



STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**  
**DIVISION OF WATER RESOURCES**

William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, Tennessee 37243-1102

February 10, 2021

Mr. Shane Petty  
Plant Manager  
e-copy: [pettyshane@bfusa.com](mailto:pettyshane@bfusa.com)  
1201 Bridgestone Parkway  
La Vergne, TN 37086

Subject: **Draft of NPDES Permit No. TN0022039**  
**Bridgestone Americas Tire Operations, LLC**  
**La Vergne, Rutherford County, Tennessee**

Dear Mr. Petty:

Enclosed please find a draft copy of the NPDES Permit No. TN0022039, which the Division of Water Resources proposes to issue. This draft copy is furnished to you solely for your review of its provisions. No wastewater discharges are authorized by this draft permit. The issuance of this permit is contingent upon your meeting all of the requirements of the Tennessee Water Quality Control Act and the Rules and Regulations of the Tennessee Water Quality, Oil and Gas Board.

Also enclosed is a copy of the public notice that announces our intent to issue this permit. The notice affords the public an opportunity to review the draft permit and, if necessary, request a public hearing on this issuance process. If you disagree with the provisions and requirements contained in the draft permit, you have thirty (30) days from the date of this correspondence to notify the division of your objections. If your objections cannot be resolved, you may appeal this permit upon issuance. This appeal should be filed in accordance with Section 69-3-110 of the Tennessee Code Annotated.

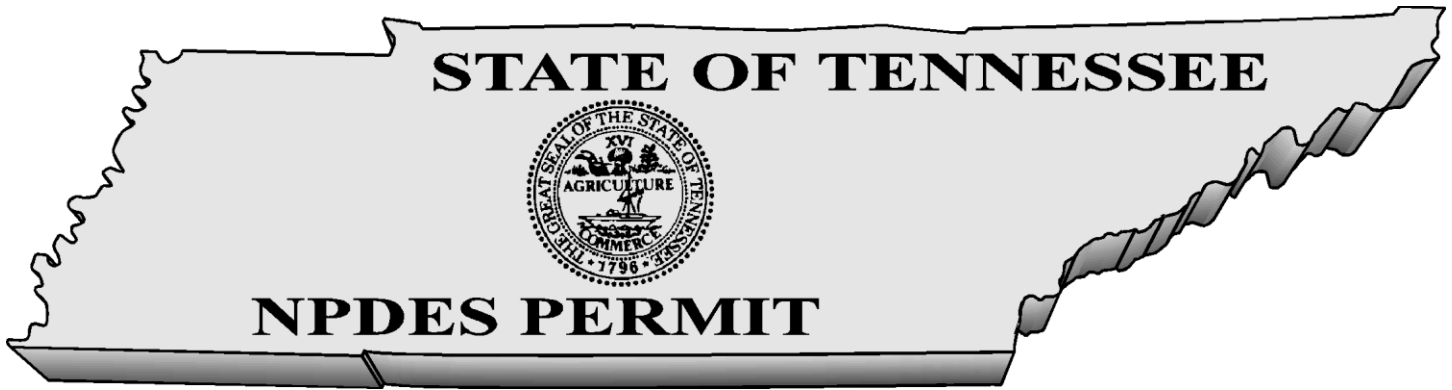
If you have questions, please contact the Nashville Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Ms. Shannon McClellan at (615) 532-0485 or by E-mail at [Shannon.McClellan@tn.gov](mailto:Shannon.McClellan@tn.gov).

Sincerely,

Vojin Janjić  
Manager, Water-Based Systems

Enclosure

cc: Permit Section File  
Nashville Environmental Field Office  
Mr. Sean Fisher, P.E., Senior Environmental Engineer, [fishersean@bfusa.com](mailto:fishersean@bfusa.com)  
Mr. Jose Villanueva, Plant Engineer, Bridgestone Americas Tire Operations, LLC, [villanuevajose@bfusa.com](mailto:villanuevajose@bfusa.com)  
Josh Entremont, Operator, Bridgestone Americas Tire Operations, LLC, [entremontjosh@bfusa.com](mailto:entremontjosh@bfusa.com)



**No. TN0022039**

Authorization to discharge under the  
National Pollutant Discharge Elimination System (NPDES)

Issued By

**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER RESOURCES  
William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, Tennessee 37243-1102**

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.)

Discharger: **Bridgestone Americas Tire Operations, LLC**  
is authorized to discharge: **process & equipment cooling water, hydraulic water, steam condensate and boiler blow down, stormwater runoff, and fire protection system water from Outfall 001**  
from a facility located at: **1201 Bridgestone Parkway, La Vergne, Rutherford County, Tennessee**  
to receiving waters named: **unnamed tributary to Hurricane Creek at mile 5.5**  
in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on:

This permit shall expire on:

Issuance date:

**DRAFT**

\_\_\_\_\_  
for Jennifer Dodd  
Director

## TABLE OF CONTENTS

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<b>PART I</b> .....	<b>3</b>
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS.....	3
B. MONITORING PROCEDURES.....	6
1. <i>Representative Sampling</i> .....	6
2. <i>Sampling Frequency</i> .....	6
3. <i>Test Procedures</i> .....	6
4. <i>Recording of Results</i> .....	7
5. <i>Records Retention</i> .....	7
C. DEFINITIONS.....	7
D. ACRONYMS AND ABBREVIATIONS.....	10
E. REPORTING.....	11
1. <i>Monitoring Results</i> .....	11
2. <i>Additional Monitoring by Permittee</i> .....	12
3. <i>Falsifying Results and/or Reports</i> .....	12
4. <i>Reporting Less Than Detection; Reporting Significant Figures</i> .....	13
5. <i>Outlier data</i> .....	13
F. SCHEDULE OF COMPLIANCE.....	13
<b>PART II</b> .....	<b>14</b>
A. GENERAL PROVISIONS.....	14
1. <i>Duty to Reapply</i> .....	14
2. <i>Right of Entry</i> .....	14
3. <i>Availability of Reports</i> .....	14
4. <i>Proper Operation and Maintenance</i> .....	14
5. <i>Treatment Facility Failure</i> .....	15
6. <i>Property Rights</i> .....	15
7. <i>Severability</i> .....	15
8. <i>Other Information</i> .....	15
B. CHANGES AFFECTING THE PERMIT.....	15
1. <i>Planned Changes</i> .....	15
2. <i>Permit Modification, Revocation, or Termination</i> .....	16
3. <i>Change of Ownership</i> .....	16
4. <i>Change of Mailing Address</i> .....	17
C. NONCOMPLIANCE.....	17
1. <i>Effect of Noncompliance</i> .....	17
2. <i>Reporting of Noncompliance</i> .....	17
3. <i>Sanitary Sewer Overflow</i> .....	18
4. <i>Upset</i> .....	18
5. <i>Adverse Impact</i> .....	19
6. <i>Bypass</i> .....	19
7. <i>Washout</i> .....	20
D. LIABILITIES.....	20
1. <i>Civil and Criminal Liability</i> .....	20
2. <i>Liability Under State Law</i> .....	21

**PART III ..... 21**

A. TOXIC POLLUTANTS .....21

B. REOPENER CLAUSE .....22

C. PLACEMENT OF SIGNS .....22

D. ANTIDegradation.....22

E. BIOMONITORING REQUIREMENTS, CHRONIC .....23

RATIONALE ..... 1

I. DISCHARGER.....1

II. PERMIT STATUS.....1

III. FACILITY DISCHARGES AND RECEIVING WATERS .....2

IV. APPLICABLE EFFLUENT LIMITATIONS GUIDELINES.....2

V. PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS.....3

VI. HISTORICAL MONITORING AND INSPECTION.....3

VII. NEW PERMIT LIMITS AND MONITORING REQUIREMENTS.....3

VIII. METALS AND TOXICS..... **Error! Bookmark not defined.**

VIII. BIOMONITORING REQUIREMENTS, CHRONIC .....7

IX. ANTIDegradation.....8

X. ELECTRONIC REPORTING.....8

XI. PERMIT DURATION.....9

APPENDIX 1 .....10

APPENDIX 2 .....13

APPENDIX 2A .....14

APPENDIX 3 .....20

APPENDIX 4 .....23

APPENDIX 5 .....24

## PART I

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Bridgestone Americas Tire Operations, LLC is authorized to discharge process & equipment cooling water, hydraulic water, steam condensate and boiler blow down, stormwater runoff, and fire protection system water from Outfall 001 to unnamed tributary to Hurricane Creek at mile 5.5.

These discharges shall be limited and monitored by the permittee as specified below:

Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: All Year							
Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00400	pH	>=	6.0	SU	Grab	Weekly	Daily Minimum
00400	pH	<=	9.0	SU	Grab	Weekly	Maximum
00900	Hardness, total (as CaCO3)	Report	-	mg/L	Grab	Quarterly	Daily Maximum
01042	Copper, total (as Cu) (1)	<=	.076	mg/L	Grab	Weekly	Daily Maximum
01042	Copper, total (as Cu) (1)	<=	.047	mg/L	Grab	Weekly	Monthly Average
50050	Flow (2)	Report	-	MGD	Instantaneous	Weekly	Daily Maximum
50050	Flow (2)	Report	-	MGD	Instantaneous	Weekly	Monthly Average
50060	Chlorine, total residual (TRC) (3)(6)	<=	.011	mg/L	Grab	Weekly	Monthly Average
50060	Chlorine, total residual (TRC) (3)(6)	<=	.019	mg/L	Grab	Weekly	Daily Maximum
85777	Raw materials processed (5)	Report	-	lb/d	Grab	Weekly	Monthly Average
TRP3B	IC25 Static Renewal 7 Day Chronic Ceriodaphnia (4)	>=	100	%	Composite	Semiannual	Minimum
TRP6C	IC25 Static Renewal 7 Day Chronic Pimephales promelas (4)	>=	100	%	Composite	Semiannual	Minimum

**Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: Summer, Limit Set Status: Compliance Schedule**

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00610	Nitrogen, Ammonia total (as N) (8)	<=	.49	mg/L	Grab	Weekly	Monthly Average
00610	Nitrogen, Ammonia total (as N) (8)	<=	.99	mg/L	Grab	Weekly	Daily Maximum
00610	Nitrogen, Ammonia total (as N) (8)	<=	.30	lb/day	Grab	Weekly	Monthly Average
00610	Nitrogen, Ammonia total (as N) (8)	<=	.53	lb/day	Grab	Weekly	Daily Maximum

**Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: Winter, Limit Set Status: Compliance Schedule**

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00610	Nitrogen, Ammonia total (as N) (8)	<=	.94	mg/L	Grab	Weekly	Monthly Average
00610	Nitrogen, Ammonia total (as N) (8)	<=	1.89	mg/L	Grab	Weekly	Daily Maximum
00610	Nitrogen, Ammonia total (as N) (8)	<=	0.50	lb/day	Grab	Weekly	Monthly Average
00610	Nitrogen, Ammonia total (as N) (8)	<=	1.01	lb/day	Grab	Weekly	Daily Maximum

**Tier I-Raw Material Usage Between 770,000 lb/day and 982,842 lb/day**

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS) (7)	<=	84	lb/d	Grab	Weekly	Daily Maximum
00530	Total Suspended Solids (TSS) (7)	<=	56	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease (7)	<=	21	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease (7)	<=	14	lb/d	Grab	Weekly	Monthly Average

**Tier II Raw Material Usage Between 982,842 lb/day and 1,111,387 lb/day**

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS)	<=	101	lb/d	Grab	Weekly	Daily Maximum
00530	Total Suspended Solids (TSS)	<=	67	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease	<=	25	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease	<=	17	lb/d	Grab	Weekly	Monthly Average

Tier III Raw Material Usage Between 1,111,388 lb/day and 1,234,061 lb/day							
Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS)	<=	113	lb/d	Grab	Weekly	Daily Maximum
00530	Total Suspended Solids (TSS)	<=	75	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease	<=	28	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease	<=	19	lb/d	Grab	Weekly	Monthly Average

- (1) Copper limits have been calculated based on reference streams in the 71i ecoregion.
- (2) Flow shall be reported in Million Gallons per Day (MGD).
- (3) pH and TRC analyses shall be performed within fifteen (15) minutes of sample collection.
- (4) See Part III for methodology.
- (5) Raw Material shall be reported as a monthly average.
- (6) The acceptable methods for analysis of TRC are any methods specified in Title 40 CFR, Part 136 as amended. The method detection level (MDL) for TRC shall not exceed 0.05 mg/l unless the permittee demonstrates that its MDL is higher. The permittee shall retain the documentation that justifies the higher MDL and have it available for review upon request. In cases where the permit limit is less than the MDL, the reporting of TRC at less than the MDL shall be interpreted to constitute compliance with the permit limit.
- (7) TSS and Oil and Grease ELG Tier 1 limits have been updated to reflect the reported production loadings of 770,000 lbs/day from the application.
- (8) Ammonia as N Summer and Winter limits are on a compliance schedule of 24 months to give the permittee time to meet new limits.

Additional monitoring requirements and conditions applicable to Outfall 001 include:

There shall be no distinctly visible floating solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life.

The wastewater discharge shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

Sludge or any other material removed by any treatment works must be disposed of in a manner, which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and the Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

## **B. MONITORING PROCEDURES**

### **1. Representative Sampling**

Samples and measurements taken in compliance with the monitoring requirements specified herein shall be representative of the volume and nature of the monitored discharge and shall be taken after treatment and prior to mixing with uncontaminated storm water runoff or the receiving stream. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated<sup>1</sup> and maintained to ensure that the accuracy of the measurements is consistent with accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than plus or minus 10% from the true discharge rates throughout the range of expected discharge volumes.

### **2. Sampling Frequency**

If there is a discharge from a permitted outfall on any given day during the monitoring period, the permittee must sample and report the results of analyses accordingly, and the permittee should not mark the 'No Discharge' box on the Discharge Monitoring Report form.

### **3. Test Procedures**

- a. Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304 (h) of the Clean Water Act (the "Act"), as amended, under which such procedures may be required.
- b. Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in Title 40, CFR Part 136, as amended, promulgated pursuant to Section 304 (h) of the Act.

In instances where permit limits established through implementation of applicable water criteria are below analytical capabilities, compliance with those limits will be determined using the detection limits described in the TN Rules, Chapter 0400-40-03-.05(8).

- c. If the MLs for all methods available in accordance with TN Rules and 40 CFR 136 are above the stated permit limit or applicable water quality criteria for that parameter, then the method with the lowest stated ML shall be used.

- d. Where the analytical results are below method detection or practical quantitation limits, the permittee shall report the actual laboratory ML values for the analyses that were performed following the instructions on the discharge monitoring report.

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<sup>1</sup> The division expects for permittees to meet EPA's guidance on proper operation and maintenance of flow measurement devices, as stated in the [NPDES Compliance Inspection Manual](#). On page 120, the documents states, in part: "The facility must ensure that their flow measurement systems are calibrated by a qualified source at least once a year to ensure their accuracy."



e. Where necessary, the permittee may request approval of alternate methods or for alternative MLs for any approved analytical method. Approval of alternate laboratory MLs is not necessary if the laboratory reported MLs are less than or equal to the permit limit or the applicable water quality criteria, if any, stated in TN Rules, Chapter 0400-40-03. Approval of an alternative method is not necessary if the analytical method is in accordance with 40 CFR 136.

#### 4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling or measurements
- b. The exact person(s) collecting samples or measurements
- c. The dates and times the analyses were performed
- d. The person(s) or laboratory who performed the analyses
- e. The analytical techniques or methods used, and;
- f. The results of all required analyses.

#### 5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of three (3) years, or longer, if requested by the Division of Water Resources.

### C. DEFINITIONS

For the purpose of this permit, **annually** is defined as a monitoring frequency of once every twelve (12) months beginning with the date of issuance of this permit so long as the following set of measurements for a given 12 month period are made approximately 12 months subsequent to that time.

A **bypass** is defined as the intentional diversion of waste streams from any portion of a treatment facility.

A **calendar day** is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.

**Cooling water** means water used for contact or non-contact cooling, including water used for equipment cooling, evaporative cooling tower makeup, and dilution of effluent heat content. The intended use of the cooling water is to absorb waste heat rejected from the process or processes used, or from auxiliary operations on the facility's premises.

The **Daily Maximum Amount** is a limitation measured in pounds per day (lb/day), on the total amount of any pollutant in the discharge by weight during any calendar day.

The **Daily Maximum Concentration** is a limitation on the average concentration, in milligrams per liter (mg/L), of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic mean of the concentrations of equal volume samples collected during any calendar day or sampling period.

**“Degradation”** means the alteration of the properties of waters by the addition of pollutants, withdrawal of water, or removal of habitat, except those alterations of a short duration.

**“De Minimis”** - Degradation of a small magnitude, as provided in this paragraph.

(a) Discharges and withdrawals

1. Subject to the limitation in part 3 of this subparagraph, a single discharge other than those from new domestic wastewater sources will be considered de minimis if it uses less than five percent of the available assimilative capacity for the substance being discharged.

2. Subject to the limitation in part 3 of this subparagraph, a single water withdrawal will be considered de minimis if it removes less than five percent of the 7Q10 flow of the stream.

3. If more than one activity described in part 1 or 2 of this subparagraph has been authorized in a segment and the total of the authorized and proposed impacts uses no more than 10% of the assimilative capacity, or 7Q10 low flow, they are presumed to be de minimis. Where the total of the authorized and proposed impacts uses 10% of the assimilative capacity, or 7Q10 low flow, additional degradation may only be treated as de minimis if the Division finds on a scientific basis that the additional degradation has an insignificant effect on the resource.

(b) Habitat alterations authorized by an Aquatic Resource Alteration Permit (ARAP) are de minimis if the Division finds that the impacts, individually and cumulatively are offset by impact minimization and/or in-system mitigation, provided however, in ONRWs the mitigation must occur within the ONRW.

**Discharge** or “discharge of a pollutant” refers to the addition of pollutants to waters from a source.

**Dry Weather Flow** shall be construed to represent discharges consisting of process and/or non-process wastewater only.

An **ecoregion** is a relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables.

The **geometric mean** of any set of values is the  $n^{\text{th}}$  root of the product of the individual values where “n” is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For the purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

A **Grab Sample**, for the purposes of this permit, is defined as a single effluent sample of at least 100 milliliters (sample volumes <100 milliliters are allowed when specified per standard methods, latest edition) collected at a randomly selected time over a period not exceeding 15 minutes. The sample(s) shall be collected at the period(s) most representative of the total discharge.

The **Instantaneous Concentration** is a limitation on the concentration, in milligrams per liter (mg/L), of any pollutant contained in the discharge determined from a grab sample taken at any point in time.

The **monthly average amount** shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

The **monthly average concentration**, other than for *E. coli* bacteria, is the arithmetic mean of all the composite or grab samples collected in a one-calendar month period.

A **one-week period** (or **calendar-week**) is defined as the period from Sunday through Saturday. For reporting purposes, a calendar week that contains a change of month shall be considered part of the latter month.

**Pollutant** means sewage, industrial wastes, or other wastes.

A **Qualifying Storm Event** is one which is greater than 0.1 inches and that occurs after a period of at least 72 hours after any previous storm event with rainfall of 0.1 inches or greater.

For the purpose of this permit, a **Quarter** is defined as any one of the following three-month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, or October 1 through December 31.

A **rainfall event** is defined as any occurrence of rain, preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event.

A **rationale** (or "fact sheet") is a document that is prepared when drafting an NPDES permit or permit action. It provides the technical, regulatory and administrative basis for an agency's permit decision.

A **reference site** means least impacted waters within an ecoregion that have been monitored to establish a baseline to which alterations of other waters can be compared.

A **reference condition** is a parameter-specific set of data from regional reference sites that establish the statistical range of values for that particular substance at least-impacted streams.

For the purpose of this permit, **semi-annually** means the same as "once every six months." Measurements of the effluent characteristics' concentrations may be made anytime during a 6-month period beginning from the issuance date of this permit so long as the second

set of measurements for a given 12-month period are made approximately 6 months subsequent to that time, if feasible.

A **subcoregion** is a smaller, more homogenous area that has been delineated within an ecoregion.

**Upset** means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based 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.

The term, **washout** is applicable to activated sludge plants and is defined as loss of mixed liquor suspended solids (MLSS) of 30.00% or more from the aeration basin(s).

**Waters** means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

The **weekly average amount** shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar week when the measurements were made.

The **weekly average concentration** is the arithmetic mean of all the composite samples collected in a one-week period. The permittee must report the highest weekly average in the one-month period.

**Wet Weather Flow** shall be construed to represent storm water runoff which, in combination with all process and/or non-process wastewater discharges, as applicable, is discharged during a qualifying storm event.

#### D. ACRONYMS AND ABBREVIATIONS

1Q10 – 1-day minimum, 10-year recurrence interval  
30Q5 – 30-day minimum, 5-year recurrence interval  
7Q10 – 7-day minimum, 10-year recurrence interval  
BAT – best available technology economically achievable  
BCT – best conventional pollutant control technology  
BDL – below detection level  
BOD<sub>5</sub> – five-day biochemical oxygen demand  
BPT – best practicable control technology currently available  
CBOD<sub>5</sub> – five-day carbonaceous biochemical oxygen demand  
CEI – compliance evaluation inspection  
CFR – code of federal regulations  
CFS – cubic feet per second

CFU – colony forming units  
CIU – categorical industrial user  
CSO – combined sewer overflow  
DMR – discharge monitoring report  
D.O. – dissolved oxygen  
*E. coli* – *Escherichia coli*  
EFO – environmental field office  
LB(lb) - pound  
IC<sub>25</sub> – inhibition concentration causing 25% reduction in survival, reproduction and growth of the test organisms  
IU – industrial user  
IWS – industrial waste survey  
LC<sub>50</sub> – acute test causing 50% lethality  
MDL – method detection level  
MGD – million gallons per day  
MG/L(mg/L) – milligrams per liter  
ML – minimum level of quantification  
mL – milliliter  
MLSS – mixed liquor suspended solids  
MOR – monthly operating report  
NODI – no discharge  
NPDES – national pollutant discharge elimination system  
PL – permit limit  
POTW – publicly owned treatment works  
RDL – required detection limit  
SAR – semi-annual [pretreatment program] report  
SIU – significant industrial user  
SSO – sanitary sewer overflow  
STP – sewage treatment plant  
TCA – Tennessee code annotated  
TDEC – Tennessee Department of Environment and Conservation  
TIE/TRE – toxicity identification evaluation/toxicity reduction evaluation  
TMDL – total maximum daily load  
TRC – total residual chlorine  
TSS – total suspended solids  
WQBEL – water quality based effluent limit

## **E. REPORTING**

### **1. Monitoring Results**

Monitoring results shall be recorded monthly and submitted monthly using NETDMR. Submittals shall be no later than 15 days after the completion of the reporting period. If NETDMR is not functioning, a completed DMR with an original signature shall be submitted to the following address:

**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER RESOURCES  
COMPLIANCE & ENFORCEMENT SECTION  
William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue, 11th Floor  
Nashville, Tennessee 37243-1102**

If NETDMR is not functioning, a copy of the completed and signed DMR shall be mailed to the Nashville Environmental Field Office (EFO) at the following address:

**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
DIVISION OF WATER RESOURCES  
Nashville Environmental Field Office  
711 R.S. Gass Boulevard  
Nashville, Tennessee 37216**

A copy should be retained for the permittee's files. In addition, any communication regarding compliance with the conditions of this permit must be sent to the two offices listed above.

The first DMR is due on the 15th of the month following permit effectiveness.

DMRs and any other information or report must be signed and certified by a responsible corporate officer as defined in 40 CFR 122.22, a general partner or proprietor, or a principal municipal executive officer or ranking elected official, or his duly authorized representative. Such authorization must be submitted in writing and must explain the duties and responsibilities of the authorized representative.

The electronic submission of DMR data will be accepted only if formally approved beforehand by the division. For purposes of determining compliance with this permit, data approved by the division to be submitted electronically is legally equivalent to data submitted on signed and certified DMR forms.

**2. Additional Monitoring by Permittee**

If the permittee monitors any pollutant more frequently than required at the location(s) designated, using approved analytical methods as specified herein, the results of such monitoring shall be included in the calculation and reporting of the values required in the DMR form. Such increased frequency shall also be indicated on the form.

**3. Falsifying Results and/or Reports**

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Water Pollution Control Act, as amended, and in Section 69-3-115 of the Tennessee Water Quality Control Act.

#### **4. Reporting Less Than Detection; Reporting Significant Figures**

A permit limit may be less than the accepted detection level. If the samples are below the detection level, then report "BDL" or "NODI =B" on the DMRs. The permittee must use the correct detection levels in all analytical testing required in the permit.

For example, if the limit is 0.02 mg/L with a detection level of 0.05 mg/L and detection is shown; 0.05 mg/L must be reported. In contrast if nothing is detected reporting "BDL" or "NODI =B" is acceptable.

Reported results are to correspond to the number of significant figures (decimal places) set forth in the permit conditions. The permittee shall round values, if allowed by the method of sample analysis, using a uniform rounding convention adopted by the permittee.

#### **5. Outlier data**

Outlier data include analytical results that are probably false. The validity of results is based on operational knowledge and a properly implemented quality assurance program. False results may include laboratory artifacts, potential sample tampering, broken or suspect sample containers, sample contamination or similar demonstrated quality control flaw.

Outlier data are identified through a properly implemented quality assurance program, and according to ASTM standards (e.g. Grubbs Test, 'h' and 'k' statistics). Furthermore, outliers should be verified, corrected, or removed, based on further inquiries into the matter. If an outlier was verified (through repeated testing and/or analysis), it should remain in the preliminary data set. If an outlier resulted from a transcription or similar clerical error, it should be corrected and subsequently reported.

Therefore, only if an outlier was associated with problems in the collection or analysis of the samples and as such does not conform with the Guidelines Establishing Test Procedures for the Analysis of Pollutants (40 CFR §136), it can be removed from the data set and not reported on the Discharge Monitoring Report forms (DMRs). Otherwise, all results (including monitoring of pollutants more frequently than required at the location(s) designated, using approved analytical methods as specified in the permit) should be included in the calculation and reporting of the values required in the DMR form. You are encouraged to use "comment" section of the DMR form (or attach additional pages), in order to explain any potential outliers or dubious results.

#### **F. SCHEDULE OF COMPLIANCE**

Full compliance and operational levels shall be attained from the effective date of this permit.

## **PART II**

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### **A. GENERAL PROVISIONS**

#### **1. Duty to Reapply**

Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of the Division of Water Resources (the "Director") no later than 180 days prior to the expiration date. Such applications must be properly signed and certified.

#### **2. Right of Entry**

The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records;
- b. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- c. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Director.

#### **3. Availability of Reports**

Except for data determined to be confidential under Section 308 of the Federal Water Pollution Control Act, as amended, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources. As required by the Federal Act, effluent data shall not be considered confidential.

#### **4. Proper Operation and Maintenance**

- a. The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is



necessary to achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

- b. Dilution water shall not be added to comply with effluent requirements to achieve BCT, BPT, BAT and/or other technology-based effluent limitations such as those in State of Tennessee Rule 0400-40-05-.09.

#### **5. Treatment Facility Failure**

The permittee, in order to maintain compliance with this permit, shall control production, all discharges, or both, upon reduction, loss, or failure of the treatment facility, until the facility is restored, or an alternative method of treatment is provided. This requirement applies in such situations as the reduction, loss, or failure of the primary source of power.

#### **6. Property Rights**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

#### **7. Severability**

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

#### **8. Other Information**

If the permittee becomes aware that he 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, then he shall promptly submit such facts or information.

### **B. CHANGES AFFECTING THE PERMIT**

#### **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. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

- c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices.

**2. Permit Modification, Revocation, or Termination**

- a. This permit may be modified, revoked and reissued, or terminated for cause as described in 40 CFR 122.62 and 122.64, Federal Register, Volume 49, No. 188 (Wednesday, September 26, 1984), as amended.
- b. 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.
- c. If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for any toxic pollutant under Section 307(a) of the Federal Water Pollution Control Act, as amended, the Director shall modify or revoke and reissue the permit to conform to the prohibition or to the effluent standard, providing that the effluent standard is more stringent than the limitation in the permit on the toxic pollutant. The permittee shall comply with these effluent standards or prohibitions within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified or revoked and reissued to incorporate the requirement.
- d. The filing of a request by the permittee for a modification, revocation, reissuance, termination, or notification of planned changes or anticipated noncompliance does not halt any permit condition.

**3. Change of Ownership**

This permit may be transferred to another party (provided there are neither modifications to the facility or its operations, nor any other changes which might affect the permit limits and conditions contained in the permit) by the permittee if:

- a. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;
- b. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and
- c. The Director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke or reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

Pursuant to the requirements of 40 CFR 122.61, concerning transfer of ownership, the permittee must provide the following information to the division in their formal notice of intent to

transfer ownership: 1) the NPDES permit number of the subject permit; 2) the effective date of the proposed transfer; 3) the name and address of the transferor; 4) the name and address of the transferee; 5) the names of the responsible parties for both the transferor and transferee; 6) a statement that the transferee assumes responsibility for the subject NPDES permit; 7) a statement that the transferor relinquishes responsibility for the subject NPDES permit; 8) the signatures of the responsible parties for both the transferor and transferee pursuant to the requirements of 40 CFR 122.22(a), "Signatories to permit applications"; and, 9) a statement regarding any proposed modifications to the facility, its operations, or any other changes which might affect the permit limits and conditions contained in the permit.

#### **4. Change of Mailing Address**

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

### **C. NONCOMPLIANCE**

#### **1. Effect of Noncompliance**

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

#### **2. Reporting of Noncompliance**

##### **a. 24-Hour Reporting**

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the Division of Water Resources in the appropriate regional Field Office within 24-hours from the time the permittee becomes aware of the circumstances. (The regional Field Office should be contacted for names and phone numbers of environmental response personnel).

A written submission must be provided within five calendar days of the time the permittee becomes aware of the circumstances, unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

- i. A description of the discharge and cause of noncompliance;
- ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and
- iii. The steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. Scheduled Reporting

For instances of noncompliance which do not cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the permittee shall report the noncompliance on the Discharge Monitoring Report. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

**3. Sanitary Sewer Overflow**

a. "**Sanitary Sewer Overflow**" means the discharge to land or water of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls.

b. Sanitary Sewer Overflows are prohibited.

c. The permittee shall operate the collection system so as to avoid sanitary sewer overflows. No new or additional flows shall be added upstream of any point in the collection system, which experiences chronic sanitary sewer overflows (greater than 5 overflows per year) or would otherwise overload any portion of the system.

d. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after: 1) an authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem; 2) the correction work is underway; and 3) the cumulative, peak-design, flows potentially added from new connections and line extensions upstream of any chronic overflow point are less than or proportional to the amount of inflow and infiltration removal documented upstream of that point. The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to a Monthly Operating Report submitted to the regional TDEC Field Office. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e. In the event that more than five (5) sanitary sewer overflows have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium or completion of the actions identified in this paragraph, the permittee may request a meeting with the Division of Water Resources field office staff to petition for a waiver based on mitigating evidence.

**4. Upset**

a. "**Upset**" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based 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.

- b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
  - ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;
  - iii. The permittee submitted information required under "Reporting of Noncompliance" within 24-hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and
  - iv. The permittee complied with any remedial measures required under "Adverse Impact."

## 5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the 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.

## 6. Bypass

- a. "**Bypass**" is the intentional diversion of wastewater away from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which would cause 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. Bypasses are prohibited unless the following 3 conditions are met:
  - i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;
  - ii. There are not feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during

normal periods of equipment down-time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass, which occurred during normal periods of equipment down-time or preventative maintenance;

- iii. The permittee submits notice of an unanticipated bypass to the Division of Water Resources in the appropriate environmental assistance center within 24-hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). When the need for the bypass is foreseeable, prior notification shall be submitted to the Director, if possible, at least 10 days before the date of the bypass.
- c. Bypasses not exceeding limitations are allowed **only** if the bypass is necessary for essential maintenance to assure efficient operation. All other bypasses are prohibited. Allowable bypasses not exceeding limitations are not subject to the reporting requirements of 6.b.iii, above.

## **7. Washout**

- a. For domestic wastewater plants only, a "washout" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decrease due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to infiltration and inflow.
- b. A washout is prohibited. If a washout occurs the permittee must report the incident to the Division of Water Resources in the appropriate regional Field Office within 24-hours by telephone. A written submission must be provided within 5 days. The washout must be noted on the discharge monitoring report. Each day of a washout is a separate violation.

## **D. LIABILITIES**

### **1. Civil and Criminal Liability**

Except as provided in permit conditions for "**Bypass**," "**Overflow**," and "**Upset**," nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

## 2. Liability Under State Law

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 or the Federal Water Pollution Control Act, as amended.

# PART III

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## OTHER REQUIREMENTS

### A. TOXIC POLLUTANTS

The permittee shall notify the Division of Water Resources as soon as it knows or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - a. One hundred micrograms per liter (100 ug/l);
  - b. 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-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - c. Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application in accordance with 122.21(g)(7); or
  - d. The level established by the Director in accordance with 122.44(f).
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - a. Five hundred micrograms per liter (500 ug/l);
  - b. One milligram per liter (1 mg/L) for antimony;
  - c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 122.21(g)(7); or
  - d. The level established by the Director in accordance with 122.44(f).

**B. REOPENER CLAUSE**

If an applicable standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(B)(2), and 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued to conform to that effluent standard or limitation.

**C. PLACEMENT OF SIGNS**

Within sixty (60) days of the effective date of this permit, the permittee shall place and maintain a sign(s) at each outfall and any bypass/overflow point in the collection system. For the purposes of this requirement, any bypass/overflow point that has discharged five (5) or more times in the last year must be so posted. The sign(s) should be clearly visible to the public from the bank and the receiving stream or from the nearest public property/right-of-way, if applicable. The minimum sign size should be two feet by two feet (2' x 2') with one-inch (1") letters. The sign should be made of durable material and have a white background with black letters.

The sign(s) are to provide notice to the public as to the nature of the discharge and, in the case of the permitted outfalls, that the discharge is regulated by the Tennessee Department of Environment and Conservation, Division of Water Resources. The following is given as an example of the minimal amount of information that must be included on the sign:

<p style="text-align: center;"><b>TREATED INDUSTRIAL WASTEWATER</b> <b>Bridgestone Americas Tire Operations, LLC</b></p> <p style="text-align: center;">(Permittee's Phone Number) NPDES Permit NO. TN0022039</p> <p style="text-align: center;"><b>TENNESSEE DIVISION OF WATER RESOURCES</b> <b>1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Nashville</b></p>
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**D. ANTIDegradation**

Pursuant to the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-40-03-.06, titled "Tennessee Antidegradation Statement," which prohibits the degradation of exceptional Tennessee waters and the increased discharges of substances that cause or contribute to impairment, the permittee shall further be required, pursuant to the terms and conditions of this permit, to comply with the effluent limitations and schedules of compliance required to implement applicable water quality standards, to comply with a State Water Quality Plan or other state or federal laws or regulations, or where practicable, to comply with a standard permitting no discharge of pollutants.



**E. BIOMONITORING REQUIREMENTS, CHRONIC**

The permittee shall conduct a 3-Brood *Ceriodaphnia dubia* Survival and Reproduction Test and a 7-Day Fathead Minnow (*Pimephales promelas*) Larval Survival and Growth Test on the same samples of final effluent from Outfall 001.

The measured endpoint for toxicity will be the inhibition concentration causing 25% reduction (IC25) in survival, reproduction, or growth of the test organisms. The IC25 shall be determined based on a 25% reduction as compared to the controls. The average reproduction and growth responses will be determined based on the number of *Ceriodaphnia dubia* or *Pimephales promelas* larvae used to initiate the test.

Test shall be conducted, and its results reported based on appropriate replicates of a total of five serial dilutions and a control, using the percent effluent dilutions as presented in the following table:

<b>Serial Dilutions for Whole Effluent Toxicity (WET) Testing</b>					
<b>Permit Limit (PL)</b>	<b>0.50 X PL</b>	<b>0.25 X PL</b>	<b>0.125 X PL</b>	<b>0.0625 X PL</b>	<b>Control</b>
<b>% effluent</b>					
<b>100</b>	<b>50</b>	<b>25</b>	<b>12.5</b>	<b>6.25</b>	<b>0</b>

The dilution/control water used will be a moderately hard water as described in [Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms](#), EPA-821-R-02-013 (or the most current edition). Results from a chronic standard reference toxicant quality assurance test for each species tested shall be submitted with the discharge monitoring report. Reference toxicant tests shall be conducted as required in EPA-821-R-02-013 (or the most current edition). Additionally, the analysis of this multi-concentration test shall include review of the concentration-response relationship to ensure that calculated test results are interpreted appropriately.

Toxicity will be demonstrated if the IC25 is less than or equal to the permit limit indicated for each outfall in the above table(s). Toxicity demonstrated by the tests specified herein constitutes a violation of this permit.

All tests will be conducted using a minimum of three 24-hour flow-proportionate composite samples of final effluent (e.g., collected on days 1, 3 and 5). If, in any control more than 20% of the test organisms die in 7 days, the test (control and effluent) is considered invalid and the test shall be repeated within 30 days of the date the initial test is invalidated. Furthermore, if the results do not meet the acceptability criteria of section 4.9.1, EPA-821-R-02-013 (or the most current edition), or if the required concentration-response review fails to yield a valid relationship per guidance contained in Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing, EPA-821-B-00-004 (or the most current edition), that test shall be repeated. Any test initiated but terminated before completion must also be reported along with a complete explanation for the termination.

The toxicity tests specified herein shall be conducted semi-annually (2/Year) for Outfall 001 and begin no later than 90 days from the effective date of this permit.

**In the event of a test failure**, the permittee must start a follow-up test within 2 weeks and submit results from a follow-up test within 30 days from obtaining initial WET testing results. The follow-up test must be conducted using the same serial dilutions as presented in the corresponding table(s) above. **The follow-up test will not negate an initial failed test. In addition, the failure of a follow-up test will constitute a separate permit violation which must also be reported.**

In the event of 2 consecutive test failures or 3 test failures within a 12-month period for the same outfall, the permittee must initiate a Toxicity Identification Evaluation/Toxicity Reduction Evaluation (TIE/TRE) study within 30 days and so notify the division by letter. This notification shall include a schedule of activities for the initial investigation of that outfall. **During the term of the TIE/TRE study, the frequency of biomonitoring shall be once every three months.** Additionally, the permittee shall submit progress reports once every three months throughout the term of the TIE/TRE study. The toxicity must be reduced to allowable limits for that outfall within 2 years of initiation of the TIE/TRE study. Subsequent to the results obtained from the TIE/TRE studies, the permittee may request an extension of the TIE/TRE study period if necessary, to conduct further analyses. The final determination of any extension period will be made at the discretion of the division.

The TIE/TRE study may be terminated at any time upon the completion and submission of 2 consecutive tests (for the same outfall) demonstrating compliance. Following the completion of TIE/TRE study, the frequency of monitoring will return to a regular schedule, as defined previously in this section as well in Part I of the permit. **During the course of the TIE/TRE study, the permittee will continue to conduct toxicity testing of the outfall being investigated at the frequency of once every three months but will not be required to perform follow-up tests for that outfall during the period of TIE/TRE study.**

Test procedures, quality assurance practices, determinations of effluent survival/reproduction and survival/growth values, and report formats will be made in accordance with [Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms](#), EPA-821-R-02-013, or the most current edition.

Results of all tests, reference toxicant information, copies of raw data sheets, statistical analysis and chemical analyses shall be compiled in a report. The report will be written in accordance with [Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms](#), EPA-821-R-02-013, or the most current edition.

A copy of the biomonitoring reports (including follow-up reports) shall be submitted to the division as an attachment with the discharge monitoring report (DMR).

## RATIONALE

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### **Bridgestone Americas Tire Operations, LLC**

**NPDES PERMIT NO. TN0022039**  
**La Vergne, Rutherford County, Tennessee**

Permit Writer: Ms. Shannon McClellan  
January 29, 2021

#### I. DISCHARGER

Bridgestone Americas Tire Operations, LLC  
1201 Bridgestone Parkway  
La Vergne, Rutherford County, Tennessee  
Site Longitude: -86.599066 Site Latitude: 36.008492

Official Contact Person:  
Mr. Shane Petty  
Plant Manager  
(615) 287-7250

Nature of Business:  
manufacturing tires and inner tubing

SIC Code(s): 3011  
Industrial Classification: Secondary, w/ELG  
Discharger Rating: Minor

#### II. PERMIT STATUS

Issued July 01, 2016  
Expires June 30, 2021  
Application for renewal received December 14, 2020

#### **Watershed Scheduling**

Environmental Field Office: Nashville  
Primary Outfall Longitude: -86.60034 Primary Outfall Latitude: 36.01141  
Hydrocode: 05130203 Watershed Group: 2  
Watershed Identification: Stones  
Target Reissuance Year: 2022

### III. FACILITY DISCHARGES AND RECEIVING WATERS

Bridgestone Americas Tire Operations, LLC is located in Lavergne, TN. The facility manufactures tires through a process of gathering raw materials which are mixed and formed into sheets of rubber that are processed to produce tire components. The tire components are assembled and cured to produce the finished tire.

The facility wastewater goes through an oil/ water separator then to wastewater lagoons for sedimentation, flotation, and evaporation. The facility currently discharges treated process & equipment cooling water, hydraulic water, steam condensate and boiler blow down water to the Metro Water Services sanitary sewer. The facility has had trouble in the past meeting copper limits in NPDES permit, so they have switched to the sewer. They will keep the sewer agreement current as a backup, to minimize adverse impact when copper limits cannot be achieved. The facility wishes to discharge again through Outfall 001 to an unnamed tributary to Hurricane Creek at mile 5.5. Appendix 1 summarizes facility discharges and the receiving stream information for Outfall 001.

Low flows on unregulated streams are estimated using guidance from the EPA document *Low Flow Statistics Tools: A How-To Handbook for NPDES Permit Writers*<sup>1</sup>. When sufficient and representative USGS gage data is available, USGS SWToolbox<sup>2</sup> is used to analyze the flow data and calculate 7Q10 and 30Q5 values.

In the absence of sufficient gage data, the division relies on USGS Streamstats<sup>3</sup> to calculate low flows statistics.

In this permit, no sufficient gage data is available to characterize the receiving stream. Thus, USGS Streamstats was used to delineate the critical low flow at the point of discharge. Appendix 1 includes the Streamstats output used for this estimation. The low flow of the receiving stream is estimated to be 0 MGD.

Storm water discharges associated with the industrial activity of this facility are covered by the Tennessee Multi-Sector General Storm Water Permit TNR051983. Storm water concerns associated with this facility are covered in this general permit and will, therefore, not be addressed in the new permit.

### IV. APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

The Standard Industrial Classification (SIC) code for Bridgestone Americas Tire Operations, LLC is 3011 (Tires and Inner Tubes). Process wastewater discharged through Outfall 001 is regulated by 40 CFR Part 428 - (Rubber Manufacturing Point Source Category). Appendix 2 lists the applicable best available technology (BAT) and best conventional pollution control technology (BCT) effluent limitations guidelines for Subpart A - (Tire and Inner Tube Plants

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<sup>1</sup> [https://www.epa.gov/sites/production/files/2018-11/documents/low\\_flow\\_stats\\_tools\\_handbook.pdf](https://www.epa.gov/sites/production/files/2018-11/documents/low_flow_stats_tools_handbook.pdf)  
Released October 2018 (EPA-833-B-18-001).

<sup>2</sup> <https://www.usgs.gov/software/swtoolbox-software-information>

<sup>3</sup> [https://www.usgs.gov/mission-areas/water-resources/science/streamstats-streamflow-statistics-and-spatial-analysis-tools?qt-science\\_center\\_objects=0#qt-science\\_center\\_objects](https://www.usgs.gov/mission-areas/water-resources/science/streamstats-streamflow-statistics-and-spatial-analysis-tools?qt-science_center_objects=0#qt-science_center_objects)

Subcategory). The Tier 1 limits have been revised to include the actual production of 770,000lbs/day as stated in the current and previous application.

## **V. PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS**

Appendix 3 lists the permit limitations and monitoring requirements as defined in the previous permit.

## **VI. HISTORICAL MONITORING AND INSPECTION**

During the previous permit term, Bridgestone Americas Tire Operations, LLC reported four violations between January 2016 and November 2017 including one TRC violation, two IC25, and one pH violation. The facility switched to discharging to Metro Water Services sewer in November 2017 and stopped discharging via Outfall 001. A summary of the data reported on Discharge Monitoring Report forms during the previous permit term is summarized in Appendix 4.

During the previous permit term, the Division's personnel from the Nashville Environmental Field Office performed a Compliance Evaluation Inspection (CEI) of the Bridgestone Americas Tire Operations, LLC. The CEI was performed by Lilia Sewell on November 2, 2017. The inspection report described:

"...Review of site records indicated that the facility personnel and personnel from Nashville Chemical began conducting the sampling and analysis for TRC in September 2016 and for pH sampling in January 2017. Review of the field sheets for these sampling and analyses events indicated that the appropriate holding times of 15 minutes were met for these parameters. The TRC meter was only being checked with secondary gel standards and had not been calibrated with primary standards. If Outfall 001 is again utilized and future sampling events are conducted, the TRC meter should be calibrated on a monthly basis with primary standards".

## **VII. NEW PERMIT LIMITS AND MONITORING REQUIREMENTS**

The proposed new permit limits have been selected by determining a technology-based limit and evaluating if that limit protects the water quality of the receiving stream. If the technology-based limit would cause violations of water quality, the water quality-based limit is chosen. The technology-based limit is determined from EPA effluent limitations guidelines if applicable (see Part IV); or from State of Tennessee maximum effluent limits for effluent limited segments per Rule 0400-40-05-.08. Note that in general, the term "anti-backsliding" refers to a statutory provision that prohibits the renewal, reissuance, or modification of an existing NPDES permit that contains effluents limits, permit conditions, or standards that are less stringent than those established in the previous permit.

### **Flow**

Monitoring of flow quantifies the load of pollutants to the stream. Flow shall be reported in Million Gallons per Day (MGD) and monitored at the time of sample collection.

### **Oil and Grease**

The division has determined that an oil and grease limitation is needed for this facility because of the potential of contamination from tire production, spills, leaks and other industrial activities present at the site. The oil and grease limits are based on the actual production load of the facility and driven by the federal Effluent Limitation Guidelines (ELGs) calculations. Tier 1 limits have been revised to reflect the most current production load of 770,000 lbs/day as stated in the application. The limits in various tiers can be accomplished where oil/water separators are maintained, kept clean and are not overloaded. There should be less reliance upon the oil/water separator as a solution and a greater reliance upon good management, operation, and housekeeping practices to restrict pollution.

The State of Tennessee Water Quality Standards for the protection of Fish & Aquatic Life [Chapter 0400-40-03-.03(3) (c)] state there shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life in the receiving stream.

### **Methylene Blue Active Substances (MBAS)**

Surfactants in the oil/water separator would inhibit separation of oil from water. The division proposes for Bridgestone Americas Tire Operations, LLC to use Best Management Practices (BMP) in the use of soaps and detergents (if used in the equipment cleaning) that may enter the oil/water separator as part of their overall facility BMP. No numerical limit will be included in the permit.

### **Total Suspended Solids (TSS)**

Total Suspended Solids is a general indicator of the quality of a wastewater and will be limited in this permit. Process wastewater from the production of rubber tires and inner tubes has the reasonable potential to contain levels of TSS that can degrade the receiving stream; therefore the federal ELGs provide numerical limitations for this pollutant. Since the state's water quality criteria have only narrative standards for industrial wastewater, the federal guidelines will be the numerical permit limits (Appendix 5). Tier 1 limits have been revised to reflect the most current production load of 770,000 lbs/day as stated in the application.

The State of Tennessee Water Quality Standards for the protection of Fish & Aquatic Life [Chapter 0400-40-03-.03(3) (c)] state there shall be no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life in the receiving stream.

### **pH**

According to the State of Tennessee Water Quality Standards [Chapter 0400-40-03-.03(3) (b)], the pH for the protection of Fish and Aquatic Life shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24-hours. Considering that the receiving stream will provide some buffering capacity, effluent limitation for pH will be retained in a range 6.0 to 9.0. The sample type will be grab.

### **Total Residual Chlorine**

It was stated in the renewal application that the facility receives its water supply from the local municipality. Due to drinking water having residual chlorine from disinfection and the stream being an effluent dominated stream, the permit will continue to have Total Residual Chlorine limits.

The acceptable methods for analysis of TRC are any methods specified in Title 40 CFR, Part 136 as amended. The method detection level (MDL) for TRC shall not exceed 0.05 mg/L unless the permittee demonstrates that its MDL is higher. The permittee shall retain the documentation that justifies the higher MDL and have it available for review upon request. In cases where the permit limit is less than the MDL, the reporting of TRC at less than the MDL shall be interpreted to constitute compliance with the permit limit. The reportable limit of 0.05 mg/L is higher than the monthly average limit of 0.011 mg/L and the daily maximum limit of 0.019 mg/L for TRC. Therefore, the reportable limit of 0.05 mg/L will effectively be used to demonstrate compliance with the effluent limitations. Please note that any TRC detected at or above the detection level will constitute a violation of the permit.

### **Ammonia as N**

Due to the applicant reporting an ammonia value of 1.14 mg/l in the renewal application and discharging to a zero-flow receiving stream, ammonia limits will be applied. To assess toxicity impacts, the state utilizes the EPA Ambient Water Quality Criteria for Ammonia (<https://www.epa.gov/wqc/aquatic-life-criteria-ammonia>), which is promulgated in Tennessee Rules, Chapter 0400-40-03-.03-3(3)(j), dated *September 11, 2019*, and assumed stream temperatures of 27°C and 17°C (middle Tennessee) and pH of 8.0 to derive an allowable instream protection value protective of chronic exposure to a continuous discharge. A mass balance equation with sewage treatment facility and stream flows and this allowable value determines the monthly average permit limit. The division calculates ammonia criteria using the available 7Q10 or 1Q10 values. The criteria continuous concentrations (CCC) derived from assumed temperature and pH values are as follows:

**CCC values based on temperature and pH, in mg/L:**

Temperature (°C)	7.5 pH	8.0 pH	Temperature (°C)	7.5 pH	8.0 pH
25	1.01	0.56	15	1.92	1.07
27	0.89	0.49	17	1.69	0.94
30	0.73	0.41	20	1.39	0.78

The mass balance equation is as follows:

$$CCC = \frac{Q_S C_S + Q_{STP} C_{STP}}{Q_S + Q_{STP}} \quad \text{or,} \quad C_{STP} = \frac{CCC(Q_S + Q_{STP}) - (Q_S C_S)}{Q_{STP}}$$

where:

- CCC = Criteria continuous concentration (mg/L)
- Q<sub>S</sub> = 7Q10 flow of receiving stream (MGD)
- Q<sub>STP</sub> = Design flow/ long term average of STP (MGD)
- C<sub>S</sub> = Assumed/Measured instream NH<sub>3</sub> (mg/L)
- C<sub>STP</sub> = Allowable STP discharge of NH<sub>3</sub> (mg/L)

$$C_{STP} = \frac{0.49 (0 \text{ MGD} + .064 \text{ MGD}) - (0 \text{ MGD} \times 0.1 \text{ mg/L})}{.064 \text{ MGD}} = 0.495 \text{ mg/L (summer)}$$

$$C_{STP} = \frac{0.94 (0 \text{ MGD} + .064 \text{ MGD}) - (0 \text{ MGD} \times 0.1 \text{ mg/L})}{.064 \text{ MGD}} = 0.94 \text{ mg/L (winter)}$$

The limits will be on a compliance schedule of 24 months.

### **Raw Material Usage**

The wastewater for this permit contains federal effluent guidelines that are based on manufacturing production rates. In previous permitting reissuances, the company has expressed their concerns regarding the documentation of their monthly production rates. The requirement for reporting raw material usage will be met by stating the tiers that were applicable for a specific month.

### **Hardness**

The metals and toxics calculated limits rely on TSS and hardness stream background data. The hardness stream background concentration was calculated using data from the most protected streams in the 71i ecoregion that the discharger resides in. This gives recent/ more protective data to base calculations on for reasonable potential to impact stream quality, due to not having data from the discharger who switched to the public sewer in 2017. Hardness stream background concentrations in this area are naturally high due to large amounts of limestone in the area. Since the receiving stream is discharge dominant, the facility will sample the hardness on a quarterly basis to be used in future reasonable potential calculations.

### **Copper**

The facility has historically exceeded its copper limits due to old copper piping and other potential sources. The facility reported a copper value of 0.0713 mg/L on their application. Based on stream background concentration calculations in the metals



spreadsheet (Appendix 2A), the new permit will have a daily maximum limit of 0.0755 mg/L and a monthly average limit of .0473 mg/L. The monitoring sampling will be weekly. Daily maximum and monthly average limits for Copper have been applied to this permit. It is recommended the facility should continue to investigate how to actively reduce copper in their effluent to meet future copper limits.

**VIII. BIOMONITORING REQUIREMENTS, CHRONIC**

The discharge of industrial wastewater from Outfall 001 may contain several different pollutants, the combined effect of which has a reasonable potential to be detrimental to fish and aquatic life. The Tennessee Water Quality Standards criteria stipulates that *“The waters shall not contain toxic substances, whether alone or in combination with other substances, which will produce toxic conditions...”*.

Since the permittee discharges to a stream with low critical flow conditions, there is a concern for toxicity effects of the discharge on the receiving stream, which is relatively unknown. Biomonitoring will provide information relative to the toxicity of the discharge. Calculation of toxicity limits is as follows:

$$DF = \frac{Q_s + Q_w}{Q_w} = \text{Dilution Factor}$$

where **Q<sub>w</sub>** is a wastewater flow (Q<sub>w</sub> = .064 MGD) and **Q<sub>s</sub>** is a receiving stream low flow (7Q10 estimated at 0 MGD). Please refer to Appendix 1 for details regarding facility discharge and receiving stream. Therefore,

$$DF = \frac{0 + .064}{.064} = 1.0$$

Since the calculated dilution factor is less than 100:1, and assuming immediate and complete mixing, protection of the stream from chronic effects requires:

$$IWC \leq 1.0 \times IC_{25}; \text{ or,}$$

$$\text{INHIBITION CONCENTRATION, 25\%} \geq IWC$$

Where IWC is Instream Waste Concentration and is calculated using the following formula:

$$IWC = \frac{Q_w}{Q_s + Q_w} \times 100 = \text{Instream Waste Concentration}$$

$$IWC = \frac{.064}{0 + .064} \times 100 = 100.0$$

Therefore, WET testing will be required on 100% effluent. If toxicity is demonstrated in any of the effluent samples specified above, this will constitute a violation of this permit.

The toxicity tests specified herein shall be conducted semi-annually (2/Year) for Outfall 001 and begin no later than 90 days from the effective date of this permit.

## **IX. ANTIDegradation**

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-40-03-.06. It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act. The facility discharges to a recently identified unnamed tributary that discharges to Hurricane Creek that has not been assessed.

## **X. ELECTRONIC REPORTING**

The [NPDES Electronic Reporting Rule \(eRule\)](#), which became effective on December 21, 2016, replaces most paper-based reporting requirements with electronic reporting requirements. NetDMR allows NPDES permittees to submit DMRs electronically to EPA through a secure internet application and has been approved by Tennessee as the official electronic reporting tool for DMRs. The permittee has been reporting electronically via NetDMR since November 30, 2014.

Monitoring results shall be recorded monthly and submitted monthly using Discharge Monitoring Reports (DMRs) based on the effluent limits in Part I, section A of this permit. DMRs and DMR attachments, including laboratory data and overflow reports, shall be submitted electronically in [NetDMR](#) or other electronic reporting tool approved by the State, no later than the 15th of the month following the end of the monitoring period. All NPDES program reports must be signed and certified by a responsible official or a duly authorized representative, as defined in 40 CFR § 122.22.

According to 40 CFR § 127.15, states have the flexibility to grant temporary or episodic waivers from electronic reporting to NPDES permittees who are unable to meet the electronic reporting requirements. To obtain an electronic reporting waiver, an [electronic reporting waiver request](#) must be submitted by email to [DWRwater.compliance@tn.gov](mailto:DWRwater.compliance@tn.gov) or by mail to the following address:

*Division of Water Resources  
Compliance and Enforcement Unit – NetDMR Waivers  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 11th Floor  
Nashville, TN 37243-1102*

For contact and training information about NetDMR electronic reporting, visit the Division's website [here](#).

## **XI. PERMIT DURATION**

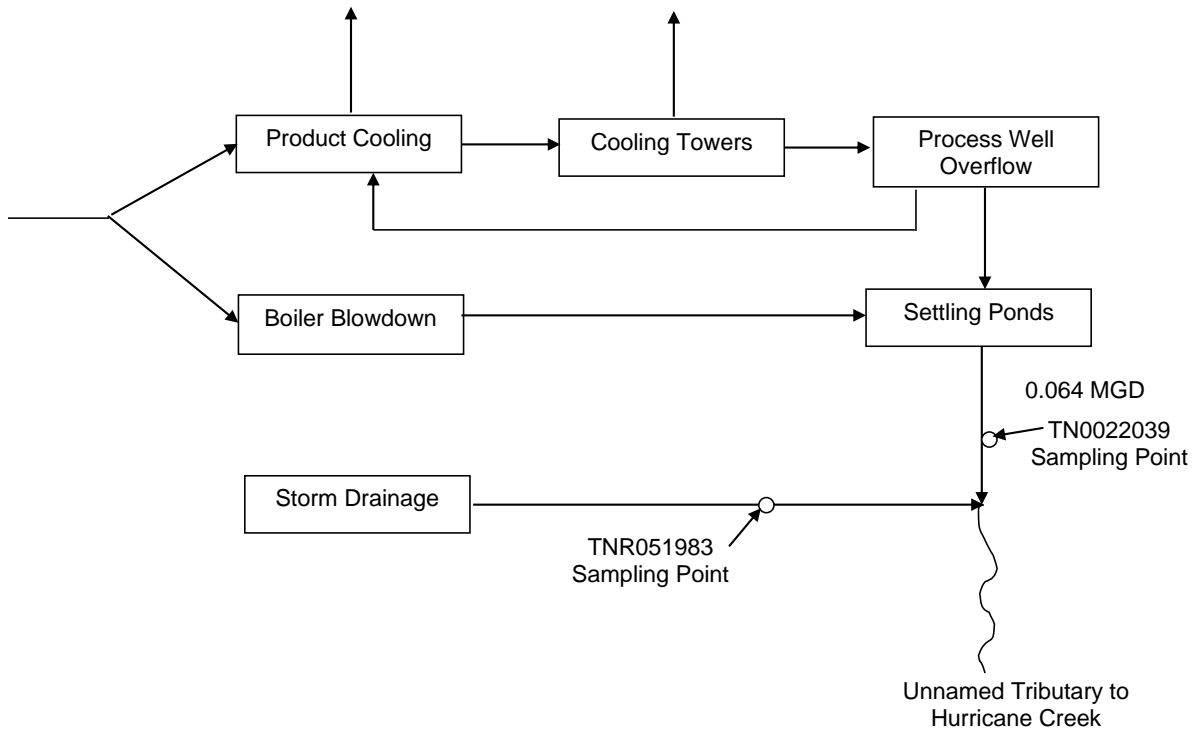
The proposed limitations meet the requirements of Section 301(b)(2)(A), (C), (D), (E), and (F) of the Clean Water Act as amended. It is the intent of the division to organize the future issuance and expiration of this particular permit such that other permits located in the same watershed and group within the State of Tennessee will be set for issuance and expiration at the same time. In order to meet the target reissuance date for the Stones watershed and following the directives for the Watershed Management Program initiated in January 1996, the permit will be issued to expire in 2022.

## APPENDIX 1 FACILITY DISCHARGES AND RECEIVING WATERS

FACILITY DISCHARGES AND RECEIVING WATERS				
<b>OUTFALL 001</b>				
<b>LONGITUDE</b>	<b>LATITUDE</b>			
36.01141	-86.60034			
<b>FLOW (MGD)</b>	<b>DISCHARGE SOURCE</b>			
0.0640	process cooling water, boiler blowdown, curing well condensate			
<b>0.0640</b>	<b>TOTAL DISCHARGE</b>			
		<b>RECEIVING STREAM DISCHARGE ROUTE</b>		
		Unnamed tributary to Hurricane Creek at mile 5.5		
<b>STREAM LOW FLOW (CFS) *</b>	<b>7Q10</b>	<b>1Q10</b>	<b>30Q5</b>	
	0.00	NA	0.00	
<b>(MGD)</b>	0.00	NA	0.00	
<b>STREAM USE CLASSIFICATIONS (WATER QUALITY)</b>				
FISH & AQUATIC LIFE	RECREATION	IRRIGATION	LIVESTOCK & WILDLIFE	DOMESTIC WATER SUPPLY
X	X	X	X	
INDUSTRIAL	NAVIGATION			

Treatment: Sedimentation, evaporation and flotation

\* Reference: USGS Streamstats (Law, G.S., Tasker, G.D., and Ladd, D.E., 2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009-5159, 212 p., 1 pl. (<http://pubs.usgs.gov/sir/2009/5159/>))

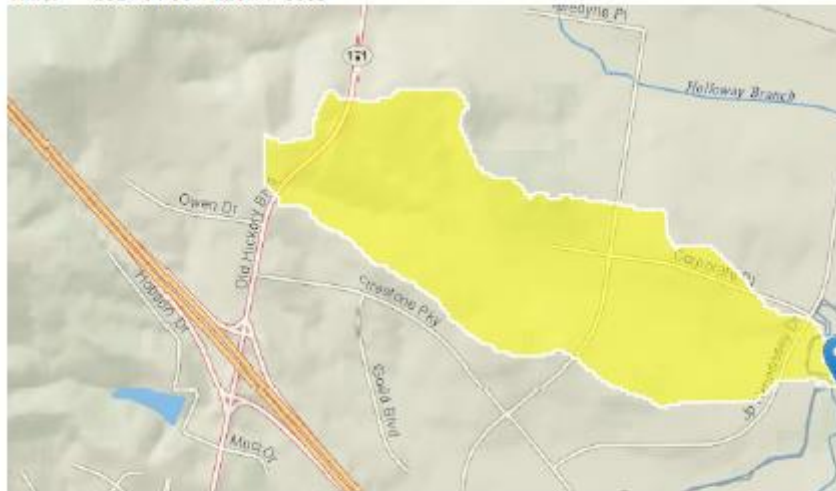


1/6/2021

StreamStats

## StreamStats Report

Region ID: TN  
 Workspace ID: TN20210106202455279000  
 Clicked Point (Latitude, Longitude): 36.01361, -86.59922  
 Time: 2021-01-06 14:25:14 -0600



### Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.32	square miles
RECESS	Number of days required for streamflow to recede one order of magnitude when hydrograph is plotted on logarithmic scale	32	days per log cycle
CLIMFAC2YR	Two-year climate factor from Lichy and Karlinger (1990)	2.324	dimensionless
SOILPERM	Average Soil Permeability	0.52	inches per hour

1/6/2021

StreamStats

Parameter Code	Parameter Description	Value	Unit
PERMGTE2IN	Percent of area underlain by soils with permeability greater than or equal to 2 inches per hour	10.001	percent

Low-Flow Statistics Parameters [Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.32	square miles	1.3	14441
RECESS	Recession Index	32	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.324	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	0.52	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	10.001	percent	2	100

Low-Flow Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

Statistic	Value	Unit
7 Day 10 Year Low Flow	0.000336	ft <sup>3</sup> /s
30 Day 5 Year Low Flow	0.00109	ft <sup>3</sup> /s

Low-Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E., 2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009-5159, 212 p., 1 pl. (<http://pubs.usgs.gov/sir/2009/5159/>)

## APPENDIX 2

### APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

SIC CODE 3011 40 CFR PART 428.12 and 428.13				
GROUP NAME: <b>RUBBER AND MISCELLANEOUS PLASTIC PRODUCTS POINT SOURCE CATEGORY</b> <b>Subpart A: Tire and Inner Tube Plants Subcategory</b>				
<b>EFFLUENT LIMITATIONS</b>				
BPT			BAT	
SUBPART 428.12			SUBPART 428.13	
MONTHLY			MONTHLY	
DAILY			DAILY	
EFFLUENT CHARACTERISTIC	AVG. AMOUNT.	MAX. AMOUNT.	AVG. AMOUNT.	MAX. AMOUNT.
	lb/1,000 lb of raw material			
TSS	0.064	0.096	0.064	0.096
<b>OIL and GREASE</b>	0.016	0.024	0.016	0.024
pH	Within the range 6.0 to 9.0		Within the range 6.0 to 9.0	

**Calculation of Effluent Limited Guidelines**

**Bridgestone/Firestone, Inc.**  
**Outfall 001**

**Tier 1**  
Raw Material Usage Between  
770,000 lb/day <= 982,842 lb/day

	Historical Production [lb/day]	Effluent Limitation				
		Monthly Average		Daily Maximum		
		[lb/1000 lb]	[lb/day]	[lb/1000 lb]	[lb/day]	
Subpart A: Tire and Inner Tube Plants Subcategory	TSS	876,421	0.064	56.1	0.096	84.1
	Oil & Grease	876,421	0.016	14.0	0.024	21.0
<b>Total Mass</b>	<b>TSS</b>			<b>56.1</b>		<b>84.1</b>
	<b>Oil &amp; Grease</b>			<b>14.0</b>		<b>21.0</b>

**Calculation of Effluent Limited Guidelines**

**Bridgestone/Firestone, Inc.**  
**Outfall 001**

**Tier 2**  
Raw Material Usage Between  
982,843 lb/day <= 1,111,387 lb/day

	Historical Production [lb/day]	Effluent Limitation				
		Monthly Average		Daily Maximum		
		[lb/1000 lb]	[lb/day]	[lb/1000 lb]	[lb/day]	
Subpart A: Tire and Inner Tube Plants Subcategory	TSS	1,047,115	0.064	67.0	0.096	100.5
	Oil & Grease	1,047,115	0.016	16.8	0.024	25.1
<b>Total Mass</b>	<b>TSS</b>			<b>67.0</b>		<b>100.5</b>
	<b>Oil &amp; Grease</b>			<b>16.8</b>		<b>25.1</b>

**Calculation of Effluent Limited Guidelines**

**Bridgestone/Firestone, Inc.**  
**Outfall 001**

**Tier 3**  
Raw Material Usage Between  
1,111,387 lb/day <= 1,234,061 lb/day

	Historical Production [lb/day]	Effluent Limitation				
		Monthly Average		Daily Maximum		
		[lb/1000 lb]	[lb/day]	[lb/1000 lb]	[lb/day]	
Subpart A: Tire and Inner Tube Plants Subcategory	TSS	1,172,724	0.064	75.1	0.096	112.6
	Oil & Grease	1,172,724	0.016	18.8	0.024	28.1
<b>Total Mass</b>	<b>TSS</b>			<b>75.1</b>		<b>112.6</b>
	<b>Oil &amp; Grease</b>			<b>18.8</b>		<b>28.1</b>

## APPENDIX 2A

### SMETALS AND TOXICS CONSIDERATIONS

<b>WATER QUALITY CALCULATIONS FOR METALS AND OTHER TOXIC SUBSTANCES</b> <b>WATER QUALITY BASED EFFLUENT CALCULATIONS</b> <b>OUTFALL 001</b>			
<b>FACILITY:</b> Bridgestone Americas Tire Operation, LLC.	<b>PERMIT #:</b> TN0022039	<b>DATE:</b> 1/15/2021	<b>CALC BY:</b> SDM

non-regulated stream worksheet (7Q10)

Stream (7Q10)	Stream (30Q5)	Waste Flow	Ttl. Susp. Solids	Hardness (as CaCO3)	Margin of Safety
[MGD]	[MGD]	[MGD]	[mg/l]	[mg/l]	[%]
0.00	0.00	0.06	10	202.9	100

PARAMETER	1		2		3		4		5		6		7		8		9			10			11			12			13			14			15	
	Stream Bckgnd.	Fish/Aqua. Life (F & AL) WQC lab conditions		Fraction Dissolved		F & AL- instream allowable ambient conditions (Tot)		Calc. Effluent Concentration based on F & AL		In-Stream Criteria			Human Health Water Quality Criteria *			Calc. Effluent Concentration **			Applicant reported data			effluent limited case														
	[ug/l]	Chronic [ug/l]	Acute [ug/l]	[Fraction]	Chronic [ug/l]	Acute [ug/l]	Chronic [ug/l]	Acute [ug/l]	Organisms [ug/l]	Water/Organisms [ug/l]	DWS [ug/l]	Organisms [ug/l]	Water/Organisms [ug/l]	DWS [ug/l]	Organisms [ug/l]	Water/Organisms [ug/l]	DWS [ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]	[ug/l]				
Copper (a,b)	1.227	16.394	26.175	0.348	47.162	75.303	<b>47.32</b>	<b>75.55</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	71.30	80.0	Copper (a,b)																
Chromium III	0.600	132.302	1017.088	0.202	654.105	5028.506	<b>656.32</b>	<b>5045.57</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<7.5	<7.5	Chromium III																
Chromium VI	0.600	11.000	16.000	1.000	11.000	16.000	<b>11.04</b>	<b>16.05</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<7.5	<7.5	Chromium VI																
Chromium, Total	N/A	N/A	N/A	N/A	N/A	N/A	<b>N/A</b>	<b>N/A</b>	N/A	N/A	100.0	N/A	N/A	N/A	N/A	N/A	N/A	<7.5	<7.5	Chromium, Total																
Nickel (a,b)	109.441	94.628	851.972	0.432	218.883	1970.691	<b>219.25</b>	<b>1977.01</b>	4600.0	610.0	100.0	<b>4649.43</b>	615.51	99.90	<10.0	<10.0	<10.0	<10.0	180.0	Nickel (a,b)																
Cadmium (a,b)	0.390	1.222	3.490	0.252	4.839	13.822	<b>4.85</b>	<b>13.87</b>	N/A	N/A	5.0	N/A	N/A	5.05	<7.5	<7.5	<7.5	<7.5	5.0	Cadmium (a,b)																
Lead (a,b)	0.770	5.387	138.238	0.184	29.293	751.698	<b>29.39</b>	<b>754.25</b>	N/A	N/A	5.0	N/A	N/A	5.05	<12.0	<12.0	<12.0	<12.0	45.0	Lead (a,b)																
Mercury (T) (c)	0.385	0.770	1.400	1.000	0.770	1.400	<b>0.77</b>	<b>1.40</b>	0.051	0.05	2.0	<b>0.05</b>	0.05	2.02	<0.1	<0.1	<0.1	<0.1	0.4	Mercury (T) (c)																
Silver (a,b,e)	5.431	N/A	10.863	1.000	N/A	10.863	<b>N/A</b>	<b>10.88</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<8.0	<8.0	5.0	Silver (a,b,e)															
Zinc (a,b)	2.484	215.156	213.410	0.288	747.097	741.035	<b>749.62</b>	<b>743.54</b>	26000.0	7400.0	N/A	<b>26286.16</b>	7481.43	N/A	127.00	200.0	200.0	200.0	200.0	Zinc (a,b)																
Cyanide (d)	2.600	5.200	22.000	1.000	5.200	22.000	<b>5.21</b>	<b>22.07</b>	140.0	140.0	200.0	<b>141.51</b>	141.51	202.17	<10.0	<10.0	<10.0	<10.0	230.0	Cyanide (d)																
Toluene	0.000								15000.0	1300.0	1000.0	<b>15165.11</b>	1314.31	1011.01	<1.0	<1.0	<1.0	<1.0	15.0	Toluene																
Benzene	0.000								510.0	22.0	5.0	<b>515.61</b>	22.24	5.06	<1.0	<1.0	<1.0	<1.0	3.0	Benzene																
1,1,1 Trichloroethane	0.000								N/A	N/A	200.0	<b>N/A</b>	N/A	202.20	<1.0	<1.0	<1.0	<1.0	30.0	1,1,1 Trichloroethane																
Ethylbenzene	0.000								2100.0	530.0	700.0	<b>2123.12</b>	535.83	707.71	<1.0	<1.0	<1.0	<1.0	4.0	Ethylbenzene																
Carbon Tetrachloride	0.000								16.0	2.3	5.0	<b>16.18</b>	2.33	5.06	<1.0	<1.0	<1.0	<1.0	15.0	Carbon Tetrachloride																
Chloroform	0.000								4700.0	57.0	N/A	<b>4751.73</b>	57.63	N/A	<1.0	<1.0	<1.0	<1.0	85.0	Chloroform																
Tetrachloroethylene	0.000								33.0	6.9	5.0	<b>33.36</b>	6.98	5.06	<1.0	<1.0	<1.0	<1.0	25.0	Tetrachloroethylene																
Trichloroethylene	0.000								300.0	25.0	5.0	<b>303.30</b>	25.28	5.06	<1.0	<1.0	<1.0	<1.0	10.0	Trichloroethylene																
1,2 trans Dichloroethylene	0.000								10000.0	140.0	100.0	<b>N/A</b>	141.54	101.10	<1.0	<1.0	<1.0	<1.0	1.5	1,2 trans Dichloroethylene																
Methylene Chloride	0.000								5900.0	46.0	5.0	<b>5964.94</b>	46.51	N/A	<1.0	<1.0	<1.0	<1.0	50.0	Methylene Chloride																
Total Phenols	0.000								860000.0	10000.0	N/A	<b>869466.28</b>	10110.07	N/A	<5.0	<5.0	<5.0	<5.0	50.0	Total Phenols																
Naphthalene	0.000								N/A	N/A	N/A	<b>N/A</b>	N/A	N/A	<27.5	<27.5	<27.5	<27.5	1.0	Naphthalene																
Total Phthalates	0.000								N/A	N/A	N/A	<b>N/A</b>	N/A	N/A	<27.5	<27.5	<27.5	<27.5	64.5	Total Phthalates																
Chlorine (T. Res.)	0.000	11.000	19.000	1.000	11.000	19.000	<b>11.04</b>	<b>19.06</b>	N/A	N/A	N/A	<b>N/A</b>	N/A	N/A	<50.0	<50.0	<50.0	<50.0	N/A	Chlorine (T. Res.)																

- a Denotes metals for which Fish & Aquatic Life Criteria are expressed as a function of total hardness.
- b The criteria for this metal is in the dissolved form at lab conditions. The calculated effluent concentration is in the total recoverable form.
- c The chronic criteria for mercury is not converted to dissolved, since it is based on fish tissue data rather than toxicity.
- d The criteria for this parameter is in the total form.
- e Silver limit is daily max if column 8 is most stringent.
- f When columns 7 or 8 result in a negative number, use results from columns 5 or 6, respectively.
- g When columns 12, 13 or 14 result in a negative number, use results from columns 9, 10 or 11, respectively, as applicable.

\* Domestic supply included in river use so pick from columns 7,8,12,13,14,15 or Domestic supply not included in river use so pick from columns 7, 8, 12 or 15.

\*\* Water Quality criteria for stream use classifications other than Fish & Aquatic Life are based on the 30Q5 flow.

Note: hardness was calculated by averaging data from most protected streams in the ecoregion 711 of Hurricane Creek



The following procedure is used to calculate the allowable instream concentrations for pass-through guidelines and permit limitations.

- a. The most recent background conditions of the receiving stream segment are compiled. This information includes:
  - \* 7Q10 of receiving stream (0 MGD, USGS Streamstats)
  - \* Calcium hardness (202.9 mg/L, water quality monitoring data)
  - \* Total suspended solids (10 mg/L, default)
  - \* Background metals concentrations ( $\frac{1}{2}$  water quality criteria)
  - \* Other dischargers impacting this segment (none)
  - \* Downstream water supplies, if applicable
- b. The chronic water quality criteria are converted from total recoverable metal at lab conditions to dissolved lab conditions for the following metals: cadmium, copper, trivalent chromium, lead, nickel and zinc. Then translators are used to convert the dissolved lab conditions to total recoverable metal at ambient conditions.
- c. The acute water quality criteria are converted from total recoverable metal at lab conditions to dissolved lab conditions for the following metals: cadmium, copper, trivalent chromium, lead, nickel, zinc and silver. Then translators are used to convert the dissolved lab conditions to total recoverable metal at ambient conditions for the following metals: cadmium, copper, lead, nickel and silver.
- d. The resulting allowable trivalent and hexavalent chromium concentrations are compared with the effluent values characterized as total chromium on permit applications. If reported total chromium exceeds an allowable trivalent or hexavalent chromium value, then the calculated value will be applied in the permit for that form of chromium unless additional effluent characterization is received to demonstrate reasonable potential does not exist to violate the applicable state water quality criteria for chromium.
- e. A standard mass balance equation determines the total allowable concentration (permit limit) for each pollutant. This equation also includes a percent stream allocation of no more than 90%.

The following formulas are used to evaluate water quality protection:

$$C_m = \frac{Q_s C_s + Q_w C_w}{Q_s + Q_w}$$

where:

- $C_m$  = resulting in-stream concentration after mixing
- $C_w$  = concentration of pollutant in wastewater
- $C_s$  = stream background concentration
- $Q_w$  = wastewater flow
- $Q_s$  = stream low flow

***to protect water quality:***

$$C_w \leq \frac{(S_A) [C_m (Q_s + Q_w) - Q_s C_s]}{Q_w}$$

where (S<sub>A</sub>) is the percent "Stream Allocation".

Calculations for this permit have been done using a standardized spreadsheet, titled "Water Quality Based Effluent Calculations." Division policy dictates the following procedures in establishing these permit limits:

1. The critical low flow values are determined using USGS data:

Fish and Aquatic Life Protection

7Q10 - Low flow under natural conditions

1Q10 - Regulated low flow conditions

Other than Fish and Aquatic Life Protection

30Q2 - Low flow under natural conditions

2. Fish & Aquatic Life water quality criteria for certain Metals are developed through application of hardness dependent equations. These criteria are combined with dissolved fraction methodologies in order to formulate the final effluent concentrations.
3. For criteria that are hardness dependent, chronic and acute concentrations are based on a Hardness of 25 mg/L and Total Suspended Solids (TSS) of 10 mg/L unless STORET or Water Supply intake data substantiate a different value. Minimum and maximum limits on the hardness value used for water quality calculations are 25 mg/L and 400 mg/L respectively. The minimum limit on the TSS value used for water quality calculations is 10 mg/L.
4. Background concentrations are determined from the division database, results of sampling obtained from the permittee, and/or obtained from nearby stream sampling data. If this background data is not sufficient, one-half of the chronic "In-stream Allowable" water quality criteria for fish and aquatic life is used. If the measured background concentration is greater than the chronic "In-stream Allowable" water quality criteria, then the measured background concentration is used in lieu of the chronic "In-stream Allowable" water quality criteria for the purpose of calculating the appropriate effluent limitation (C<sub>w</sub>). Under these circumstances, and in the event the "stream allocation" is less than 100%, the calculated chronic effluent limitation for fish and aquatic life should be equal to the chronic "In-stream Allowable" water quality criteria. These guidelines should be strictly followed where the industrial source water is not the receiving stream. Where the industrial source water is the receiving stream, and the measured background concentration is greater than the chronic "In-stream Allowable" water quality criteria, consideration may be given as to the degree to which the permittee should be required to meet the requirements of the water quality criteria in view of the nature and characteristics of the receiving stream.

The spreadsheet has fifteen (15) data columns, all of which may not be applicable to any particular characteristic constituent of the discharge. A description of each column is as follows:

**Column 1:** The "Stream Background" concentrations of the effluent characteristics.

**Column 2:** The "Chronic" Fish and Aquatic Life Water Quality criteria. For cadmium, copper, trivalent chromium, lead, nickel, and zinc, this value represents the criteria for the dissolved form at laboratory conditions. The Criteria Continuous Concentration (CCC) is calculated using the equation:

$$CCC = (\exp \{ m_C [ \ln (\text{stream hardness}) ] + b_C \} ) (CCF)$$

CCF = Chronic Conversion Factor

This equation and the appropriate coefficients for each metal are from Tennessee Rule 0400-40-03-.03 and the EPA guidance contained in *The Metals Translator: Guidance for Calculating A Total Recoverable Permit Limit From a Dissolved Criterion* (EPA 823-B-96-007, June 1996). Values for other metals are in the total form and are not hardness dependent; no chronic criterion exists for silver. Published criteria are used for non-metal parameters.

**Column 3:** The "Acute" Fish and Aquatic Life Water Quality criteria. For cadmium, copper, trivalent chromium, lead, nickel, silver, and zinc, this value represents the criteria for the dissolved form at laboratory conditions. The Criteria Maximum Concentration (CMC) is calculated using the equation:

$$CMC = (\exp \{ m_A [ \ln (\text{stream hardness}) ] + b_A \} ) (ACF)$$

ACF = Acute Conversion Factor

This equation and the appropriate coefficients for each metal are from Tennessee Rule 0400-40-03-.03 and the EPA guidance contained in *The Metals Translator: Guidance for Calculating A Total Recoverable Permit Limit from a Dissolved Criterion* (EPA 823-B-96-007, June 1996). Values for other metals are in the total form and are not hardness dependent. Published criteria are used for non-metal parameters.

**Column 4:** The "Fraction Dissolved" converts the value for dissolved metal at laboratory conditions (columns 2 & 3) to total recoverable metal at in-stream ambient conditions (columns 5 & 6). This factor is calculated using the linear partition coefficients found in *The Metals Translator: Guidance for Calculating A Total*

*Recoverable Permit Limit from a Dissolved Criterion* (EPA 823-B-96-007, June 1996) and the equation:

$$\frac{C_{\text{diss}}}{C_{\text{total}}} = \frac{1}{1 + \{ [K_{\text{po}}] [\text{ss}^{(1+a)}] [10^{-6}] \}}$$

ss = in-stream suspended solids concentration [mg/L]

Linear partition coefficients for streams are used for unregulated (7Q10) receiving waters, and linear partition coefficients for lakes are used for regulated (1Q10) receiving waters. For those parameters not in the dissolved form in columns 2 & 3 (and all non-metal parameters), a Translator of 1 is used.

- Column 5:** The "Chronic" Fish and Aquatic Life Water Quality criteria at in-stream ambient conditions. This criteria is calculated by dividing the value in column 2 by the value in column 4.
- Column 6:** The "Acute" Fish and Aquatic Life Water Quality criteria at in-stream ambient conditions. This criteria is calculated by dividing the value in column 3 by the value in column 4.
- Column 7:** The "Chronic" Calculated Effluent Concentration for the protection of fish and aquatic life. This is the chronic limit.
- Column 8:** The "Acute" Calculated Effluent Concentration for the protection of fish and aquatic life. This is the acute limit.
- Column 9:** The In-Stream Water Quality criteria for the protection of Human Health associated with the stream use classification of Organism Consumption (Recreation).
- Column 10:** The In-Stream Water Quality criteria for the protection of Human Health associated with the stream use classification of Water and Organism Consumption. These criteria are only to be applied when the stream use classification for the receiving stream includes both "Recreation" and "Domestic Water Supply."
- Column 11:** The In-Stream Water Quality criteria for the protection of Human Health associated with the stream use classification of Domestic Water Supply.
- Column 12:** The Calculated Effluent Concentration associated with Organism Consumption.
- Column 13:** The Calculated Effluent Concentration associated with Water and Organism Consumption.
- Column 14:** The Calculated Effluent Concentration associated with Domestic Water Supply.

The calculated chronic water quality effluent concentrations from Column 7 should be compared, individually, to the values calculated in Columns 12, 13, and 14 in order to determine the most stringent chronic permit limitations. The calculated acute water quality effluent concentrations from Column 8 should then be compared, individually, to values equal to two (2) times the values presented in Columns 12, 13, and 14 in order to determine the most stringent acute permit limitations. These water quality based limits should then be compared to any technology based (CFR or Tennessee "Rules") effluent limitations, and/or any previous permit limitations, for final determination of the permit limits.

## APPENDIX 3

### PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS

Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: All Year

<u>Code</u>	<u>Parameter</u>	<u>Qualifier</u>	<u>Value</u>	<u>Unit</u>	<u>Sample Type</u>	<u>Frequency</u>	<u>Statistical Base</u>
00400	pH (2)	>=	6.0	SU	Grab	Weekly	Minimum
00400	pH (2)	<=	9.0	SU	Grab	Weekly	Maximum
00900	Hardness	Report	-	mg/L	Grab	Quarterly	Daily Maximum
<b>Copper Limits Applicable from 8/1/2016 to 8/1/2019</b>							
01042	Copper, total (as Cu)	Report		mg/L	Grab	Weekly	Daily Maximum
01042	Copper, total (as Cu)	Report	-	mg/L	Grab	Weekly	Monthly Average
<b>Copper Limits Applicable after 8/1/2019</b>							
01042	Copper, total (as Cu)	0.0357		mg/L	Grab	Weekly	Daily Maximum
01042	Copper, total (as Cu)	0.024	-	mg/L	Grab	Weekly	Monthly Average
50050	Flow(1)	Report	-	Mgal/d	Instantaneous	Weekly	Daily Maximum
50050	Flow(1)	Report	-	Mgal/d	Instantaneous	Weekly	Monthly Average
50060	Chlorine, total residual (TRC)(2)(5)	<=	.019	mg/L	Grab	Weekly	Daily Maximum
50060	Chlorine, total residual (TRC)(2)(5)	<=	.011	mg/L	Grab	Weekly	Monthly Average
85777	Raw materials processed(4)	Report	-	lb/d	Grab	Weekly	Monthly Average
TRP3B	IC25 Static Renewal 7 Day Chronic Ceriodaphnia(3)	>	100	%	Composite	Semiannual	Minimum
TRP6C	IC25 Static Renewal 7 Day Chronic Pimephales(3)	>	100	%	Composite	Semiannual	Minimum

**Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: All Year**

<b>Code</b>	<b>Parameter</b>	<b>Qualifier</b>	<b>Value</b>	<b>Unit</b>	<b>Sample Type</b>	<b>Frequency</b>	<b>Statistical Base</b>
00400	pH (2)	>=	6.0	SU	Grab	Weekly	Minimum
00400	pH (2)	<=	9.0	SU	Grab	Weekly	Maximum
00900	Hardness	Report	-	mg/L	Grab	Quarterly	Daily Maximum
<b>Copper Limits Applicable from 8/1/2016 to 8/1/2019</b>							
01042	Copper, total (as Cu)	Report		mg/L	Grab	Weekly	Daily Maximum
01042	Copper, total (as Cu)	Report	-	mg/L	Grab	Weekly	Monthly Average
<b>Copper Limits Applicable after 8/1/2019</b>							
01042	Copper, total (as Cu)	0.0357		mg/L	Grab	Weekly	Daily Maximum
01042	Copper, total (as Cu)	0.024	-	mg/L	Grab	Weekly	Monthly Average
50050	Flow(1)	Report	-	Mgal/d	Instantaneous	Weekly	Daily Maximum
50050	Flow(1)	Report	-	Mgal/d	Instantaneous	Weekly	Monthly Average
50060	Chlorine, total residual (TRC)(2)(5)	<=	.019	mg/L	Grab	Weekly	Daily Maximum
50060	Chlorine, total residual (TRC)(2)(5)	<=	.011	mg/L	Grab	Weekly	Monthly Average
85777	Raw materials processed(4)	Report	-	lb/d	Grab	Weekly	Monthly Average
TRP3B	IC25 Static Renewal 7 Day Chronic Ceriodaphnia(3)	>	100	%	Composite	Semiannual	Minimum
TRP6C	IC25 Static Renewal 7 Day Chronic Pimephales(3)	>	100	%	Composite	Semiannual	Minimum

**Description: External Outfall, Number: 001, Monitoring: See Comments, Season: All Year**

<b>Code</b>	<b>Parameter</b>	<b>Qualifier</b>	<b>Value</b>	<b>Unit</b>	<b>Sample Type</b>	<b>Frequency</b>	<b>Statistical Base</b>
<b>Tier I Raw Material Usage Between 869,826 lb/day and 982,842 lb/day</b>							
00530	Total Suspended Solids (TSS)	<=	59	lb/d	Grab	Weekly	Monthly Average
00530	Total Suspended Solids (TSS)	<=	89	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease	<=	15	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease	<=	22	lb/d	Grab	Weekly	Daily Maximum

**Tier II Raw Material Usage Between 982,842 lb/day and 1,111,387 lb/day**

00530	Total Suspended Solids (TSS)	<=	67	lb/d	Grab	Weekly	Monthly Average
00530	Total Suspended Solids (TSS)	<=	101	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease	<=	17	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease	<=	25	lb/d	Grab	Weekly	Daily Maximum

**Tier III Raw Material Usage Between 1,111,388 lb/day and 1,234,061 lb/day**

00530	Total Suspended Solids (TSS)	<=	75	lb/d	Grab	Weekly	Monthly Average
00530	Total Suspended Solids (TSS)	<=	113	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease	<=	19	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease	<=	28	lb/d	Grab	Weekly	Daily Maximum





## APPENDIX 5

### NEW PERMIT LIMITS AND MONITORING REQUIREMENTS

#### Water Quality Based Effluent Calculations

Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: All Year							
Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00400	pH	>=	6.0	SU	Grab	Weekly	Daily Minimum
00400	pH	<=	9.0	SU	Grab	Weekly	Maximum
00900	Hardness, total (as CaCO3)	Report	-	mg/L	Grab	Quarterly	Daily Maximum
01042	Copper, total (as Cu) (1)	<=	.076	mg/L	Grab	Weekly	Daily Maximum
01042	Copper, total (as Cu) (1)	<=	.047	mg/L	Grab	Weekly	Monthly Average
50050	Flow (2)	Report	-	MGD	Instantaneous	Weekly	Daily Maximum
50050	Flow (2)	Report	-	MGD	Instantaneous	Weekly	Monthly Average
50060	Chlorine, total residual (TRC) (3)(6)	<=	.011	mg/L	Grab	Weekly	Monthly Average
50060	Chlorine, total residual (TRC) (3)(6)	<=	.019	mg/L	Grab	Weekly	Daily Maximum
85777	Raw materials processed (5)	Report	-	lb/d	Grab	Weekly	Monthly Average
TRP3B	IC25 Static Renewal 7 Day Chronic Ceriodaphnia (3)	>=	100	%	Composite	Semiannual	Minimum
TRP6C	IC25 Static Renewal 7 Day Chronic Pimephales promelas (3)	>=	100	%	Composite	Semiannual	Minimum
Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: Summer, Limit Set Status: Compliance Schedule							
Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00610	Nitrogen, Ammonia total (as N) (8)	<=	.49	mg/L	Grab	Weekly	Daily Maximum
Description: External Outfall, Number: 001, Monitoring: Effluent Gross, Season: Winter, Limit Set Status: Compliance Schedule							
Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00610	Nitrogen, Ammonia total (as N) (8)	<=	.94	mg/L	Grab	Weekly	Monthly Average

**Tier I-Raw Material Usage Between 770,000 lb/day and 982,842 lb/day**

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS) (7)	<=	84	lb/d	Grab	Weekly	Daily Maximum
00530	Total Suspended Solids (TSS) (7)	<=	56	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease (7)	<=	21	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease (7)	<=	14	lb/d	Grab	Weekly	Monthly Average

**Tier II Raw Material Usage Between 982,842 lb/day and 1,111,387 lb/day**

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS)	<=	101	lb/d	Grab	Weekly	Daily Maximum
00530	Total Suspended Solids (TSS)	<=	67	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease	<=	25	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease	<=	17	lb/d	Grab	Weekly	Monthly Average

**Tier III Raw Material Usage Between 1,111,388 lb/day and 1,234,061 lb/day**

Code	Parameter	Qualifier	Value	Unit	Sample Type	Monitoring Frequency	Statistical Base
00530	Total Suspended Solids (TSS)	<=	113	lb/d	Grab	Weekly	Daily Maximum
00530	Total Suspended Solids (TSS)	<=	75	lb/d	Grab	Weekly	Monthly Average
00556	Oil & Grease	<=	28	lb/d	Grab	Weekly	Daily Maximum
00556	Oil & Grease	<=	19	lb/d	Grab	Weekly	Monthly Average