RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street, Providence, Rhode Island 02908

CLEAN WATER ACT
CELEBRATING 50 YEARS
1972-2022

May 13, 2022

CERTIFIED MAIL

Mr. Eric Dodge
Plant Manager
The Okonite Company, Inc.
5 Industrial Rd.
Cumberland, RI 02864

RE: Final Permit for the Okonite Company, Inc.,
111 Martin St., Ashton, RI, RIPDES Permit No. RI0020141

Dear Mr. Dodge:

Enclosed is your final Rhode Island Pollutant Discharge Elimination System (RIPDES) Permit issued pursuant to the referenced application. State regulations, promulgated under Chapter 46-12 of the Rhode Island General Laws of 1956, as amended, require this permit to become effective on the date specified in the attached permit.

Also enclosed is information relative to hearing requests and stays of RIPDES Permits.

We appreciate your cooperation throughout the development of this permit. Should you have any questions concerning this permit, feel free to contact Samuel Kaplan of the State Permits Staff at (401) 222-4700, extension 2777046 or samuel.kaplan@dem.ri.gov.

Sincerely,

Heidi Travers

Heidi Travers, P.E.
Environmental Engineer IV

HT: sk

Enclosures

ecc: Crystal Charbonneau, RIDEM-OWR
Sandy Mojica, EPA Region I
Nathan Chien, EPA Region I
Richard Carvalho, EPA Region I

RESPONSE TO COMMENTS

NO SIGNIFICANT COMMENTS WERE RECEIVED ON THE DRAFT PERMIT FOR THIS FACILITY; THEREFORE, NO RESPONSE WAS PREPARED.

HEARING REQUESTS

If you wish to contest any of the provisions of this permit, you may request a formal hearing within thirty (30) days of receipt of this letter. The request should be submitted to the Administrative Adjudication Division at the following address:

Mary Dalton, Clerk
Department of Environmental Management
Office of Administrative Adjudication
235 Promenade Street
3rd Floor, Rm 350
Providence, RI 02908

Any request for a formal hearing must conform to the requirements of §1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System (RI Code of Regulations; 250-RICR-150-10-1.50).

STAYS OF RIPDES PERMITS

Should the Department receive and grant a request for a formal hearing, the contested conditions of the permit will not automatically be stayed. However, the permittee, in accordance with Rule 50, may request a temporary stay for the duration of adjudicatory hearing proceedings. Requests for stays of permit conditions should be submitted to the Office of Water Resources at the following address:

Joseph B. Haberek, P.E.
Administrator for Surface Water
Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908

All uncontested conditions of the permit will be effective and enforceable in accordance with the provisions of §1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System (RI Code of Regulations; 250-RICR-150-10-1.50).

AUTHORIZATION TO DISCHARGE UNDER THE
RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of Chapter 46-12 of the Rhode Island General Laws, as amended,

The Okonite Company, Inc.
5 Industrial Rd.
Cumberland, RI 02864

is authorized to discharge from a facility located at

111 Martin Street
Ashton, RI 02864

to receiving waters named

Blackstone River

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on July 1, 2022.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on September 9, 2016.

This permit consists of seventeen (17) pages in Part I including effluent limitations, monitoring requirements, etc. and ten (10) pages in Part II including General Conditions.

Signed this 23rd day of May, 2022.

Joseph B. Haberek, P.E., Administrator for Surface Water Protection
Office of Water Resources
Rhode Island Department of Environmental Management
Providence, Rhode Island

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from internal outfall serial number 100 (internal outfall consisting of contact cooling recirculation water blowdown discharges to indoor drainage structure which leads to outfall 001B to the Blackstone River).

   Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs. per day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly (minimum)	Average Weekly	Maximum Daily (maximum)	Measurement Frequency	Sample Type
Flow		500 GPD				1/Month	Estimate
BOD_5					26 mg/l	1/Quarter	4 Grabs/day[1]
Oil and Grease			(--- mg/l)		(10 mg/l)	1/Quarter	4 Grabs/day[1]
TSS					19 mg/l	1/Quarter	4 Grabs/day[1]
pH			(6.5 s.u.)		(9.0 s.u.)	1/Month	4 Grabs/day[1]
Total Copper			100 ug/l		100 ug/l	1/Quarter	4 Grabs/day[1]
Total Cadmium			--- ug/l		--- ug/l	1/Quarter	4 Grabs/day[1]
Total Lead			--- ug/l		--- ug/l	1/Quarter	4 Grabs/day[1]
Total Iron			--- ug/l		--- ug/l	1/Quarter	4 Grabs/day[1]

[1] Compliance with these limitations shall be determined by taking a minimum of four (4) grab samples of contact cooling recirculation water being discharged to the indoor drainage structure equally spaced over the course of a normal operating day.

Values in parentheses ( ) are to be reported as Minimum/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

2. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorized to discharge from outfall serial number(s) 200 (internal outfall consisting of boiler blowdown to indoor drainage structure which leads to outfall 001B to the Blackstone River).

   Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs. per day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly (minimum)	Average Weekly	Maximum Daily (maximum)	Measurement Frequency	Sample Type
Flow		25 GPD				1/Month	Estimate
BOD_5					26 mg/l	1/Quarter	4 Grabs/day[1]
Oil and Grease			(--- mg/l)		(10 mg/l)	1/Quarter	4 Grabs/day[1]
TSS					19 mg/l	1/Quarter	4 Grabs/day[1]
pH			(6.5 s.u.)		(9.0 s.u.)	1/Month	4 Grabs/day[1]
Total Copper			100 ug/l		100 ug/l	1/Quarter	4 Grabs/day[1]
Total Cadmium			--- ug/l		--- ug/l	1/Quarter	4 Grabs/day[1]
Total Lead			--- ug/l		--- ug/l	1/Quarter	4 Grabs/day[1]
Total Iron			--- ug/l		--- ug/l	1/Quarter	4 Grabs/day[1]

[1] Compliance with these limitations shall be determined by taking a minimum of four (4) grab samples of boiler blowdown being discharged to the indoor drainage structure equally spaced over the course of a discharge.

Values in parentheses ( ) are to be reported as Minimum/Maximum for the reporting period rather than Average Monthly/Maximum Daily.

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

3. During the period beginning on the effective date and lasting through permit expiration, the permittee is authorizes to discharge from outfall serial number(s) 001B (consisting of stormwater).

Such discharges shall be monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations					Monitoring Requirement	
	Quantity - lbs. per day		Concentration - specify units				
	Average Monthly	Maximum Daily	Average Monthly (minimum)	Average Weekly	Maximum Daily (maximum)	Measurement Frequency	Sample Type
Flow					--- GPD	Continuous[1]	Estimate[2]
Total Copper			--- ug/L		--- ug/L	1/Quarter[1]	Grab[2]
Total Zinc			--- ug/L		--- ug/L	1/Quarter[1]	Grab[2]

--- signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

[1] Sampling at outfall 001B is only required when the conditions of the facility's No Exposure Certificate (NEC), as listed in Part I.A.11 of this permit, are not met. At all other times, the facility shall use the appropriate No Date Indicated (NODI) Code to report that sampling is not required for outfall 001B.

[2] Samples must be obtained from a discharge, which is the result of a storm event that occurs at least seventy-two (72) hours after the previously measurable storm event. The "Grab" value shall be obtained using a grab sample, consisting of an individual sample of at least 100mL, collected during the first 30 minutes of a discharge from a storm event as defined above. Sample results shall be compared to the benchmarks from Part I.D of the permit.

Samples taken in compliance with the monitoring requirements specified above shall be taken during wet weather (when there is no discharge of process wastewater) at the following location: Outfall 001B - located at the manhole prior to where the storm water piping network joins the city storm sewer system at Martin Street which then discharges to the Blackstone River.

4. a. The pH of the effluent shall not be less than 6.5 nor greater than 9.0 standard units at any time unless these values are exceeded due to natural causes or as a result of the approved treatment processes.

   b. The discharge shall not cause visible discoloration of the receiving waters.

   c. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

5. This permit prohibits the use of chemical additives for boiler treatment.

6. The permittee shall obtain Department approval before using any amount of any of boiler treatment chemicals or boiler treatment additives. The permittee shall evaluate the use of non-intrusive methods for boiler system maintenance prior to proposing the use of any chemicals in order to minimize chemical use at the facility and subsequent discharge to state surface waters. If chemical addition is the only alternative, the permittee must comply with all of the requirements of this permit with regard to chemical additives:

   a. Prior to using any boiler treatment chemical or boiler treatment additives the permittee shall submit for DEM approval a complete list of all chemical additives, including Material Safety Data Sheets.

   b. Maintenance chemicals must not contain any compounds that are listed as being cause for impairment of the receiving water body as listed in the State of Rhode Island 2018-2020 303(d) List of Impaired Waters. In addition, any maintenance chemicals or biocides that contain tributyl tin, bis (tributyltin) oxide, or chlorinated phenols are strictly prohibited by this permit.

   c. Algicides and biocides are to be used in accordance with registration requirements of the Federal Insecticide, Fungicide and Rodenticide Act.

   d. The permittee must keep sufficient documentation on-site to show that the above requirements are being met. The following information shall be made available for on-site review by Department personnel during normal working hours:

      i. Material Safety Data Sheets (MSDS) for each additive.
      ii. The Federal Insecticide, Fungicide, and Rodenticide Act (F1FRA)/U.S. EPA registration number.
      iii. Boiler maintenance chemical purchase/service records which shall include enough information to document the quantity of chemicals used.

   e. All maintenance chemicals stored on the same site as the boiler which are used for water treatment shall be stored inside a building.

7. Boil out and boiler acid wastewaters are not covered by this permit. The discharge of wastewaters must be permitted separately, or these wastewaters must be collected by a waste transporter and disposed of off-site in accordance with State and Federal regulations.

8. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitro-phenol; and one milligram per liter (1 mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations (RICR).

b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(1) Five hundred micrograms per liter (500 ug/l);

(2) One milligram per liter (1 mg/l) for antimony;

(3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. s122.21(g)(7); or

(4) Any other notification level established by the Director in accordance with 40 C.F.R. s122.44(f) and Rhode Island Regulations (RICR).

c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product any toxic pollutant which was not reported in the permit application.

9. The permittee shall analyze its effluent from internal outfalls 100 and 200 for the EPA Priority Pollutants as listed in 40CFR 122, Appendix D, Tables II and III during the 5th year of this permit. The results of analyses shall be submitted to the Department of Environmental Management with the permit renewal application. All sampling and analysis shall be done in accordance with EPA Regulations, including 40 CFR, Part 136; grab and composite samples shall be taken as appropriate.

10. This permit serves as the State's Water Quality Certificate for the discharges described herein.

11. The facility shall maintain the requirements of its No Exposure Certificate (NEC) for Industrial Stormwater dated February 4, 2019 by meeting the following conditions: The facility:
    a. shall not use, store, or clean industrial machinery or equipment in areas exposed to stormwater; areas where residuals from using, storing or cleaning industrial machinery or equipment remain shall not be exposed to stormwater.
    b. shall not allow materials or residuals to make contact with the ground in areas exposed to stormwater and shall not allow spills/leaks to flow into storm water inlets.
    c. shall not allow materials or products from industrial activity to be placed in areas exposed to stormwater.
    d. shall not allow materials handling equipment (except adequately maintained vehicles) to be placed in areas exposed to stormwater.
    e. shall not allow materials or products to be exposed to stormwater during loading / unloading or transporting activities.
    f. shall not allow materials to be stored outdoors (except final products intended for outside use where exposure to storm water does not result in discharge of pollutants)
    g. shall not allow materials contained in open, deteriorating or leaking storage drums, barrels, tanks, and similar containers to be stored in areas exposed to stormwater
    h. shall not allow materials or products handled/stored on roads or railways owned or maintained by the discharger
    i. shall not allow waste material (except waste in covered, non-leaking containers [e.g. dumpsters]) to be stored in areas exposed to stormwater
    j. shall not allow application or disposal of process wastewater in areas exposed to stormwater
    k. shall not allow particulate matter or visible deposits of residuals from roof stacks and/or vents not otherwise regulated (i.e, under an air quality control permit) and evident in the storm water outflow to be discharged

    If the facility no longer meets the above-referenced requirements of its NEC, the facility shall notify DEM and submit a Storm Water Pollution Prevention Plan (SWPPP) that meets the requirements of Part I.B of this permit to the DEM within 60 days.

B. STORM WATER POLLUTION PREVENTION PLAN

Unless the facility maintains compliance with all conditions in Section I.A.11 (No Exposure Certification Conditions) of this permit, the facility shall develop and comply with the conditions and Best Management Practices (BMPs) of a Storm Water Pollution Prevention Plan (SWPPP) developed by the facility in accordance with Part I.B.5 of this permit:

1. The permittee shall maintain and implement a Storm Water Pollution Prevention Plan (SWPPP) that has been prepared in accordance with good engineering practices and identifies potential sources of pollutants (including method of on-site storage or disposal), which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. In addition, the Plan shall describe and ensure the implementation of BMPs which are to be used to reduce or eliminate the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit.

2. The Plan shall be signed by the permittee in accordance with the RIPDES Regulations (250-RICR-150-10-1.12) and retained on-site. The Plan shall be made available upon request to the Director.

3. If the Plan is reviewed by the Director, he or she may notify the permittee at any time that the Plan does not meet one or more of the minimum requirements of this part. After such notification from the Director, the permittee shall make changes to the Plan and shall submit to the Director a written certification that the requested changes have been made. Unless otherwise provided by the Director, the permittee shall have thirty (30) days after such notification to make the necessary changes.

4. The permittee shall immediately amend the Plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the State; a release of reportable quantities of hazardous substances and oil; or if the SWPPP proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Changes must be noted and submitted to the DEM within seven (7) days. Amendments to the Plan may be reviewed by DEM in the same manner as Part I.B.3 of this permit.

5. The SWPPP shall include, at a minimum, the following items:

   a. <u>Description of Potential Pollutant Sources.</u>
   The Plan must provide a description of potential sources which may be reasonably expected to add significant amounts of pollutants to storm water discharges or which may result in the discharge of pollutants during dry weather from separate storm sewers draining the facility. It must identify all activities and significant materials, which may potentially be significant pollutant sources. Each plan shall include:

      (1) A site map with sufficient detail to capture site drainage characteristics indicating: a delineation of the drainage area of each storm water outfall, each existing structural control measure to reduce pollutants in storm water runoff, locations where significant materials are exposed to storm water, locations where significant leaks or spills have occurred, a

      (1) delineation of all impervious surfaces, all surface water bodies, all separate storm sewers, and the locations of the following activities where such areas are exposed to storm water: fueling stations, vehicle and equipment maintenance and/or cleaning areas, material handling areas, material storage areas, process areas, and waste disposal areas;

(2) A topographic map extending one mile beyond the property boundaries of the facility;

(3) Receiving Waters and Wetlands - The name of the nearest receiving water(s), including intermittent streams, the areal extent and description of wetland that may receive discharges from the facility, impairments and a list of pollutants causing impairments if applicable.

(4) An estimate of the overall runoff coefficient for the site, determined by an acceptable method, such as, but not limited to, area weighting;

(5) A narrative description of significant materials that have been treated, stored, or disposed of in a manner to allow exposure to storm water between the time of five (5) years prior to the issuance of this permit to the present; method of on-site storage or disposal; materials management practices employed to minimize contact of these materials with storm water runoff between the time of five (5) years prior to the issuance of this permit and the present; materials loading and access areas; the location and description of existing structural and non-structural control measures to reduce pollutants in storm water runoff; and description of any treatment the storm water receives;

(6) A list of significant spills and significant leaks of toxic or hazardous pollutants that occurred at the facility five (5) years prior to the effective date of this permit to the present;

(7) A list of any pollutants limited in effluent guidelines to which a facility is subject under 40 CFR Subchapter N, any pollutants listed on a RIPDES permit to discharge process water, and any information required under the RIPDES Regulations (250-RICR-150-10-1.11.I) or 40 CFR 122.21(g)(7)(iii)-(v);

(8) For each area of the facility that generates storm water discharges associated with industrial activity with a reasonable potential for containing significant amounts of pollutants, a prediction of the direction of flow and an estimate of the types of pollutants, which are likely to be present in storm water associated with industrial activity;

(9) A summary of existing sampling data describing pollutants in storm water discharges from the facility; and

b. Storm Water Management Controls. The permittee must develop a description of storm water management controls appropriate for the facility and implement such controls. The appropriateness for implementing controls listed in the Plan must reflect identified potential sources of pollutants at the facility. The description of storm water management controls must address the following minimum components, including a schedule for implementing such controls:

(1) *Pollution Prevention Team.* The Plan must identify a specific individual(s) within the facility organization as members of a team that are responsible for developing the Plan and assisting the plant manager in its implementation, maintenance, and revision. The Plan must clearly identify the responsibilities of each team member. The activities and responsibilities of the team must address all aspects of facility's Plan.

(2) *Risk Identification and Assessment/Material Inventory.* The Plan must assess the potential of various sources which contribute pollutants to storm water discharge associated with the industrial activity. The Plan must include an inventory of the types of materials handled. Each of the following must be evaluated for the reasonable potential for contributing pollutants to runoff: loading and unloading operations, outdoor manufacturing or processing activities, significant dust or particulate generating processes, and on-site waste disposal practices. Factors to consider include the toxicity of chemicals; quantity of chemicals used, produced, or discharged; the likelihood of contact with storm water, and the history of significant leaks or spills of toxic or hazardous pollutants.

(3) *Preventative Maintenance.* A preventative maintenance program must involve inspection and maintenance of storm water management devices (i.e., oil/water separators, catch basins) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdown or failures resulting in discharges of pollutants to surface waters.

(4) *Good Housekeeping.* Good housekeeping requires the maintenance of a clean, orderly facility. As part of the good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, consider using stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

(5) *Spill Prevention and Response Procedure.* Areas where potential spills can occur, and their accompanying drainage points, must be identified clearly in the SWPPP. The potential for spills to enter the storm water drainage system must be eliminated wherever feasible. Where appropriate, specific material handling procedures, storage requirements, and procedures for cleaning up spills must be identified in the Plan and made available to the appropriate personnel. The necessary equipment to implement a clean up must also be made available to personnel. The permittee shall immediately notify the office of releases in excess of reportable quantities.

(6) *Storm Water Management.* The Plan must contain a narrative consideration of the appropriateness of traditional storm water management practices. Based on an assessment of the potential of various sources at the plant to contribute pollutants to storm water discharges associated with industrial activity (see Part I.B.5.b.2 of this permit), the Plan must provide that measures, determined to be reasonable and appropriate, must be implemented and maintained.

(7) *Sediment and Erosion Prevention.* The Plan must identify areas which; due to topography, activities, or other factors; have a high potential for significant soil erosion and identify measures to limit erosion.

(8) *Employee Training.* Employee training programs must inform personnel responsible for implementing activities identified in the Plan, or otherwise responsible for storm water management at all levels, of the components and goals of the Plan. Training should address topics such as spill response, good housekeeping, and material management practices. The Plan must identify periodic dates for such training.

(9) *Visual Inspections.* Qualified plant personnel must be identified to inspect designated equipment and plant areas. Material handling areas must be inspected for evidence of, or the potential for, pollutants entering the drainage system. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records of inspections must be maintained on site for at least five (5) years.

(10) *Recordkeeping and Internal Reporting Procedures.* Incidents such as spills, or other discharges, along with other information describing the quality and quantity of storm water discharges must be included in the records. All inspections and maintenance activities must be documented and maintained on site for at least five (5) years. A current copy of the RIPDES Permit must be included with the SWPPP.

c. Site Inspection. An annual site inspection must be conducted by appropriate personnel named in the SWPPP to verify that the description of potential pollutant sources required under Part I.B.5.a is accurate, that the drainage map has been updated or otherwise modified to reflect current conditions, and controls to reduce pollutants in storm water discharges associated with industrial activity identified in the Plan are being implemented and are adequate. A tracking or follow up procedure must be used to ensure that the appropriate action has been taken in response to the inspection. Records documenting significant observations made during the site inspection must be retained as part of the SWPPP for a minimum of five (5) years.

d. Consistency with Other Plans. Storm water management controls may reflect requirements for Spill Prevention Control and Counter-measure (SPCC) plans under Section 311 of the CWA or Best Management Practices (BMP) Programs otherwise required by a RIPDES permit and may incorporate any part of such plans into the SWPPP by reference.

e. Stormwater Exposure Discharge Eligibility Related to Endangered Species. The permittee must identify in the SWPPP if the facility is located within or has a discharge that potentially affect, a listed or proposed to be listed endangered or threatened species or its critical habitat (this information can be found by going to: http://www.rigis.org/datasets/natural-heritage-areas). If the Department makes a determination that the stormwater discharge may adversely affect a listed or proposed to be listed endangered or threatened species or its critical habitat, the stormwater discharge cannot be authorized.

f. Salt Storage. The permittee must document the location of any storage piles containing salt and used for deicing or other commercial or industrial purposes.

6. The SWPPP must be consistent (and updated as necessary to remain consistent) with applicable State and/or local storm water, waste disposal, sanitary sewer or septic system regulations to the extent these apply to the facility.

C. DETECTION LIMITS

The permittee shall assure that all wastewater testing required by this permit, is performed in conformance with the method detection limits listed below. In accordance with 40 CFR Part 136, EPA approved analysis techniques, quality assurance procedures and quality control procedures shall be followed for all reports required to be submitted under the RIPDES program. These procedures are described in "Methods for the Determination of Metals in Environmental Samples" (EPA/600/4-91/010) and "Methods for Chemical Analysis of Water and Wastes" (EPA/600/4-79/020).

The report entitled "Methods for the Determination of Metals in Environmental Samples" includes a test which must be performed in order to determine if matrix interferences are present, and a series of tests to enable reporting of sample results when interferences are identified. Each step of the series of tests becomes increasingly complex, concluding with the complete Method of Standard Additions analysis. The analysis need not continue once a result which meets the applicable quality control requirements has been obtained. Documentation of all steps conducted to identify and account for matrix interferences shall be submitted along with the monitoring reports.

If, after conducting the complete Method of Standard Additions analysis, the laboratory is unable to determine a valid result, the laboratory shall report "could not be analyzed". Documentation supporting this claim shall be submitted along with the monitoring report. If valid analytical results are repeatedly unobtainable, DEM may require that the permittee determine a method detection limit (MDL) for their effluent or sludge as outlined in 40 CFR Part 136, Appendix B.

Therefore, all sample results shall be reported as: an actual value, "could not be analyzed", less than the reagent water MDL, or less than an effluent or specific MDL. The effluent or specific MDL must be calculated using the methods outlined in 40 CFR Part 136, Appendix B. Samples which have been diluted to ensure that the sample concentration will be within the linear dynamic range shall not be diluted to the extent that the analyte is not detected. If this should occur the analysis shall be repeated using a lower degree of dilution.

When calculating sample averages for reporting on discharge monitoring reports (DMRs):

1. "could not be analyzed" data shall be excluded, and shall not be considered as failure to comply with the permit sampling requirements;

2. results reported as less than the MDL shall be reported as zeros

LIST OF TOXIC POLLUTANTS

The following list of toxic pollutants has been designated pursuant to Section 307(a)(1) of the Clean Water Act. The Method Detection Limits (MDLs) represent the required Rhode Island MDLs.

Volatiles - EPA Method 624		MDL ug/l (ppb)
1V	acrolein	10.0
2V	acrylonitrile	5.0
3V	benzene	1.0
5V	bromoform	1.0
6V	carbon tetrachloride	1.0
7V	chlorobenzene	1.0
8V	chlorodibromomethane	1.0
9V	chloroethane	1.0
10V	2-chloroethylvinyl ether	5.0
11V	chloroform	1.0
12V	dichlorobromomethane	1.0
14V	1,1-dichloroethane	1.0
15V	1,2-dichloroethane	1.0
16V	1,1-dichloroethylene	1.0
17V	1,2-dichloropropane	1.0
18V	1,3-dichloropropylene	1.0
19V	ethylbenzene	1.0
20V	methyl bromide	1.0
21V	methyl chloride	1.0
22V	methylene chloride	1.0
23V	1,1,2,2-tetrachloroethane	1.0
24V	tetrachloroethylene	1.0
25V	toluene	1.0
26V	1,2-trans-dichloroethylene	1.0
27V	1,1,1-trichloroethane	1.0
28V	1,1,2-trichloroethane	1.0
29V	trichloroethylene	1.0
31V	vinyl chloride	1.0

Acid Compounds - EPA Method 625		MDL ug/l (ppb)
1A	2-chlorophenol	1.0
2A	2,4-dichlorophenol	1.0
3A	2,4-dimethylphenol	1.0
4A	4,6-dinitro-o-cresol	1.0
5A	2,4-dinitrophenol	2.0
6A	2-nitrophenol	1.0
7A	4-nitrophenol	1.0
8A	p-chloro-m-cresol	2.0
9A	pentachlorophenol	1.0
10A	phenol	1.0
11A	2,4,6-trichlorophenol	1.0

Pesticides - EPA Method 608		MDL ug/l (ppb)
1P	aldrin	0.059
2P	alpha-BHC	0.058
3P	beta-BHC	0.043
4P	gamma-BHC	0.048
5P	delta-BHC	0.034
6P	chlordane	0.211
7P	4,4'-DDT	0.251
8P	4,4'-DDE	0.049
9P	4,4'-DDD	0.139
10P	dieldrin	0.082
11P	alpha-endosulfan	0.031
12P	beta-endosulfan	0.036
13P	endosulfan sulfate	0.109
14P	endrin	0.050
15P	endrin aldehyde	0.062
16P	heptachlor	0.029
17P	heptachlor epoxide	0.040

Pesticides - EPA Method 608		MDL ug/l (ppb)
18P	PCB-1242	0.289
19P	PCB-1254	0.298
20P	PCB-1221	0.723
21P	PCB-1232	0.387
22P	PCB-1248	0.283
23P	PCB-1260	0.222
24P	PCB-1016	0.494
25P	toxaphene	1.670

Base/Neutral - EPA Method 625		MDL ug/l (ppb)
1B	acenaphthene *	1.0
2B	acenaphthylene *	1.0
3B	anthracene *	1.0
4B	benzidine	4.0
5B	benzo(a)anthracene *	2.0
6B	benzo(a)pyrene *	2.0
7B	3,4-benzofluoranthene *	1.0
8B	benzo(ghi)perylene *	2.0
9B	benzo(k)fluoranthene *	2.0
10B	bis(2-chloroethoxy)methane	2.0
11B	bis(2-chloroethyl)ether	1.0
12B	bis(2-chloroisopropyl)ether	1.0
13B	bis(2-ethylhexyl)phthalate	1.0
14B	4-bromophenyl phenyl ether	1.0
15B	butylbenzyl phthalate	1.0
16B	2-chloronaphthalene	1.0
17B	4-chlorophenyl phenyl ether	1.0
18B	chrysene *	1.0
19B	dibenzo (a,h)anthracene *	2.0
20B	1,2-dichlorobenzene	1.0
21B	1,3-dichlorobenzene	1.0
22B	1,4-dichlorobenzene	1.0
23B	3,3'-dichlorobenzidine	2.0
24B	diethyl phthalate	1.0
25B	dimethyl phthalate	1.0
26B	di-n-butyl phthalate	1.0
27B	2,4-dinitrotoluene	2.0
28B	2,6-dinitrotoluene	2.0
29B	di-n-octyl phthalate	1.0
30B	1,2-diphenylhydrazine (as azobenzene)	1.0
31B	fluoranthene *	1.0
32B	fluorene *	1.0
33B	hexachlorobenzene	1.0
34B	hexachlorobutadiene	1.0
35B	hexachlorocyclopentadiene	2.0
36B	hexachloroethane	1.0
37B	indeno(1,2,3-cd)pyrene *	2.0
38B	isophorone	1.0
39B	naphthalene *	1.0
40B	nitrobenzene	1.0
41B	N-nitrosodimethylamine	1.0
42B	N-nitrosodi-n-propylamine	1.0
43B	N-nitrosodiphenylamine	1.0
44B	phenanthrene *	1.0
45B	pyrene *	1.0
46B	1,2,4-trichlorobenzene	1.0

OTHER TOXIC POLLUTANTS

Updated: March 28, 2000

	MDL ug/l (ppb)
Antimony, Total	3.0
Arsenic, Total	1.0
Beryllium, Total	0.2
Cadmium, Total	0.1
Chromium, Total	1.0
Chromium, Hexavalent***	20.0
Copper, Total	1.0
Iron	50
Lead, Total	1.0
Mercury, Total	0.2
Nickel, Total	1.0
Selenium, Total	2.0
Silver, Total	0.5
Thallium, Total	1.0
Zinc, Total	5.0
Asbestos	**
Cyanide, Total	10.0
Phenols, Total***	50.0
TCDD	**
MTBE (Methyl Tert Butyl Ether)	1.0

* Polynuclear Aromatic Hydrocarbons
** No Rhode Island Department of Environmental Management (RIDEM) MDL
*** Not a priority pollutant

NOTE:

The MDL for a given analyte may vary with the type of sample. MDLs, which are determined in reagent water, may be lower than those determined in wastewater due to fewer matrix interferences. Wastewater is variable in composition and may therefore contain substances (interferents) that could affect MDLs for some analytes of interest. Variability in instrument performance can also lead to inconsistencies in determinations of MDLs.

To help verify the absence of matrix or chemical interference the analyst is required to complete specific quality control procedures. For the metals analyses listed above the analyst must withdraw from the sample two equal aliquots; to one aliquot add a known amount of analyte, and then dilute both to the same volume and analyze. The unspiked aliquot multiplied by the dilution factor should be compared to the original. Agreement of the results within 10% indicates the absence of interference. Comparison of the actual signal from the spiked aliquot to the expected response from the analyte in an aqueous standard should help confirm the finding from the dilution analysis. (Methods for Chemical Analysis of Water and Wastes EPA-600/4-79/020).

For Methods 624 and 625 the laboratory must on an ongoing basis, spike at least 5% of the samples from each sample site being monitored. For laboratories analyzing 1 to 20 samples per month, at least one spiked sample per month is required. The spike should be at the discharge permit limit or 1 to 5 times higher than the background concentration determined in Section 8.3.2, whichever concentration would be larger. (40 CFR Part 136 Appendix B Method 624 and 625 subparts 8.3.1 and 8.3.11).

D. BENCHMARK MONITORING

During each quarter in which the facility has exposure to stormwater (i.e during each quarter in which the condition of the facility's No Exposure Certificate are not met), the permittee shall compare all sampling results for outfall 001B to the benchmark monitoring concentrations listed below. The benchmark concentrations are not effluent limitations, but are pollutant levels that are to be used to evaluate the overall effectiveness of the SWPPP. Benchmark Monitoring concentrations may be subject to change by permit modification to be consistent with future revisions to EPA and/or State benchmarks:

Parameter	Benchmark Concentration (mg/l)
Total Copper	0.009
Total Zinc	0.080

Any quarterly exceedances of the benchmark concentrations shall trigger a reevaluation of the implementation of the existing SWPPP and facility operations to determine if there are possible problems with non-structural BMPs or maintenance that can be corrected. The SWPPP shall be promptly revised in response to these reevaluations and in no case later than thirty (30) calendar days following the receipt of monitoring results that exceed the benchmark concentrations. A report of the permittee's comparison of monitoring results with the benchmark concentrations shall be submitted with each DMR. If the permittee exceeds any of the benchmark concentrations during the monitoring period the report shall include a detailed description of the possible causes of the exceedances or of any significant increases in parameter concentrations, the dates and scopes of inspections, a summary of monitoring results and visual inspections, and any modifications made to the SWPPP to reduce pollutant levels.

Along with the results of the monitoring, the permittee must provide the date and duration (in hours) of the storm event(s) sampled; rainfall measurements or estimate (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume (in gallons) of the discharge sampled.

In any year in which the conditions of the facility's No Exposure Certificate (as described in Part I.A.11 of this permit) are not in effect, the permittee shall calculate the annual average of all sampling data for each pollutant for the previous calendar year (January 1 – December 31). When calculating the annual average concentrations, pollutant concentrations that were reported as less than the minimum detection limit from Part I.C shall be replaced with zeros. If the annual average exceeds the applicable benchmark concentration, then the permittee shall perform a detailed review of all storm water controls, BMPs, and maintenance schedules contained in the SWPPP and shall make reasonable amendments to reduce the pollutant levels in the discharge. These amendments shall be submitted to the Department of Environmental Management – Office of Water Resources as required by Part I.B of this permit. If the amendments will include changes to structural controls, the report must include a schedule for the implementation of the proposed structural modifications. Proposed changes to structural stormwater controls must be approved by the DEM prior to implementation. Upon DEM approval of the structural changes, the permittee shall implement them in accordance with the approved schedule.

The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation.

E. MONITORING AND REPORTING

1. Monitoring

All monitoring required by this permit shall be done in accordance with sampling and analytical testing procedures specified in 40 CFR Part 136 unless other procedures are explicitly required in the permit.

2. Reporting

Unless otherwise specified in this permit, the permittee shall submit reports, requests, and information and provide notices in the manner described in this section.

A. Submittal of DMRs Using NetDMR

The permittee shall continue to submit its monthly monitoring data in discharge monitoring reports (DMRs) to DEM electronically using NetDMR per the following schedule:

Quarter Testing to be Performed	Report Due No Later Than	Results Submitted on DMR for
January 1 - March 31	April 15	January 1 - March 31
April 1 - June 30	July 15	April 1 - June 30
July 1 - September 30	October 15	July 1 - September 30
October 1 - December 31	January 15	October 1- December 31

When the permittee submits DMRs using NetDMR, it is not required to submit hard copies of DMRs to DEM.

B. Submittal of Reports as NetDMR Attachments

Unless otherwise specified in this permit, the permittee must submit electronic copies of documents in NetDMR that are directly related to the DMR. These include the following:

- DMR Cover Letters
- Below Detection Limit summary tables

C. Submittal of Reports in Hard Copy Form

The following notifications and reports shall be submitted as hard copy with a cover letter describing the submission. These reports shall be signed and dated originals submitted to DEM.

A. Written notifications required under Part II
B. Notice of unauthorized discharges
C. Stormwater Pollution Prevention Plan (SWPPP), if requested by DEM

This information shall be submitted to DEM at the following address:

Rhode Island Department of Environmental Management
RIPDES Program
235 Promenade Street
Providence, Rhode Island 02908

D. Verbal Reports and Verbal Notifications

Any verbal reports or verbal notifications, if required in Parts I and/or II of this permit, shall be made to the DEM. This includes verbal reports and notifications which require reporting within 24 hours. (See Part II.(I)(5) General Requirements for 24-hour reporting) Verbal reports and verbal notifications shall be made to DEM at (401) 222-4700 or (401) 222-3070 at night.

RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 PROMENADE STREET
PROVIDENCE, RHODE ISLAND 02908-5767

STATEMENT OF BASIS

RHODE ISLAND POLLUTANT DISCHARGE ELIMINATION SYSTEM (RIPDES) PERMIT TO DISCHARGE TO WATERS OF THE STATE

RIPDES PERMIT NO. RI0020141

NAME AND ADDRESS OF APPLICANT:

The Okonite Company, Inc.
5 Industrial Rd.
Cumberland, RI 02864

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:

Okonite Company
111 Martin Street
Ashton, RI 02864

RECEIVING WATER: **Blackstone River**
WBID: RI0001003R-01A

CLASSIFICATION: **B1**

Fact Sheet Table of Contents

I. Proposed Action, Type of Facility, and Discharge Location

The above-named applicant has applied to the Rhode Island Department of Environmental Management (DEM) for reissuance of a RIPDES Permit to discharge into the designated receiving water. The facility was previously engaged in the manufacturing of insulated wires and cables and is currently a storage warehouse with significantly scaled back manufacturing. The facility currently has only one production line that runs intermittently. The discharge consists of contact cooling recirculation water blowdown and boiler blowdown. A site layout and process flow diagrams of the facility are shown in Attachments C and D, respectively.

II. Description of Discharge

A quantitative description of the discharge in terms of significant effluent parameters based on DMR data from October 2016 to June 2021 is shown on Attachment A.

III. Permit Limitations and Conditions

The final effluent limitations and monitoring requirements may be found in the permit.

IV. Permit Basis and Explanation of Effluent Limitation Derivation

Variances, Alternatives, and Justifications for Waivers of Application Requirements

No variances or alternatives to required standards were requested or granted.

No waivers were requested or granted for any application requirements per 40 CFR §122.21(j) or (q).

Facility Description

The Okonite Company owns and operates the facility located at 111 Martin Street in Ashton, RI. The discharge to the Blackstone River consists of boiler blowdown and contact cooling recirculation water blowdown. The Okonite Company's most recent RIPDES permit, authorizing discharges from the above-mentioned facility, was issued on September 9, 2016. This permit became effective on October 1, 2016 and expired on October 1, 2021. The facility submitted an application electronically for permit reissuance to the DEM on January 13, 2021. On March 3, 2021, DEM responded to the January 13, 2021 application via email with a request for additional information. Okonite responded by submitting a revised application electronically on March 3, 2021. On March 3, 2021 the DEM issued an application complete letter to the facility. In accordance with the Regulations for the Rhode Island Pollutant Discharge Elimination System (250-RICR-150-10-1.13) of, the facility's September 9, 2016 permit remains in effect since the DEM has determined that a timely and complete permit application was submitted. Once the new permit is reissued, it will supersede the September 9, 2016 permit.

The permit has been updated to add internal outfalls for the boiler blowdown and contact cooling recirculation water blowdown discharges. Those internal outfalls are outfalls 100 and 200 respectively. The locations of these outfalls are at the indoor drainage structure which leads to outfall 001B to the Blackstone River. Effluent limitations for Outfall 001 have been eliminated, however, discharges from outfalls 100 and 200 will continue to flow through the former outfall 001 as those discharges are conveyed to the receiving water. All other discharges from outfall 001, with the exception of stormwater, are prohibited.

With the exception of the flow effluent parameter, all effluent parameters shall be sampled at a frequency of 4 grabs per day during each day in which a discharge takes place. 24 hour composite sampling is no longer required.

The facility submitted a No Exposure Certificate (NEC) to DEM in correspondence date February 4, 2019. In order for the facility to not be subject to Stormwater Pollution Prevention Plan (SWPPP) requirements listed in Part I.B. of this permit, and in order for the facility to not be subject to the comparison of effluent Zinc and effluent Copper parameters to benchmarks listed in Part I.D. of the permit, the facility shall comply with the NEC conditions listed in Part I.A.11.a.-k. of the Permit. If the

facility no longer meets the requirements of its NEC from Part I.A.11, it must submit a Stormwater Pollution Prevention Plan (SWPPP) to the DEM within sixty (60) days and shall be subject to the monitoring requirements of I.A.11. If the facility complies with the NEC conditions listed in Part I.A.11, then the facility is not required to monitor stormwater discharges from Outfall 001B.

Receiving Water Description

The water body segment for the Blackstone River is RI0001003R-01A. This segment is delineated by the Blackstone River from the Massachusetts-Rhode Island border to the CSO outfall located at River and Samoset Streets in Central Falls, and encompasses Woonsocket, North Smithfield, Cumberland, Lincoln and areas of Central Falls upstream of the CSO outfall located at River and Samoset Streets. This segment of the Blackstone River is designated as a warm water habitat for fisheries and has a Waterbody Classification of B1. B1 waters are designated for primary and secondary contact recreational activities and fish and wildlife habitat. They shall be suitable for compatible industrial processes and cooling, hydropower, aquacultural uses, navigation, irrigation and other agricultural uses. These waters shall have good aesthetic value. Primary contact recreational activities may be impacted due to pathogens from approved wastewater discharges. However all Class B criteria must be met. This segment is listed on DEM's 2018-2020 303(d) impaired waters list as not supporting Fish and Wildlife Habitat due to Cadmium, Iron, Lead, and Non-Native Aquatic Plants. In addition, this segment is listed for not supporting fish consumption for Mercury and PCBs in Fish Tissue, and for not supporting for Primary Contact Recreation due to Enterococcus and Fecal Coliform, and for not supporting Secondary Contact Recreation due to Enterococcus and Fecal Coliform. This segment has a TMDL for Cadmium, Lead, Enterococcus, and Fecal Coliform as of April 22, 2013. Permit limits for the Okonite were developed to be consistent with Rhode Island Water Quality Regulations (RICR 250-RICR-150-05-1) and the wasteload allocation. Water quality criteria for Copper calculated and listed in the Water Quality calculations are more stringent than the site-specific limits for Copper listed in Table 1.2 the 2013 Blackstone River TMDL, therefore, the site-specific criteria for Copper were not used.

Permit Limit Development

The requirements set forth in this permit are from the State's Water Quality Regulations and the State's Regulations for the Rhode Island Pollutant Discharge Elimination System, both filed pursuant to RIGL Chapter 46-12, as amended. RIDEM's primary authority over the permit comes from EPA's delegation of the program in September 1984 under the Federal Clean Water Act (CWA).

Development of RIPDES permit limitations is a multi-step process consisting of: determining if Federal effluent guidelines apply; calculation of allowable water quality-based discharge levels based on background data and available dilution; assigning appropriate Best Professional Judgement (BPJ) based limits; comparing existing and proposed limits; comparing discharge data to proposed limits; performing an antidegradation/antibacksliding analysis to determine the final permit limits; and developing interim limits as appropriate.

Water quality criteria are comprised of numeric and narrative criteria. Numeric criteria are scientifically derived ambient concentrations developed by EPA or the State for various pollutants of concern to protect human health and aquatic life. Narrative criteria are statements that describe the desired water quality goal. A technology-based limit is a numeric limit, which is determined by examining the capability of a treatment process to reduce or eliminate pollutants.

<u>Conventional Pollutant Permit Limitations</u>

Flow Limits

The basis for the facility's average monthly flow limits for boiler blowdown and contact cooling recirculation water blowdown of 25 gallons per day and 500 gallons per day, respectively, were provided to DEM in an email from the permittee on January 13, 2022.

pH

The limits for pH have been maintained in accordance with the Rhode Island Water Quality

Regulations at 250-RICR-150-05-1.10.D.1. Class Specific Criteria – Freshwaters.

Temperature

The 83 degree F effluent limitation for temperature has been eliminated. This is because a calculation to ensure that instream T criteria are being met, attached as Attachment B, concluded that even if the effluent discharge from outfalls 001 and 002 were discharged at 212° F, instream water temperature criteria would not be violated. (Water temperature criteria are defined in the Rhode Island Water Quality Regulations at 250-RICR-150-05-1.10.D.1. Class Specific Criteria – Freshwaters).

Oil and Grease

Oil and Grease effluent limitations, of 10 mg/l, are based on the previous permit requirements. The 10 mg/l limit is more stringent than the 15 mg/l daily maximum Oil and Grease limit that the Environmental Protection Agency (EPA) has established for most industry groups. Therefore, in accordance with antibacksliding, the 10 mg/l limit is being carried forward from the previous permit.

TSS and BOD_5

TSS and BOD_5 effluent limitations are taken directly from 40 CFR Part 463 – Effluent Limitation Guidelines for the Plastics Molding and Forming Point Source Category Subpart A – Contact Cooling and Heating Water Subcategory. Subpart A applies to discharges of pollutants from processes in the contact cooling and heating water subcategory to waters of the United States and the introduction of such pollutants into publicly owned treatment works. Processes in the contact cooling and heating water subcategory are processes where water comes in contact with plastic materials or plastic products for the purpose of heat transfer during plastics molding and forming. The effluent limitation guidelines represent the degree of effluent reduction attainable by the application of the best practicable control technology (BPT). The Effluent Limitation Guidelines for Plastics Molding and Forming Point Source Category Subpart A – Contact Cooling and Heating Water Subcategory specify 6.0 – 9.0 S.U. for pH and 29 mg/l daily max for Oil and Grease. However due to the fact that the previous oil and grease limits of 10 mg/l and the water quality regulations specify a narrower pH range of 6.5-9.0 S.U. they have been chosen as final permit limits.

Although EPA has not promulgated technology-based effluent limits for TSS and BOD_5 for boiler blowdown discharges, the technology-based TSS and BOD_5 limits from 40 CFR Part 463 – Effluent Limitation Guidelines for the Plastics Molding and Forming Point Source Category Subpart A – Contact Cooling and Heating Water Subcategory have been included for the boiler blowdown discharge due to antibacksliding.

<u>WWTF Toxic Pollutant Limits</u>

Water Quality-Based Limit (WQBEL) Calculations

The allowable effluent limitations were established on the basis of acute and chronic aquatic life criteria and human health criteria using the following: available instream dilution; an allocation factor; and background concentrations when available and/or appropriate. The aquatic life and human health criteria are specified in the Rhode Island Water Quality Regulations (250-RICR-150-05-1). Aquatic life criteria have been established to ensure the protection and propagation of aquatic life while human health criteria represent the pollutant levels that would not result in a significant risk to public health from ingestion of aquatic organisms. The more stringent of the two criteria was then used in establishing allowable effluent limitations. Details concerning the calculation of potential permit limitations, selection of factors, which influence their calculation, and the selection of final permit limitations are included below or in the attached documents. The Okonite Company's October 1, 2016 permit also contained WQBELs. The facility's first permit known to contain WQBELs was issued in May 18, 2005.

Mixing Zones and Dilution Factors

Mixing for the Okonite Company's discharge to the Blackstone River is assumed to be instantaneous and complete. Therefore, the whole flow of the river at critical flow conditions is used when calculating limits and accounting for dilution.

The facility's dilution factor at 7Q10 flow was calculation as follow:

1. The 7Q10 flow of the Blackstone River at the facility was calculated in accordance with DEM's 7Q10 Policy.
2. The dilution factor at 7Q10 was calculated as the River 7Q10 calculated at the facility divided by the facility's flow limits of 0.000525 MGD,
3. Seasonal 7Q10 flows and the facility's harmonic flow were estimated based on the ratios between those parameters and 7Q10 for the Blackstone at the Woonsocket Wastewater Treatment Facility, as presented in the Woonsocket WWTF's 2017 Final RIPDES permit.

The Rhode Island Water Quality Regulations at 250-RICR-150-05-1.18(N)(1) require in-stream concentrations of discharged pollutants to be determined by specific formulas, or other methods which may be found to be acceptable. These formulas require the use of the seven-day, 10 year, low flow of the receiving stream immediately upstream of the discharge to be used in calculating the concentrations of discharged pollutants for the purpose of developing RIPDES permit conditions. This 7Q10 value is protective of water quality standards under critical flow conditions.

Using the upstream 7Q10 river flow of 66.3 cfs (for aquatic life criteria) and a mean harmonic flow of 232.050 cfs (for human health criteria) the appropriate dilution factors were determined. Using the facility's design flow of 0.000525 MGD (0.001 cfs), a water quality dilution factor of 81615.921 for acute and chronic criteria and a human health dilution factor of 285653.224 were calculated using the following equation:

$$DF = \frac{Q_D + Q_U}{Q_D}$$

Where: DF = Dilution Factor
Q_D = Design Flow
Q_U = Flow upstream of the WWTF (Receiving Water Flow)

An exception to these dilution factors was made for Ammonia limitations. Ammonia removal is strongly dependent on temperature (nitrification rate decreases as temperature decreases). Since Ammonia does not bioaccumulate or accumulate in sediment, seasonal dilution factors and historical pH and temperature background data were used to determine the appropriate Ammonia limitations. A winter 7Q10 river flow of 98.8 cfs was used to yield a dilution factor of 126123.235 and a summer 7Q10 of 66.3 cfs used to give a dilution factor of 81615.921.

Hardness

It has been observed that there is generally a strong inverse correlation between river flow and hardness. This is due to the fact that major components of hardness (Mg, Ca) are more prevalent in groundwater rather than surface water. Therefore, during low flow periods, when the majority of flow in the river or stream is groundwater, hardness will be higher. A lognormal-lognormal relationship was developed between flow and hardness from data collected at USGS gaging station on the Blackstone River located at Manville, RI to establish aquatic life criteria for metals (which are based on hardness). Based on this relationship, a hardness of 66.7 mg/L was determined for the 7Q10 flow of 66.3 CFS to determine the appropriate metals criteria. Details of this relationship are presented in Attachment E – Water Quality Calculations. Using the above dilution factors and hardness the allowable discharge limits were calculated as follows:

a) Background concentration unknown or available data is impacted by sources that have not yet achieved water quality-based limits.

$$Limit_l = (DF) * (Criteria) * (80\%)$$

Where: DF = acute or chronic dilution factor, as appropriate

b) Using available background concentration data.

$$Limit_l = (DF) * (Criteria) * 90\% - (Background) * (DF - 1)$$

Where: DF = acute or chronic dilution factor, as appropriate

Background data for Aluminum, Cadmium, Chromium III, Copper, Lead, Nickel, Zinc, pH, and Ammonia spanning the years 2016-2021 were used to develop potential permit limits for Aluminum, Cadmium, Chromium III, Copper, Lead, Nickel, Zinc, and Ammonia. The background data was gathered by DEM and by the United States Geological Survey (USGS). Background data used may be found in Attachment F.

Reference Attachment E for calculations of allowable limits based on Aquatic Life and Human Health Criteria.

The formulas and data noted above were applied with the following exceptions:

I. Pollutants that, based on the acute and chronic dilution factors, have a higher allowable chronic limit than allowable acute limit. For this situation, both the "Monthly Average" and "Daily Maximum" limits were set at the allowable acute limit.

II. Total residual chlorine. The limits for total residual chlorine (TRC) were established in accordance with the RIDEM Effluent Disinfection Policy. The "Monthly Average" and "Daily Maximum" were based on a 100% allocation, a zero background concentration, and the appropriate dilution factor(s). The 100% allocation factor for TRC was used due to the non-conservative nature of chlorine and the improbability of the receiving water having a detectable background TRC concentration.

III. Pollutants with water quality based monthly average limits in the previous RIPDES permit. The relaxation of monthly average limits from the previous permit was restricted in accordance with the antibacksliding provisions of the Clean Water Act and the Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations.

For toxicity-based ammonia limitations, the Water Quality Regulations include ammonia criteria, which are dependent on both pH and temperature. A 90th confidence interval for pH was used for these calculations, based on water quality data gathered from the Blackstone River by DEM and USGS in 2016-2021. The 90th confidence interval pH value was calculated to be 7.41, which was used for a pH value in the Ammonia calculations, with winter and summer water temperatures of 15°C and 26°C, respectively. The pH and summer temperature were used to determine the acute and chronic criteria for Total Ammonia Nitrogen of 22.69 mg N/L and 2.242 mg N/L. The pH and winter temperature were used to determine the acute and chronic criteria for Total Ammonia Nitrogen of 22.69 mg N/L and 5.445 mg N/L, respectively. Using these criteria values, the Ammonia limits were then calculated using the formula provided above. These Ammonia values reflect Ammonia criteria for the case of salmonids being absent, due to the water body being listed as a Warm Water Hatchery under the Rhode Island Water Quality Regulations.

Wasteload Allocation

Based on the above dilution factors and the freshwater aquatic life and non-Class AA human health criteria, from the Rhode Island Water Quality Regulations, allowable discharge concentrations were established using an 80% allocation (for effluent parameters for which no background data was available), using a 90% allocation (for effluent parameters for which background data was available) and a 100% allocation of total residual chlorine (TRC) due to the fact that Chlorine is not expected to be found in ambient water and it is a non-conservative pollutant.

In accordance with 40 CFR Part 122.4(d)(1)(iii), it is only necessary to establish limitations for those pollutants in the discharge which have the reasonable potential to cause or contribute to the exceedance of the in-stream criteria. In order to evaluate the need for permit limitations, the allowable discharge levels (permit limits) were compared to Discharge Monitoring Report (DMR) data, and to data provided in the facility's January 13, 2021 permit application. An assessment was made to determine if limits were necessary, using the data collected during the previous five (5) years (from 10/1/16 to 6/30/21). Based on these comparisons, water quality limitations have not been deemed necessary for any parameters detected in the effluent (Cadmium, Copper, Lead, and

Zinc). However, a daily maximum limit for Copper of 100 mg/L has been maintained due to antidegradation and monitoring for Lead and Cadmium have been maintained at outfalls 100 and 200 due to the segment of the Blackstone River into which the discharge takes place being impaired for Lead and Cadmium. In addition, monitoring for Total Iron has been added at outfalls 100 and 200 due to the segment of the Blackstone River into which the discharge takes place being impaired for Total Iron. Monitoring for total Phosphorus has been eliminated because the water body segment of the Blackstone River as well as the downstream water body segment was de-listed for Total Phosphorus in the Rhode Island 2018-2020 303d List. Although the receiving water is impaired for Enterococcus and Fecal Coliform, the discharges from outfall 100 and 200 do not have any reasonable potential to contain these pollutants, therefore, monitoring is not required.

Priority Pollutants

A required priority pollutant scan for each outfall is to be performed in the 5th year of this permit for the EPA Priority Pollutants as listed in 40 CFR 122, Appendix D, Tables II and III.

Antibacksliding

Provided below is a brief introduction to Antibacksliding and Antidegradation; as well as a discussion on how the two policies were used to calculate water quality-based limits.

Antibacksliding restricts the level of relaxation of water quality-based limits from the previous permit. Section 303(d)(4) of the Clean Water Act addresses antibacksliding as the following:

Section 303(d)(4)

1. Standards not attained – For receiving waters that have not attained the applicable water quality standards, limits based on a TMDL or WLA can only be revised if the water quality standards will be met. This may be done by (i) determining that the cumulative effect of all such revised limits would assure the attainment of such water quality standards; or (ii) removing the designated use which is not being attained in accordance with regulations under Section 303.

2. Standards attained – For receiving waters achieving or exceeding applicable water quality standards, limits can be relaxed if the revision is consistent with the State's Antidegradation Policy.

Therefore, in order to determine whether backsliding is permissible, the first question that must be asked is whether or not the receiving water is attaining the water quality standard. The Office has determined the most appropriate evaluation of existing water quality is by calculating pollutant levels, which would result after the consideration of all currently valid RIPDES permit limits or historic discharge data (whichever is greater), background data (when available), and any new information (i.e., dilution factors).

Antidegradation

The DEM's "*Policy on the Implementation of the Antidegradation Provisions of the Rhode Island Water Quality Regulations July 2006*" (the Policy) established four tiers of water quality protection:

Tier 1. In all surface waters, existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

Tier 2. In waters where the existing water quality criteria exceeds the levels necessary to support the propagation of fish and wildlife and recreation in and on the water, that quality shall be maintained and protected except for insignificant changes in water quality as determined by the Director and in accordance with the Antidegradation Implementation Policy, as amended. In addition, the Director may allow significant degradation, which is determined to be necessary to achieve important economic or social benefits to the State in accordance with the Antidegradation Policy.

Tier 2½. Where high quality waters constitute Special Resource Protection Waters SRPWs[1], there shall be no measurable degradation of the existing water quality necessary to protect the characteristics which cause the waterbody to be designated a SRPW. Notwithstanding that all public drinking water supplies are SRPWs, public drinking water suppliers may undertake temporary and short-term activities within the boundary perimeter of a public drinking water supply impoundment for essential maintenance or to address emergency conditions in order to prevent adverse effect on public health or safety. These activities must comply with the requirements set forth in Tier 1 and Tier 2.

Tier 3. Where high quality waters constitute an Outstanding Natural Resource ONRWs[2], that water quality shall be maintained and protected. The State may allow some limited activities that result in temporary or short-term changes in the water quality of an ONRW. Such activities must not permanently degrade water quality or result in water quality lower than necessary to protect the existing uses in the ONRW.

The formulas previously presented ensure that permit limitations are based upon water quality criteria and methodologies established to ensure that all designated uses will be met.

In terms of the applicability of Tier 2 of the Policy, a water body is assessed as being high quality on a parameter-by-parameter basis. In accordance with Part II of the Policy, "Antidegradation applies to all new or increased projects or activities which may lower water quality or affect existing water uses, including but not limited to all 401 Water Quality Certification reviews and any new, reissued, or modified RIPDES permits." Part VI.A of the Policy indicates that it is not applicable to activities which result in insignificant (i.e., short-term minor) changes in water quality and that significant changes in water quality will only be allowed if it is necessary to accommodate important economic and social development in the area in which the receiving waters are located (important benefits demonstration). Part VI.B.4 of the Policy states that: "Theoretically, any new or increased discharge or activity could lower existing water quality and thus require the important benefits demonstration. However, DEM will: 1) evaluate applications on a case-by-case basis, using BPJ and all pertinent and available facts, including scientific and technical data and calculations as provided by the applicant; and 2) determine whether the incremental loss is significant enough to require the important benefits demonstration described below. [If not then as a general rule DEM will allocate no more than 20%.] Some of the considerations which will be made to determine if an impact is significant in each site specific decision are: 1) percent change in water quality parameter value and their temporal distribution; 2) quality and value of the resource; 3) cumulative impact of discharges and activities on water quality to date; 4) measurability of the change; 5) visibility of the change; 6) impact on fish and wildlife habitat; and 7) impact on potential and existing uses. As a general guide, any discharge or activity which consumes greater than 20% of the remaining assimilative capacity may be deemed significant and invoke full requirements to demonstrate important economic or social benefits."

In terms of a RIPDES permit, an increased discharge is defined as an increase in any limitation, which would result in an increased mass loading to a receiving water. The baseline for this comparison would be the monthly average mass loading established in the previous permit. It would be inappropriate to use the daily maximum mass loading since the Policy is not applicable to short-term changes in water quality.

For the purposes of ensuring that the revised limit is consistent with the requirements of antidegradation, existing water quality must be defined. As explained earlier, DEM evaluates existing water quality by determining the pollutant levels which would result under the design conditions appropriate for the particular criteria (i.e., background water quality, when available and/or appropriate, non-point source inputs; and existing RIPDES permit limitations or recent historical discharge data, whichever is higher). In general, available data would be used to make this determination.

Use the above-mentioned criteria, the present instream water quality C_p is defined as:

[1] SRPWs are surface waters identified by the Director as having significant recreational or ecological uses.
[2] ONRWs are a special subset of high-quality water bodies, identified by the State as having significant recreational or ecological water uses.

$$C_p = \frac{(DF - 1) \cdot C_B + (1 \cdot C_d)}{DF}$$

where: C_b = background concentration[3]
C_d = discharge data[4]
DF = dilution factor

In this permit, all monthly average limitations are either the same as or more stringent than the limits in the 2016 permit. Therefore, the limits contained in this permit are consistent with the Department's anti-degradation policy.

The remaining general and specific conditions of the permit are based on the RIPDES regulations as well as 40 CFR Parts 122 through 125 and consist primarily of management requirements common to all permits.

Table I. Permit Limits – Internal Outfall 100 (internal outfall consisting of contact cooling recirculation water blowdown discharges to indoor drainage structure which leads to outfall 001B to the Blackstone River).

Effluent Characteristic	Monthly Average Permit Limit	Daily Max Permit Limit	Sampling Frequency
Flow		500 GPD	1/Month
BOD_5		26 mg/L	1/Quarter
Oil and Grease	(--- mg/L)	(10 mg/L)	1/Quarter
TSS		19 mg/L	1/Quarter
pH	(6.5 S.U.)	(9.0 S.U.)	1/Month
Total Copper	100 ug/L	100 ug/L	1/Quarter
Total Cadmium	--- ug/L	--- ug/L	1/Quarter
Total Lead	--- ug/L	--- ug/L	1/Quarter
Total Iron	--- ug/L	--- ug/L	1/Quarter

() Values in parentheses represent the minimum and maximum values.
--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

Table II. Permit Limits – Internal Outfall 200 (internal outfall consisting of boiler blowdown to indoor drainage structure which leads to outfall 001B to the Blackstone River).

Effluent Characteristic	Monthly Average Permit Limit	Daily Max Permit Limit	Sampling Frequency
Flow		25 GPD	1/Month
BOD_5		26 mg/L	1/Quarter
Oil and Grease	(--- mg/L)	(10 mg/L)	1/Quarter
TSS		19 mg/L	1/Quarter
pH	(6.5 S.U.)	(9.0 S.U.)	1/Month
Total Copper	100 ug/L	100 ug/L	1/Quarter
Total Cadmium	--- ug/L	--- ug/L	1/Quarter
Total Lead	--- ug/L	--- ug/L	1/Quarter
Total Iron	--- ug/L	--- ug/L	1/Quarter

() Values in parentheses represent the minimum and maximum values.
--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

Table III. Permit Limits – Internal Outfall 001B (consisting of stormwater; sampling is only required when the facility is not able to meet the conditions of its No Exposure Certificate; facility must report using appropriate No Data Indicator (NODI) Code during quarters when conditions of No Exposure Certificate are met).

Effluent Characteristic	Monthly Average Permit Limit	Daily Max Permit Limit	Sampling Frequency
Flow		--- GPD	Continuous
Total Copper	--- ug/L	--- ug/L	1/Quarter
Total Zinc	--- ug/L	--- ug/L	1/Quarter

() Values in parentheses represent the minimum and maximum values.
--- Signifies a parameter which must be monitored and data must be reported; no limit has been established at this time.

V. Comment Period, Hearing Requests, and Procedures for Final Decisions

[3] Data collected at a location that is unimpacted by significant point source discharges.
[4] Discharge data refers to the maximum of the permit limit or the historic discharge level. The historic discharge level is determined by calculating the upper 95th confidence interval for the monthly average reported data for the past five (5) years. For specific cases, changes in treatment efficiency or pretreatment limitations may support the use of an alternative period of time.

All persons, including applicants, who believe any condition of the draft permit is inappropriate must raise all issues and submit all available arguments and all supporting material for their arguments in full by the close of the public comment period, to the Rhode Island Department of Environmental Management, Office of Water Resources, 235 Promenade Street, Providence, Rhode Island, 02908-5767. In accordance with Chapter 46-17.4 of Rhode Island General Laws, a public hearing will be held prior to the close of the public comment period. In reaching a final decision on the draft permit the Director will respond to all significant comments and make these responses available to the public at DEM's Providence office.

Following the close of the comment period, and after a public hearing, the Director will issue a final permit decision and forward a copy of the final decision to the applicant and each person who has submitted written comments, provided oral testimony, or requested notice. Within thirty (30) days following the notice of the final permit decision any interested person may submit a request for a formal hearing to reconsider or contest the final decision. Requests for formal hearings must satisfy the requirements of 250-RICR-150-10-1.50 of the Regulations for the Rhode Island Pollutant Discharge Elimination System.

VI. DEM Contact

Additional information concerning the permit may be obtained between the hours of 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding holidays from:

Samuel Kaplan, P.E., Environmental Engineer II
Department of Environmental Management/ Office of Water Resources
235 Promenade Street
Providence, Rhode Island 02908
Telephone: (401) 222-4700, ext: 2777046
Email: samuel.kaplan@dem.ri.gov

3/3/2022
Date

Joseph B. Haberek, P.E.
Administrator for Surface Water
Office of Water Resources
Department of Environmental Management

Attachment A – Historical Discharge Data

AVERAGE EFFLUENT CHARACTERISTICS AT POINT OF DISCHARGE OF SELECTED POLLUTANTS:

Data is taken from between 10/1/16 and 7/1/21

DESCRIPTION OF DISCHARGE:	Contact Water and boiler blowdown		
DISCHARGE:	001A		
PARAMETER		**AVERAGE**	**MAXIMUM**
BOD (mg/L)			13.875
Cadmium (ug/L)		13.001	13.668
Copper (ug/L)		20.556	20.556
Flow (gal/day)			5315.6
Lead (ug/L)		13.128	14.378
Oil and Grease (mg/L)		4.24	4.54
MINIMUM pH (SU)		6.59	
MAXIMUM pH (SU)		7.66	
Phosphorus (ug/L)		136.466	136.466
TSS (mg/L)			8.625
Temperature (Deg. F)			67.3482
DESCRIPTION OF DISCHARGE:	Stormwater		
DISCHARGE:	001B		
Copper (ug/L)		29.366	29.366
Flow (gal/day)			163340
Zinc (ug/L)		83.766	83.766

Attachment B – Delta T Calculations

Flow:

Receiving Water – Blackstone River 7Q10 @ facility = 66.3 MGD
Outfall 100 + Outfall 200 - Daily Maximum Limits = 0.000525 MGD (525 GPD)

Temperature:

Temperature Limit for internal outfalls 100 and 200 = 212 °F
Instream Temperature - Summer = 78.8 °F
Instream Temperature - Winter = 59 °F

Water Quality Limits – from Rhode Island Water Quality Regulations (250-RICR-150-05-1.10.D.1):

Net Instream Temperature Change - Winter = 4.0 °F
Net Instream Temperature Change - Summer = 1.6 °F

Mass Balance:

$$Q_{max}(T_{limit}) + Q_{7Q10}(T_{instream}) = (Q_{max} + Q_{7Q10})(T_{instream} + \Delta T)$$

Where:
Q_{max} = Daily Maximum Limit @ Outfall 001A
Q_{7Q10} = Low Flow for Blackstone River
T_{limit} = Proposed Permit Limit for Temperature
$T_{instream}$ = Instream Ambient Temperature
_T = Net Change in Temperature

Case 1 - Summer Months

$$(0.0010 \text{ MGD})(212^{\circ}\text{F}) + (66.3 \text{ MGD})(78.8^{\circ}\text{F}) = (0.0010 \text{ MGD} + 66.3 \text{ MGD})(78.8^{\circ}\text{F} + \Delta T)$$

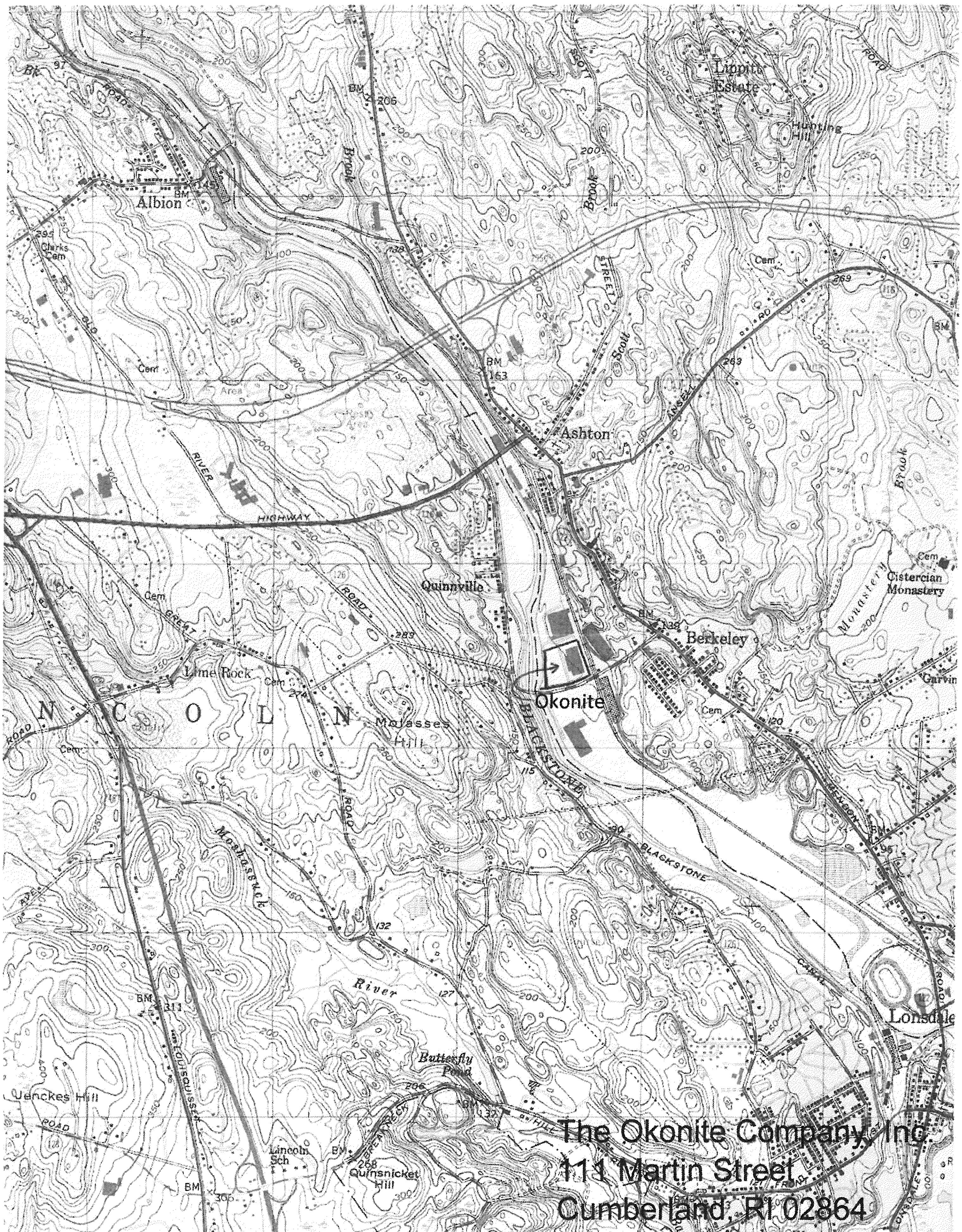
$\Delta T = 0.00105\ ^{\circ}\text{F} \leq 1.6\ ^{\circ}\text{F}$ - *Proposed limit increase meets Water Quality Regulations*

Case 2 - Winter Months

$$(0.0010 \text{ MGD})(212^{\circ}\text{F}) + (66.3 \text{ MGD})(59^{\circ}\text{F}) = (0.0010 \text{ MGD} + 66.3 \text{ MGD})(59^{\circ}\text{F} + \Delta T)$$

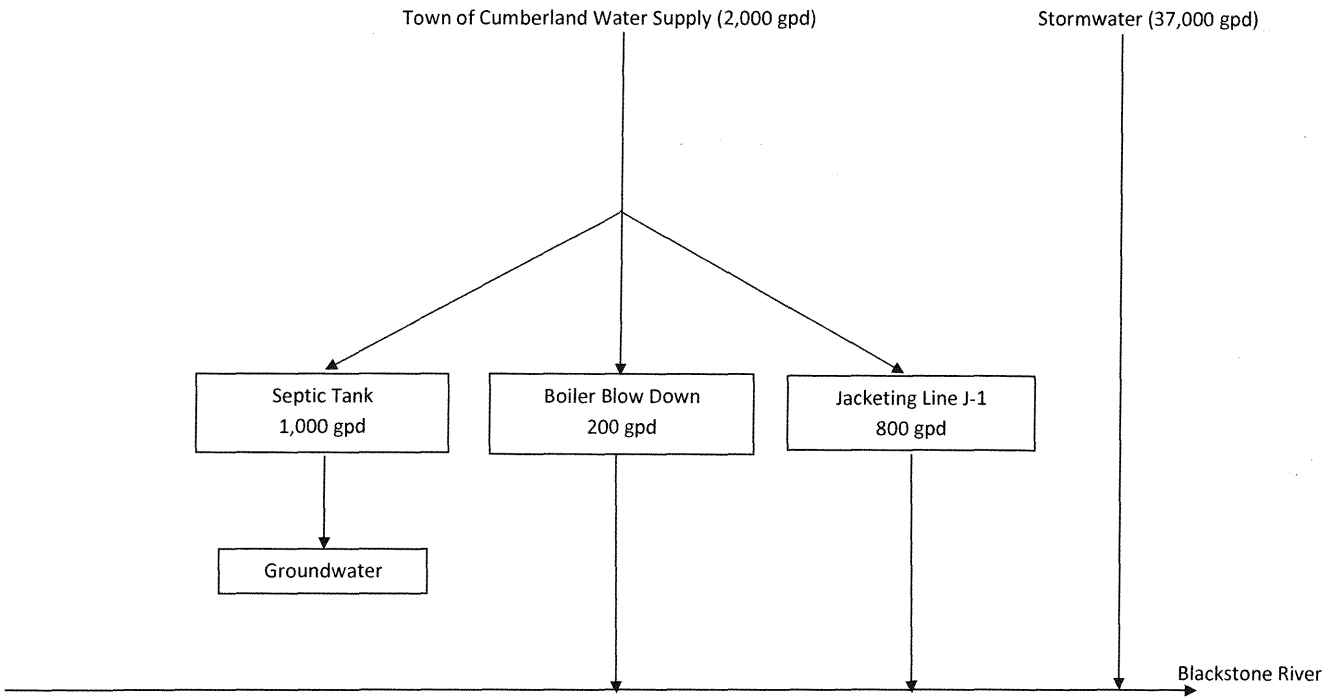
$\Delta T = 0.00121\ ^{\circ}\text{F} \leq 4.0\ ^{\circ}\text{F}$ - *Proposed limit increase meets Water Quality Regulations.*

Attachment C – Site Layout Diagram


Albion
Lippitt Estate
Hunting Hill
Ashton
Quinnville
Berkeley
Cistercian Monastery
Lime Rock
Okonite
Molasses Hill
BLACKSTONE
Moshassuck
River
Butterfly Pond
Lincoln Sch
Quinsnicket Hill
Jenckes Hill
Lonsdale
The Okonite Company, Inc.
111 Martin Street
Cumberland, RI 02864

Attachment D – Process Flow Diagram

Line Drawing
The Okonite Company, Inc. – RIPDES No. RI0020141
111 Martin Street
Ashton, RI



Note that the Boiler and Jacketing Line flows are intermittent.

Attachment E – Water Quality Calculations

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY SPECIFIC DATA INPUT SHEET

NOTE: LIMITS BASED ON RI WATER QUALITY CRITERIA DATED JULY 2006

FACILITY NAME: **The Okonite Co.**

RIPDES PERMIT #: **RI0020441**

	DISSOLVED BACKGROUND DATA (ug/L)	ACUTE METAL TRANSLATOR	CHRONIC METAL TRANSLATOR
ALUMINUM	42.1	NA	NA
ARSENIC	NA	1	1
CADMIUM	0.1309	0.960963777	0.925963777
CHROMIUM III	0.058	0.316	0.86
CHROMIUM VI	NA	0.982	0.962
COPPER	3.10	0.96	0.96
LEAD	0.524	0.850079223	0.850079223
MERCURY	NA	0.85	0.85
NICKEL	1.688	0.998	0.997
SELENIUM	NA	NA	NA
SILVER	NA	0.85	NA
ZINC	7.4	0.978	0.986
AMMONIA (as N)	0		

USE NA WHEN NO DATA IS AVAILABLE

NOTE 1: METAL TRANSLATORS FROM RI WATER QUALITY REGS.

pH =	7.41 S.U.
HARDNESS =	66.7 (mg/L as CaCO3)

FLOW DATA	
DESIGN FLOW =	0.0005 MGD
=	0.001 CFS
7Q10 FLOW =	66.300 CFS
7Q10 (JUNE-OCT) =	66.300 CFS
7Q10 (NOV-MAY) =	98.800 CFS
HARMONIC FLOW =	232.050 CFS
HARMONIC FLOW =	232.050 CFS

DILUTION FACTORS	
ACUTE =	81615.921
CHRONIC =	81615.921
(MAY-OCT) =	81615.921
(NOV-APR) =	121623.235
30Q5 FLOW =	285653.224
HARMONIC FLOW =	285653.224

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: The Okonite Co. RIPDES PERMIT #: RI0020441

Month	Upper 90th% pH	Acute Criteria* mg/L as N	Chronic Criteria* mg/L as N
May	7.41	22.69	2.242
Jun	7.41	22.69	2.242
Jul	7.41	22.69	2.242
Aug	7.41	22.69	2.242
Sep	7.41	22.69	2.242
Oct	7.41	22.69	2.242
Nov	7.41	22.69	4.554
Dec	7.41	22.69	4.554
Jan	7.41	22.69	4.554
Feb	7.41	22.69	4.554
Mar	7.41	22.69	4.554
Apr	7.41	22.69	4.554

**NOTE: Criteria from Water Quality Regulations (250-RICR-150-05-1.26.L), 8/19/18*

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: The Okonite Co. RIPDES PERMIT #: RI0020441

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:							
TOXIC METALS AND CYANIDE							
ANTIMONY	7440360		450	29381731.61	10	640	652927.3691
ARSENIC (limits are total recoverable)	7440382	NA	340	22199530.55	150	1.4	319931.6109
ASBESTOS	1332214			No Criteria			No Criteria
BERYLLIUM	7440417		7.5	489695.5269	0.17		11099.76528
CADMIUM (limits are total recoverable)	7440439	0.1309	1.357473154	92645.41357	0.185566563		3182.925997
CHROMIUM III (limits are total recoverable)	16065831	0.058	408.7747323	95004873.49	53.17319432		4536125.17
CHROMIUM VI (limits are total recoverable)	18540299	NA	16	1063832.781	11		746590.5468
COPPER (limits are total recoverable)	7440508	3.1	9.172058997	438251.2332	6.33345338		221055.5343
CYANIDE	57125		22	1436440.212	5.2	140	339522.232
LEAD (limits are total recoverable)	7439921	0.524	41.42266142	3528974.126	1.614181647		89170.99621
MERCURY (limits are total recoverable)	7439976	NA	1.4	107540.9784	0.77	0.15	40327.51398
NICKEL (limits are total recoverable)	7440020	1.688	332.2766644	24318029.51	36.90567901	4600	2580858.478
SELENIUM (limits are total recoverable)	7782492	NA	20	1305854.738	5	4200	326463.6846
SILVER (limits are total recoverable)	7440224	NA	1.717746674	131948.6843	NA		No Criteria
THALLIUM	7440280		46	3003465.898	1	0.47	65292.73691
ZINC (limits are total recoverable)	7440666	7.4	83.11157553	5624697.954	83.79142482	26000	5629708.389
VOLATILE ORGANIC COMPOUNDS							
ACROLEIN	107028		2.9	189348.9371	0.06	290	3917.564215
ACRYLONITRILE	107131		378	24680654.55	8.4	2.5	548458.9901
BENZENE	71432		265	17302575.28	5.9	510	385227.1478
BROMOFORM	75252		1465	95653859.58	33	1400	2154660.318
CARBON TETRACHLORIDE	56235		1365	89124585.89	30	16	1958782.107
CHLOROBENZENE	108907		795	51907725.85	18	1600	1175269.264
CHLORODIBROMOMETHANE	124481			No Criteria		130	29707935.3
CHLOROFORM	67663		1445	94348004.84	32	4700	2089367.581
DICHLOROBROMOMETHANE	75274			No Criteria		170	38848838.46
1,2DICHLOROETHANE	107062		5900	385227147.8	131	370	8553348.536
1,1DICHLOROETHYLENE	75354		580	37869787.41	13	7100	848805.5799
1,2DICHLOROPROPANE	78875		2625	171393434.4	58	150	3786978.741
1,3DICHLOROPROPYLENE	542756			No Criteria		21	4798974.163
ETHYLBENZENE	100414		1600	104468379.1	36	2100	2350538.529
BROMOMETHANE (methyl bromide)	74839			No Criteria		1500	342783868.8
CHLOROMETHANE (methyl chloride)	74873			No Criteria			No Criteria
METHYLENE CHLORIDE	75092		9650	630074911.2	214	5900	13972645.7

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: The Okonite Co. RIPDES PERMIT #: RI0020441

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,1,2,2TETRACHLOROETHANE	79345		466	30426415.4	10	40	652927.3691
TETRACHLOROETHYLENE	127184		240	15670256.86	5.3	33	346051.5056
TOLUENE	108883		635	41460887.94	14	15000	914098.3168
1,2TRANSDICHLOROETHYLENE	156605			No Criteria		10000	999999999
1,1,1TRICHLOROETHANE	71556			No Criteria			No Criteria
1,1,2TRICHLOROETHANE	79005		900	58763463.22	20	160	1305854.738
TRICHLOROETHYLENE	79016		1950	127320837	43	300	2807587.687
VINYL CHLORIDE	75014			No Criteria		2.4	548454.1901
ACID ORGANIC COMPOUNDS							
2CHLOROPHENOL	95578		129	8422763.062	2.9	150	189348.9371
2,4DICHLOROPHENOL	120832		101	6594566.428	2.2	290	143644.0212
2,4DIMETHYLPHENOL	105679		106	6921030.113	2.4	850	156702.5686
4,6DINITRO2METHYL PHENOL	534521			No Criteria		280	63986322.18
2,4DINITROPHENOL	51285		31	2024074.844	0.69	5300	45051.98847
4NITROPHENOL	88755			No Criteria			No Criteria
PENTACHLOROPHENOL	87865		0.057489359	3753.637595	0.044106178	30	2879.813097
PHENOL	108952		251	16388476.97	5.6	1700000	365639.3267
2,4,6TRICHLOROPHENOL	88062		16	1044683.791	0.36	24	23505.38529
BASE NEUTRAL COMPUNDS							
ACENAPHTHENE	83329		85	5549882.638	1.9	990	124056.2001
ANTHRACENE	120127			No Criteria		40000	999999999
BENZIDINE	92875			No Criteria		0.002	457.0451584
POLYCYCLIC AROMATIC HYDROCARBONS				No Criteria		0.18	41134.06426
BIS(2CHLOROETHYL)ETHER	111444			No Criteria		5.3	1211169.67
BIS(2CHLOROISOPROPYL)ETHER	108601			No Criteria		65000	999999999
BIS(2ETHYLHEXYL)PHTHALATE	117817		555	36237468.99	12	22	783512.843
BUTYL BENZYL PHTHALATE	85687		85	5549882.638	1.9	1900	124056.2001
2CHLORONAPHTHALENE	91587			No Criteria		1600	365636126.7
1,2DICHLOROBENZENE	95501		79	5158126.216	1.8	1300	117526.9264
1,3DICHLOROBENZENE	541731		390	25464167.4	8.7	960	568046.8112
1,4DICHLOROBENZENE	106467		56	3656393.267	1.2	190	78351.2843
3,3DICHLOROBENZIDENE	91941			No Criteria		0.28	63986.32218
DIETHYL PHTHALATE	84662		2605	170087579.7	58	44000	3786978.741
DIMETHYL PHTHALATE	131113		1650	107733015.9	37	1100000	2415831.266
DI-n-BUTYL PHTHALATE	84742			No Criteria		4500	999999999
2,4DINITROTOLUENE	121142		1550	101203742.2	34	34	2219953.055

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: The Okonite Co. RIPDES PERMIT #: RI0020441

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
1,2DIPHENYLHYDRAZINE	122667		14	914098.3168	0.31	2	20240.74844
FLUORANTHENE	206440		199	12993254.65	4.4	140	287288.0424
FLUORENE	86737			No Criteria		5300	999999999
HEXACHLOROBENZENE	118741			No Criteria		0.0029	662.7154797
HEXACHLOROBUTADIENE	87683			No Criteria		180	41134064.26
HEXACHLOROCYCLOPENTADIENE	77474		0.35	22852.45792	0.008	1100	522.3418953
HEXACHLOROETHANE	67721		49	3199344.109	1.1	33	71822.01061
ISOPHORONE	78591		5850	381962510.9	130	9600	8488055.799
NAPHTHALENE	91203		115	7508664.745	2.6		169761.116
NITROBENZENE	98953		1350	88145194.83	30	690	1958782.107
N-NITROSODIMETHYLAMINE	62759			No Criteria		30	6855677.376
N-NITROSODI-N-PROPYLAMINE	621647			No Criteria		5.1	1165465.154
N-NITROSODIPHENYLAMINE	86306		293	19130771.92	6.5	60	424402.7899
PYRENE	129000			No Criteria		4000	914090316.8
1,2,4trichlorobenzene	120821		75	4896955.269	1.7	70	110997.6528
PESTICIDES/PCBs							
ALDRIN	309002		3	195878.2107		0.0005	114.2612896
Alpha BHC	319846			No Criteria		0.049	11197.60638
Beta BHC	319857			No Criteria		0.17	38848.83846
Gamma BHC (Lindane)	58899		0.95	62028.10007		1.8	411340.6426
CHLORDANE	57749		2.4	156702.5686	0.0043	0.0081	280.7587687
4,4DDT	50293		1.1	71822.01061	0.001	0.0022	65.29273691
4,4DDE	72559			No Criteria		0.0022	502.7496742
4,4DDD	72548			No Criteria		0.0031	708.4199955
DIELDRIN	60571		0.24	15670.25686	0.056	0.00054	123.4021928
ENDOSULFAN (alpha)	959988		0.22	14364.40212	0.056	89	3656.393267
ENDOSULFAN (beta)	33213659		0.22	14364.40212	0.056	89	3656.393267
ENDOSULFAN (sulfate)	1031078			No Criteria		89	20338509.55
ENDRIN	72208		0.086	5615.175375	0.036	0.06	2350.538529
ENDRIN ALDEHYDE	7421934			No Criteria		0.3	68556.77376
HEPTACHLOR	76448		0.52	33952.2232	0.0038	0.00079	180.5328376
HEPTACHLOR EPOXIDE	1024573		0.52	33952.2232	0.0038	0.00039	89.12380589
POLYCHLORINATED BIPHENYLS3	1336363			No Criteria	0.014	0.00064	146.2544507
2,3,7,8TCDD (Dioxin)	1746016			No Criteria		0.000000051	0.011654652
TOXAPHENE	8001352		0.73	47663.69795	0.0002	0.0028	13.05854738
TRIBUTYLTIN			0.46	30034.65898	0.072		4701.077058

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: The Okonite Co. RIPDES PERMIT #: RI0020441

NOTE: METALS CRITERIA ARE EXPRESSED AS DISSOLVED, METALS LIMITS ARE EXPRESSED AS TOTAL

CHEMICAL NAME	CAS #	BACKGROUND CONCENTRATION (ug/L)	FRESHWATER CRITERIA ACUTE (ug/L)	DAILY MAX LIMIT (ug/L)	FRESHWATER CRITERIA CHRONIC (ug/L)	HUMAN HEALTH NON-CLASS A CRITERIA (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:							
OTHER SUBSTANCES							
ALUMINUM (limits are total recoverable)	7429905	42.1	750	51654758.59	87		2954538.445
AMMONIA as N(winter/summer)	7664417		22.69 | 22.69	2E+09 | 2E+09	4.554 | 2.242		5E+08 | 1.6E+08
4BROMOPHENYL PHENYL ETHER			18	1175269.264	0.4		26117.09477
CHLORIDE	16887006		860000	56151753746	230000		999999999
CHLORINE	7782505		19	1550702.502	11		897775.1326
4CHLORO2METHYLPHENOL			15	979391.0537	0.32		20893.67581
1CHLORONAPHTHALENE			80	5223418.953	1.8		117526.9264
4CHLOROPHENOL	106489		192	12536205.49	4.3		280758.7687
2,4DICHLORO6METHYLPHENOL			22	1436440.212	0.48		31340.51372
1,1DICHLOROPROPANE			1150	75086647.45	26		1697611.16
1,3DICHLOROPROPANE	142289		303	19783699.29	6.7		437461.3373
2,3DINITROTOLUENE			17	1109976.528	0.37		24158.31266
2,4DINITRO6METHYL PHENOL			12	783512.843	0.26		16976.1116
IRON	7439896			No Criteria	1000		65292736.91
pentachlorobenzene	608935		13	848805.5799	0.28		18281.96634
PENTACHLOROETHANE			362	23635970.76	8		522341.8953
1,2,3,5tetrachlorobenzene			321	20958968.55	7.1		463578.4321
1,1,1,2TETRACHLOROETHANE	630206		980	63986882.18	22		1436440.212
2,3,4,6TETRACHLOROPHENOL	58902		7	457049.1584	0.16		10446.83791
2,3,5,6TETRACHLOROPHENOL			8.5	554988.2638	0.19		12405.62001
2,4,5TRICHLOROPHENOL	95954		23	1501732.949	0.51		33299.29583
2,4,6TRINITROPHENOL	88062		4235	276514740.8	94		6137517.27
XYLENE	1330207		133	8683934.01	3		195878.2107

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Okonite Company RIPDES PERMIT #: RI0020141

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
PRIORITY POLLUTANTS:			
TOXIC METALS AND CYANIDE			
ANTIMONY	7440360	29381731.61	652927.37
ARSENIC, TOTAL	7440382	22199530.55	319931.61
ASBESTOS	1332214	No Criteria	0.00000
BERYLLIUM	7440417	489695.53	11099.77
CADMIUM, TOTAL	7440439	92645.41	3182.92600
CHROMIUM III, TOTAL	16065831	95004873.49	4536125.17
CHROMIUM VI, TOTAL	18540299	1063832.78	746590.55
COPPER, TOTAL	7440508	438251.23	221055.53
CYANIDE	57125	1436440.21	339522.23
LEAD, TOTAL	7439921	3528974.13	89171.00
MERCURY, TOTAL	7439976	107540.98	40327.51
NICKEL, TOTAL	7440020	24318029.51	2580858.48
SELENIUM, TOTAL	7782492	1305854.74	326463.68
SILVER, TOTAL	7440224	131948.68	No Criteria
THALLIUM	7440280	3003465.90	65292.74
ZINC, TOTAL	7440666	5624697.95	5624697.95
VOLATILE ORGANIC COMPOUNDS			
ACROLEIN	107028	189348.94	3917.56421
ACRYLONITRILE	107131	24680654.55	548458.99
BENZENE	71432	17302575.28	385227.15
BROMOFORM	75252	95653859.58	2154660.32
CARBON TETRACHLORIDE	56235	89124585.89	1958782.11
CHLOROBENZENE	108907	51907725.85	1175269.26
CHLORODIBROMOMETHANE	124481	No Criteria	29707935.30
CHLOROFORM	67663	94348004.84	2089367.58
DICHLOROBROMOMETHANE	75274	No Criteria	38848838.46
1,2DICHLOROETHANE	107062	385227147.79	8553348.54
1,1DICHLOROETHYLENE	75354	37869787.41	848805.58
1,2DICHLOROPROPANE	78875	171393434.40	3786978.74
1,3DICHLOROPROPYLENE	542756	No Criteria	4798974.16
ETHYLBENZENE	100414	104468379.06	2350538.53
BROMOMETHANE (methyl bromide)	74839	No Criteria	342783868.80
CHLOROMETHANE (methyl chloride)	74873	No Criteria	0.00000
METHYLENE CHLORIDE	75092	630074911.22	13972645.70
1,1,2,2TETRACHLOROETHANE	79345	30426415.40	652927.37
TETRACHLOROETHYLENE	127184	15670256.86	346051.51
TOLUENE	108883	41460887.94	914098.32
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	999999999.00
1,1,1TRICHLOROETHANE	71556	No Criteria	0.00000
1,1,2TRICHLOROETHANE	79005	58763463.22	1305854.74
TRICHLOROETHYLENE	79016	127320836.98	2807587.69
VINYL CHLORIDE	75014	No Criteria	548454.19
ACID ORGANIC COMPOUNDS			
2CHLOROPHENOL	95578	8422763.06	189348.94
2,4DICHLOROPHENOL	120832	6594566.43	143644.02
2,4DIMETHYLPHENOL	105679	6921030.11	156702.57
4,6DINITRO2METHYL PHENOL	534521	No Criteria	63986322.18
2,4DINITROPHENOL	51285	2024074.84	45051.99
4NITROPHENOL	88755	No Criteria	0.00000
PENTACHLOROPHENOL	87865	3753.64	2879.81310
PHENOL	108952	16388476.97	365639.33
2,4,6TRICHLOROPHENOL	88062	1044683.79	23505.39
BASE NEUTRAL COMPUNDS			
ACENAPHTHENE	83329	5549882.64	124056.20
ANTHRACENE	120127	No Criteria	999999999.00
BENZIDINE	92875	No Criteria	457.04516
PAHs		No Criteria	41134.06
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	1211169.67
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	999999999.00
BIS(2ETHYLHEXYL)PHTHALATE	117817	36237468.99	783512.84
BUTYL BENZYL PHTHALATE	85687	5549882.64	124056.20
2CHLORONAPHTHALENE	91587	No Criteria	365636126.72
1,2DICHLOROBENZENE	95501	5158126.22	117526.93
1,3DICHLOROBENZENE	541731	25464167.40	568046.81
1,4DICHLOROBENZENE	106467	3656393.27	78351.28
3,3DICHLOROBENZIDENE	91941	No Criteria	63986.32
DIETHYL PHTHALATE	84662	170087579.66	3786978.74
DIMETHYL PHTHALATE	131113	107733015.91	2415831.27
DI-n-BUTYL PHTHALATE	84742	No Criteria	999999999.00
2,4DINITROTOLUENE	121142	101203742.22	2219953.06
1,2DIPHENYLHYDRAZINE	122667	914098.32	20240.75
FLUORANTHENE	206440	12993254.65	287288.04

CALCULATION OF WATER QUALITY BASED NON-CLASS AA FRESHWATER DISCHARGE LIMITS

FACILITY NAME: Okonite Company RIPDES PERMIT #: RI0020141

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
FLUORENE	86737	No Criteria	999999999.00
HEXACHLOROBENZENE	118741	No Criteria	662.71548
HEXACHLOROBUTADIENE	87683	No Criteria	41134064.26
HEXACHLOROCYCLOPENTADIENE	77474	22852.46	522.34190
HEXACHLOROETHANE	67721	3199344.11	71822.01
ISOPHORONE	78591	381962510.95	8488055.80
NAPHTHALENE	91203	7508664.75	169761.12
NITROBENZENE	98953	88145194.83	1958782.11
N-NITROSODIMETHYLAMINE	62759	No Criteria	6855677.38
N-NITROSODI-N-PROPYLAMINE	621647	No Criteria	1165465.15
N-NITROSODIPHENYLAMINE	86306	19130771.92	424402.79
PYRENE	129000	No Criteria	914090316.80
1,2,4trichlorobenzene	120821	4896955.27	110997.65
PESTICIDES/PCBs			
ALDRIN	309002	195878.21	114.26129
Alpha BHC	319846	No Criteria	11197.61
Beta BHC	319857	No Criteria	38848.84
Gamma BHC (Lindane)	58899	62028.10	62028.10
CHLORDANE	57749	156702.57	280.75877
4,4DDT	50293	71822.01	65.29274
4,4DDE	72559	No Criteria	502.74967
4,4DDD	72548	No Criteria	708.42000
DIELDRIN	60571	15670.26	123.40219
ENDOSULFAN (alpha)	959988	14364.40	3656.39327
ENDOSULFAN (beta)	33213659	14364.40	3656.39327
ENDOSULFAN (sulfate)	1031078	No Criteria	20338509.55
ENDRIN	72208	5615.18	2350.54
ENDRIN ALDEHYDE	7421934	No Criteria	68556.77
HEPTACHLOR	76448	33952.22	180.53
HEPTACHLOR EPOXIDE	1024573	33952.22	89.12
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	146.25
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.01
TOXAPHENE	8001352	47663.70	13.06
TRIBUTYLTIN		30034.66	4701.08

CHEMICAL NAME	CAS#	DAILY MAX LIMIT (ug/L)	MONTHLY AVE LIMIT (ug/L)
NON PRIORITY POLLUTANTS:			
OTHER SUBSTANCES			
ALUMINUM, TOTAL	7429905	51654758.59	2954538.45
AMMONIA (as N), WINTER (NOV-AP	7664417	2483668090.69	498484992.73
AMMONIA (as N), SUMMER (MAY-O	7664417	1666678725.66	164684605.68
4BROMOPHENYL PHENYL ETHER		1175269.26	26117.09
CHLORIDE	16887006	56151753746.29	999999999.00
CHLORINE	7782505	1550702.50	897775.13
4CHLORO2METHYLPHENOL		979391.05	20893.68
1CHLORONAPHTHALENE		5223418.95	117526.93
4CHLOROPHENOL	106489	12536205.49	280758.77
2,4DICHLORO6METHYLPHENOL		1436440.21	31340.51
1,1DICHLOROPROPANE		75086647.45	1697611.16
1,3DICHLOROPROPANE	142289	19783699.29	437461.34
2,3DINITROTOLUENE		1109976.53	24158.31
2,4DINITRO6METHYL PHENOL		783512.84	16976.11
IRON	7439896	No Criteria	65292736.91
pentachlorobenzene	608935	848805.58	18281.97
PENTACHLOROETHANE		23635970.76	522341.90
1,2,3,5tetrachlorobenzene		20958968.55	463578.43
1,1,1,2TETRACHLOROETHANE	630206	63986882.18	1436440.21
2,3,4,6TETRACHLOROPHENOL	58902	457049.16	10446.84
2,3,5,6TETRACHLOROPHENOL		554988.26	12405.62
2,4,5TRICHLOROPHENOL	95954	1501732.95	33299.30
2,4,6TRINITROPHENOL	88062	276514740.83	6137517.27
XYLENE	1330207	8683934.01	195878.21

Facility Name: ***Okonite Company***
RIPDES Permit #: ***RI0020141***
Outfall #s: ***100 and 200***

Note: permit ap data and DMR data were taken at outfall 001A sampling point (manhole).

NOTE: METALS LIMITS ARE TOTAL METALS

Parameter	CAS #	Concentration Limits (ug/L) Based on WQ Criteria		Antideg. Limits (ug/L)	2021 permit ap data (ug/L)		Ave. DMR Data (ug/L) 10/16-6/21		Potential Permit Limits (ug/L)		Daily Max: Reasonable Potential?	Monthly Avg.: Reasonable Potential?
		Daily Max	Monthly Ave	Monthly Ave	Max	Ave	Daily Max	Monthly Ave	Daily Max	Monthly Ave		
PRIORITY POLLUTANTS												
TOXIC METALS AND CYANIDE												
ANTIMONY	7440360	29381731.61	652927.37	---	---	---	---	---	29381731.61	652927.3691	N	N
ARSENIC (limits are total recoverable)	7440382	22199530.55	319931.61	---	---	---	---	---	22199530.55	319931.6109	N	N
ASBESTOS	1332214	No Criteria	0.00	---	---	---	---	---	---	0	N	N
BERYLLIUM	7440417	489695.53	11099.77	---	---	---	---	---	489695.5269	11099.76528	N	N
CADMIUM (limits are total recoverable)	7440439	92645.41	3182.93	---	---	---	13.66	13.00	92645.41357	3182.925997	N	N
CHROMIUM III (limits are total recoverable)	16065831	95004873.49	4536125.17	---	---	---	---	---	95004873.49	4536125.17	N	N
CHROMIUM VI (limits are total recoverable)	18540299	1063832.78	746590.55	---	---	---	---	---	1063832.781	746590.5468	N	N
COPPER (limits are total recoverable)	7440508	438251.23	221055.53	100	---	52	20.57	20.57	438251.2332	100	N	N
CYANIDE	57125	1436440.21	339522.23	---	---	---	---	---	1436440.212	339522.232	N	N
LEAD (limits are total recoverable)	7439921	3528974.13	89171.00	---	---	32	14.38	13.13	3528974.126	89170.99621	N	N
MERCURY (limits are total recoverable)	7439976	107540.98	40327.51	---	---	---	---	---	107540.9784	40327.51398	N	N
NICKEL (limits are total recoverable)	7440020	24318029.51	2580858.48	---	---	---	---	---	24318029.51	2580858.478	N	N
SELENIUM (limits are total recoverable)	7782492	1305854.74	326463.68	---	---	---	---	---	1305854.738	326463.6846	N	N
SILVER (limits are total recoverable)	7440224	131948.68	No Criteria	---	---	---	---	---	131948.6843	131948.6843	N	N
THALLIUM	7440280	3003465.90	65292.74	---	---	---	---	---	3003465.898	65292.73691	N	N
ZINC (limits are total recoverable)	7440666	5624697.95	5624697.95	---	---	106	---	---	5624697.954	5624697.954	N	N
VOLATILE ORGANIC COMPOUNDS												
ACROLEIN	107028	189348.94	3917.56	---	---	---	---	---	189348.9371	3917.564215	N	N
ACRYLONITRILE	107131	24680654.55	548458.99	---	---	---	---	---	24680654.55	548458.9901	N	N
BENZENE	71432	17302575.28	385227.15	---	---	---	---	---	17302575.28	385227.1478	N	N
BROMOFORM	75252	95653859.58	2154660.32	---	---	---	---	---	95653859.58	2154660.318	N	N
CARBON TETRACHLORIDE	56235	89124585.89	1958782.11	---	---	---	---	---	89124585.89	1958782.107	N	N
CHLOROBENZENE	108907	51907725.85	1175269.26	---	---	---	---	---	51907725.85	1175269.264	N	N
CHLORODIBROMOMETHANE	124481	No Criteria	29707935.30	---	---	---	---	---	---	29707935.3	N	N
CHLOROFORM	67663	94348004.84	2089367.58	---	---	---	---	---	94348004.84	2089367.581	N	N
DICHLOROBROMOMETHANE	75274	No Criteria	38848838.46	---	---	---	---	---	---	38848838.46	N	N
1,2DICHLOROETHANE	107062	385227147.79	8553348.54	---	---	---	---	---	385227147.8	8553348.536	N	N
1,1DICHLOROETHYLENE	75354	37869787.41	848805.58	---	---	---	---	---	37869787.41	848805.5799	N	N

1,2DICHLOROPROPANE	78875	171393434.40	3786978.74	---	---	---	---	---	171393434.4	3786978.741	N	N
1,3DICHLOROPROPYLENE	542756	No Criteria	4798974.16	---	---	---	---	---	---	4798974.163	N	N
ETHYLBENZENE	100414	104468379.06	2350538.53	---	---	---	---	---	104468379.1	2350538.529	N	N
BROMOMETHANE (methyl bromide)	74839	No Criteria	342783868.80	---	---	---	---	---	---	342783868.8	N	N
CHLOROMETHANE (methyl chloride)	74873	No Criteria	0.00	---	---	---	---	---	---	0	N	N
METHYLENE CHLORIDE	75092	630074911.22	13972645.70	---	---	---	---	---	630074911.2	13972645.7	N	N
1,1,2,2TETRACHLOROETHANE	79345	30426415.40	652927.37	---	---	---	---	---	30426415.4	652927.3691	N	N
TETRACHLOROETHYLENE	127184	15670256.86	346051.51	---	---	---	---	---	15670256.86	346051.5056	N	N
TOLUENE	108883	41460887.94	914098.32	---	---	---	---	---	41460887.94	914098.3168	N	N
1,2TRANSDICHLOROETHYLENE	156605	No Criteria	999999999.00	---	---	---	---	---	---	999999999	N	N
1,1,1TRICHLOROETHANE	71556	No Criteria	0.00	---	---	---	---	---	---	0	N	N
1,1,2TRICHLOROETHANE	79005	58763463.22	1305854.74	---	---	---	---	---	58763463.22	1305854.738	N	N
TRICHLOROETHYLENE	79016	127320836.98	2807587.69	---	---	---	---	---	127320837	2807587.687	N	N
VINYL CHLORIDE	75014	No Criteria	548454.19	---	---	---	---	---	---	548454.1901	N	N
ACID ORGANIC COMPOUNDS												
2CHLOROPHENOL	95578	8422763.06	189348.94	---	---	---	---	---	8422763.062	189348.9371	N	N
2,4DICHLOROPHENOL	120832	6594566.43	143644.02	---	---	---	---	---	6594566.428	143644.0212	N	N
2,4DIMETHYLPHENOL	105679	6921030.11	156702.57	---	---	---	---	---	6921030.113	156702.5686	N	N
4,6DINITRO2METHYL PHENOL	534521	No Criteria	63986322.18	---	---	---	---	---	---	63986322.18	N	N
2,4DINITROPHENOL	51285	2024074.84	45051.99	---	---	---	---	---	2024074.844	45051.98847	N	N
4NITROPHENOL	88755	No Criteria	0.00	---	---	---	---	---	---	0	N	N
PENTACHLOROPHENOL	87865	3753.64	2879.81	---	---	---	---	---	3753.637595	2879.813097	N	N
PHENOL	108952	16388476.97	365639.33	---	---	---	---	---	16388476.97	365639.3267	N	N
2,4,6TRICHLOROPHENOL	88062	1044683.79	23505.39	---	---	---	---	---	1044683.791	23505.38529	N	N
BASE NEUTRAL COMPOUNDS												
ACENAPHTHENE	83329	5549882.64	124056.20	---	---	---	---	---	5549882.638	124056.2001	N	N
ANTHRACENE	120127	No Criteria	999999999.00	---	---	---	---	---	---	999999999	N	N
BENZIDINE	92875	No Criteria	457.05	---	---	---	---	---	---	457.0451584	N	N
POLYCYCLIC AROMATIC HYDROCARBONS		No Criteria	41134.06	---	---	---	---	---	---	41134.06426	N	N
BIS(2CHLOROETHYL)ETHER	111444	No Criteria	1211169.67	---	---	---	---	---	---	1211169.67	N	N
BIS(2CHLOROISOPROPYL)ETHER	108601	No Criteria	999999999.00	---	---	---	---	---	---	999999999	N	N
BIS(2ETHYLHEXYL)PHTHALATE	117817	36237468.99	783512.84	---	---	---	---	---	36237468.99	783512.843	N	N
BUTYL BENZYL PHTHALATE	85687	5549882.64	124056.20	---	---	---	---	---	5549882.638	124056.2001	N	N
2CHLORONAPHTHALENE	91587	No Criteria	365636126.72	---	---	---	---	---	---	365636126.7	N	N
1,2DICHLOROBENZENE	95501	5158126.22	117526.93	---	---	---	---	---	5158126.216	117526.9264	N	N
1,3DICHLOROBENZENE	541731	25464167.40	568046.81	---	---	---	---	---	25464167.4	568046.8112	N	N
1,4DICHLOROBENZENE	106467	3656393.27	78351.28	---	---	---	---	---	3656393.267	78351.2843	N	N
3,3DICHLOROBENZIDENE	91941	No Criteria	63986.32	---	---	---	---	---	---	63986.32218	N	N
DIETHYL PHTHALATE	84662	170087579.66	3786978.74	---	---	---	---	---	170087579.7	3786978.741	N	N
DIMETHYL PHTHALATE	131113	107733015.91	2415831.27	---	---	---	---	---	107733015.9	2415831.266	N	N

DInBUTYL PHTHALATE	84742	No Criteria	999999999.00	---	---	---	---	---	---	999999999	N	N
2,4DINITROTOLUENE	121142	101203742.22	2219953.06	---	---	---	---	---	101203742.2	2219953.055	N	N
1,2DIPHENYLHYDRAZINE	122667	914098.32	20240.75	---	---	---	---	---	914098.3168	20240.74844	N	N
FLUORANTHENE	206440	12993254.65	287288.04	---	---	---	---	---	12993254.65	287288.0424	N	N
FLUORENE	86737	No Criteria	999999999.00	---	---	---	---	---	---	999999999	N	N
HEXACHLOROBENZENE	118741	No Criteria	662.72	---	---	---	---	---	---	662.7154797	N	N
HEXACHLOROBUTADIENE	87683	No Criteria	41134064.26	---	---	---	---	---	---	41134064.26	N	N
HEXACHLOROCYCLOPENTADIENE	77474	22852.46	522.34	---	---	---	---	---	22852.45792	522.3418953	N	N
HEXACHLOROETHANE	67721	3199344.11	71822.01	---	---	---	---	---	3199344.109	71822.01061	N	N
ISOPHORONE	78591	381962510.95	8488055.80	---	---	---	---	---	381962510.9	8488055.799	N	N
NAPHTHALENE	91203	7508664.75	169761.12	---	---	---	---	---	7508664.745	169761.116	N	N
NITROBENZENE	98953	88145194.83	1958782.11	---	---	---	---	---	88145194.83	1958782.107	N	N
NNITROSODIMETHYLAMINE	62759	No Criteria	6855677.38	---	---	---	---	---	---	6855677.376	N	N
NNITROSODINPROPYLAMINE	621647	No Criteria	1165465.15	---	---	---	---	---	---	1165465.154	N	N
NNITROSODIPHENYLAMINE	86306	19130771.92	424402.79	---	---	---	---	---	19130771.92	424402.7899	N	N
PYRENE	129000	No Criteria	914090316.80	---	---	---	---	---	---	914090316.8	N	N
1,2,4trichlorobenzene	120821	4896955.27	110997.65	---	---	---	---	---	4896955.269	110997.6528	N	N
PESTICIDES/PCBs												
ALDRIN	309002	195878.21	114.26	---	---	---	---	---	195878.2107	114.2612896	N	N
Alpha BHC	319846	No Criteria	11197.61	---	---	---	---	---	---	11197.60638	N	N
Beta BHC	319857	No Criteria	38848.84	---	---	---	---	---	---	38848.83846	N	N
Gamma BHC (Lindane)	58899	62028.10	62028.10	---	---	---	---	---	62028.10007	62028.10007	N	N
CHLORDANE	57749	156702.57	280.76	---	---	---	---	---	156702.5686	280.7587687	N	N
4,4DDT	50293	71822.01	65.29	---	---	---	---	---	71822.01061	65.29273691	N	N
4,4DDE	72559	No Criteria	502.75	---	---	---	---	---	---	502.7496742	N	N
4,4DDD	72548	No Criteria	708.42	---	---	---	---	---	---	708.4199955	N	N
DIELDRIN	60571	15670.26	123.40	---	---	---	---	---	15670.25686	123.4021928	N	N
ENDOSULFAN (alpha)	959988	14364.40	3656.39	---	---	---	---	---	14364.40212	3656.393267	N	N
ENDOSULFAN (beta)	33213659	14364.40	3656.39	---	---	---	---	---	14364.40212	3656.393267	N	N
ENDOSULFAN (sulfate)	1031078	No Criteria	20338509.55	---	---	---	---	---	---	20338509.55	N	N
ENDRIN	72208	5615.18	2350.54	---	---	---	---	---	5615.175375	2350.538529	N	N
ENDRIN ALDEHYDE	7421934	No Criteria	68556.77	---	---	---	---	---	---	68556.77376	N	N
HEPTACHLOR	76448	33952.22	180.53	---	---	---	---	---	33952.2232	180.5328376	N	N
HEPTACHLOR EPOXIDE	1024573	33952.22	89.12	---	---	---	---	---	33952.2232	89.12380589	N	N
POLYCHLORINATED BIPHENYLS3	1336363	No Criteria	146.25	---	---	---	---	---	---	146.2544507	N	N
2,3,7,8TCDD (Dioxin)	1746016	No Criteria	0.01	---	---	---	---	---	---	0.011654652	N	N
TOXAPHENE	8001352	47663.70	13.06	---	---	---	---	---	47663.69795	13.05854738	N	N
TRIBUTYLTIN		30034.66	4701.08						30034.65898	4701.077058	N	N
NON PRIORITY POLLUTANTS:												
OTHER SUBSTANCES												

ALUMINUM (limits are total recoverable)	7429905	51654758.59	2954538.45	---	---	---	---	---	51654758.59	2954538.445	N	N
AMMONIA (winter)	7664417	2483668090.69	498484992.73	---	---	---	---	---	2483668091	498484992.7	N	N
AMMONIA (summer)		1666678725.66	164684605.68	---	---	---	---	---	1666678726	164684605.7	N	N
4BROMOPHENYL PHENYL ETHER	16887006	1175269.26	26117.09	---	---	---	---	---	1175269.264	26117.09477	N	N
CHLORIDE	7782505	56151753746.29	999999999.00						56151753746	999999999	N	N
CHLORINE		1550702.50	897775.13	---	---	---	---	---	1550702.502	897775.1326	N	N
4CHLORO2METHYLPHENOL		979391.05	20893.68	---	---	---	---	---	979391.0537	20893.67581	N	N
1CHLORONAPHTHALENE	106489	5223418.95	117526.93	---	---	---	---	---	5223418.953	117526.9264	N	N
4CHLOROPHENOL		12536205.49	280758.77	---	---	---	---	---	12536205.49	280758.7687	N	N
2,4DICHLORO6METHYLPHENOL		1436440.21	31340.51	---	---	---	---	---	1436440.212	31340.51372	N	N
1,1DICHLOROPROPANE	142289	75086647.45	1697611.16	---	---	---	---	---	75086647.45	1697611.16	N	N
1,3DICHLOROPROPANE		19783699.29	437461.34	---	---	---	---	---	19783699.29	437461.3373	N	N
2,3DINITROTOLUENE		1109976.53	24158.31	---	---	---	---	---	1109976.528	24158.31266	N	N
2,4DINITRO6METHYL PHENOL	7439896	783512.84	16976.11	---	---	---	---	---	783512.843	16976.1116	N	N
IRON	608935	No Criteria	65292736.91						---	65292736.91	N	N
pentachlorobenzene		848805.58	18281.97	---	---	---	---	---	848805.5799	18281.96634	N	N
PENTACHLOROETHANE		23635970.76	522341.90	---	---	---	---	---	23635970.76	522341.8953	N	N
1,2,3,5tetrachlorobenzene	630206	20958968.55	463578.43	---	---	---	---	---	20958968.55	463578.4321	N	N
1,1,1,2TETRACHLOROETHANE	58902	63986882.18	1436440.21	---	---	---	---	---	63986882.18	1436440.212	N	N
2,3,4,6TETRACHLOROPHENOL		457049.16	10446.84	---	---	---	---	---	457049.1584	10446.83791	N	N
2,3,5,6TETRACHLOROPHENOL	95954	554988.26	12405.62	---	---	---	---	---	554988.2638	12405.62001	N	N
2,4,5TRICHLOROPHENOL	88062	1501732.95	33299.30	---	---	---	---	---	1501732.949	33299.29583	N	N
2,4,6TRINITROPHENOL	1330207	276514740.83	6137517.27	---	---	---	---	---	276514740.8	6137517.27	N	N
XYLENE		8683934.01	195878.21						8683934.01	195878.2107	N	N

Attachment F – Water Quality Data

Organization	Project	Waterbody	Station	StationType	SampleDate	Parameter	ParameterCategory	Result		Unit
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	7/25/2019 0:00	Aluminum	METALS	87.6		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	7/25/2019 0:00	Aluminum	METALS	57.6		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/23/2019 0:00	Aluminum	METALS	24.7		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/23/2019 0:00	Aluminum	METALS	35		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	10/16/2019 0:00	Aluminum	METALS	25.1		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/16/2019 0:00	Aluminum	METALS	22.8		Micrograms per Liter
							Average	**42.1**		
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	Cadmium, Dissolved	METALS	0.234		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	Cadmium, Dissolved	METALS	0.117		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	Cadmium, Dissolved	METALS	0.189		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	Cadmium, Dissolved	METALS	0.159		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	Cadmium, Dissolved	METALS	0.106		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	Cadmium, Dissolved	METALS	0.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	Cadmium, Dissolved	METALS	0.14		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	Cadmium, Dissolved	METALS	0.137		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	Cadmium, Dissolved	METALS	0.12		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	Cadmium, Dissolved	METALS	0.088		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	Cadmium, Dissolved	METALS	0.16		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	Cadmium, Dissolved	METALS	0.155		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	Cadmium, Dissolved	METALS	0.116		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	Cadmium, Dissolved	METALS	0.152		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	Cadmium, Dissolved	METALS	0.105		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	Cadmium, Dissolved	METALS	0.111		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	Cadmium, Dissolved	METALS	0.093		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	Cadmium, Dissolved	METALS	0.091		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	Cadmium, Dissolved	METALS	0.124		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	Cadmium, Dissolved	METALS	0.121		Micrograms per Liter
							Average	**0.1309**		
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	Chromium, Dissolved and	METALS	0.32	0.32	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	Chromium, Dissolved and	METALS	0.32	0.32	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	Chromium, Dissolved and	METALS	0.52	0.52	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	Chromium, Dissolved and	METALS	I	0	Micrograms per Liter
							Average=		0.058	

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	Copper, Dissolved	METALS	1.8		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	Copper, Dissolved	METALS	2.5		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	Copper, Dissolved	METALS	4.4		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	Copper, Dissolved	METALS	2.3		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	Copper, Dissolved	METALS	1.9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	Copper, Dissolved	METALS	3		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	Copper, Dissolved	METALS	3.8		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	Copper, Dissolved	METALS	1.9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	Copper, Dissolved	METALS	1.7		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	Copper, Dissolved	METALS	2.7		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	Copper, Dissolved	METALS	3.4		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	Copper, Dissolved	METALS	2		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	Copper, Dissolved	METALS	1.8		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	Copper, Dissolved	METALS	2.9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	Copper, Dissolved	METALS	2.9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	Copper, Dissolved	METALS	1.6		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	Copper, Dissolved	METALS	1.7		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	Copper, Dissolved	METALS	2.5		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	7/25/2019 0:00	Copper, Dissolved	METALS	4.62		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	7/25/2019 0:00	Copper, Dissolved	METALS	4.48		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	Copper, Dissolved	METALS	3.9		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/23/2019 0:00	Copper, Dissolved	METALS	5.76		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/23/2019 0:00	Copper, Dissolved	METALS	5.96		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	10/16/2019 0:00	Copper, Dissolved	METALS	4.57		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/16/2019 0:00	Copper, Dissolved	METALS	4.47		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	Copper, Dissolved	METALS	2		Micrograms per Liter
							Average=	**3.10**		

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/4/2015 0:00	Hardness	CONVENTIONALS	53.3		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/25/2015 0:00	Hardness	CONVENTIONALS	59.1		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	Hardness	CONVENTIONALS	50.2		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/23/2015 0:00	Hardness	CONVENTIONALS	35.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/2/2015 0:00	Hardness	CONVENTIONALS	61.3		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	Hardness	CONVENTIONALS	59.3		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/28/2015 0:00	Hardness	CONVENTIONALS	91		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	8/25/2015 0:00	Hardness	CONVENTIONALS	74		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	Hardness	CONVENTIONALS	92.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/27/2015 0:00	Hardness	CONVENTIONALS	47.6		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/1/2015 0:00	Hardness	CONVENTIONALS	69.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	Hardness	CONVENTIONALS	58.2		Milligrams per Liter

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/28/2016 0:00	Hardness	CONVENTIONALS	51.4		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/23/2016 0:00	Hardness	CONVENTIONALS	47.6		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	Hardness	CONVENTIONALS	52.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/27/2016 0:00	Hardness	CONVENTIONALS	56.9		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/1/2016 0:00	Hardness	CONVENTIONALS	57.6		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	Hardness	CONVENTIONALS	92.9		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/19/2016 0:00	Hardness	CONVENTIONALS	97.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	8/23/2016 0:00	Hardness	CONVENTIONALS	66.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	Hardness	CONVENTIONALS	97.4		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/26/2016 0:00	Hardness	CONVENTIONALS	49.4		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/28/2016 0:00	Hardness	CONVENTIONALS	59.4		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	Hardness	CONVENTIONALS	57		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/31/2017 0:00	Hardness	CONVENTIONALS	49.1		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/27/2017 0:00	Hardness	CONVENTIONALS	49.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	Hardness	CONVENTIONALS	43.5		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/27/2017 0:00	Hardness	CONVENTIONALS	42.4		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	5/30/2017 0:00	Hardness	CONVENTIONALS	40.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	Hardness	CONVENTIONALS	65.9		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/26/2017 0:00	Hardness	CONVENTIONALS	57.1		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/5/2017 0:00	Hardness	CONVENTIONALS	101		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	Hardness	CONVENTIONALS	87.5		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/30/2017 0:00	Hardness	CONVENTIONALS	29.2		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/28/2017 0:00	Hardness	CONVENTIONALS	46.4		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	Hardness	CONVENTIONALS	59.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/30/2018 0:00	Hardness	CONVENTIONALS	44.3		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/28/2018 0:00	Hardness	CONVENTIONALS	42		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	Hardness	CONVENTIONALS	48		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/26/2018 0:00	Hardness	CONVENTIONALS	40		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	5/29/2018 0:00	Hardness	CONVENTIONALS	64.2		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	Hardness	CONVENTIONALS	82.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/31/2018 0:00	Hardness	CONVENTIONALS	61.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	8/31/2018 0:00	Hardness	CONVENTIONALS	73.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	Hardness	CONVENTIONALS	54.4		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/31/2018 0:00	Hardness	CONVENTIONALS	35.5		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/28/2018 0:00	Hardness	CONVENTIONALS	25.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	Hardness	CONVENTIONALS	34.1		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/1/2019 0:00	Hardness	CONVENTIONALS	36.3		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/5/2019 0:00	Hardness	CONVENTIONALS	45.1		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	Hardness	CONVENTIONALS	37.7		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/22/2019 0:00	Hardness	CONVENTIONALS	34.6		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	5/30/2019 0:00	Hardness	CONVENTIONALS	48.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	Hardness	CONVENTIONALS	47.6		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/22/2019 0:00	Hardness	CONVENTIONALS	56.9		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	7/25/2019 0:00	Hardness	CONVENTIONALS	45.7		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	7/25/2019 0:00	Hardness	CONVENTIONALS	44.6		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	7/31/2019 0:00	Hardness	CONVENTIONALS	68		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	8/26/2019 0:00	Hardness	CONVENTIONALS	61.2		Milligrams per Liter

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	Hardness	CONVENTIONALS	69.5		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/23/2019 0:00	Hardness	CONVENTIONALS	66.1		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	9/23/2019 0:00	Hardness	CONVENTIONALS	71.1		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/23/2019 0:00	Hardness	CONVENTIONALS	80.4		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	10/16/2019 0:00	Hardness	CONVENTIONALS	78.2		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	10/16/2019 0:00	Hardness	CONVENTIONALS	69.2		Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/16/2019 0:00	Hardness	CONVENTIONALS	73.3		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/28/2019 0:00	Hardness	CONVENTIONALS	36.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/25/2019 0:00	Hardness	CONVENTIONALS	41.5		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	Hardness	CONVENTIONALS	33.1		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/29/2020 0:00	Hardness	CONVENTIONALS	41.8		Milligrams per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/24/2020 0:00	Hardness	CONVENTIONALS	48.3		Milligrams per Liter
							Average=	**57.1**		

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	Lead, Dissolved	METALS	0.354		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	Lead, Dissolved	METALS	0.954		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	Lead, Dissolved	METALS	0.182		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	Lead, Dissolved	METALS	0.349		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	Lead, Dissolved	METALS	0.395		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	Lead, Dissolved	METALS	0.378		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	Lead, Dissolved	METALS	0.34		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	Lead, Dissolved	METALS	0.414		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	Lead, Dissolved	METALS	0.334		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	Lead, Dissolved	METALS	1.32		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	Lead, Dissolved	METALS	0.419		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	Lead, Dissolved	METALS	0.472		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	Lead, Dissolved	METALS	0.339		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	Lead, Dissolved	METALS	0.453		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	Lead, Dissolved	METALS	0.722		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	Lead, Dissolved	METALS	0.307		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	Lead, Dissolved	METALS	0.288		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	Lead, Dissolved	METALS	0.921		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	7/25/2019 0:00	Lead, Dissolved	METALS	1.03		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	7/25/2019 0:00	Lead, Dissolved	METALS	0.912		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	7/31/2019 0:00	Lead, Dissolved	METALS	0.655		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	Lead, Dissolved	METALS	0.509		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/23/2019 0:00	Lead, Dissolved	METALS	0.565		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	9/23/2019 0:00	Lead, Dissolved	METALS	0.479		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/23/2019 0:00	Lead, Dissolved	METALS	0.319		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	10/16/2019 0:00	Lead, Dissolved	METALS	0.466		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	10/16/2019 0:00	Lead, Dissolved	METALS	0.456		Micrograms per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/16/2019 0:00	Lead, Dissolved	METALS	0.412		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	Lead, Dissolved	METALS	0.45		Micrograms per Liter
							Average=	**0.524**		

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	Nickel, Dissolved	METALS	1.5		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	Nickel, Dissolved	METALS	1.5		Micrograms per Liter

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	Nickel, Dissolved	METALS	2.9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	Nickel, Dissolved	METALS	1.3		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	Nickel, Dissolved	METALS	1.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	Nickel, Dissolved	METALS	2.5		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	Nickel, Dissolved	METALS	3.3		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	Nickel, Dissolved	METALS	2.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	Nickel, Dissolved	METALS	1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	Nickel, Dissolved	METALS	1.6		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	Nickel, Dissolved	METALS	2.2		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	Nickel, Dissolved	METALS	1.7		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	Nickel, Dissolved	METALS	1.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	Nickel, Dissolved	METALS	2.3		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	Nickel, Dissolved	METALS	1.4		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	Nickel, Dissolved	METALS	0.84		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	Nickel, Dissolved	METALS	0.93		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	Nickel, Dissolved	METALS	1.4		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	Nickel, Dissolved	METALS	2.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	Nickel, Dissolved	METALS	0.99		Micrograms per Liter
							Average=	**1.688**		

RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	7/25/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	7/25/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	7/31/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/26/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	9/26/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/26/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	10/17/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	10/17/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/17/2019 0:00	Nitrogen, Ammonia Total	NUTRIENTS	0.05	0	Milligrams per Liter
							Average=	**0**	0	

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/4/2015 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/25/2015 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/23/2015 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/2/2015 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	pH	CONVENTIONALS	7.5		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/28/2015 0:00	pH	CONVENTIONALS	8.4		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	8/25/2015 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	pH	CONVENTIONALS	7.8		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/27/2015 0:00	pH	CONVENTIONALS	7.5		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/1/2015 0:00	pH	CONVENTIONALS	7.6		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	pH	CONVENTIONALS	7.7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/28/2016 0:00	pH	CONVENTIONALS	7.4		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/23/2016 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/27/2016 0:00	pH	CONVENTIONALS	7.3		Standard Units

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/1/2016 0:00	pH	CONVENTIONALS	7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	pH	CONVENTIONALS	7.7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/19/2016 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	8/23/2016 0:00	pH	CONVENTIONALS	7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	pH	CONVENTIONALS	6.6		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/26/2016 0:00	pH	CONVENTIONALS	7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/28/2016 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	pH	CONVENTIONALS	7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/31/2017 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/27/2017 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/27/2017 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	5/30/2017 0:00	pH	CONVENTIONALS	7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/26/2017 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/5/2017 0:00	pH	CONVENTIONALS	7.7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	pH	CONVENTIONALS	7.6		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/30/2017 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/28/2017 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	pH	CONVENTIONALS	7.4		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/30/2018 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/28/2018 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	pH	CONVENTIONALS	7.4		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/26/2018 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	5/29/2018 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	pH	CONVENTIONALS	7.6		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/31/2018 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	8/31/2018 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	pH	CONVENTIONALS	7.4		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/31/2018 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/28/2018 0:00	pH	CONVENTIONALS	7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/1/2019 0:00	pH	CONVENTIONALS	6.9		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/5/2019 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	pH	CONVENTIONALS	7		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	4/22/2019 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	5/30/2019 0:00	pH	CONVENTIONALS	7.2		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	7/22/2019 0:00	pH	CONVENTIONALS	7.2		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	7/25/2019 0:00	pH	CONVENTIONALS	7.76		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	7/25/2019 0:00	pH	CONVENTIONALS	8.06		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	7/31/2019 0:00	pH	CONVENTIONALS	7.74		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	8/26/2019 0:00	pH	CONVENTIONALS	7.5		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	pH	CONVENTIONALS	7.5		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/23/2019 0:00	pH	CONVENTIONALS	7.9		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	9/23/2019 0:00	pH	CONVENTIONALS	7.85		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/23/2019 0:00	pH	CONVENTIONALS	7.63		Standard Units

RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	10/16/2019 0:00	pH	CONVENTIONALS	8.16		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	10/16/2019 0:00	pH	CONVENTIONALS	7.85		Standard Units
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/16/2019 0:00	pH	CONVENTIONALS	7.96		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	10/28/2019 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	11/25/2019 0:00	pH	CONVENTIONALS	7.3		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/29/2020 0:00	pH	CONVENTIONALS	7.1		Standard Units
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	2/24/2020 0:00	pH	CONVENTIONALS	7.2		Standard Units
							Average=	**7.35**		
							upper 90th % CI	**7.41**		

RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	5/23/2019 0:00	Temperature	CONVENTIONALS	17.6		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	5/23/2019 0:00	Temperature	CONVENTIONALS	17.5		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	5/23/2019 0:00	Temperature	CONVENTIONALS	17.5		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	5/23/2019 0:00	Temperature	CONVENTIONALS	17.6		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	5/23/2019 0:00	Temperature	CONVENTIONALS	17.6		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	5/23/2019 0:00	Temperature	CONVENTIONALS	17.6		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	7/31/2019 0:00	Temperature	CONVENTIONALS	27.1		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	7/31/2019 0:00	Temperature	CONVENTIONALS	27.2		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	8/27/2019 0:00	Temperature	CONVENTIONALS	19.4		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	8/27/2019 0:00	Temperature	CONVENTIONALS	19.3		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	8/27/2019 0:00	Temperature	CONVENTIONALS	21.2		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	8/27/2019 0:00	Temperature	CONVENTIONALS	21.1		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	8/27/2019 0:00	Temperature	CONVENTIONALS	19.9		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	8/27/2019 0:00	Temperature	CONVENTIONALS	20.6		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/23/2019 0:00	Temperature	CONVENTIONALS	19.2		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN11	Grab	9/23/2019 0:00	Temperature	CONVENTIONALS	19.2		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	9/23/2019 0:00	Temperature	CONVENTIONALS	20.4		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	9/23/2019 0:00	Temperature	CONVENTIONALS	20.2		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/23/2019 0:00	Temperature	CONVENTIONALS	21.3		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	9/23/2019 0:00	Temperature	CONVENTIONALS	21		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	10/16/2019 0:00	Temperature	CONVENTIONALS	13.8		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN12	Grab	10/16/2019 0:00	Temperature	CONVENTIONALS	13.8		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/16/2019 0:00	Temperature	CONVENTIONALS	13.3		Degrees Celsius
RIDEM - Monito	Ambient River Monitoring	Blackstone River	BSN27	Grab	10/16/2019 0:00	Temperature	CONVENTIONALS	13.1		Degrees Celsius
							Average=	**19.0**		

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/23/2015 0:00	Zinc, Dissolved	METALS	12.5		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2015 0:00	Zinc, Dissolved	METALS	5.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/28/2015 0:00	Zinc, Dissolved	METALS	5.2		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	1/4/2016 0:00	Zinc, Dissolved	METALS	9.7		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2016 0:00	Zinc, Dissolved	METALS	8.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/30/2016 0:00	Zinc, Dissolved	METALS	4		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2016 0:00	Zinc, Dissolved	METALS	4.9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2016 0:00	Zinc, Dissolved	METALS	11.5		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/29/2017 0:00	Zinc, Dissolved	METALS	9.9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/29/2017 0:00	Zinc, Dissolved	METALS	6		Micrograms per Liter

USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/27/2017 0:00	Zinc, Dissolved	METALS	6.6		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2017 0:00	Zinc, Dissolved	METALS	10.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/26/2018 0:00	Zinc, Dissolved	METALS	9		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/26/2018 0:00	Zinc, Dissolved	METALS	4		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/25/2018 0:00	Zinc, Dissolved	METALS	5.7		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	12/19/2018 0:00	Zinc, Dissolved	METALS	8.2		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	3/27/2019 0:00	Zinc, Dissolved	METALS	8		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	6/25/2019 0:00	Zinc, Dissolved	METALS	5.1		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Composite	9/23/2019 0:00	Zinc, Dissolved	METALS	5.5		Micrograms per Liter
USGS	U.S. Geological Survey	Blackstone River	1112900	Grab	12/18/2019 0:00	Zinc, Dissolved	METALS	9.4		Micrograms per Liter
							Average=	**7.4**		

PART II
TABLE OF CONTENTS

GENERAL REQUIREMENTS

DEFINITIONS

GENERAL REQUIREMENTS

(a) Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 46-12 of the Rhode Island General Laws and the Clean Water Act (CWA) and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(1) The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) The CWA provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307 or 308 of the Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment of not more than 1 year, or both.

(3) Chapter 46-12 of the Rhode Island General Laws provides that any person who violates a permit condition is subject to a civil penalty of not more than $5,000 per day of such violation. Any person who willfully or negligently violates a permit condition is subject to a criminal penalty of not more than $10,000 per day of such violation and imprisonment for not more than 30 days, or both. Any person who knowingly makes any false statement in connection with the permit is subject to a criminal penalty of not more than $5,000 for each instance of violation or by imprisonment for not more than 30 days, or both.

(b) Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. The permittee shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(c) Need to Halt or Reduce Not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper 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 also includes adequate laboratory controls and appropriate quality assurance procedures, and, where applicable, compliance with DEM "Rules and Regulations Pertaining to the Operation and Maintenance of Wastewater Treatment Facilities" and "Rules and Regulations Pertaining to the Disposal and Utilization of Wastewater Treatment Facility Sludge." This provision requires the operation of back-up or auxiliary facilities or similar systems only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause, including but not limited to: (1) Violation of any terms or conditions of this permit; (2) Obtaining this permit by misrepresentation or failure to disclose all relevant facts; or (3) A change in any conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

(1) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices or operations regulated or required under this permit; and

(4) Sample or monitor any substances or parameters at any location, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the CWA or Rhode Island law.

(j) Monitoring and Records

(1) Samples and measurements taken for the purpose of monitoring shall be representative of the volume and nature of the discharge over the sampling and reporting period.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings from continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

(3) Records of monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(4) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136 and applicable Rhode Island regulations, unless other test procedures have been specified in this permit.

(5) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall upon conviction, be punished by a fine of not more than $10,000 per violation or by imprisonment for not more than 6 months per violation or by both. Chapter 46-12 of the Rhode Island General Laws also provides that such acts are subject to a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(6) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(7) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR Part 136, applicable State regulations, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(k) Signatory Requirement

All applications, reports, or information submitted to the Director shall be signed and certified in accordance with 250-RICR-150-10-1.12 of the Rhode Island Pollutant Discharge Elimination System (RIPDES) Regulations. Rhode Island General Laws, Chapter 46-12 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $5,000 per violation, or by imprisonment for not more than 30 days per violation, or by both.

(l) Reporting Requirements

(1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with the permit requirements.

(3) Transfers. This permit is not transferable to any person except after written notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under State and Federal law.

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Twenty-four hour reporting. The permittee shall immediately report any noncompliance which may endanger health or the environment by calling DEM at (401) 222-4700 or (401) 222-3070 at night.

A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The following information must be reported immediately:

(i) Any unanticipated bypass which causes a violation of any effluent limitation in the permit; or

(ii) Any upset which causes a violation of any effluent limitation in the permit; or

(iii) Any violation of a maximum daily discharge limitation for any of the pollutants specifically listed by the Director in the permit.

The Director may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(6) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1), (2), and (5), of this section, at the time monitoring reports are submitted. The reports shall contain the information required in paragraph (l)(5) of the section.

(7) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, they shall promptly submit such facts or information.

(m) Bypass

"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.

(1) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (2) and (3) of this section.

(2) Notice.

(i) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass.

(ii) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in 250-RICR-150-10-1.14(R) of the RIPDES Regulations.

(3) Prohibition of bypass.

(i) Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:

(A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, where "severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become 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;

(B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup 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; and

(C) The permittee submitted notices as required under paragraph (2) of this section.

(ii) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph (3)(i) of this section.

(n) Upset

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(1) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of paragraph (2) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

(2) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) An upset occurred and that the permittee can identify the cause(s) of the upset;

(b) The permitted facility was at the time being properly operated;

(c) The permittee submitted notice of the upset as required in 250-RICR-150-10-1.14(R) of the RIPDES Regulations; and

(d) The permittee complied with any remedial measures required under 250-RICR-150-10-1.14(E) of the RIPDES Regulations.

(3) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

(o) Change in Discharge

All discharges authorized herein shall be consistent with the terms and conditions of this permit. Discharges which cause a violation of water quality standards are prohibited. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions, production increases, or process modifications which will result in new, different or increased discharges of pollutants must be reported by submission of a new NPDES application at least 180 days prior to commencement of such discharges, or if such changes will not violate the effluent limitations specified in this permit, by notice, in writing, to the Director of such changes. Following such notice, the permit may be modified to specify and limit any pollutants not previously limited.

Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by the permit constitutes a violation.

(p) Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner consistent with applicable Federal and State laws and regulations including, but not limited to the CWA and the Federal Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq., Rhode Island General Laws, Chapters 46-12, 23-19.1 and regulations promulgated thereunder.

(q) Power Failures

In order to maintain compliance with the effluent limitation and prohibitions of this permit, the permittee shall either:

> In accordance with the Schedule of Compliance contained in Part I, provide an alternative power source sufficient to operate the wastewater control facilities;

or if such alternative power source is not in existence, and no date for its implementation appears in Part I,

> Halt reduce or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

(r) Availability of Reports

Except for data determined to be confidential under paragraph (w) below, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the DEM, 235 Promenade Street, Providence, Rhode Island 02908. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and under Section 46-12-14 of the Rhode Island General Laws.

(s) State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law.

(t) Other Laws

The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, nor does it relieve the permittee of its obligation to comply with any other applicable Federal, State, and local laws and regulations.

(u) Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

(v) Reopener Clause

The Director reserves the right to make appropriate revisions to this permit in order to incorporate any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the CWA or State law. In accordance with 250-RICR-150-10-1.16 and 250-RICR-150-10-1.24 of the RIPDES Regulations, if any effluent standard or prohibition, or water quality standard is promulgated under the CWA or under State law which is more stringent than any limitation on the pollutant in the permit, or controls a pollutant not limited in the permit, then the Director may promptly reopen the permit and modify or revoke and reissue the permit to conform to the applicable standard.

(w) Confidentiality of Information

(1) Any information submitted to DEM pursuant to these regulations may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, DEM may make the information available to the pubic without further notice.

(2) Claims of confidentiality for the following information will be denied:

(i) The name and address of any permit applicant or permittee;

(ii) Permit applications, permits and any attachments thereto; and

(iii) NPDES effluent data.

(x) Best Management Practices

The permittee shall adopt Best Management Practices (BMP) to control or abate the discharge of toxic pollutants and hazardous substances associated with or ancillary to the industrial manufacturing or treatment process and the Director may request the submission of a BMP plan where the Director determines that a permittee's practices may contribute significant amounts of such pollutants to waters of the State.

(y) Right of Appeal

Within thirty (30) days of receipt of notice of a final permit decision, the permittee or any interested person may submit a request to the Director for an adjudicatory hearing to reconsider or contest that decision. The request for a hearing must conform to the requirements of 250-RICR-150-10-1.50 of the RIPDES Regulations.

DEFINITIONS

1. For purposes of this permit, those definitions contained in the RIPDES Regulations and the Rhode Island Pretreatment Regulations shall apply.

2. The following abbreviations, when used, are defined below.

cu. M/day or M^3/day	cubic meters per day
mg/l	milligrams per liter
ug/l	micrograms per liter
lbs/day	pounds per day
kg/day	kilograms per day
Temp. ^oC	temperature in degrees Centigrade
Temp. ^oF	temperature in degrees Fahrenheit
Turb.	turbidity measured by the Nephelometric Method (NTU)
TNFR or TSS	total nonfilterable residue or total suspended solids
DO	dissolved oxygen
BOD	five-day biochemical oxygen demand unless otherwise specified
TKN	total Kjeldahl nitrogen as nitrogen
Total N	total nitrogen
NH_3-N	ammonia nitrogen as nitrogen
Total P	total phosphorus
COD	chemical oxygen demand
TOC	total organic carbon
Surfactant	surface-active agent
pH	a measure of the hydrogen ion concentration
PCB	polychlorinated biphenyl
CFS	cubic feet per second
MGD	million gallons per day
Oil & Grease	Freon extractable material
Total Coliform	total coliform bacteria
Fecal Coliform	total fecal coliform bacteria
ml/l	milliliter(s) per liter
NO_3-N	nitrate nitrogen as nitrogen
NO_2-N	nitrite nitrogen as nitrogen
NO_3-NO_2	combined nitrate and nitrite nitrogen as nitrogen
$C1_2$	total residual chlorine