CTP002247

2011

End Date	Param	Parameter Desc	Loc	Type	Stat Base Code	Limit Value	DMR Value	Units	Vio Code
09/30/2014	00056	Flow rate	1	Q1	MO AVG	21600.0000	840.0000	gal/d	D90
09/30/2014	00556	Oil & Grease	1	C3	INST MAX	100.0000	0.0	mg/L	D90
09/30/2014	01027	Cadmium, total [as Cd]	1	C2	MO AVG	0.1000	0.0	mg/L	D90
09/30/2014	01027	Cadmium, total [as Cd]	1	C3	DAILY MX	0.5000	0.0	mg/L	D90
09/30/2014	01034	Chromium, total [as Cr]	1	C2	MO AVG	1.0000	0.0032	mg/L	D90
09/30/2014	01034	Chromium, total [as Cr]	1	C3	DAILY MX	2.0000	0.0032	mg/L	D90
09/30/2014	01042	Copper, total [as Cu]	1	C2	MO AVG	1.0000	0.0240	mg/L	D90
09/30/2014	01042	Copper, total [as Cu]	1	C3	DAILY MX	2.0000	0.0240	mg/L	D90
09/30/2014	01051	Lead, total [as Pb]	1	C2	MO AVG	0.1000	0.0	mg/L	D90
09/30/2014	01051	Lead, total [as Pb]	1	C3	DAILY MX	0.5000	0.0	mg/L	D90
09/30/2014	01067	Nickel, total [as Ni]	1	C2	MO AVG	1.0000	0.0890	mg/L	D90
09/30/2014	01067	Nickel, total [as Ni]	1	C3	DAILY MX	2.0000	0.0890	mg/L	D90
09/30/2014	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	0.0360	mg/L	D90
09/30/2014	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	0.0640	mg/L	D90
09/30/2014	01105	Aluminum, total [as Al]	1	C3	DAILY MX		0.0910	mg/L	D80
09/30/2014	01152	Titanium, total [as Ti]	1	C2	MO AVG	2.0000	0.3500	mg/L	D90
09/30/2014	01152	Titanium, total [as Ti]	1	C3	DAILY MX	4.0000	0.8400	mg/L	D90
09/30/2014	50047	Flow, maximum during 24 hr period	1	Q2	DAILY MX	23900.0000	3482.0000	gal/d	D90
09/30/2014	78141	Organics, total toxic [TTO]	1	C3	INST MAX	2.1300		mg/L	D90
02/28/2017	00056	Flow rate	1	Q1	MO AVG	21600.0000	510.0000	gal/d	D90
02/28/2017	00556	Oil & Grease	1	C3	INST MAX	100.0000	3.3000	mg/L	D90
02/28/2017	01027	Cadmium, total [as Cd]	1	C2	MO AVG	0.1000	0.0	mg/L	D90

02/28/2017	01027	Cadmium, total [as Cd]	1	C3	DAILY MX	0.5000	0.0	mg/L	D90
02/28/2017	01034	Chromium, total [as Cr]	1	C2	MO AVG	1.0000	0.0	mg/L	D90
02/28/2017	01034	Chromium, total [as Cr]	1	C3	DAILY MX	2.0000	0.0	mg/L	D90
02/28/2017	01042	Copper, total [as Cu]	1	C2	MO AVG	1.0000	0.0047	mg/L	D90
02/28/2017	01042	Copper, total [as Cu]	1	C3	DAILY MX	2.0000	0.0047	mg/L	D90
02/28/2017	01051	Lead, total [as Pb]	1	C2	MO AVG	0.1000	0.0	mg/L	D90
02/28/2017	01051	Lead, total [as Pb]	1	C3	DAILY MX	0.5000	0.0	mg/L	D90
02/28/2017	01067	Nickel, total [as Ni]	1	C2	MO AVG	1.0000	0.0200	mg/L	D90
02/28/2017	01067	Nickel, total [as Ni]	1	C3	DAILY MX	2.0000	0.0200	mg/L	D90
02/28/2017	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	0.0850	mg/L	D90
02/28/2017	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	0.1100	mg/L	D90
02/28/2017	01105	Aluminum, total [as Al]	1	C3	DAILY MX		0.0760	mg/L	D80
02/28/2017	01152	Titanium, total [as Ti]	1	C2	MO AVG	2.0000	0.0900	mg/L	D90
02/28/2017	01152	Titanium, total [as Ti]	1	C3	DAILY MX	4.0000	0.1700	mg/L	D90
02/28/2017	50047	Flow, maximum during 24 hr period	1	Q2	DAILY MX	23900.0000	1546.0000	gal/d	D90
02/28/2017	78141	Organics, total toxic [TTO]	1	C3	INST MAX	2.1300		mg/L	D90
01/31/2019	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.4400	mg/L	E90
01/31/2019	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	6.0000	mg/L	E90

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End Date	Param	Parameter Desc	Loc	Type	Stat Base Code	Limit Value	DMR Value	Units	Vio Code
09/30/2014	00056	Flow rate	1	Q1	MO AVG		229.0000	gal/d	D80
09/30/2014	00556	Oil & Grease	1	C3	INST MAX	100.0000	6.7000	mg/L	D90
09/30/2014	01027	Cadmium, total [as Cd]	1	C2	MO AVG	0.1000	0.0	mg/L	D90
09/30/2014	01027	Cadmium, total [as Cd]	1	C3	DAILY MX	0.5000	0.0	mg/L	D90
09/30/2014	01034	Chromium, total [as Cr]	1	C2	MO AVG	1.0000	0.1400	mg/L	D90
09/30/2014	01034	Chromium, total [as Cr]	1	C3	DAILY MX	2.0000	0.1400	mg/L	D90
09/30/2014	01042	Copper, total [as Cu]	1	C2	MO AVG	1.0000	0.0920	mg/L	D90
09/30/2014	01042	Copper, total [as Cu]	1	C3	DAILY MX	2.0000	0.0920	mg/L	D90
09/30/2014	01051	Lead, total [as Pb]	1	C2	MO AVG	0.1000	0.0097	mg/L	D90
09/30/2014	01051	Lead, total [as Pb]	1	C3	DAILY MX	0.5000	0.0097	mg/L	D90
09/30/2014	01067	Nickel, total [as Ni]	1	C2	MO AVG	1.0000	0.1900	mg/L	D90

09/30/2014	01067	Nickel, total [as Ni]	1	C3	DAILY MX	2.0000	0.1900	mg/L	D90
09/30/2014	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	0.2000	mg/L	D90
09/30/2014	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	0.2000	mg/L	D90
09/30/2014	50047	Flow, maximum during 24 hr period	1	Q2	DAILY MX	4900.0000	307.0000	gal/d	D90
09/30/2014	78141	Organics, total toxic [TTO]	1	C3	DAILY MX	2.1300		mg/L	D90
11/30/2014	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.5600	mg/L	E90
11/30/2014	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	3.0000	mg/L	E90
12/31/2014	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.2000	mg/L	E90
01/31/2015	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.2000	mg/L	E90
05/31/2015	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	2.1600	mg/L	E90
05/31/2015	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	3.9000	mg/L	E90
07/31/2015	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.1000	mg/L	E90
08/31/2015	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.2100	mg/L	E90
10/31/2015	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.6500	mg/L	E90
10/31/2015	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	2.6000	mg/L	E90
11/30/2015	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.4300	mg/L	E90
12/31/2015	00556	Oil & Grease	1	C3	INST MAX	100.0000	380.0000	mg/L	E90
12/31/2015	78141	Organics, total toxic [TTO]	1	C3	DAILY MX	2.1300	6.9800	mg/L	E90
01/31/2016	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	3.1000	mg/L	E90
01/31/2016	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	3.4000	mg/L	E90
04/30/2016	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.5000	mg/L	E90
05/31/2016	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.2000	mg/L	E90
07/31/2016	00556	Oil & Grease	1	C3	INST MAX	100.0000	140.0000	mg/L	E90
01/31/2017	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.1000	mg/L	E90
02/28/2017	00056	Flow rate	1	Q1	MO AVG		165.0000	gal/d	D80
02/28/2017	00556	Oil & Grease	1	C3	INST MAX	100.0000	43.0000	mg/L	D90
02/28/2017	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	0.9800	mg/L	D90
02/28/2017	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	0.9800	mg/L	D90
02/28/2017	50047	Flow, maximum during 24 hr period	1	Q2	DAILY MX	4900.0000	544.0000	gal/d	D90
02/28/2017	78141	Organics, total toxic [TTO]	1	C3	DAILY MX	2.1300		mg/L	D90
03/31/2017	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.2200	mg/L	E90
02/28/2018	00556	Oil & Grease	1	C3	INST MAX	100.0000	126.0000	mg/L	E90
02/28/2018	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.1400	mg/L	E90

03/31/2018	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	3.0000	mg/L	E90
03/31/2018	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	3.0000	mg/L	E90
04/30/2018	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.9900	mg/L	E90
12/31/2018	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	1.2900	mg/L	E90
05/31/2019	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	2.6000	mg/L	E90
05/31/2019	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	2.6000	mg/L	E90
06/30/2019	00556	Oil & Grease	1	C3	INST MAX	100.0000	153.0000	mg/L	E90
06/30/2019	01092	Zinc, total [as Zn]	1	C2	MO AVG	1.0000	2.3000	mg/L	E90
06/30/2019	01092	Zinc, total [as Zn]	1	C3	DAILY MX	2.0000	3.1900	mg/L	E90

WASTE TREATMENT LINE DIAGRAM
967 PARKER STREET

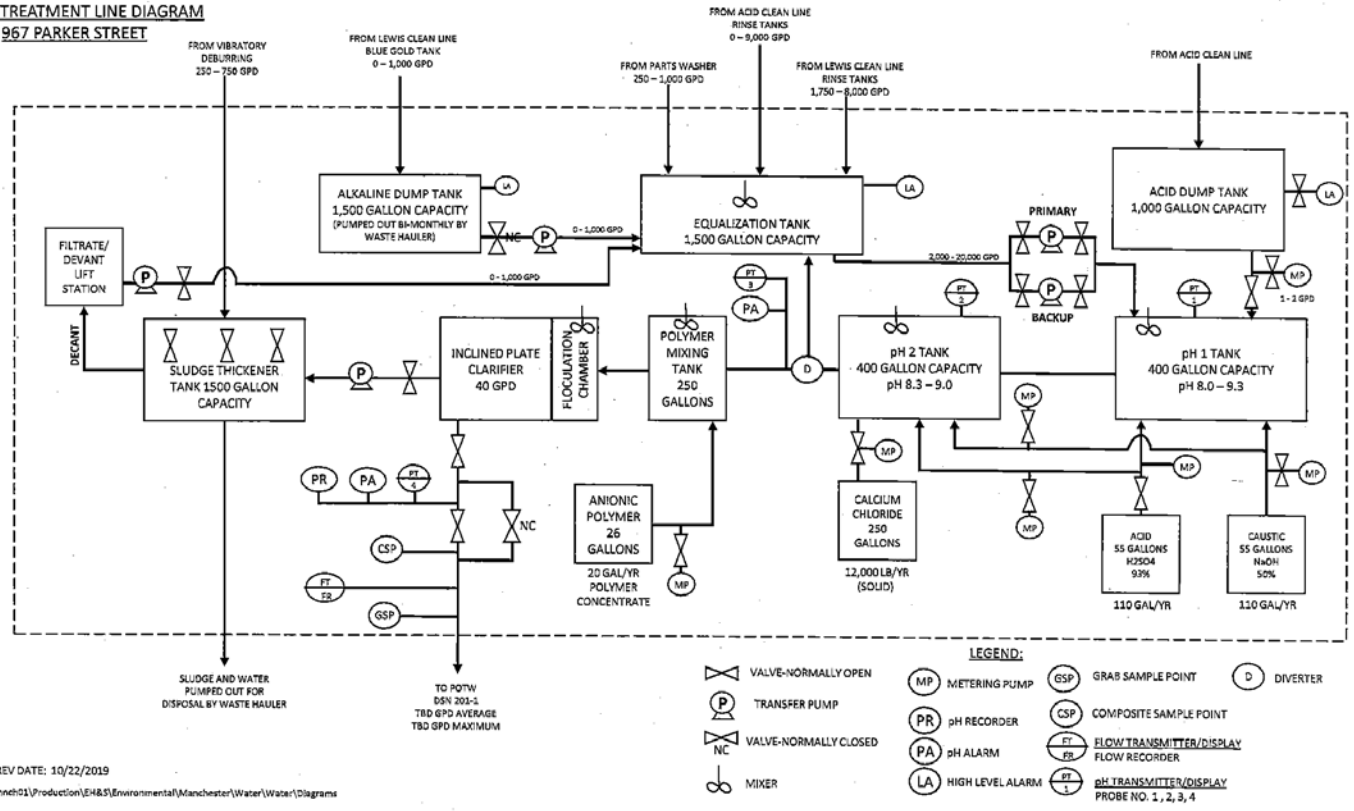

FIG. No. M-1A REV DATE: 10/22/2019

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FLOW DIAGRAM
967 PARKER STREET

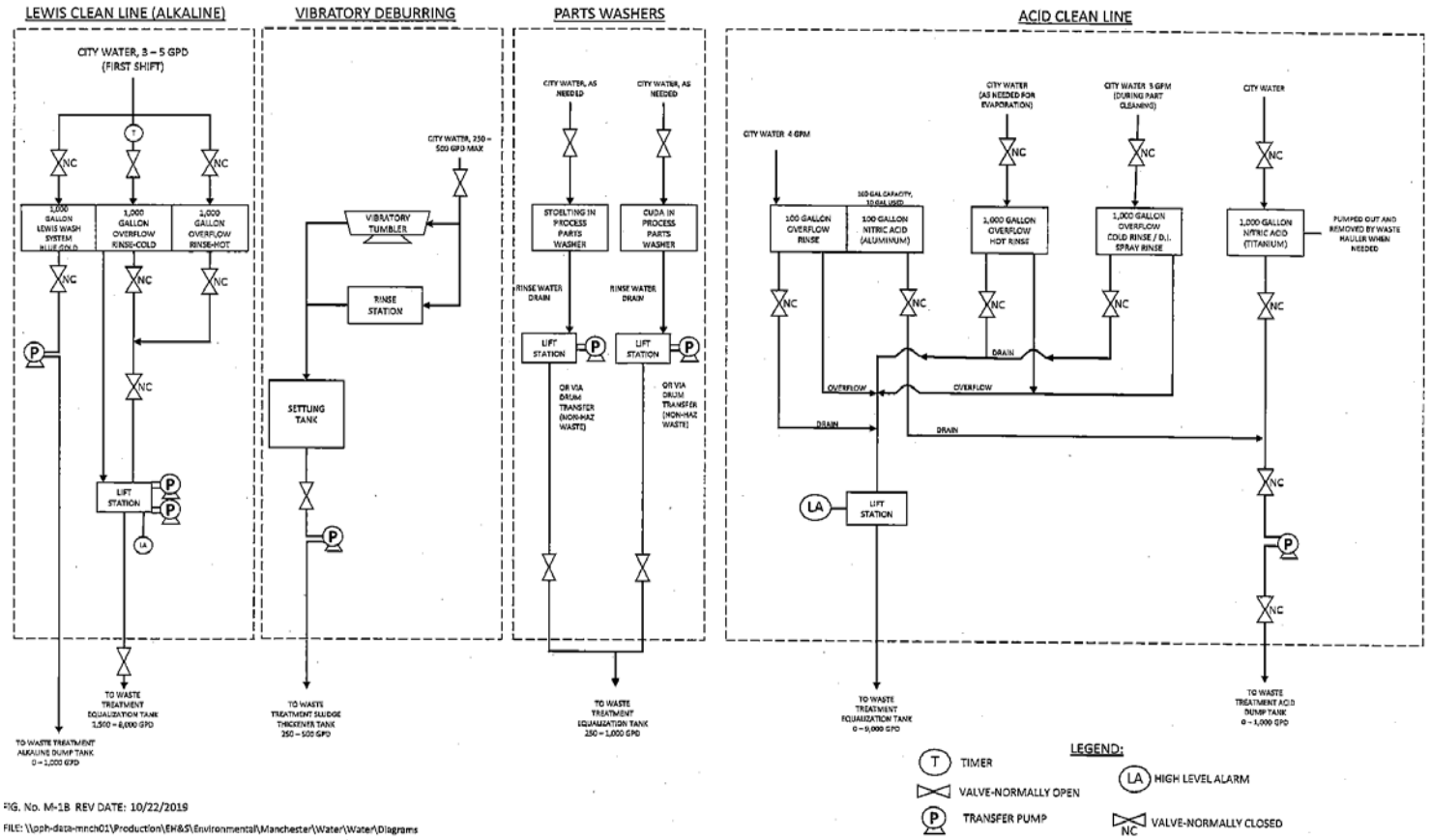

FIG. No. M-1B REV DATE: 10/22/2019

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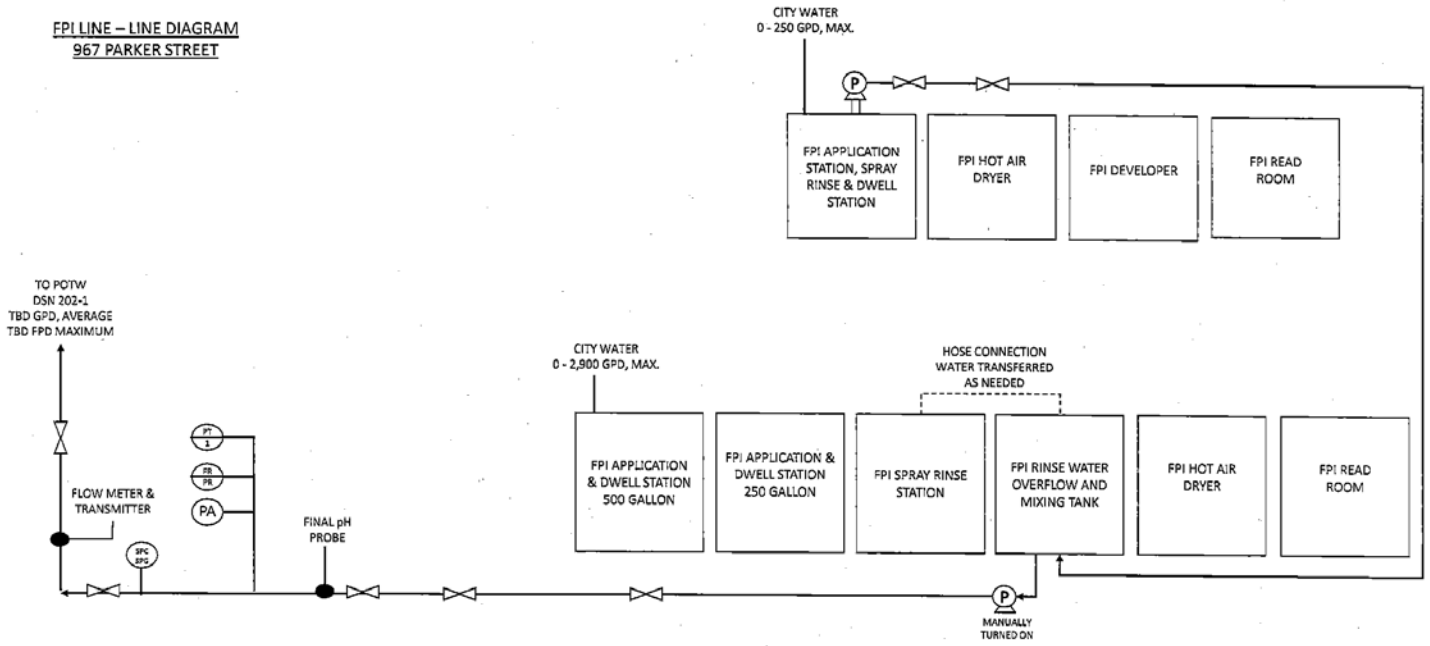
FPI LINE – LINE DIAGRAM
967 PARKER STREET



LEGEND:

- VALVE-NORMALLY OPEN
- TRANSFER PUMP
- PA — pH ALARM
- pH TRANSMITTER/DISPLAY PROBE NO. 1
- FLOW & pH DATA LOGGER
- FLOW TRANSMITTER FLOW METER
- SAMPLE POINT - COMPOSITE
  SAMPLE POINT - GRAB

FIG. No. M-1C REV DATE: 10/22/2019

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