CITY OF FLINT
DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION CONTROL DIVISION

Dayne Walling
Mayor

Robert J. Case
WPC Supervisor

July 20, 2012

Tony Maffeo
Construction Supervisor
ARCADIS U.S., Inc.
28550 Cabot Drive, Suite 500
Novi, Mi, 48377

Dear: Mr. Maffeo,

RE: Revised Sewer Use Permit # 2-02-RBC001

Enclosed, is sanitary sewer use permit number 2-02-RBC0011for Racer Trust, Buick City AOI-9 Groundwater Remediation System, which was in response to the Permit Application, dated November 7, 2011, submitted to the City of Flint by ARCADIS. The effective date of this permit is August 9,2012 and the expiration date is August 8, 2017.

If you have any question or need additional information, please call me, or call Tom Hutchings if I am unavailable, at (810) 766-7210.

Sincerely,

Robert J. Case
Water Pollution Control Supervisor

Enclosure

XC: Tom Hutchings, Senior Environmental Compliance Inspector

USPS # 7010 1670 0001 5104 8735

CITY OF FLINT, MICHIGAN

SEWER USE PERMIT

Class 2 - Significant Non-domestic User

Permit Number 2-02-RBC001

In accordance with certain provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1241 et seq; the "Act"), the Michigan Natural Resources and Environmental Protection Act (Act 451 of 1994, as amended; the "State Act"), and the laws regulating use of the publicly owned treatment works (POTW) for sanitary sewage (hereafter POTW Regulations) set forth in Chapter 46, Article V, Division 2 of the Municipal Code (the "Code") of the City of Flint (the "City"), as identified below, the named permittee is hereby authorized to discharge wastewater from a certain parcel into the POTW at a specific location:

Permittee	Racer Trust- Racer Buick City AOI-9 Groundwater Remediation System
Address	1200 East Hamilton Ave.
Parcel No.	41-063-790-009
POTW Pipe No.	I09-40-06-W20

Said authorization is subject to the prohibitions, limits, requirements and conditions stipulated herein. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment laws, regulations, standards or requirements under City, State, and Federal laws; this includes any and all such laws, regulations, standards, or requirements that may become effective during the term of this permit and which shall apply to the permittee subsequent to modification of this permit and a reasonable period to achieve compliance. This does not include laws, regulations, standards or requirements that are subject to other chapters of the Code, such as chapters pertaining to the regulation of plumbing and electrical work.

The permittee shall comply with all of the provisions of this permit. A violation of any provision of this permit is a violation of the POTW Regulations, subject to the penalty, damage, compensatory charge, and other enforcement provisions of the POTW Regulations.

This permit shall become effective on ***August 9, 2012*** and shall expire at midnight on ***August 8, 2017***.

If the permittee wishes to continue to discharge after the expiration date of this permit, a written application in accordance with the requirements of the POTW Regulations must be submitted to the City a minimum of one hundred and eighty (180) days prior to the expiration date. Approval or denial of the application for discharge will be in accordance with POTW Regulations.

This permit is based on the information provided in the permittee's application, dated November 09, 2011 and acquired by recent inspections by the City of the permittee's facility. The City shall establish appropriate fees for reimbursement of costs to administer this permit and the associated Industrial Pretreatment Program.

Signed this 20th day of July 2012 by the City of Flint.

Robert J. Case, Water Pollution Control Supervisor
Department of Utilities Water Pollution Control Division

PART I

A. DISCHARGE PROHIBITIONS AND MONITORING REQUIREMENTS

1. Applicability of the POTW Regulations

In addition to the user-specific pollutant limits stipulated in this part, the permittee shall abide by the generally applicable discharge prohibitions and limits set forth in the POTW Regulations (excerpted in the Appendix), except if superceded by this permit or an order of the City Director.

a. The permittee is prohibited from discharging, causing to be discharged, or allowing to be discharged Potentially Harmful Substances or wastewater in amounts that may or do cause problems with the operation and maintenance of the City of Flint publicly owned treatment works (POTW) for sanitary sewage, including, but not limited to: interference with sewage treatment or sludge disposal, pass-through of pollutants, fire or explosion, corrosive structural damage, blockages to the flow of sewage, or unsafe conditions for workers.

b. The permittee is prohibited from increasing the use of potable water or process wastewater in any way for the purpose of diluting a discharge as a partial or complete substitute for adequate treatment before discharge to the POTW to achieve compliance with this part, which includes, by reference, the prohibitions and limitations set forth in the POTW Regulations, except upon prior written approval from the City Director, which approval shall be granted at the sole discretion of the City Director and consistent with State and Federal law.

c. The permittee is prohibited from discharging any wastes or wastewater into the POTW from a vehicle which transported the waste or wastewater to the point of discharge. The preceding sentence does not prohibit the permittee from trucking wastes or wastewater to the permittee's wastewater treatment facility.

2. Applicability of Other Laws

The permittee's discharge shall comply with any and all other applicable City, State, and Federal pretreatment laws, regulations, standards, and requirements. This includes any and all such laws, regulations, standards, or requirements that may become effective during the term of this permit and which shall apply to the permittee subsequent to modification of this permit and a reasonable period to achieve compliance.

a. The permittee shall comply with all Categorical Pretreatment Standards and any other pretreatment requirements established under 307(b), 307(c), or 402(b)(8) of the Act that are applicable to the permittee, as adjusted under the combined wastestream formula in Michigan Rule R 323.2311(7). If a Categorical Pretreatment Standard and another limit contained in this permit or the POTW Regulations or in an applicable State of Michigan pretreatment requirement regulate the same pollutant, then the more restrictive of them shall apply. If the permittee requests that a removal credit be made applicable to itself, then the permittee shall pay all costs associated with supporting, obtaining, and administering the removal credit so that the City incurs no costs. It shall be at the sole discretion of the City whether or not a removal credit shall be established and how a removal credit shall be allocated.

b. If a Categorical Pretreatment Standard is promulgated for a subcategory under which the permittee believes itself to be included, the permittee or the City Director may request from the MDEQ within sixty (60) days after the promulgation date a written determination of whether the permittee does or does not fall within that particular subcategory. Such request shall be made and reviewed in accordance with the procedures set forth in Michigan Rule R 323.2311, as amended. If the permittee adds or changes a process or operation that may be included in a subcategory, the permittee shall request the certification before commencing to

discharge from the added or changed process or operation. If the permittee will become a new source, it shall request the determination before commencing to discharge. If the City requests the determination, then the City shall notify the permittee of the submission and the permittee may provide written comments to the MDEQ within thirty (30) days after notification is sent. The permittee shall achieve compliance with such standard in accordance with and within the time period provided for in Michigan Rule R 323.2311, as amended.

3. Specific Discharge Limits and Monitoring Requirements

The discharge(s) to the POTW via the following outfall(s) shall comply with the following pollutant and/or flow limit(s), and the composition, characteristics and/or flow of the discharge(s) shall be monitored, as follows:

Outfall 001				
Parameter	**Monitoring Frequency**	**Sampling Procedure**	**Pollutant Discharge Limits**	
			Limit	**Type**
Ammonia-nitrogen	Sample on one (1) day per month.	Collect a 24-hour, flow proportioned composite sample.	37 mg/L	Daily Maximum
BOD	Monthly, as above.	Collect composite sample as above.	427 mg/L	Daily Maximum
Total Phosphorus	Monthly, as above.	Collect composite sample as above.	7 mg/L	Daily Maximum
Total Suspended Solids	Monthly, as above.	Collect composite sample as above.	305 mg/L	Daily Maximum
Total Arsenic	Monthly, as above.	Collect composite sample as above.	0.041 mg/L	Daily Maximum
Total Cadmium	Monthly, as above.	Collect composite sample as above.	0.014 mg/L	Daily Maximum
Total Chromium	Monthly, as above.	Collect composite sample as above.	0.048 mg/L	Daily Maximum
Total Copper	Monthly, as above.	Collect composite sample as above.	0.179 mg/L	Daily Maximum
Total Lead	Monthly, as above.	Collect composite sample as above.	0.322 mg/L	Daily Maximum
Total Mercury	Monthly, as above.	Collect composite sample as above.	0.000012* mg/L	Daily Maximum
Total Nickel	Monthly, as above.	Collect composite sample as above.	0.043 mg/L	Daily Maximum
Total Silver	Monthly, as above.	Collect composite sample as above.	0.023 mg/L	Daily Maximum
Total Zinc	Monthly, as above.	Collect composite sample as above.	0.445 mg/L	Daily Maximum
Hexane-extractable Material	Monthly, as above.	Collect four (4) grab samples, not less than ten (10) minutes apart.	100 mg/L	Daily Maximum
pH @ 25°C	Monthly, as above.	Collect grab samples as above.	10.5 SU	Maximum
			6.0 SU	Minimum
Amenable Cyanide	Monthly, as above.	Collect grab samples as above.	1.195 mg/L	Maximum
			0.005 mg/L	Daily Maximum
Benzene	Monthly, as above.	Collect grab samples as above.	0.174 mg/L	Maximum
			0.001 mg/L	Daily Maximum
Ethyl benzene	Monthly, as above.	Collect grab samples as above.	2.048 mg/L	Maximum
			0.001 mg/L	Daily Maximum
Toluene	Monthly, as above.	Collect grab samples as above.	1.753 mg/L	Maximum
			0.187 mg/L	Daily Maximum
Xylenes, Total	Monthly, as above.	Collect grab samples as above.	2.009 mg/L	Maximum
			0.002 mg/L	Daily Maximum

Outfall 001					
Parameter		Monitoring Frequency	Sampling Procedure	Pollutant Discharge Limits	
				Limit	Type
Toxic Organics	Volatile	Monthly, as above.	Collect grab samples as above.	Shall not violate POTW regulations (see Part I.A.1.a).	Not applicable
	Semi-Volatile	Monthly, as above.	Collect a 24-hour, flow proportioned composite sample.		
PCB		Monthly, as above.	Collect composite sample as above.	0.00000020* mg/L	Daily Maximum
Flow Volume		Continuously during discharge.	Not applicable.	36,000 gal/day at a maximum rate of 25 gal/min.	Daily Maximum

* The pollutant shall be undetectable in the discharge, in compliance with the concentration limit in Table 46-146(c) in the appendix of the POTW Regulations.

4. Sampling Location

Samples of the discharge to outfall number 001 shall be collected from the sampling ports (for grab and composite samples) in the groundwater treatment system discharge pipe. The location of the groundwater treatment system and outfall are identified in the site map in the Appendix.

B. REPORTING AND NOTIFICATION REQUIREMENTS

1. Semi-annual Self-monitoring Report

In accordance with the POTW Regulations, the permittee shall submit a monthly Self-monitoring Report to the City by no later than twenty-eight (28) days following the end of the previous month in which monthly discharge monitoring was performed, in accordance with the following requirements:

- The report shall contain all monitoring data obtained by the permittee in accordance with the self-monitoring requirements stipulated in Part I.A.3.
- The report shall be submitted on the City's standard reporting form, which is included in the Appendix.
- The report shall be complete and include the measured discharge volume and the monitoring data for each parameter listed in Part I.A.3., including each individual target analyte for all multiple analyte tests.
- The report shall also clearly identify the analytical methods used, the date on which each analysis was performed, the date on which each sample was collected, and the sampling method used; and it shall also indicate the total number of samples collected and the total number of reported values that exceeded the limitations established in Part I.A.3 for each parameter specified thereunder.

In addition, the monthly Self-monitoring Report shall be accompanied by sample custody records and a quality assurance/quality control (QA/QC) report. The sample custody records shall include the following information:

- the exact place, date, and time of sampling;
- the individual(s) who performed the sampling;
- the dates analyses were performed; and
- the person(s) who performed the analyses.

The QA/QC report shall include all data needed for assessing the validity of the monitoring data presented in the PRCC, which shall specifically include individual test results and statistical data for the analysis of:

- reagent blanks,

- calibration check standards, and
- replicate samples.

If the permittee monitors any pollutant more frequently than required by this permit, using procedures corresponding to those specified in this permit, the result of such monitoring must be utilized in the calculations of average/maximum pollutant discharge and included in the discharge report.

2. Annual Significant Non-domestic User Report

The permittee shall submit, on a form provided by the City, an annual significant non-domestic user report. The report shall provide updated information about the permitee's manufacturing and business activities, materials used or stored, materials which are or may be discharged to the POTW, pre-treatment systems, slug discharge control plans and procedures (if required), and any other information required under the POTW Regulations in an application for a use permit. The permittee shall submit the annual significant non-domestic user report by the 15th day of February of each year for the preceding calendar year (January through December), unless exempted from this requirement, in the use permit or other writing, by the City Director.

3. Categorical Baseline Monitoring Report (As Applicable)

Within one hundred eighty (180) days after the effective date of a national categorical pretreatment standard or the final administrative decision made upon a category determination submission under 40 CFR 403.6(a)(4) whichever is later, which is applicable to any existing or planned discharge made, or to be made, by the permittee, a baseline monitoring report (BMR) shall be submitted to the City. The BMR shall be in accordance with any and all applicable state and federal pretreatment rules and regulations and provide the following information:

- the name and address of the facility, including the name of the operator and owners
- a list of any environmental control permits held by or for the facility;
- a brief description of the nature, average rate of production, and Standard Industrial Classification of the operation or operations carried out by the permittee, including a facility drawing and schematic diagram that indicates points of discharge to the POTW and from which processes the discharges originate;
- the pretreatment standards, including federal, state, and local standards, applicable to each regulated process;
- information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams as necessary to allow use of the combined wastestream formula specified in the federal and state pretreatment regulations and rules;
- information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams as necessary to allow use of the combined wastestream formula specified in the federal and state pretreatment regulations and rules;
- results of sampling and analysis identifying the nature and concentration or mass, where required by the standard or City, of regulated pollutants in the discharge from each regulated process, including both daily maximum and average concentration or mass, where required;
- the time, date, and place of sampling and the methods of analysis and a statement certifying that the sampling and the methods of analysis is representative of normal work cycles and expected pollutant discharges to the POTW; and
- a statement, reviewed by an authorized representative of the permittee and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis and, if not, whether additional operation and maintenance or additional pretreatment is required for the permittee to meet the pretreatment standards and requirements.

In the event that any new source of discharge that will be regulated by a national categorical pretreatment standard is to be commenced by the permittee, not less than ninety (90) days prior to commencing the new discharge, a BMR, shall be submitted to the City. A BMR for a new source shall contain all applicable information required above, except that estimates shall be submitted in lieu of monitoring data.

If additional pretreatment or operation and maintenance will be required to meet the pretreatment standards, the permittee shall submit to the City, in writing, the shortest schedule by which the permittee will provide such additional pretreatment or operation and maintenance, concurrently with the BMR. The completion date in the schedule shall not be later than the compliance date established for the applicable pretreatment standard. All of the following conditions shall apply to compliance schedules:

- The schedule shall contain increments of progress in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the permittee to meet the applicable categorical standards, which may include the hiring of an engineer, completing preliminary plans, completing final plans, executing contracts for major components, commencing construction, completing construction, and other similar major events.
- No planned increment of progress shall exceed nine (9) months.
- Not later than fourteen (14) days following each date in the schedule and the final date for compliance, the permittee shall submit a progress report to the City, including, at a minimum, whether or not the permittee complied with the increment of progress to be met on a particular date and if not, the date on which the permittee expects to comply with the increment of progress, the reason for delay, and the steps being taken by the permittee to return the construction to the schedule established.
- Not more than nine (9) months shall elapse between progress reports to the City.

Sampling and analysis shall be performed as follows:

- Samples shall be representative of daily operations.
- A minimum of four (4) grab samples shall be used for pH, cyanide, total phenols, oil and grease, sulfide, and volatile organics.
- For all other pollutants, 24-hour composite samples shall be obtained through flow-proportional composite sampling techniques where feasible. The City may waive flow-proportional composite sampling, provided that the permittee demonstrates flow-proportional sampling is infeasible. In such cases, samples may be obtained through time-proportional composite sampling techniques or through a minimum of four (4) grab samples where the permittee demonstrates that this will provide a representative sample of the effluent being discharged.
- Except where multiple grab sampling is required above, a minimum of one (1) representative sample for obtaining the required data for the baseline monitoring report shall be taken.
- Samples shall be taken immediately downstream from pretreatment facilities if the facilities exist or immediately downstream from the regulated process if pretreatment facilities do not exist. If other wastewaters are mixed with the regulated wastewater before pretreatment, the permittee shall measure the flows and concentrations necessary to allow use of the combined wastestream formula specified in the federal and state pretreatment regulations and rules. Where an alternate concentration or mass limit has been calculated in accordance with the federal and state pretreatment regulations and rules, the adjusted limit and supporting data shall be submitted to the City.
- Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR Part 136. Where 40 CFR Part 136 does not contain sampling and analytical techniques for the pollutant of concern, or where the U.S. Environmental Protection Agency determines that the Part 136 sampling and analytical techniques are inappropriate fro the pollutant of concern, sampling and analysis shall be performed by using validated analytical procedures,

including procedures suggested by the City or other parties, approved by the U.S. Environmental Protection Agency.

If the permittee is involved in a category determination request, or any other permitting process which is required to properly apply the Categorical Standard, the BMR due date shall be stayed until such actions are completed.

4. Categorical 90-Day Compliance Report (As Applicable)

Within ninety (90) days following the date for final compliance with a promulgated national pretreatment standard which is applicable to the permittee, or in the case of a new source, following commencement of the discharge into the POTW, a 90-day compliance report shall be submitted to the City. This report shall be in accordance with any and all applicable state and federal pretreatment rules and regulations and provide the following information:

- the average and maximum daily wastewater flows to the POTW, as well as flows from any process regulated by such pretreatment standard;
- the concentration (or mass, where applicable) of any pollutant regulated by such pretreatment standard discharged to the POTW from any process regulated by such pretreatment standard; and
- a statement, reviewed by an authorized representative of the permittee and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis and, if not, whether additional operation and maintenance or additional pretreatment is required for the permittee to meet the pretreatment standards and requirements.

Where direct measurement of the discharge from the regulated process is not physically possible, equivalent concentrations (or mass) may be calculated via mass balance principles; however, this approach must be pre-approved by the City and details of the calculation are also to be included in the report.

5. Exceedance Notice

The permittee shall orally report to the City, within twenty-four (24) hours of becoming aware of any discharges, whether intentional or accidental, which are known or reasonably suspected by the permittee to violate Part I of this permit, which includes, by reference, the prohibitions and limitations set forth in the POTW Regulations. The permittee shall, if the exceedance was based on an analyzed sample, re-sample and analyze the discharge and submit the results to the City, as soon as possible, but no later than thirty (30) days after becoming aware of such discharge. Such oral notice shall be given in advance whenever possible and shall contain information regarding the volume, duration, constituents, cause, loading and concentrations, actions taken or to be taken to prevent future exceedances, and such other available information as may be necessary to determine what impact such discharge may have on the POTW. The permittee shall provide a written follow-up notice within five (5) days of the oral notice that contains the same information provided orally and all other relevant information.

6. Slug Discharge Notice

The permittee shall immediately notify the City after obtaining knowledge that the permittee has discharged or will discharge wastewater which could cause interference or pass-through in the POTW or which is a slug discharge. Such notice shall be oral and shall be followed by a written notice within five (5) days. The written notice shall describe measures which the permittee will take to prevent such discharges.

7. Bypass Notice

(a) If the permittee knows in advance of the need for a bypass, it shall give notice to the city if

possible, at least ten (10) days before the date of the bypass, but in no case less than 24 hours.

(b) A permittee shall give oral notice of an unanticipated bypass that exceeds applicable categorical pretreatment standards and other applicable discharge limits to the city within twenty-four (24) hours from the time the permittee becomes aware of the bypass. A written submission shall also be provided by the permittee to the city within five (5) days of the time the permittee becomes aware of the bypass. The written submission shall contain:

- a description of the bypass and its cause;
- the duration of the bypass (including exact dates and times); and, if the bypass has not been corrected, the anticipated time it is expected to continue; and
- the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

The City may waive the written report if the oral report has been received within twenty-four (24) hours.

8. Changed Discharge Notice

The permittee shall notify the City at least one hundred and eighty (180) days in advance of any anticipated substantial change in the volume of or in the type or amount of pollutants in its discharge to the POTW. Such notice shall be in writing. For purposes of this notice, a substantial change in the discharge to the POTW includes, but is not limited to:

- the initial discharge of any unpolluted water, non-contact cooling water, storm water, surface water, or groundwater, including any groundwater purged for remedial action and groundwater that infiltrates into the POTW;
- an increase or decrease in volume of 20% or more;
- the discharge of pollutants not previously disclosed to the City;
- a change in the amount or type of listed or characteristic hazardous wastes discharged for which the permittee has submitted a notification to the City under part;
- an increase in the amount of any pollutants discharged which may result in a violation of Part I, which includes, by reference, the prohibitions and limits set forth in the POTW Regulations, or a violation of any order of the City Director.

9. Hazardous Waste Notice

If the permittee discharges to the POTW any substance which, if disposed of other than by discharge to the POTW, would be a hazardous waste under 40 CFR 261 or under the rules promulgated under the Michigan Hazardous Waste Management Act, Part 111 of the Natural Resources and Environmental Protection Act ("Michigan Rules"), the permittee shall notify the City Director, the EPA Region V Waste Management Division Director, and the Chief of the Waste Management Division of the Michigan Department of Environmental Quality of such discharge. The notice shall be given within one hundred and eighty (180 days) after the discharge first occurs. The notice shall be in writing and shall include the name of the hazardous waste set forth in 40 CFR 261 or the Michigan Rules, the hazardous waste number, and the type of discharge (continuous, batch, or other). If the permittee discharges more than one hundred (100) kilograms of such waste per calendar month to the POTW, the notice shall also contain the following information to the extent such information is known and readily available to the permittee:

- an identification of the hazardous constituents contained in the wastes;
- an estimation of the mass and concentration of such constituents in the discharge during that calendar month; and
- an estimation of the mass of constituents expected to be discharged during the following 12 months;

Notification must be submitted for each hazardous substance discharged, but is not required for pollutants already reported under self-monitoring by the permittee under Categorical Pretreatment Standard reporting requirements. The permittee is exempt from notification during a calendar month in which it discharges no more than fifteen (15) kilograms of hazardous wastes unless the wastes are acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e). Where a new regulation first defines a substance as a hazardous waste, notification shall be given within ninety (90) days of the effective date of such regulation. In any notice submitted under this part, the permittee shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

10. Radioactive Materials Notice

If the permittee's discharge contains or could contain radioactive materials, the permittee shall notify the City Director of that fact as soon as possible after becoming aware of it.

11. New Pretreatment Facilities Notice

The permittee or its authorized agent shall notify the City in writing, at least fifteen (15) days before the installation of new pretreatment facilities, of the date it intends to commence operation thereof.

12. Written/Verbal Submittals

(a) All written reports and notices required to be submitted under this part shall be directed to:

Environmental Compliance Inspector
City of Flint Water Pollution Control Division
G-4652 Beecher Road, Flint, Michigan 48532

(b) All verbal reports and notices required to be made under this part shall be directed to the Environmental Compliance Supervisor (8:00 a.m. to 5:00 p.m., Monday through Friday) or to the Operations Foreman on duty, via the Water Pollution Control Division's 24-hour telephone number at (810) 766-7210.

(c) All written reports and notices required to be submitted to the City under this part shall be properly signed and certified. The person signing reports and notices shall make the following certification in the report or notice:

> "I certify under penalty of law that this document and all attachments were 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 fines and imprisonment for knowing violations."

Before any person signing any report or notice may submit the same to the City, the permittee shall inform the City in writing and with particularity how the individual meets the criteria for persons who are eligible to do so under Michigan Rule R 323.2310(11).

PART II

A. GENERAL RESPONSIBILITIES

1. Monitoring Procedures

a. The prohibitions and limits in this permit and the POTW Regulations, shall apply at the point where wastewater and pollutants are discharged into the POTW. Required pretreatment and sampling for analysis of parameters specified in a use permit, discharge limit, CPS, or any discharge prohibition, limitation, or standard shall be effected before such point is reached.

b. All measurements, sampling, tests, and analyses of the discharge shall be determined in accordance with the EPA-approved methods contained in 40 CFR, Part 136. In cases where 40 CFR 136 procedures are not available for or do not apply to the pollutant involved, other sources such as "Standard Methods for the Examination of Water and Wastewater," published by the American Public Health Association, or the most current methods published by the American Society for Testing Material (ASTM) or another method accepted by the City Director may be used.

c. All samples shall be collected at a time and in a manner that ensures they are representative of the wastewater discharged when the Permittee's normal operations are occurring, except when required by the city to be collected at another time or in another manner.

d. Sampling to measure the instantaneous concentration shall be done by collecting one grab sample.

e. Sampling to measure the daily concentration shall be done by collecting a 24-hour, flow-proportioned composite sample, except that a minimum of 4 grab samples shall be collected in lieu of a 24-hour, flow-proportioned composite sample for pH, cyanide, Total Phenols, Hexane-extractable Material, sulfide, and volatile organic compounds. If it is not feasible to obtain a flow-proportioned composite sample, a time-proportioned composite sample or a minimum of 4 grab samples may be used in lieu of the flow-proportioned composite sample if the permittee demonstrates to the City Director that a representative sample will be obtained. Samples shall be collected during a single 24-hour period.

f. The date when a sample is taken, start time, stop time, sample type, sample location, sampler programming information, persons involved in the sampling, and any other data specified in advance by the City Director, shall be recorded by the Permittee.

g. The permittee shall calibrate and perform appropriate maintenance procedures, in accordance with any and all instructions, specifications, and/or recommendations of the manufacturer, on all monitoring equipment and analytical instrumentation, where applicable, whenever and as often as needed for ensuring accurate measurements.

2. Spill Prevention and Remediation (if applicable)

If the permittee uses or stores liquid material at its facilities, it shall, at its expense:

- provide a storage or use area at its facilities which is capable of containing the liquid material so that liquid material cannot escape therefrom by gravity through private sewers, underground percolation and infiltration, or otherwise into the POTW in an amount which would result in a prohibited discharge to the POTW; and
- establish and follow procedures for preventing, managing, and remediating accidental spills, leaks, or escapes of liquids.

3. Posting of Use Permit and Notice of Exceedance Information (if applicable)

If the permittee stores substances which potentially could be discharged to the POTW in concentrations which exceed any discharge prohibition in the POTW Regulations, the permittee shall post a clearly legible set of instructions in the area where the wastewater is managed so that the report and notice requirements in Part I.B are made known and are available to the permittee's employees. The permittee shall also post this permit along with these instructions. The permittee shall instruct its employees who have wastewater responsibilities on these reporting and notice requirements.

4. Requirement for Interceptors

Interceptors or more elaborate pretreatment systems shall be properly installed, used, and maintained by the permittee for the proper pretreatment of wastewater containing, or potentially containing, floating or suspended hexane-extractable material or viscous or dense substances which, if discharged, would be a prohibited discharge under Part I, in accordance with the POTW regulations.

5. Pretreatment Facilities Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control, and related appurtenances, which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes, but is not limited to the following: effective performance, adequate funding, adequate operator staffing and training, as well as adequate laboratory and process controls including appropriate quality assurance procedures. The permittee shall utilize back-up or auxiliary facilities, or a similar system, when necessary to achieve compliance with the conditions of this permit. A new pretreatment facility shall not be placed in regular operation until tests have been conducted by the permittee to establish that the discharges will be in compliance with this permit. A representative of the City shall be permitted to witness the tests upon prior written request. The cost of the tests shall be paid by the permittee.

6. Pretreatment System Bypass

Pretreatment system bypass is prohibited, and the City may take enforcement action against the permittee for a bypass, unless:

- bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- there were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime; and
- the permittee gave notice as required in Part I.B of this permit.

This exception is not applicable if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance.

The City may approve an anticipated bypass, after considering its adverse effects, if the City determines that it will meet the 3 conditions listed above.

7. Duty to Control Production or Discharges

The permittee shall control production or all discharges to the extent necessary to maintain compliance with Categorical Pretreatment Standards and other applicable discharge limits upon

reduction, loss, failure, or abnormal condition of its process or treatment facility until the process and facility are restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the premittee's treatment facility is reduced, lost, or fails.

8. Retention of Records

The permittee shall maintain copies of all reports, information records, and all other information pertaining to those reports and to any sampling and analyses activities. Such reports, records, and information shall be retained by the permittee for at least three (3) years. This period shall be extended during the course of any unresolved litigation regarding the permittee or the POTW pretreatment program or when requested by the City Director, the State Director, or EPA. It the permittee has records regarding its generation, treatment, storage, or disposal of hazardous waste or solid waste, the permittee shall maintain such records for such period and make them available to the City for inspection and copying, subject to the provisions of the POTW Regulations. The terms "hazardous waste" and "solid waste" shall have the same definition as provided in the Michigan Hazardous Waste Management Act, as amended, and rules promulgated thereunder.

C. GENERAL CONDITIONS

1. Definitions

Unless the context specifically indicates otherwise, the meaning of terms used in this permit shall be in accordance with definitions set forth in the POTW Regulations or hereto as follows:

a. **Act** means the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C 1251, et seq., and all rules promulgated thereunder.
b. **Bypass** means the intentional diversion of waste streams away from any portion of a user's treatment facility needed for compliance with pretreatment standards to a point of discharge.
c. **Categorical pretreatment standards** means pollutant limits for discharges to POTWs, promulgated by the EPA in 40 CFR Chapter I, Subchapter N, Parts 405, et seq., in accordance with 307(b) and (c) of the Act, which are applicable to a non-domestic user which engages in a category or categories of industry that are subject to regulations listed in the definition for "categorical pretreatment standards" in the POTW Regulations.
d. **City** means the City of Flint, Michigan, a municipal corporation.
e. **City Director** means the director of the Department of Utilities of the City or other person or persons designated by that person or by the city administrator to exercise control over City collection system and the POTW treatment plant or certain matters relating to the city collection system or the POTW treatment plant.
f. **CFR** means the Code of Federal Regulations.
g. **Code** means the Code of the City of Flint, Michigan.
h. **Cooling water** means the water discharged from any use in which the only pollutant added is heat, shall be considered non-contract cooling water. Water discharged from any use in which heat and other pollutants have been added, shall be considered as contact cooling water.
i. **Daily concentration** means the sum of all concentration measurements for any 24-hour period divided by the number of such measurements.
j. **Discharge** means the introduction (including infiltration) of pollutants into the POTW which is either intentional or unintentional.
k. **Grab sample** means a sample which is taken from a discharge with no regard to the flow which is collected over a period of time not exceeding 15 minutes.
l. **Groundwater** means water which is pumped or otherwise captured from the ground and which is not used in a process. Mere treatment of groundwater is not use in a process.
m. **EPA** means the United States Environmental Protection Agency or its successor.
n. **Hexane-extractable material** means any material, such as fat, oil, or grease, which is

recoverable from wastewater by extraction with n-hexane, using epa test method 1664, revision a, and as defined therein.

o. **Instantaneous concentration** means the concentration in any grab sample.

p. **Interceptor** means a structure or device designed for removing floating or suspended hexane-extractable material and other viscous or dense substances from wastewater, by physical separation, prior to discharging the wastewater into the POTW.

q. **Interference** means a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: (i) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and, (ii) therefore, is a cause of a violation of any requirement of the NPDES permit for the POTW, the Act, or State Act (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or any more stringent state or local regulations): Section 405 of the Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research, and Sanctuaries Act.

r. **mg/L** means milligrams per liter.

s. **ug/L** means micrograms per liter.

t. **MDEQ** means the Michigan Department of Environmental Quality or its successor.

u. **Pass through** means a discharge which exits the POTW into Waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, cause a violation of any requirement of the Act or State Act.

v. **Pollutant** means any material which is discharged to the POTW or is proposed for discharge to the POTW. The term also includes properties of such materials such as pH and heat.

w. **Potentially Harmful Substance (PHS)** means:
   - Corrosive substances which have a pH of less than or equal to 2.0 Standard Units or greater than or equal to 12.0 Standard Units.
   - Ignitible substances which have a closed-cup flash point of less than 140° F (60 °C).
   - Reactive substances which are normally unstable and readily undergo violent change without detonating; react violently with water; form potentially explosive mixtures with water; when mixed with water, generate toxic gases, vapors, or fumes in a quantity sufficient to endanger humans; or are capable of detonation or explosive reaction.
   - Biocides which eradicate organisms (i.e., disinfectant, insecticide, rodenticide, herbicide, etc.).
   - Carcinogens which cause an increased incidence of benign or malignant neoplasms in animals or humans or that substantially decreases the time in which neoplasms develop in animals or humans.
   - Any substance listed in the Register of Potentially Harmful Substances in the Appendix.
   - Any other substance which, if discharged in an excessive amount, would violate Part I.

x. **POTW** means a publicly owned treatment works, as defined by Section 212 of the Act, which are owned by the City and the collection system. The term also means the City or its authorized representative. This term includes any devices, processes, and systems used by or for the City in the storage, treatment, recycling, or reclamation of wastewater or sludge from the treatment works or the collection system.

y. **POTW Regulations** means Chapter 46, Article V, Division 2 of the Municipal Code of the City of Flint.

z. **Pretreatment** means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into the POTW. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes, or by other means, except for the use of dilution, unless expressly authorized by an applicable pretreatment standard or requirement.

aa. **Process wastewater** means any water which, during manufacturing or processing, comes

into direct contact with, or results from, the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.

bb. **Severe property damage** means substantial physical damage to property, damage to the treatment facilities of a user which causes them to become all or partially inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

cc. **Slug discharge** means a discharge of a non-routine, episodic nature, including, but not limited to, an accidental spill or a non-customary batch discharge.

dd. **State Act** means Part 31 Water Resources Protection of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, and all rules promulgated thereunder.

ee. **Toxic Organics** means the compounds listed as "Toxic Organics" in the Appendix.

ff. **Wastewater** means Water discharged to the POTW by a user which may or may not contain other pollutants. This term does not include storm water, surface runoff, or non-contaminated groundwater and non-contact cooling water.

2. Right of Entry

Authorized representatives of the City exhibiting proper credentials and identification shall be permitted at all reasonable times, and at any time in an emergency, to enter the permittee's property without delay for the purposes of inspection, observation, measurement, sampling, and testing in connection with the administration and enforcement of this permit and the POTW Regulations.

3. Limitations of Permit Transfer

This permit shall not be assigned, transferred, or sold to a new owner without approval of the City. As described in the Code, in the event of any change in ownership of facilities from which the authorized discharge emanates, written notification of proposed permit transfer must be provided to the City. Included shall be an agreement specifying a date for transfer of permit responsibility, and coverage between the current and new permittee which acknowledges liability for any violation which occurs before and after that date.

This permit is issued to the permittee for a specific operation at a specific location and it is, therefore, not assignable to another sewer user or transferable to any other location without prior written approval of the City Director. The City Director shall approve a use permit transfer and make the necessary minor modifications to the use permit to show the transferee as the permittee, if the transferor demonstrates to the city the following conditions exist:

- the transferor has not violated any provision on this permit or of the POTW Regulations during the 6-month period preceding the date of the transfer;
- as of the date of the transfer, there are no unpaid charges or fees due to the city from the transferor related to use of the POTW;
- the application for the use permit filed by the transferor remains the same with respect to the discharge, facilities, and activities of the transferee, except as to the identity of the discharger; and
- the transferor provides written evidence to the City Director that a copy of the use permit has been provided to the transferee.

If these conditions are not met, then no transfer shall occur and a new use permit is required.

4. Permit Term

The term of this use permit shall not to exceed five (5) years. The permittee shall apply for re-issuance of this use permit by submitting a complete application at least one hundred and eighty

(180) days before the expiration of this use permit. If application for renewal is timely submitted, the existing use permit shall continue until final action is taken by the City Director on the application for renewal. Otherwise, the existing use permit shall expire on its stated expiration date and the permittee shall cease its discharge.

5. Permit Modification

The City Director shall have the right to modify this permit in order to:

- assure compliance by the POTW with applicable laws and the POTW NPDES permit;
- account for changes in discharges by the permittee;
- account for new information concerning the pollutants discharged by the permittee;
- reflect changes in federal or state laws and regulations or in City ordinances;
- accommodate operational changes at the POTW that, as determined by the City Director, require revision of the use permit;
- modify or terminate any special arrangement contained in a use permit; or
- assure compliance by the permittee with this permit , the POTW Regulations, or other applicable laws.

The permittee shall be informed of any modifications in this permit at least thirty (30) days prior to the effective date of the modification, unless a shorter time is necessary to meet applicable law or to protect human health, the environment, or the POTW.

6. Revocation of Permit

The City Director may revoke this permit during its term or deny its renewal if:

- the permittee has failed to comply with any condition of this permit;
- the permittee fails, in the use permit application or during the use permit issuance process, to disclose fully all relevant facts to the City, or the permittee misrepresents any relevant fact at any time to the City;
- the City Director determines that the permitted discharge endangers human health, the environment, or the POTW and the threat can only be abated by revocation or denial of this permit;
- a change in any condition that requires either a temporary or permanent reduction or elimination of the discharge;
- the permittee is in default, after having received written notice of such default, in the payment of fees or other amounts owed to the City related to wastewater matters; or
- non-compliance by the permittee with any provision of the POTW Regulations.

Upon revocation or denial of this permit, the permittee shall immediately terminate its discharge to the POTW.

7. Property Rights Exclusion

The issuance of this permit conveys neither any property rights in either real or personal property, nor any exclusive privileges. It also authorizes neither any injury to private property or invasion of personal rights, nor infringement of Federal, State, or local laws or regulations.

8. Severability

If any provision, paragraph, word, or part of this permit is invalidated by any Code revision or any court of competent jurisdiction, the remaining provisions, paragraphs, words and parts shall not be affected and shall continue in full force and effect.

9. Monitoring/Inspection Fees

The permittee shall reimburse the City for any and all expenses incurred as a result of any monitoring or inspection conducted by or for the City at the permittee's facility.

10. Penalties for Violations

The permittee shall comply with all of the provisions of this permit. A violation of any provision of this permit is a violation of the POTW Regulations, subject to the penalty, damage, compensatory charge, and other enforcement provisions of the POTW Regulations, as follows:

a. *Continuing Violations.* Each day on which a violation of this permit, an order, or the POTW Regulations occurs shall be a separate violation. Every violation of each part of this permit shall be a separate violation.

b. *Civil Judicial Relief.* The City Director, through the City Attorney, may pursue an action at law or in equity to enjoin, abate, or prosecute any violation of this permit. The City Director may seek temporary or permanent injunctive relief, damages, compensatory charges, and/or civil penalties under the POTW Regulations; and such other relief as a court may order.

c. *Civil Penalties.* In an action brought by the City against the permittee for violation of this permit, a court may impose a civil penalty of up to five thousand dollars ($5,000) per day per violation. In calculating the amount of the penalty, the court shall consider the frequency of the violation; the impact on the POTW, human health, and the environment; the magnitude and duration of the violation; the economic benefit to the permittee from the violation; the compliance history of the permittee; and other factors deemed appropriate by the court.

d. *Municipal Civil Infraction; Civil Fine.* The City Director and City Enforcement Officers are authorized to issue a municipal civil infraction citation ("citation"). For any violation of this permit, except for certain criminal violations. The civil fine for any violation of this permit shall be up to five thousand dollars ($5,000) per violation per day. In calculating the amount of the civil fine, the City Director or the court, as applicable, shall consider the frequency of violation by the permittee, the impact on the POTW and human health and the environment of the violation, the magnitude and duration of the violation, the economic benefit to the permittee gained by the violation, the compliance history of the permittee, and other factors deemed appropriate by the court or the City Director as applicable.

e. *Cumulative Remedies.* The imposition of a single civil penalty, civil fine, criminal fine, order, damage, or compensatory charge upon the permittee for a violation of this permit shall not preclude the imposition by the City or a court of additional sanctions and remedies with respect to the same violation except that the permittee shall not have both a civil penalty and a civil fine imposed on it for the same violation. Prosecution of a criminal action against the permittee shall not be stayed pending the outcome of a civil action involving the same violation.

f. *Compensatory Charges.* In addition to prosecution and the imposition of penalties and fines for violations of this permit, the permittee shall be subject to one or more compensatory charges in accordance with the POTW Regulations.

g. *Violation Constitutes a Public Nuisance.* Violations of this permit are a public nuisance.

h. *Criminal Violations.* If the permittee willfully or intentionally violates any provision of this permit, the permittee shall, upon conviction, be guilty of a misdemeanor, punishable as provided in the Code. If the permittee knowingly makes any false statements, representations, or certifications in any application, record, report, plan, or other document filed or required to be maintained pursuant to this permit; or if the permittee falsifies, tampers

with, or knowingly renders inaccurate any monitoring device or method required under this permit or the POTW Regulations, the permittee shall, upon conviction, be guilty of a misdemeanor punishable as provided in Code. Each day of violation is a separate offense.

PART III

A. SPECIAL TERMS AND/OR REQUIREMENTS

1. Soil-cleanup Groundwater Discharge Variance

a. This permit establishes a variance to Section 46-146(b)(12) of the POTW Regulations for discharging groundwater to the POTW, per written request from the sanitary sewer application ("the request"), dated November 7, 2011, submitted to the City by the permittee, which provided specific information about proposed discharges.

b. The permittee is hereby **ONLY** authorized to discharge soil cleanup groundwater pumped from the sources and contaminated with the pollutants specifically identified in the requests. This permit does **NOT** authorize the discharge of water from any other source.

c. The permittee shall temporarily withhold the groundwater discharge for up to ninety-six (96) hours upon request by the City, after which the discharge may be resumed upon prior oral notification to the City. This does not preclude the City from requiring the permittee to withhold the groundwater discharge for longer than ninety-six (96) hours.

2. Controlling the Discharge Rate

The permittee's discharge to the POTW shall not cause or contribute to hydraulic overloading at any point in the POTW.

- The permittee shall immediately reduce or temporarily withhold the discharge, during wet weather events equivalent to 1 inch of rain per 24 hour period or greater, and as needed for preventing or abating hydraulic overloading, upon receipt of a written or oral request by the City WPC Supervisor.

- The permittee shall have a written plan, reviewed and accepted by the City, for controlling the discharge in a timely, reliable manner. The City may require the permittee to revise this plan, whenever needed.

- The permittee shall not exceed the maximum daily flow rate of 25 gallons per minute or exceed the daily maximum flow volume of 36,000 gallons per day.

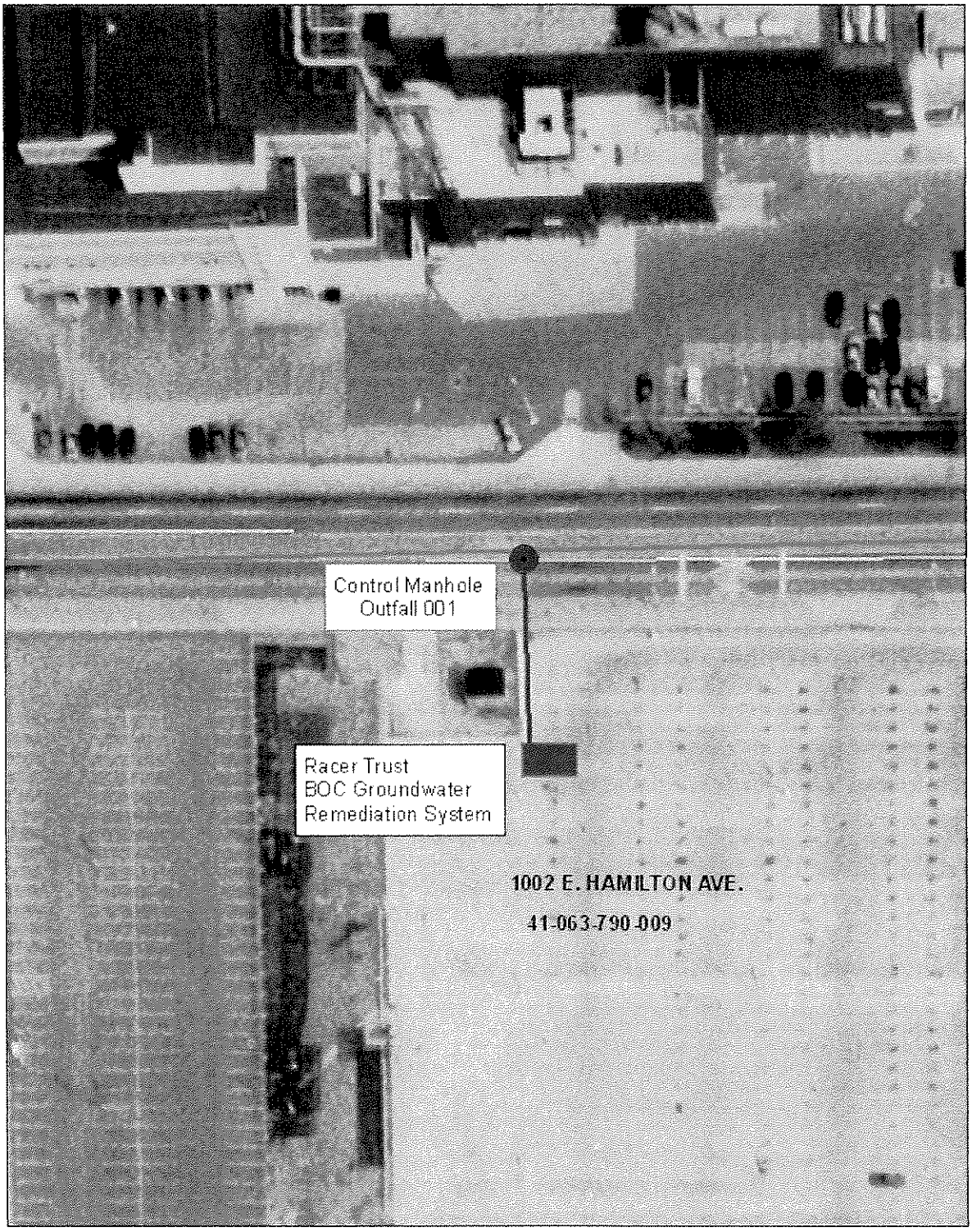
2. Discharge Metering

The permittee shall, at all times, meter the rate and daily volume of its discharge to the POTW, using a flow metering system approved by the City Director.

B. APPENDIX

1. Site Drawing
2. Meaning of Abbreviations
3. Generally Applicable Prohibitions and Limits
4. List of Toxic Organics
5. Register of Potentially Harmful Substances
6. Monthly Self-monitoring Report Form

Racer Trust BOC Ground Water Remediation - Old GM Powertrain Flint North Site



Legend

- Sanitary Manholes
- Sanitary Sewers
- Streets

N

USE OF THE PUBLICLY OWNED TREATMENT WORKS

§ 46-142 PURPOSE AND SCOPE.

(a) *Purpose.* The purpose of this Division is to establish standards, rules, and regulations with respect to the use of the POTW; to provide for certain rates and charges for use of the system and to prevent pollution of the environment.

(b) *Scope.* This Division shall apply to the City of Flint. Any other municipality, drainage district, or other political subdivision of the State that discharges into the POTW which has the power to enact ordinances shall adopt an ordinance which is substantially similar to this Division and which is approved by the City as being sufficiently similar. This Division provides for the regulation of discharges into the POTW through the issuance of use permits to significant non-domestic users, through monitoring and enforcement activities, and through required discharger reporting.

§ 46-143 DEFINITIONS.

For the purposes of this Division, the following words and phrases shall have the meanings described in this Section, unless the context in which they are used specifically indicates otherwise.

ACT. The term "Act" means the Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 U.S.C l *1251,* et seq, and all rules promulgated thereunder.

BEST MANAGEMENT PRACTICES (BMPS). Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 CFR, Chapter I, Subchapter N, Part 403.5(A)(1) and (B). BMPs also includes treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage, any of which may enter the POTW.

BIOCHEMICAL OXYGEN DEMAND. The quantity of oxygen utilized in the biochemical oxidation of organic matter and biologically oxidizable inorganic matter under standard laboratory procedures for *5* days, at 20 degrees celsius, expressed in milligrams per liter concentration, using method 5210 B in *Standard Methods for the Examination of Water and Wastewater,* current edition.

CATEGORICAL PRETREATMENT STANDARDS (CPS). Pollutant limits for discharges to POTWs, promulgated by US EPA in 40 CFR Chapter I, Subchapter N, Parts 405, et seq, in accordance with 307(b) and (c) of the Act, which are applicable to a non-domestic user which engages in a category or categories of industry that are subject to the following regulations:

Effluent Guidelines and Standards for Electroplating (40 CFR 413)
Effluent Guidelines and Standards for Organic Chemicals, Plastics, and Synthetic Fibers (40 CFR 414)
Effluent Guidelines and Standards for Inorganic Chemicals (40 CFR 415)
Effluent Guidelines and Standards for Fertilizer Manufacturing (40 CFR 418)
Effluent Guidelines and Standards for Petroleum Refining (40 CFR 419)
Effluent Guidelines and Standards for Iron and Steel Manufacturing (40 CFR 420)
Effluent Guidelines and Standards for Nonferrous Metals (40 CFR 421)

Effluent Guidelines and Standards for Steam Electric Power Generating (40 CFR 423)
Effluent Guidelines and Standards for Leather Tanning and Finishing (40 CFR 425)
Effluent Guidelines and Standards for Glass Manufacturing (40 CFR 426)
Effluent Guidelines and Standards for Rubber Processing (40 CFR 428)
Effluent Guidelines and Standards for Timber Products (40 CFR 429)
Effluent Guidelines and Standards for Pulp, Paper and Paper Board (40 CFR 430)
Effluent Guidelines and Standards for Metal Finishing (40 CFR 433)
Effluent Guidelines and Standards for Centralized Waste Treatment (40 CFR 437)
Effluent Guidelines and Standards for Pharmaceutical Manufacturing (40 CFR 439)
Effluent Guidelines and Standards for Transportation Equipment Cleaning (40 CFR 442)
Effluent Guidelines and Standards for Waste Combustors (40 CFR 444)
Effluent Guidelines and Standards for Landfills (40 CFR 445)
Effluent Guidelines and Standards for Pesticide Chemicals Manufacturing (40 CFR 455)
Effluent Guidelines and Standards for the Battery Manufacturing Point Source Category (40 CFR 461)
Effluent Guidelines and Standards for Metal Molding and Casting (40 CFR 464)
Effluent Guidelines and Standards for Coil Coating (40 CFR 465)
Effluent Guidelines and Standards for Porcelain Enameling (940 CFR 466)
Effluent Guidelines and Standards for Aluminum Forming (40 CFR 467)
Effluent Guidelines and Standards for Copper Forming (40 CFR 468)
Effluent Guidelines and Standards for Electrical and Electronic Components (40 CFR 469)
Effluent Guidelines and Standards for Nonferrous Metals Forming and Metal Powders (40 CFR 471)

COOLING WATER. The water discharged from any use in which the only pollutant added is heat, shall be considered non-contract cooling water. Water discharged from any use in which heat and other pollutants have been added, shall be considered as contact cooling water.

CPS. Categorical Pretreatment Standards.

DAILY CONCENTRATION The sum of all concentration measurements for any 24-hour period divided by the number of such measurements.

DISCHARGE. The introduction (including infiltration) of pollutants into the POTW which is either intentional or unintentional.

FLASHPOINT. The minimum temperature at which vapor comubustion will spread away from its its source of ignition.

GRAB SAMPLE. A sample which is taken from a discharge with no regard to the flow which is collected over a period of time not exceeding is minutes.

GROUNDWATER. Water which is pumped or otherwise captured from the ground and which is not used in a process. Mere treatment of groundwater is not used in a process.

HEXANE-EXTRACTABLE MATERIAL.
Any material, such as fat, oil, or grease, which is recoverable from wastewater by extraction with N-Hexane, using EPA Test Method 1664, Revision A, and as defined therein.

HAZARDOUS SUBSTANCE. Any substance as defined in Part 201 of the Michigan Natural

mg/L. Milligrams per liter.

INSTANTANEOUS CONCENTRATION. The concentration in any grab sample.

INTERFERENCE. A discharge which, alone or in conjunction with a discharge or discharges from other sources, both: (i) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and, (ii) therefore is a cause of violation of any requirement of the NPDES permit for the POTW, the Act, or State Act (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or any more stringent state or local regulations): Section 405 of the Act, the Solid Waste Disposal Act [SWDA] (including Title II, more commonly referred to as the Resource Conservation and Recovery Act [RCRA], and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research, and Sanctuaries Act.

MAXIMUM ALLOWABLE INDUSTRIAL LOADING. The daily maximum mass of a pollutant, in pounds per day, which may be allowed by the City to be discharged to the POTW by the aggregate of all non-domestic users.

ug/L. Micrograms per liter.

NON-DOMESTIC USER. A user that discharges pollutants other than, or in addition to, sanitary sewage, but not including a user that is a municipality, drainage district, or other political subdivision of the state that only discharges from its own collection system to the City's collection system.

NPDES PERMIT. A permit issued pursuant to the National Pollutant Discharge Elimination System to regulate the discharge of wastewater into the surface waters of the state.

PASS THROUGH. A discharge which exits the POTW into waters of the state in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, cause a violation of any requirement of the Act or State Act.

PERSON Any individual, firm, municipality, company, association, society, corporation, partnership, or group, including their officers and employees who have responsibility for or actual involvement in the matters regulated by this Division.

pH. The logarithm (base 10) of the reciprocal of the concentration of Hydrogen ions in moles per liter of solution.

POLLUTANT. Any material which is discharged to the POTW or is proposed for average dry weather hydraulic or organic capacity of the POTW.

POTW. Publicly Owned Treatment Works, as defined by Section 212 of the Act, which are owned by the City and the collection system. The term also means the City or its authorized representative. This term

includes any devices, processes, and systems used by or for the City in the storage, treatment, recycling, or reclamation of wastewater or sludge from the treatment works or the collection system.

POTW TREATMENT PLANT. The POTW exclusive of the collection system.

PREMISES. A lot or parcel of land, generally, or each lot or parcel of land, or building, having any connection, direct or indirect, to the POTW, as the context of the word within this Division dictates.

SANITARY SEWAGE. Wastewater or pollutants from toilet, kitchen, laundry, bathing, or other facilities all of which are used for household purposes or for non-commercial purposes at a commercial location.

SEVERE PROPERTY DAMAGE. Substantial physical damage to property, damage to the treatment facilities of a user which causes them to become all or partially inoperable, or substantial and permanent loss of natural resources occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

SEWER. A pipe or conduit for carrying wastewater, storm water, surface runoff, or groundwater.

SLUDGE. Solids or other residue, either of which are separated from wastewater and generated by any treatment process, or solids or other residue directly separated from a production process.

SOURCE. Any building, structure, facility, vehicle, or installation from which there is or may be a discharge to the POTW.

STATE ACT. Part 31 Water Resources Protection of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, and all rules promulgated thereunder.

TOTAL SUSPENDED SOLIDS. Solids that either float on the surface of; or are in suspension in, wastewater and which can be recovered by standard laboratory filtering, using Method 2540 D in *Standard Methods for the Examination of Water and Wastewater,* current edition.

US EPA. The United States Environmental Protection Agency or its successor.

USER. A person who discharges into the POTW and a municipality or drainage district whose collection system discharges into the POTW.

WASTEWATER. Water discharged to the POTW by a user which may or may ot contain other pollutants. This term does not include storm water, surface runoff, or non-contaminated groundwater and non-contact cooling water.

§ 46-146 DISCHARGE PROHIBITIONS AND LIMITS.

(a) *Discharge Prohibitions.* The provisions in this Section are intended to:

(1) prohibit the discharge to the POTW of wastewater which may cause pass-through or interference or which could have detrimental effects on the physical structures or operating personnel of the POTW, or on the general public or the environment, and

(2) restrict the discharge to the POTW of storm water, groundwater, and non-contact cooling water.

(b) *Prohibited Discharges.* No user shall discharge, cause to be discharged, or allow to be discharged into the POTW any of the following:

(1) pollutants which may or do create a fire or explosion hazard in the POTW, including, but not limited to, pollutants or wastewater with a closed cup flashpoint of less than 140° Fahrenheit (60° Celsius), as determined by a Pensky-Martens closed cup tester, using the test method specified in ASTM Standard D-93-79 or D-93-80K (incorporated by reference, see 40 CFR § 260.21) or a Setaflash closed cup tester, using the test method specified in ASTM Standard D-3278-78 (incorporated by reference, see 40 CFR § 260.21), and pollutants which exceed 10% of the lower explosive limit (LEL) at any point within the POTW;

(2) pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute or chronic health and safety problems for workers or exceed any applicable occupational health or safety standard;

(3) pollutants which may or do cause corrosive or abrasive structural damage to the POTW;

(4) solid or viscous pollutants in amounts which may or do obstruct flow or cause interference in the POTW;

(5) wastewater having an instantaneous pH less than 6.0 or greater than 10.5;

(6) any pollutant, including oxygen-demanding pollutants, released in a discharge at a flow rate and/or pollutant concentration which may or do cause interference in the POTW;

(7) pollutants which may or do cause:

a. Restriction of hydraulic capacity of structures in the POTW;

b. Unsafe conditions to personnel in the operation, inspection, or maintenance of the POTW or unsafe conditions to the general public, with respect to the collection system;

c. Exceptional or unreasonably burdensome effort, attention, or expense in the operation or maintenance of the POTW.

d. Heat in amounts which will inhibit biological activity in the POTW, resulting in interference, but in no case heat such that the temperature at the discharge to the collection system exceeds 150° Fahrenheit (66° Celsius) or the influent at the POTW treatment plant exceeds 104° Fahrenheit (40° Celsius).

(8) pollutants which may or do cause pass-through or interference.

(9) any pollutants which exceed, for that user, the limitations set forth in a Categorical Pretreatment Standard, as adjusted under the Combined Wastestream Formula in Michigan Rule R 323.2311(7), which may be expressed as concentration limits, mass limits, or both, as provided in Michigan Rule R 323.2311(5). A Categorical Pretreatment Standard shall be adjusted if 40 CFR 403.15 applies and the criteria of 40 CFR 403.15(b) and (c) are met (net/gross calculation).

(10) any liquids, gases, or solids which either singly or by interaction with other substances may or do create a public nuisance.

(11) any pollutant introducing colors not removed in the POTW treatment process, such as but not limited to, dye wastes and vegetable tanning solutions.

(12) any unpolluted water, non-contact cooling water, storm water, groundwater or surface water, unless the City Director gives written permission to the user for the discharge of such waters based on available hydraulic capacity and potential impacts on the POTW treatment capability. The scope and duration of the discharge of such waters shall be determined at the sole discretion of the City Director.

(13) any radioactive wastes in harmful quantities as such quantities are defined by applicable State and Federal regulations.

(14) any grease or other pollutants that will become solid or viscous at a temperature of 140° Fahrenheit (60° Celsius) or below after being discharged into the POTW.

(15) hazardous substances that were not listed or disclosed in the user's application for a use permit that:

a. May or do cause or contribute to a violation of State or Federal water quality standards in the receiving waters to which the POTW discharges; or

b. Result in or contribute to a liability of the City under Part 201 of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, or the Federal Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended (CERCLA). Nothing in this paragraph determines the percentage share or allocation share amount of a user's Part 201 or CERCLA liability.

(16) hazardous substances in quantities exceeding the numerical limit in a user's use permit which:

a. May or do cause or contribute to a violation of State or Federal water quality standards in the receiving waters to which the POTW discharges; or

b. Result in or contribute to a liability of the City under Part 201 of the Michigan Natural Resources and Environmental Protection Act, Act 451 of 1994, as amended, or the federal comprehensive environmental response compensation and liability Act of 1980, as amended (CERCLA). Nothing in this paragraph determines the percentage share or allocation share amount of a user's Part 201 or CERCLA liability.

(17) sludge, unless the City Director has determined that it is amenable to treatment by the POTW and does not otherwise violate any discharge prohibition.

(18) any new or used petroleum oil or grease, non-biodegradable cutting oil, or products of mineral oil origin, in amounts that may or do cause interference or pass-through.
Concentration limits for specific pollutants.

(c) *Pollutant Concentration Limits.*

(1) discharges made by non-domestic users having concentrations of specific pollutants greater than the pollutant concentration limits described in table 404(c) in the appendix at the end of this Division are prohibited, except as regulated under Subsection d of this Section.

(2) *Measurement of Pollutant Concentrations.*

a. The instantaneous concentration limit for a specific pollutant shall apply to the instantaneous concentration of the pollutant measured by sampling in accordance with § 46-149(a)(3)a.

b. The daily concentration limit for a specific pollutant shall apply to the daily concentration of the pollutant measured by sampling in accordance with § 49-149(a)(3)b.

(d) *Special Arrangements.* The City Director may establish a special arrangement between the City and a user in a use permit or an order that allows discharges to the POTW that are otherwise prohibited by this Section. A special arrangement shall not cause the City to violate any NPDES permit provisions. The special arrangement may include special alternative limits (SALs) that are greater or less than the discharge limits in Subsection (c) of this Section. A special arrangement may also include requirements for best management practices (BMPs) in addition to, but not in lieu of, any discharge limit. BMPs shall be established in a use permit if the user is a Significant Non-domestic User. The decision to establish a special arrangement shall be made at the sole discretion of the City Director. The special arrangement may be terminated or modified at will at any time by the City. A special arrangement shall not create any vested rights or property rights in the user. A special arrangement shall create no rights to discharge to the POTW that the user would not have had in the absence of a special arrangement. Provisions relating to termination or modification of a special arrangement may be more fully set forth in the special arrangement document. As a condition precedent to the entry into a special arrangement, the City shall require the user to sign an acknowledgement and acceptance of the provisions of this Subsection. Any special arrangement may contain provisions for the user to pay a compensatory charge to the City. A special arrangement shall not allow a discharge that exceeds a Categorical Pretreatment Standard unless a removal credit or a fundamentally different factor variance applies to allow the user to exceed the otherwise applicable Categorical Pretreatment Standard. In such case, the special arrangement shall not allow a discharge that exceeds the limit allowed by the removal credit or variance. A violation of the terms of a special arrangement, including any SALs, BMPs, or special pretreatment requirements shall be a violation of this Division.

(1) *Procedures for Establishing Special Alternative Limits.* In determining a SAL, the City Director shall allocate a share of the maximum allowable industrial loading for the pollutant of concern as set forth in Paragraph (2) of this Subsection among one or more non-domestic users in amounts and on terms and conditions deemed appropriate by the City Director.

(2) *Maximum Allowable Industrial Loadings.* The total mass of a pollutant of concern used by or allocated to all non-domestic users, including mass allocated by the City Director in establishing SALs for the pollutant, shall not exceed in the aggregate for all non-domestic users the maximum allowable industrial loadings described in Table 46-146(d)2 in the Appendix at the end of this Division.

(e) *Local Initiative Limits.* The City Director may impose limits on a user for pollutants not specifically listed in Table 46-146(c) in the Appendix at the end of this Division, which may be in a use permit or in an order. In determining a local initiative limit (LIL), the City Director shall consider available data on acceptable POTW pollutant loading based on POTW design, treatability of the pollutant, the potential for pass-through or interference, current POTW pollutant loading, the properties of the pollutant, and other relevant factors deemed appropriate by the City Director. The City Director may also establish generally applicable LILs by rulemaking. A generally applicable LIL may be established and shall be enforceable as a discharge prohibition, provided the City Director first publishes notice of the proposed LILs in the newspaper in the City with the largest circulation, provides written notice to users who are known to the City Director to discharge a significant mass or concentration of the pollutant, and provides for an opportunity to interested persons to submit written comments. If significant public comments are received, the City Director shall hold a public hearing to take additional oral and written comments. After these procedures are completed, the City Director shall publish the final enforceable LILs in the same newspaper along with the effective date of the LILs.

(f) *Categorical Pretreatment Standards.* A user shall comply with all Categorical Pretreatment Standards and any other pretreatment requirements, established under 307(B), 307(C), or 402(B)(8) of the Act that are applicable to that user, as adjusted under the Combined Wastestream Formula in Michigan Rule R 323.2311(7). If a Categorical Pretreatment Standard and another limit contained in this Division or in an applicable State of Michigan pretreatment requirement regulate the same pollutant, then the more restrictive of them shall apply. If a user requests that a removal credit be applicable to that user, then such user shall pay all costs associated with supporting, obtaining, and administering the removal credit so that the City incurs no costs. It shall be at the sole discretion of the City whether or not a removal credit shall be established and how a removal credit shall be allocated.

(g) *Trucked Wastes.* No wastes or wastewater shall be discharged by any user or person into the POTW from a vehicle which transported the waste or wastewater to the point of discharge. The preceding sentence does not prohibit a user from trucking wastes or wastewater to the user's treatment facility.

(h) *Future Conditions.* Future conditions imposed on the City by government agencies with proper jurisdiction may require subsequent amendment of this Division by the City. Where federal- or state-promulgated pretreatment standards require limits on parameters not covered in this Division or limits more stringent than those specified in the Division, the state or federal limits shall have precedence and take effect with respect to the applicable user on the later of their promulgation date or the date specified for compliance with such standards.

(i) *Reserved Right of Revision.* The City reserves the right to establish by ordinance, rule, order, or use permit more stringent limitations or requirements on discharges to the POTW.

§ 46-147 DILUTION.

No user shall increase the use of potable or process water or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate treatment before discharge to the POTW to achieve compliance with the standards set forth in this Division, except upon prior written approval from the City Director. Such approval shall be granted at the sole discretion of the City Director and consistent with federal and state law.

Appendix

Table 46-146(c) Pollutant Concentration Limits
Table 46-146(d)(2) Maximum Allowable Industrial Loadings

Table 46-146(c)

Pollutant Concentration Limits		
Pollutant	Instantaneous Concentration Limits	Daily Concentration Limits
Biochemical Oxygen Demand		427 mg/L
Hexane-Extractable Material		100 mg/L
Ammonia-Nitrogen		37 mg/L
Total Phosphorus		7 mg/L
Total Suspended Solids		305 mg/L
Total Arsenic		12 ug/L
Total Cadmium		14 ug/L
Total Chromium		48 ug/L
Hexavalent Chromium		5 ug/L
Total Copper		179 ug/L
Available Cyanide	1,195 ug/L	5 ug/L
Total Lead		107 ug/L
Total Mercury		0.012[1] ug/L
Total Nickel		43 ug/L
Total Silver		23 ug/L
Total Zinc		445 ug/L
Total PCB		0.00020[2] ug/L
Benzene	174 ug/L	1 ug/L
Toluene	1,753 ug/L	187 ug/L
Ethylbenzene	2,048 ug/L	1 ug/L
Total Xylenes	2,009 ug/L	2 ug/L

[1] Mercury sample collection, preservation, and handling procedures and analytical protocol for compliance monitoring shall be in accordance with us EPA Method 245.1 or 245.2 or Method 1631, as determined by the City Director. Whenever the quantification level is less than or equal to the discharge limit, the discharge limit shall apply directly. However, whenever the quantification level is above the discharge limit, the discharge of mercury at or above the quantification level shall represent an exceedance of the limit. The quantification level under Methods 245.1 and 245.2 shall be 0.2 ug/L, unless a higher level is appropriate due to matrix interference. If the concentration of the discharge sample is less than the quantification level when Method 245.1 or 245.2 are applicable, the user shall be considered to be in compliance with the mercury limit for the period that the sample represents, provided that the user is also in full compliance with any mercury minimization requirements applicable to that user. The quantification level under Method 1631 shall be 0.5 ng/L, unless a higher level is appropriate due to matrix interference. Justification for higher quantification levels shall be submitted to the City Director within 30 days of such determination. This footnote does not authorize the discharge of mercury at levels which interfere with the POTW or which constitute a threat to public health, welfare, or the waters of the state. [2] Total PCB shall be defined as the sum of the concentrations of Aroclors 1016, 1221, 1232, 1242, 1248, 1254, and 1260. In addition, any detected Aroclor-specific measurements shall be reported. Total PCB sample collection, preservation and handling procedures and analytical protocol for compliance monitoring shall be in accordance with US EPA Method 608. The quantification level shall not exceed 0.2 ug/L, unless a higher level is appropriate due to sample matrix interference. Whenever the quantification level is less than or equal to the discharge limit, the discharge limit shall apply directly; however, whenever the quantification level is above the discharge limit, the discharge of Total PCB at or above the quantification level shall represent an exceedance of the limit. If the concentration of the discharge sample is less than the quantification level, the user shall be considered to be in compliance with the Total PCB limit for the period that the sample represents, provided that the user is also in full compliance with any Total PCB minimization requirements applicable to that user. Any Aroclor analytical result which is less than the quantification level shall be considered as a zero in the summation of the Aroclor results for the sample. This footnote does not authorize the discharge of total PCB at levels which interfere with the POTW or which constitute a threat to public health, welfare or the waters of the state.

Table 46-146(d)(2)

Maximum Allowable Industrial Loadings	
Pollutant	Maximum Allowable Industrial Loading
Biochemical Oxygen Demand	79,216 Pounds/Day
Hexane-Extractable Material	17,589 Pounds/Day
Ammonia Nitrogen	3,762 Pounds/Day
Total Phosphorus	522 Pounds/Day
Total Suspended Solids	45,636 Pounds/Day
Total Arsenic	5.29 Pounds/Day
Total Cadmium	4.12 Pounds/Day
Total Chromium	162 Pounds/Day
Hexavalent Chromium	7.18 Pounds/Day
Total Copper	39.4 Pounds/Day
Available Cyanide	2.66 Pounds/Day
Total Lead	28.7 Pounds/Day
Total Mercury	0.000229 Pounds/Day
Total Nickel	34.7 Pounds/Day
Total Silver	3.90 Pounds/Day
Total Zinc	84.8 Pounds/Day
Total PCB	0.00000390 Pounds/Day
Benzene	148 Pounds/Day
Toluene	205 Pounds/Day
Ethylbenzene	31.7 Pounds/Day
Total Xylenes	43.0 Pounds/Day

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Abate	3383-96-8				Yes
Acenaphthene	83-32-9		Yes		
Acenaphthylene	208-96-8		Yes		
Acetaldehyde	75-07-0	Yes			Yes
Acetic Acid	64-19-7	Yes			Yes
Acetic Anhydride	108-24-7	Yes			
Acetone Cyanohydrin	75-86-5	Yes			
2-Acetylaminofluorene	53-96-3				Yes
Acetyl Bromide	506-96-7	Yes			
Acetyl Chloride	75-36-5	Yes			
Acetylene Tetrabromide	79-27-6				Yes
Acrolein	107-02-8	Yes	Yes		Yes
Acryamide	79-06-1				Yes
Acrylonitrile	107-13-1	Yes	Yes		Yes
Adipic Acid	124-04-9	Yes			
Aldrin	309-00-2	Yes	Yes	Yes	Yes
Allyl Alcohol	107-18-6	Yes			Yes
Allyl Chloride	107-05-1	Yes			Yes
Allyl Glycidyl Ether (AGE)	106-92-3				Yes
Allyl Propyl Disulfide	2179-59-1				Yes
Alpha-BHC	319-84-6		Yes		
Aluminum Sulfate	10043-01-3	Yes			
4-Aminobiphenyl	92-67-1				Yes
Amitrole	61-82-5				Yes
Ammonia	7664-41-7	Yes			Yes
Ammonium Acetate	631-61-8	Yes			
Ammonium Benzoate	1863-63-4	Yes			
Ammonium Bicarbonate	1066-33-7	Yes			
Ammonium Bichromate	7789-09-5	Yes			
Ammonium Bifluoride	1341-49-7	Yes			
Ammonium Bisulfite	10192-30-0	Yes			
Ammonium Carbamate	1111-78-0	Yes			
Ammonium Carbonate	506-87-6	Yes			
Ammonium Chloride	12125-02-9	Yes			Yes
Ammonium Chromate	7788-98-9	Yes			
Ammonium Citrate, Dibasic	3012-65-5	Yes			
Ammonium Fluoborate	13826-83-0	Yes			
Ammonium Fluoride	12125-01-8	Yes			
Ammonium Hydroxide	1336-21-6	Yes			
Ammonium Oxalate	6009-70-7	Yes			
Ammonium Silicofluoride	16919-19-0	Yes			
Ammonium Sulfamate	7773-06-0	Yes			Yes
Ammonium Sulfide	12135-76-1	Yes			
Ammonium Sulfite	10196-04-0	Yes			
Ammonium Tartrate	3164-29-2	Yes			
Ammonium Thiocyanate	1762-95-4	Yes			
Amyl Acetate	628-63-7	Yes			Yes
sec-Amyl Acetate	626-38-0				Yes
Aniline	62-53-3	Yes			Yes
Anisidine (o and p Isomers)	29191-52-4				Yes
Anthracene	120-9-7		Yes		
Antimony (and all compounds)	7440-36-0		Yes		
Antimony Pentachloride	7647-18-9	Yes	Yes		
Antimony Pentafluoride	7783-70-2		Yes		
Antimony Potassium Tartrate	28300-74-5	Yes	Yes		
Antimony Tribromide	7789-61-9	Yes	Yes		
Antimony Trichloride	10025-91-9	Yes	Yes		
Antimony Trifluoride	7783-56-4	Yes	Yes		
Antimony Trioxide	1309-64-4	Yes	Yes		

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Arsenic (and all compounds)	7440-38-2		Yes	Yes	Yes
Arsenic Acid	7778-39-4		Yes	Yes	Yes
Arsenic Disulfide	1303-32-8	Yes	Yes	Yes	Yes
Arsenic Pentoxide	1303-28-2	Yes	Yes	Yes	Yes
Arsenic Trioxide	1327-53-3	Yes	Yes	Yes	Yes
Arsenic Trisulfide	1303-33-9	Yes	Yes	Yes	Yes
Arsenous Trichloride	7784-34-1	Yes	Yes	Yes	Yes
Arsine	7784-42-1		Yes	Yes	Yes
Asbestos (friable)	1332-21-4		Yes		Yes
Atrazine	1912-24-9				Yes
Azinphos-Ethyl	2642-71-9				Yes
Azinphos-Methyl	86-50-0	Yes			
Barium Cyanide	542-62-1	Yes			
Benomyl	17804-35-2				Yes
Benz[A]Anthracene	56-55-3		Yes	Yes	
Benzene	71-43-2	Yes	Yes	Yes	Yes
Benzidine	92-87-5		Yes		Yes
3,4-Benzofluoranthene	205-99-2		Yes		
Benzo(GHI)Perylene (1,12-Benzoperylene)	191-24-2		Yes		
Benzo(K)Fluoranthene (11,12-Benzofluoranthene)	207-08-9		Yes		
Benzoic Acid	65-85-0	Yes			
Benzonitrile	100-47-0	Yes			
Benzoyl Chloride	98-88-4	Yes			
Benzoyl Peroxide	94-36-0				Yes
Benzo[A]Pyrene	50-32-8		Yes	Yes	Yes
p-Benzoquinone	106-51-4				Yes
Benzyl Chloride	100-44-7	Yes			Yes
Beryllium (and all compounds)	7440-41-7		Yes	Yes	Yes
Beryllium Chloride	7787-47-5	Yes	Yes	Yes	Yes
Beryllium Fluoride	7787-49-7	Yes	Yes	Yes	Yes
Beryllium Nitrate	13597-99-4	Yes	Yes	Yes	Yes
Beta-Bhc	319-85-7		Yes		
Biphenyl	92-52-4				Yes
Bis(2-Chloro-1-Methylethyl)Ether	108-60-1		Yes		
Bis(2-Chloroethoxy)Methane	111-91-1		Yes		
Bis(2-Chloroethyl)Ether	111-44-4		Yes		Yes
Bis(2-Ethylhexyl)Phthalate	117-81-7		Yes		Yes
Boron Trifluoride	7637-07-2				Yes
Bromacil	314-40-9				Yes
Bromine	7726-95-6				Yes
Bromine Pentafluoride	7789-30-2				Yes
4-Bromophenyl Phenyl Ether	101-55-3		Yes	Yes	
1,3-Butadiene	106-99-0		Yes		Yes
Butane	106-97-8				Yes
2,6-Di-tert-Butyl-p-Cresol	128-37-0				Yes
Butyl Acetate	123-86-4	Yes			Yes
Butyl Acrylate	141-32-2				Yes
Butyl Benzyl Phthalate	85-68-7		Yes		
Butyl Mercaptan	109-79-5				Yes
Butylamine	109-73-9	Yes			Yes
Di-n-Butyl Phthalate	84-74-2		Yes		Yes
n-Butyl Glycidyl Ether (BGE)	2426-08-6				Yes
n-Butyl Lactate	138-22-7				Yes
o-sec-Butylphenol	89-72-5				Yes
p-tert-Butyltoluene	98-51-1				Yes
sec-Butyl Acetate	105-46-4				Yes
sec-Butyl Alcohol	78-92-2				Yes
tert-Butyl Acetate	540-88-5				Yes
tert-Butyl Chromate	1189-85-1				Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Butyric Acid	107-92-6	Yes			
Cadmium (and all compounds)	7440-43-9		Yes	Yes	
Cadmium Acetate	543-90-8	Yes	Yes	Yes	
Cadmium Bromide	7789-42-6	Yes	Yes	Yes	
Cadmium Chloride	10108-64-2	Yes	Yes		Yes
Cadmium Oxide	1306-19-0		Yes	Yes	
Cadmium Stearate	2223-93-0		Yes	Yes	
Calcium Arsenate	7778-44-1	Yes			
Calcium Arsenite	52740-16-6	Yes			
Calcium Carbide	75-20-7	Yes			
Calcium Chromate	13765-19-0	Yes			
Calcium Cyanamide	156-62-7				Yes
Calcium Cyanide	592-01-8	Yes	Yes		
Calcium Dodecylbenzenesulfonate	26264-06-2	Yes			
Calcium Hypochlorite	7778-54-3	Yes			
Camphor, Synthetic	76-22-2				Yes
Caprolactam	105-60-2				Yes
Captafol	2425-06-1				Yes
Captan	133-06-2	Yes			Yes
Carbaryl	63-25-2	Yes			Yes
Carbofuran	1563-66-2	Yes			Yes
Carbon Disulfide	75-15-0	Yes			Yes
Carbon Tetrabromide	558-13-4				Yes
Carbon Tetrachloride	56-23-5	Yes	Yes		Yes
Catechol	120-80-9				Yes
1-Chloro-1-Nitropropane	600-25-9				Yes
2-Chloroacetophenone	532-27-4				Yes
2-Chloroethyl Vinyl Ether (mixed)	110-75-8		Yes		
2-Chloronaphthalene	91-58-7		Yes		
2-Chlorophenol	95-57-8		Yes		
4-Chlorophenyl Phenyl Ether	7005-72-3		Yes		
Chlordane	57-74-9	Yes	Yes	Yes	Yes
Chlorinated Diphenyl Oxide	55720-99-5				Yes
Chlorine	7782-50-5	Yes			Yes
Chlorine Dioxide	10049-04-4				Yes
Chlorine Trifluoride	7790-91-2				Yes
Chloroacetyl Chloride	79-04-9				Yes
Chlorobenzene	108-90-7	Yes	Yes	Yes	Yes
Chlorobromomethane	74-97-5				Yes
Chlorodibromomethane	124-48-1		Yes		
Chlorodifluoromethane	75-45-6				Yes
Chloroethane	75-00-3		Yes		Yes
Chloroform	67-66-3	Yes	Yes	Yes	Yes
Chloromethyl Methyl Ether	107-30-2				Yes
Chloropicrin	76-06-2				Yes
Chloroprene	126-99-8				Yes
Chlorosulfonic Acid	7790-94-5	Yes			
Chlorpyrifos	2921-88-2	Yes			Yes
o-Chlorobenzylidene Malononitrile	2698-41-1				Yes
o-Chlorostyrene	2039-87-4				Yes
o-Chlorotoluene	95-49-8				Yes
p-Chloro-m-Cresol	59-50-7		Yes		
Chromic Acetate	1066-30-4	Yes	Yes	Yes	
Chromic Acid	11115-74-5	Yes	Yes	Yes	
Chromic Chloride	10025-73-7		Yes	Yes	
Chromic Sulfate	10101-53-8	Yes	Yes	Yes	
Chromium (and all compounds)	7440-47-3		Yes	Yes	
Chromium (VI)	1333-82-0		Yes	Yes	
Chromous Chloride	10049-05-5	Yes	Yes	Yes	

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Chrysene	218-01-9		Yes		
Coal Tar Pitch Volatiles	65996-93-2				Yes
Cobalt Carbonyl	10210-68-1				Yes
Cobalt Hydrocarbonyl (as Co)	16842-03-8				Yes
Cobaltous Bromide	7789-43-7	Yes			
Cobaltous Formate	544-18-3	Yes			
Cobaltous Sulfamate	14017-41-5	Yes			
Copper (and all compounds)	7440-50-8		Yes	Yes	
Copper Cyanide	544-92-3		Yes	Yes	Yes
Coumaphos	56-72-4	Yes			
Cresol	1319-77-3	Yes			Yes
Crotonaldehyde	4170-30-3	Yes			Yes
Crotonaldehyde(E)	123-73-9				Yes
Crufomate	299-86-5				Yes
Cumene	98-82-8				Yes
Cupric Acetate	142-71-2	Yes	Yes		
Cupric Acetoarsenite	12002-03-8	Yes	Yes	Yes	
Cupric Chloride	7447-39-4	Yes	Yes	Yes	
Cupric Nitrate	3251-23-8	Yes	Yes	Yes	
Cupric Oxalate	5893-66-3	Yes	Yes	Yes	
Cupric Sulfate	7758-98-7	Yes	Yes	Yes	
Cupric Sulfate, Ammoniated	10380-29-7	Yes	Yes	Yes	
Cupric Tartrate	815-82-7	Yes	Yes	Yes	
Cyanide Compounds			Yes		Yes
Cyanogen	460-19-5				Yes
Cyanogen Chloride	506-77-4				Yes
Cyclohexane	110-82-7	Yes			Yes
Cyclohexanol	108-93-0				Yes
Cyclohexanone	108-94-1				Yes
Cyclohexene	110-83-8				Yes
Cyclohexylamine	108-91-8				Yes
Cyclonite	121-82-4				Yes
Cyclopentadiene	542-92-7				Yes
Cyclopentane	287-92-3				Yes
Cyhexatin	13121-70-5				Yes
2,4-Diclorophenoxy Actic Acid (2,4-D)	94-75-7	Yes			Yes
4,4'-DDE (P,P'-DDE)	72-55-9		Yes	Yes	
DDT (P,P',O,P' And Technical Grade)	50-29-3	Yes	Yes	Yes	Yes
Decaborane(14)	17702-41-9				Yes
Delta-BHC	319-86-8		Yes		
Demeton	8065-48-3				Yes
Diazinon	333-41-5	Yes			Yes
Diazomethane	334-88-3				Yes
Dibenz(A,H)Anthracene	53-70-3		Yes	Yes	
Diborane	19287-45-7				Yes
1,2-Dibromoethane	106-93-4	Yes			Yes
2-n-Dibutylaminoethanol	102-81-8				Yes
Dibutyl Phosphate	107-66-4				Yes
Dicamba	1918-00-9	Yes			
1,1-Dichloro-1-Nitroethane	594-72-9				Yes
1,1-Dichloroethane	75-34-3		Yes		Yes
1,1-Dichloroethylene	75-35-4	Yes	Yes	Yes	Yes
1,2-Dichlorobenzene	95-50-1		Yes		Yes
1,2-Dichloroethane	107-06-2	Yes	Yes	Yes	
1,2-Dichloroethylene	156-60-5		Yes		Yes
1,2-Dichloropropane	78-87-5		Yes		Yes
1,3-Dichloro-5,5-Dimethyl Hydantoin	118-52-5				Yes
1,3-Dichlorobenzene	541-73-1		Yes	Yes	
1,3-Dichloropropylene (1,3-Dichloropropene)	542-75-6		Yes		Yes

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1,4-Dichlorobenzene	106-46-7		Yes	Yes	Yes
2,2-Dichloropropionic Acid	75-99-0	Yes			Yes
2,4-Dichlorophenol	120-83-2		Yes		
2,4-Dichlorophenoxyacetic Acid (2,4-D) Esters	94-11-1	Yes			
3,3-Dichlorobenzidine	91-94-1		Yes	Yes	Yes
Dichlobenil	1194-65-6	Yes			
Dichlone	117-80-6	Yes			
Dichloroacetylene	7572-29-4				Yes
Dichlorobenzene	25321-22-6	Yes			
Dichlorobromomethane	75-27-4		Yes		
Dichlorodifluoromethane (CFC-12)	75-71-8				Yes
Dichloromethyl Ether	542-88-1				Yes
Dichloromonofluoromethane	75-43-4				Yes
Dichloropropane	26638-19-7	Yes			
Dichloropropene	26952-23-8	Yes			
Dichloropropene - Dichloropropane (mixture)	8003-19-8	Yes			
Dichlorotetrafluoroethane (CFC-114)	76-14-2				Yes
Dichlorovos	62-73-7	Yes			Yes
Dicofol	115-32-2	Yes			
Dicrotophos	141-66-2				Yes
Dicyclopentadiene	77-73-6				Yes
Dieldrin	60-57-1	Yes	Yes	Yes	Yes
Diethanolamine	111-42-2				Yes
Diethyl Phthalte	84-66-2		Yes		Yes
Diethylamine	109-89-7	Yes			Yes
o,o-Diethyl o-Pyrazinyl Phosphorothioate	297-97-2		Yes		
Difluorodibromomethane	75-61-6				Yes
Diglycidyl Ether	2238-07-5				Yes
Diisobutyl Ketone	108-83-8				Yes
Diisopropylamine	108-18-9				Yes
2,4-Dimethylphenol	105-67-9		Yes		
4-Dimethylaminoazobenzene	60-11-7				Yes
Dimethyl Phthalate	131-11-3		Yes		Yes
Dimethyl Sulfate	77-78-1				Yes
Dimethylamine	124-40-3	Yes			Yes
n,n-Dimethylaniline	121-69-7				Yes
2,4-Dinitrophenol	51-28-5	Yes	Yes		
2,4-Dinitrotoluene	121-14-2		Yes		
4,6-Dinitro-o-Cresol	534-52-1		Yes		Yes
Dinitolmide (3,5-Dinitro-o-Toluamide)	148-01-6				Yes
Dinitrobenzene (mixed isomers)	25154-54-5	Yes			
Dinitrophenol	25550-58-7	Yes			
Dinitrotoluene (mixed isomers)	25321-14-6		Yes		Yes
m-Dinitrobenzene	99-65-0				Yes
o-Dinitrobenzene	528-29-0				Yes
p-Dinitrobenzene	100-25-4				Yes
Dioxathion	78-34-2				Yes
1,2-Diphenylhydrazine	122-66-7		Yes		
Diphenylamine	122-39-4				Yes
Dipropyl Ketone	123-19-3				Yes
Diquat	85-00-7	Yes			Yes
Disulfiram	97-77-8				Yes
Disulfoton	298-04-4	Yes			Yes
Diuron	330-54-1	Yes			Yes
Divinyl Benzene	1321-74-0				Yes
Dodecylbenzenesulfonic Acid	27176-87-0	Yes			
Endosulfan	115-29-7	Yes	Yes		Yes
Endosulfan Sulfate	1031-07-8		Yes		
Endrin	72-20-8	Yes	Yes	Yes	Yes

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Endrin Aldehyde	7421-93-4		Yes		
Epichlorohydrin	106-89-8	Yes			Yes
EPN	2104-64-5				Yes
Ethion	563-12-2	Yes			Yes
2-Ethoxyethyl Acetate (Cellosolve Acetate)	111-15-9				Yes
Ethyl Acetate	141-78-6				Yes
Ethyl Acrylate	140-88-5				Yes
Ethyl Amyl Ketone (5-Methyl-3-Heptanone)	541-85-5				Yes
Ethyl Bromide	74-96-4				Yes
Ethyl Butyl Ketone (3-Heptanone)	106-35-4				Yes
Ethyl Ether	60-29-7				Yes
Ethyl Formate	109-94-4				Yes
Ethyl Mercaptan	75-08-1				Yes
Ethyl Silicate	78-10-4				Yes
Ethylbenzene	100-41-4	Yes	Yes		Yes
Ethylene Glycol Dinitrate	628-96-6				Yes
Ethylenediamine	107-15-3	Yes			Yes
Ethylenediamine-Tetraacetic Acid (EDTA)	60-00-4	Yes			
Ethylidene Norbornene	16219-75-3				Yes
Fenamiphos	22224-92-6				Yes
Fensulfothion	115-90-2				Yes
Fenthion	55-38-9				Yes
Ferric Ammonium Citrate	1185-57-5	Yes			
Ferric Ammonium Oxalate	2944-67-4	Yes			
Ferric Ammonium Oxalate	55488-87-4	Yes			
Ferric Chloride	7705-08-0	Yes			
Ferric Fluoride	7783-50-8	Yes			
Ferric Nitrate	10421-48-4	Yes			
Ferric Sulfate	10028-22-5	Yes			
Ferrous Ammonium Sulfate	10045-89-3	Yes			
Ferrous Chloride	7758-94-3	Yes			
Ferrous Sulfate	7720-78-7	Yes			
Fluoranthene	206-44-0		Yes		
Fluorene	86-73-7		Yes		
Fluorine	7782-41-4				Yes
Fonofos	944-22-9				Yes
Formaldehyde	50-00-0	Yes			
Fumaric Acid	110-17-8	Yes			
Furfural	98-01-1	Yes			Yes
Gasoline	8006-61-9				Yes
Germanium Tetrahydride	7782-65-2				Yes
Heptachlor	76-44-8	Yes	Yes	Yes	Yes
Heptachlor Epoxide	1024-57-3		Yes	Yes	
Hexachlorobenzene	118-71-1		Yes	Yes	
Hexachlorobutadiene	87-68-3		Yes	Yes	Yes
Hexachlorocyclohexane	608-73-1		Yes	Yes	
Hexachlorocyclopentadiene	77-47-4	Yes	Yes		Yes
Hexachloroethane	67-72-1		Yes	Yes	Yes
Hexachloronaphthalene	1335-87-1				Yes
Hexane	110-54-3				Yes
Hydrochloric Acid	7647-01-0	Yes			Yes
Hydrogen Cyanide	74-90-8	Yes			Yes
Hydrogen Fluoride	7664-39-3	Yes			Yes
Hydrogen Selenide	7783-07-5				Yes
Hydrogen Sulfide	7783-06-4	Yes			Yes
Hydroquinone	123-31-9				Yes
Ideno(1,2,3-CD)Pyrene (2,3-o-Phenylenepyrene)	193-39-5		Yes		
Iron, Pentacarbonyl-	13463-40-6				Yes
Iso-Amyl Acetate	123-92-2				Yes

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Iso-Butyl Acetate	110-19-0				Yes
Isobutanol	78-83-1				Yes
Isophorone	78-59-1		Yes		Yes
Isophorone Diisocyanate	4098-71-9				Yes
Isoprene	78-79-5	Yes			
Isopropanolamine Dodecylbenzene Sulfonate	42504-46-1	Yes			
Kepone	143-50-0	Yes			
Lead (and all compounds)	7439-92-1		Yes	Yes	
Lead Acetate	301-04-2	Yes			
Lead Arsenate	3687-31-8	Yes			
Lead Chloride	7758-95-4	Yes			
Lead Fluoborate	13814-96-5	Yes			
Lead Fluoride	7783-46-2	Yes			
Lead Iodide	10101-63-0	Yes			
Lead Nitrate	10099-74-8	Yes			
Lead Stearate	1072-35-1	Yes			
Lead Sulfate	7446-14-2	Yes			
Lead Sulfide	1314-87-0	Yes			
Lead Thiocyanate	592-87-0	Yes			
Lindane	58-89-9	Yes	Yes		Yes
Lithium Chromate	14307-35-8	Yes			
Lithium Hydride	7580-67-8				Yes
Malathion	121-75-5	Yes			
Maleic Acid	110-16-7	Yes			
Maleic Anhydride	108-31-6	Yes			
Manganese	7439-96-5				Yes
Manganese, Tricarbonyl Methylcyclopentadienyl	12108-13-3				Yes
MBOCA	101-14-4			Yes	
Mercaptodimethur	2032-65-7	Yes			
Mercuric Acetate	1600-27-7		Yes	Yes	Yes
Mercuric Chloride	7487-94-7		Yes	Yes	Yes
Mercuric Cyanide	592-04-1	Yes	Yes	Yes	Yes
Mercuric Nitrate	10045-94-0	Yes	Yes	Yes	Yes
Mercuric Oxide	21908-53-2		Yes	Yes	Yes
Mercuric Sulfate	7783-35-9	Yes	Yes	Yes	Yes
Mercuric Thiocyanate	592-85-8	Yes	Yes	Yes	Yes
Mercurous Nitrate	7782-86-7	Yes	Yes	Yes	Yes
Mercury (and all compounds)	7439-97-6		Yes	Yes	Yes
Mercury Fulminate	628-86-4		Yes	Yes	Yes
Methacrylonitrile	126-98-7				Yes
Methomyl	16752-77-5				Yes
Methoxychlor	72-43-5	Yes		Yes	Yes
Methyl Acrylate	96-33-3				Yes
Methyl Bromide (Bromomethane)	74-83-9		Yes		Yes
Methyl Chloride (Chloromethane)	74-87-3		Yes		Yes
Methyl Ethyl Ketone	78-93-3				Yes
Methyl Ethyl Ketone Peroxide	1338-23-4				Yes
Methyl Iodide	74-88-4				Yes
Methyl Isobutyl Ketone	108-10-1				Yes
Methyl Isocyanate	624-83-9				Yes
Methyl Mercaptan	74-93-1	Yes			Yes
Methyl Methacrylate	80-62-6	Yes			
Methyl Parathion	298-00-0	Yes			Yes
Methylene Chloride (Dichloromethane)	75-09-2		Yes	Yes	Yes
Methylenebis (Phenylisocyanate)	101-68-8				Yes
Mevinphos	7786-34-7	Yes			Yes
Mexacarbate	315-18-4	Yes			
Mirex	2385-85-5		Yes	Yes	
Monochloropentafluoroethane (CFC-115)	76-15-3				Yes

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Monoethylamine	75-04-7	Yes			Yes
Monomethylamine	74-89-5	Yes			Yes
Naled	300-76-5	Yes			Yes
1-Naphthylamine	134-32-7				Yes
Naphthalene	91-20-3	Yes	Yes		Yes
Naphthenic Acid	1338-24-5	Yes			
Vm & P Naphtha	8032-32-4				Yes
Nickel (and all compounds)	7440-02-0		Yes	Yes	
Nickel Ammonium Sulfate	15699-18-0	Yes	Yes	Yes	Yes
Nickel Carbonyl	13463-39-3		Yes	Yes	Yes
Nickel Chloride	7718-54-9	Yes	Yes	Yes	
Nickel Cyanide	557-19-7		Yes	Yes	
Nickel Hydroxide	12054-48-7	Yes	Yes	Yes	
Nickel Nitrate	14216-75-2	Yes	Yes	Yes	
Nickel Sulfate	7786-81-4	Yes	Yes	Yes	
Nitric Acid	7697-37-2	Yes			Yes
Nitric Oxide	10102-43-9				Yes
1-Nitropropane	108-03-2				Yes
2-Nitrophenol	88-75-5		Yes		
2-Nitropropane	79-46-9				Yes
4-Nitrobiphenyl	92-93-3				Yes
4-Nitrophenol	100-02-7	Yes	Yes		
m-Nitrotoluene	99-08-1	Yes			Yes
n-Nitrosodimethylamine	62-75-9		Yes		Yes
n-Nitrosodiphenylamine	86-30-6		Yes		
Nitrobenzene	98-95-3	Yes	Yes		Yes
Nitroethane	79-24-3				Yes
Nitrogen Dioxide	10102-44-0	Yes			Yes
Nitrogen Trifluoride	7783-54-2				Yes
Nitroglycerin	55-63-0				Yes
Nitromethane	75-52-5				Yes
Nitrophenol (mixed isomers)	25154-55-6	Yes			
Nitrotoluene	1321-12-6	Yes			
p-Nitroaniline	100-01-6				Yes
p-Nitrochlorobenzene	100-00-5				Yes
p-Nitrotoluene	99-99-0				Yes
Nonane	111-84-2				Yes
Octachloronaphthalene	2234-13-1				Yes
Octachlorostyrene	29082-74-7		Yes	Yes	
Octane	111-65-9				Yes
Di-n-Octyl Phthalate	117-84-0		Yes	Yes	
Osmium Tetroxide	20816-12-0				Yes
Oxalic Acid	144-62-7				Yes
Oxygen Difluoride	7783-41-7				Yes
Ozone	10028-15-6				Yes
Paraformaldehyde	30525-89-4	Yes			
Parathion	56-38-2	Yes			Yes
2-Pentanone (Methyl Propyl Ketone)	107-87-9				Yes
Pentaborane	19624-22-7				Yes
Pentachloronaphthalene	1321-64-8				Yes
Pentachlorophenol	87-86-5	Yes	Yes	Yes	Yes
Pentane	109-66-0				Yes
Perchloryl Fluoride	7616-94-6				Yes
Petroleum Distillates (Naphta)	8030-30-6				Yes
Phenanthrene	85-01-8		Yes		
Phenol	108-95-2	Yes	Yes		Yes
Phenothiazine	92-84-2				Yes
p-Phenylenediamine	106-50-3				Yes
Phenyl Ether	101-84-8				Yes

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Phenyl Ether-Biphenyl Mixture					Yes
Phenyl Glycidyl Ether (PGE)	122-60-1				Yes
Phenylhydrazine	100-63-0				Yes
Phenylphosphine	638-21-1				Yes
Phorate	298-02-2				Yes
Phosgene	75-44-5	Yes			Yes
Phosphine	7803-51-2				Yes
Phosphoric Acid	7664-38-2	Yes			
Phosphorus	7723-14-0	Yes			Yes
Phosphorus Oxychloride	10025-87-3	Yes			Yes
Phosphorus Pentachloride	10026-13-8				Yes
Phosphorus Trichloride	7719-12-2	Yes			Yes
m-Phthalodinitrile	626-17-5				Yes
Picric Acid	88-89-1				Yes
Pindone (2-Pivalyl-1,3-Indandione)	83-26-1				Yes
Piperazine Dihydrochloride	142-64-3				Yes
Polybrominated Biphenyls (PBB)	67774-32-7			Yes	
Polychlorinated Biphenyls (PCB)	1336-36-3	Yes	Yes	Yes	
Polychlorinated Naphthalenes	CLASS-06-6			Yes	
Potassium Arsenite	10124-50-2	Yes	Yes	Yes	Yes
Potassium Bichromate	7778-50-9	Yes	Yes	Yes	
Potassium Chromate	7789-00-6	Yes	Yes	Yes	
Potassium Cyanide	151-50-8	Yes	Yes		
Potassium Hydroxide	1310-58-3	Yes			
Potassium Permanganate	7722-64-7	Yes			
Propane	74-98-6				Yes
Propargite	2312-35-8	Yes			
Propargyl Alcohol	107-19-7				Yes
Beta-Propiolactone	57-57-8				Yes
Propionic Acid	79-09-4	Yes			Yes
Propionic Anhydride	123-62-6	Yes			
Propoxur	114-26-1				Yes
Di-n-Propylnitrosamine	621-64-7		Yes		
n-Propyl Acetate	109-60-4				Yes
n-Propyl Nitrate	627-13-4				Yes
Propylene Glycol Dinitrate	6423-43-4				Yes
Propylene Glycol Monomethyl Ether	107-98-2				Yes
Propylene Oxide	75-56-9	Yes			Yes
Pyrene	129-00-0		Yes		
Pyrethrins	8003-34-7	Yes			Yes
Quinoline	91-22-5	Yes			
Resorcinol	108-46-3	Yes			Yes
Ronnel	299-84-3				Yes
Rotenone	83-79-4				Yes
Selenium (and all compounds)	7782-49-2		Yes	Yes	Yes
Selenium Hexaflouride	7783-79-1		Yes	Yes	Yes
Selenium Oxide	7446-08-4	Yes	Yes	Yes	Yes
Selenium Oxychloride	7791-23-3		Yes	Yes	Yes
Selenium Sulfide	7488-56-4		Yes	Yes	Yes
Silicon Tetrahydride	7803-62-5				Yes
Silver (all compounds)	7440-22-4		Yes	Yes	
Silver Cyanide	506-64-9		Yes	Yes	Yes
Silver Nitrate	7761-88-8	Yes	Yes	Yes	Yes
Silvex (2,4,5-Trichloropropionic Acid; 2,4,5-TP)	93-72-1	Yes			
Silvex Esters (2,4,5-TP Esters)	32534-95-5	Yes			
Sodium	7440-23-5	Yes			
Sodium Arsenate	7631-89-2	Yes	Yes	Yes	Yes
Sodium Arsenite	7784-46-5	Yes	Yes	Yes	Yes
Sodium Bichromate	10588-01-9	Yes	Yes	Yes	

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Sodium Bifluoride	1333-83-1	Yes			
Sodium Bisulfite	7631-90-5	Yes			
Sodium Chromate	7775-11-3	Yes	Yes	Yes	
Sodium Cyanide (Na(Cn))	143-33-9	Yes	Yes		
Sodium Dodecylbenzenesulfonate	25155-30-0	Yes			
Sodium Fluoride	7681-49-4	Yes			
Sodium Hydrosulfide	16721-80-5	Yes			
Sodium Hydroxide	1310-73-2	Yes			
Sodium Hypochlorite	7681-52-9	Yes			
Sodium Hypochlorite	10022-70-5	Yes			
Sodium Methylate	124-41-4	Yes			
Sodium Nitrite	7632-00-0	Yes			
Sodium Phosphate, Dibasic	7558-79-4	Yes			
Sodium Phosphate, Tribasic	7601-54-9	Yes			
Sodium Selenite	10102-18-8	Yes	Yes	Yes	Yes
Stibine	7803-52-3				Yes
Stoddard Solvent	8052-41-3				Yes
Strontium Chromate	7789-06-2	Yes	Yes	Yes	
Strychnine	57-24-9	Yes			Yes
Styrene	100-42-5	Yes		Yes	Yes
Sulfur Dioxide	7446-09-5				Yes
Sulfur Hexafluoride	2551-62-4				Yes
Sulfur Monochloride	10025-67-9	Yes			Yes
Sulfur Pentafluoride	5714-22-7				Yes
Sulfur Phosphide	1314-80-3	Yes			Yes
Sulfur Tetrafluoride	7783-60-0				Yes
Sulfuric Acid	7664-93-9	Yes			Yes
Sulfuryl Fluoride	2699-79-8				Yes
2,4,5-T Amines	1319-72-8	Yes			
2,4,5-T Amines	3813-14-7	Yes			
2,4,5-T Amines	6369-96-6	Yes			
2,4,5-T Amines	6369-97-7	Yes			
2,4,5-T Esters	1928-47-8	Yes			
2,4,5-T Esters	2545-59-7	Yes			
2,4,5-T Esters	25168-15-4	Yes			
2,4,5-T Esters	61792-07-2	Yes			
2,3,7,8-TCDF (and all congeners)	51207-31-9			Yes	
TDE	72-54-8	Yes	Yes	Yes	
Tellurium (and all compounds)	13494-80-9				Yes
Tellurium Hexafluoride	7783-80-4				Yes
Terphenyls	26140-60-3				Yes
1,1,1,2-Tetrachloro-2,2,-Difluorethane	76-11-9				Yes
1,1,2,2-Tetrachloro-1,2-Difluoroethane	76-12-0				Yes
1,1,2,2-Tetrachloroethane	79-34-5		Yes		Yes
1,2,3,4-Tetrachlorobenzene	634-66-2			Yes	
1,2,3,5-Tetrachlorobenzene	634-90-2			Yes	
1,2,4,5-Tetrachlorobenzene	95-94-3			Yes	
2,3,7,8-Tetrachlorodibenzo-p-Dioxin (TCDD)	1746-01-6		Yes	Yes	
Tetrachloroethylene (Perchloroethylene)	127-18-4		Yes	Yes	Yes
Tetrachloronaphthalene	1335-88-2				Yes
Tetraethyl Lead	78-00-2	Yes			Yes
Tetraethyl Pyrophosphate	107-49-3	Yes			Yes
Tetraethyldithiopyrophosphate	3689-24-5				Yes
Tetramethyl Succinonitrile	3333-52-6				Yes
Tetramethyllead	75-74-1				Yes
Tetranitromethane	509-14-8				Yes
Tetryl (2,4,6-Trinitro-Phenyl-Methyl-Nitramine)	479-45-8				Yes
Thallic Oxide	1314-32-5		Yes		Yes
Thallium	7440-28-0		Yes		

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Thallium Sulfate	10031-59-1	Yes	Yes		Yes
Thallium(I) Acetate	563-68-8		Yes		Yes
Thallium(I) Nitrate	10102-45-1		Yes		Yes
Thallous Carbonate	6533-73-9		Yes		Yes
Thallous Chloride	7791-12-0		Yes		Yes
Thallous Malonate	2757-18-8		Yes		Yes
Thallous Sulfate	7446-18-6	Yes	Yes		Yes
Thionyl Chloride	7719-09-7				Yes
Thiophenol	108-98-5				Yes
Thiourea, 1-Naphthalenyl-	86-88-4				Yes
Thiram	137-26-8				Yes
Toluene	108-88-3	Yes	Yes	Yes	
Toluene-2,4-Diisocyanate	584-84-9				Yes
m-Toluidine	108-44-1				Yes
o-Toluidine	95-53-4				Yes
Toxaphene	8001-35-2	Yes	Yes	Yes	Yes
Tribromomethane	75-25-2		Yes		Yes
Tributyl Phosphate	126-73-8				Yes
Tributyltin and salts and esters				Yes	
1,1,1-Trichloroethane	71-55-6		Yes		Yes
1,1,2-Trichloroethane	79-00-5		Yes		Yes
1,2,3-Trichlorobenzene	87-61-6			Yes	
1,2,3-Trichloropropane	96-18-4				Yes
1,2,4-Trichlorobenzene	120-82-1		Yes	Yes	Yes
2,4,5-T Amines, Esters and Salts		Yes			
2,4,5-Trichloroacetic Acid (2,4,5-T)	93-76-5	Yes			Yes
2,4,5-Trichlorophenol	95-95-4	Yes		Yes	
2,4,5-Trichlorotoluene	6639-30-1			Yes	
2,4,6-Trichlorophenol	88-06-2	Yes	Yes		
Trichlorfon	52-68-6	Yes			
Trichloroacetic Acid	76-03-9				Yes
Trichloroethylene	79-01-6	Yes	Yes	Yes	Yes
Trichloromethanesulfenyl Chloride	594-42-3				Yes
Trichloronaphthalene	1321-65-9				Yes
Trichlorophenol	25167-82-2	Yes			
Triethanolamine Dodecylbenzene Sulfonate	27323-41-7	Yes			
Triethylamine	121-44-8	Yes			Yes
Trifluralin	1582-09-8			Yes	
Trimellitic Anhydride	552-30-7				Yes
Trimethyl Benzene	25551-13-7				Yes
Trimethyl Phosphite	121-45-9				Yes
Trimethylamine	75-50-3	Yes			Yes
2,4,6-Trinitrotoluene (TNT)	118-96-7				Yes
Triorthocresyl Phosphate	78-30-8				Yes
Triphenyl Amine	603-34-9				Yes
Triphenyl Phosphate	115-86-6				Yes
Turpentine	8006-64-2				Yes
Uranyl Acetate	541-09-3	Yes			
Uranyl Nitrate	10102-06-4	Yes			
n-Valeraldehyde	110-62-3				Yes
Vanadium Pentoxide	1314-62-1	Yes			
Vanadyl Sulfate	27774-13-6	Yes			
Vinyl Acetate Monomer	108-05-4	Yes			Yes
Vinyl Bromide	593-60-2				Yes
Vinyl Chloride	75-01-4		Yes	Yes	Yes
Vinyl Cyclohexene Dioxide	106-87-6				Yes
Vinyl Toluene	25013-15-4				Yes
Warfarin, & Salts, Conc.>0.3%	81-81-2				Yes
Xylene	1330-20-7	Yes		Yes	Yes

City of Flint Potentially Harmful Substances Register					
Potentially Harmful Substance	CAS RN	Regulatory Classification			
		USEPA		MDEQ	MIOSHA
		Haz Sub	Prior Pol	Crit Mat	Air Cont
Xylenol	1300-71-6	Yes			
Xylidine	1300-73-8				Yes
Zinc (and all compounds)	7440-66-6		Yes	Yes	
Zinc Acetate	557-34-6	Yes	Yes	Yes	
Zinc Ammonium Chloride	52628-25-8	Yes	Yes	Yes	
Zinc Borate	1332-07-6	Yes	Yes	Yes	
Zinc Bromide	7699-45-8	Yes	Yes	Yes	
Zinc Carbonate	3486-35-9	Yes	Yes	Yes	
Zinc Chloride	7646-85-7		Yes	Yes	Yes
Zinc Cyanide	557-21-1	Yes	Yes	Yes	
Zinc Fluoride	7783-49-5	Yes	Yes	Yes	
Zinc Formate	557-41-5	Yes	Yes	Yes	
Zinc Hydrosulfite	7779-86-4	Yes	Yes	Yes	
Zinc Nitrate	7779-88-6	Yes	Yes	Yes	
Zinc Phenolsulfonate	127-82-2	Yes	Yes	Yes	
Zinc Phosphide	1314-84-7	Yes	Yes	Yes	
Zinc Silicofluoride	16871-71-9	Yes	Yes	Yes	
Zinc Sulfate	7733-02-0	Yes	Yes	Yes	
Zinc, Dichloro(4,4-Dimethyl-5((((Methylamino)Carbonyl)Oxy)Im	58270-08-9		Yes	Yes	
Zirconium Nitrate	13746-89-9	Yes			
Zirconium Potassium Fluoride	16923-95-8	Yes			
Zirconium Sulfate	14644-61-2	Yes			
Zirconium Tetrachloride	10026-11-6	Yes			

Analytical Parameter	NH3-N	BOD	Total Phosphorus	Total Arsenic	Total Cadmium	Total Chromium
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Sampling Frequency	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.
Limits	37	427	7	0.041	0.014	0.048
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type	Composite	Composite	Composite	Composite	Composite	Composite
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
Test Result						
Test Method						
Test Date						
Sample Date						
Sample Type						
No. of Samples	1	1	1	1	1	1
Number of Limit Exceedances	0	0	0	0	0	0

Total Copper	Total Lead	Total Mercury	Total Nickel	Total Silver	Total Zinc	pH	HEM
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	SU	mg/L
One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day per month.	One (1) Day, Monthly [Four (4) grab	One (1) Day, Monthly [Four (4) grab samples per
0.179	0.322	0.000012	0.043	0.023	0.445	6.0 -10.5	100.000
Composite	Composite	Composite	Composite	Composite	Composite		Grab
							Grab
							Grab
							Grab
1	1	1	1	1	1	0	4
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Amenable Cyanide	Benezene	Ethyl Benzene	Toluene	Total Xylene	Volatiles	Semi-Volatiles	PCB/Pesticides
mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
One (1) Day, Monthly [Four (4) grab samples per day]	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day, Monthly [Four (4) grab samples per	One (1) Day per month.	One (1) Day per month.
0.005	0.001	0.001	0.187	0.002	N/A	N/A	N/A
Grab	Grab	Grab	Grab	Grab	Grab	Composite	Composite
Grab	Grab	Grab	Grab	Grab	Grab		
Grab	Grab	Grab	Grab	Grab	Grab		
Grab	Grab	Grab	Grab	Grab	Grab		
4	4	4	4	4	4	1	1
0	**0**	**0**	**0**	**0**	**0**	**0**	**0**