

State of Mississippi



WATER POLLUTION CONTROL PERMIT

Permit to Discharge Wastewater in Accordance with National Pollutant Discharge Elimination System

THIS CERTIFIES

Tronox LLC, Hamilton Facility
40034 Tronox Road
Hamilton, MS
Monroe County

has been granted permission to discharge wastewater in accordance with the effluent limitations, monitoring requirements and other conditions set forth in this permit. This permit is issued in accordance with the provisions of the Mississippi Water Pollution Control Law (Section 49-17-1 et seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder, and under authority granted pursuant to Section 402(b) of the Federal Water Pollution Control Act.

Mississippi Environmental Quality Permit Board

Mississippi Department of Environmental Quality

Issued/Modified: DEC 0 7 2016

Expires: NOV 3 0 2021

Permit No. MS0002232

Agency Interest # 8587

Table of Contents

Subject Item Inventory	i
Facility Requirements	1
General Information.	A-
Other Relevant Documents:	

Tronox LLC, Hamilton Facility Subject Item Inventory Permit Number:MS0002232 Activity ID No.: PER20140003

Subject Item Inventory:

ID	Designation	Description
AI8587		
RPNT3	MS0002232-101	Outfall 101 - (Cooling water and storm water run-off from non-process areas that include old manganese facility, the recently shutdown Chlorate plant, parking areas, and wooded area south of Tronox road between the road and the ditch that leads to Pond No. 3)
RPNT4	MS0002232-201	Outfall 201- (Process wastewater from the titanium dioxide plant, storm water runoff from the process areas, sanitary and laundry wastewater from Internal Outfall 301, and contaminated wastewater (i.e., leachate) and storm water from existing Landfill No.1 and proposed Landfill No.2)
RPNT5	MS0002232-301	Outfall 301 - (Internal Outfall - sanitary and laundry wastewater)

Receiving Stream Relationships:

Subject Item	Relationship	Receiving Stream
RPNT3 Outfall 101 - (Cooling water and storm water run-off from non-process areas that include old manganese facility,	Discharges Into	Dose Maie Creek
the recently shutdown Chlorate plant, parking areas, and wooded area south of Tronox road between the road and the ditch		
that leads to Pond No. 3)		
RPNT4 Outfall 201- (Process wastewater from the titanium dioxide plant, storm water runoff from the process areas,	Discharges Into	Tennessee Tombigbee Waterway
sanitary and laundry wastewater from Internal Outfall 301, and contaminated wastewater (i.e., leachate) and storm water		
from existing Landfill No.1 and proposed Landfill No.2)		

KEY	
ACT = Activity	AI = Agency Interest
AREA = Area	CAFO = Concentrated Animal Feeding Operation
CONT = Control Device	EQPT = Equipment
IA = Insignificant Activity	IMPD = Impoundment
MAFO = Animal Feeding Operation	PCS = PCS
RPNT = Release Point	TRMT = Treatment

Tronox LLC, Hamilton Facility Subject Item Inventory Permit Number:MS0002232 Activity ID No.: PER20140003

KEY

WDPT = Withdrawal Point

Subject Item: Outfall 101 - (Cooling water and storm water run-off from non-process areas that include old manganese facility, the

recently shutdown Chlorate plant, parking areas, and wooded area south of Tronox road between the road and the

ditch that leads to Pond No. 3)

RPNT0000000003: MS0002232-101

			Disc	harge Limitat	cions			Monitoring Requirements			
Parameter	Quantity / Loading Average	Quantity / Loading Maximum	Quantity / Loading Units	Quality / Conc. Minimum	Quality / Conc. Average	Quality / Conc. Maximum	Quality / Conc. Units	Frequency	Sample Type	Which Months	
Iron (Total as FE) Effluent [Phase I]	Report Monthly Average	Report Daily Maximum	pounds per day	*****	Report Monthly Average	Report Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec	
Chromium (Total as CR) Effluent [Phase I, Phase II]	Report Monthly Average	Report Daily Maximum	pounds per day	****	Report Monthly Average	Report Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec	
Flow, in conduit or thru treatment plant Effluent [Phase I, Phase II]	Report Monthly Average	Report Daily Maximum	Million Gallons per Day	****	*****	*****	*****	Continuously	Continuous Recorder	Jan-Dec	
Manganese (Total as MN) Effluent [Phase I, Phase II]	Report Monthly Average	Report Daily Maximum	pounds per day	****	1.5 Monthly Average	3.0 Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec	
pH Effluent [Phase I, Phase II]	*****	****	****	Report Minimum	*****	Report Maximum	SU	Continuously	Continuous Recorder	Jan-Dec	
pH range excursions, monthly total accumulated Effluent [Phase I, Phase II]	*****	****	****	****	*****	446 Monthly Maximum	minutes	Continuously	Continuous Recorder	Jan-Dec	
pH range excursions, > 60 minutes Effluent [Phase I, Phase II]	*****	0 Monthly Total	occurrences per month	****	****	*****	*****	Continuously	Continuous Recorder	Jan-Dec	

Subject Item: Outfall 101 - (Cooling water and storm water run-off from non-process areas that include old manganese facility, the

recently shutdown Chlorate plant, parking areas, and wooded area south of Tronox road between the road and the

ditch that leads to Pond No. 3)

RPNT0000000003: MS0002232-101

			Disc		Monitoring Requirements					
Parameter	Quantity / Loading Average	Quantity / Loading Maximum	Quantity / Loading Units	Quality / Conc. Minimum	Quality / Conc. Average	Quality / Conc. Maximum	Quality / Conc. Units	Frequency	Sample Type	Which Months
Temperature (Deg. F) Effluent [Phase I, Phase II]	*****	*****	****	****	*****	90 Daily Maximum	degrees F	Continuously	Continuous Recorder	May-Oct
Titanium (Total as TI) Effluent [Phase I, Phase II]	Report Monthly Average	Report Daily Maximum	pounds per day	****	Report Monthly Average	Report Daily Maximum	mg/L	Monthly	24-hr Composite	Jan-Dec
Iron (Total as FE) Effluent [Phase II]	66.8 Monthly Average	133.6 Daily Maximum	pounds per day	****	1.0 Monthly Average	2.0 Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec

Subject Item: Outfall 201- (Process wastewater from the titanium dioxide plant, storm water runoff from the process areas,

sanitary and laundry wastewater from Internal Outfall 301, and contaminated wastewater (i.e., leachate) and storm

water from existing Landfill No.1 and proposed Landfill No.2)

RPNT0000000004: MS0002232-201

			Disc	harge Limitat	tions			Monitoring Requirements			
Parameter	Quantity / Loading Average	Quantity / Loading Maximum	Quantity / Loading Units	Quality / Conc. Minimum	Quality / Conc. Average	Quality / Conc. Maximum	Quality / Conc. Units	Frequency	Sample Type	Which Months	
Antimony (Total as SB) Effluent	1.5 Monthly Average	3.0 Daily Maximum	pounds per day	*****	Report Monthly Average	Report Daily Maximum	mg/L	Annually	24-hr Composite	Jan-Dec	
Chlorine, total residual Effluent	0.59 Monthly Average	1.02 Daily Maximum	pounds per day	****	0.011 Monthly Average	0.019 Daily Maximum	mg/L	Annually	24-hr Composite	Jan-Dec	
Aluminum (Total as AL) Effluent	Report Monthly Average	Report Daily Maximum	pounds per day	****	Report Monthly Average	Report Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec	
Chromium (Total as CR) Effluent	2.25 Monthly Average	17.3 Daily Maximum	pounds per day	*****	0.042 Monthly Average	0.323 Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec	
Flow, in conduit or thru treatment plant Effluent	Report Monthly Average	Report Daily Maximum	Million Gallons per Day	****	*****	****	****	Continuously	Continuous Recorder	Jan-Dec	
Iron (Total as FE) Effluent	Report Monthly Average	Report Daily Maximum	pounds per day	****	Report Monthly Average	Report Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec	
Manganese (Total as MN) Effluent	Report Monthly Average	Report Daily Maximum	pounds per day	****	Report Monthly Average	Report Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec	

Subject Item: Outfall 201- (Process wastewater from the titanium dioxide plant, storm water runoff from the process areas,

sanitary and laundry wastewater from Internal Outfall 301, and contaminated wastewater (i.e., leachate) and storm

water from existing Landfill No.1 and proposed Landfill No.2)

RPNT0000000004: MS0002232-201

			Disc	harge Limitat	tions			Monitoring Requirements				
Parameter	Quantity / Loading Average	Quantity / Loading Maximum	Quantity / Loading Units	Quality / Conc. Minimum	Quality / Conc. Average	Quality / Conc. Maximum	Quality / Conc. Units	Frequency	Sample Type	Which Months		
pH Effluent	*****	*****	*****	Report Minimum	*****	Report Maximum	SU	Continuously	Continuous Recorder	Jan-Dec		
pH range excursions, monthly total accumulated Effluent	*****	*****	*****	****	*****	446 Monthly Maximum	minutes	Continuously	Continuous Recorder	Jan-Dec		
pH range excursions, > 60 minutes Effluent	*****	0 Monthly Total	occurrences per month	****	*****	*****	*****	Continuously	Continuous Recorder	Jan-Dec		
Solids (Total Suspended) Effluent	1346 Monthly Average	2019 Daily Maximum	pounds per day	****	30 Monthly Average	45 Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec		
Titanium (Total as TI) Effluent	Report Monthly Average	Report Daily Maximum	pounds per day	****	Report Monthly Average	Report Daily Maximum	mg/L	Monthly	24-hr Composite	Jan-Dec		

Subject Item: Outfall 301 - (Internal Outfall - sanitary and laundry wastewater)

RPNT00000000005: MS0002232-301

			Disc	Monitoring Requirements						
Parameter	Quantity / Loading Average	Quantity / Loading Maximum	Quantity / Loading Units	Quality / Conc. Minimum	Quality / Conc. Average	Quality / Conc. Maximum	Quality / Conc. Units	Frequency	Sample Type	Which Months
Fecal coliform, general Effluent	*****	****	*****	*****	200 Annual Average	400 Quarterly Maximum	# of colonies/100 ml	Once Every 3 Months	Grab Sampling	Jan-Dec

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 1 of 25

AI0000008587:

Limitation Requirements:

Condition		
No.	Parameter	Condition
L-1		There shall be no discharge of floating solids or visible foam in other than trace amounts. [11 Miss. Admin. Code Pt. 6, R. 2.2.A(2).]
L-2		The discharges shall not cause the occurrence of a visible sheen on the surface of the receiving waters. [11 Miss. Admin. Code Pt. 6, R. 2.2.A(2).]
L-3		Samples taken in compliance with the monitoring requirements specified in this permit shall be taken at the nearest accessible point after final treatment but prior to mixing with the receiving stream or as otherwise specified in this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(28).]
L-4		For Outfall 101 and 201, at which pH is continuously monitored, the permittee shall maintain the pH of discharge wastewater within the range of 6.0-9.0 standard units, except excursions from the range that are permitted subject to the following limitations:
		 The total time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and No individual excursion from the range of pH values shall exceed 60 minutes. [40 CFR 401.17(a)]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 2 of 25

AI0000008587 (continued):

Record-Keeping Requirements:

Condition No.	Condition
R-1	Recording of Results
	For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall maintain records of all information obtained from such monitoring including:
	 (1) The exact place, date, and time of sampling; (2) The dates the analyses were performed; (3) The person(s) who performed the analyses; (4) The analytical techniques, procedures or methods used; and (5) The results of all required analyses. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(a).]

Submittal/Action Requirements:

Condition No.	Condition				
S-1	Reporting				

Monitoring results obtained during the previous reporting period shall be summarized and reported on a Discharge Monitoring Report (DMR). DMRs submitted after December 20, 2016, shall be submitted electronically using the MDEQ NetDMR system. From permit issuance until December 20, 2016, DMRs may be submitted electronically or may be reported on EPA Form (No. 3320-1).

DMR data must be submitted into the MDEQ NetDMR system or the EPA forms must be postmarked NO LATER THAN THE 28TH DAY OF THE MONTH FOLLOWING THE COMPLETED REPORTING PERIOD. Forms shall be submitted to the Mississippi Environmental Quality Permit Board at the following address: Mississippi Department of Environmental Quality Office of Pollution Control P.O. Box 2261 Jackson, Mississippi 39225.

DMRs and all other reports required herein, shall be signed in accordance with 11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c)(1). of the Mississippi Wastewater Regulations. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)c(1)., 40 CFR 122.21(1)(4)(i)]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 3 of 25

AI0000008587 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-2	Reporting Requirements - Planned Changes
	The permittee shall give notice to the Permit Board as soon as possible of any planned physical alterations or additions, including but not limited to, a change of operation to the permitted facility. Notice is required in the circumstances that follow: (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether the facility is a new source in 40 CFR 122.29(b); or (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are not subject to either effluent limitations in the permit or notification requirements under 40 CFR 122.42(a)(1). (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan; [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(a).]
S-3	Reporting Requirements - Anticipated Noncompliance
	The permittee shall give advance notice to the Permit Board of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(b).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 4 of 25

AI0000008587 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-4	Noncompliance Notification - Twenty-Four Hour Reporting
	(1) The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and/or prevent recurrence of the noncompliance.
	 (2) The following shall be included as information which must be reported within 24 hours under this paragraph. (i) Any unanticipated bypass which exceeds any effluent limitation in the permit. (ii) Any upset which exceeds any effluent limitation in the permit. (iii) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Permit Board in the permit to be reported within 24 hours. (iv) The Executive Director may waive the written report on a case-by-case basis for reports under paragraph (1) of this section if the oral report has been received within 24 hours.
	All reports required by this condition which are submitted after December 20, 2020, shall be submitted by the permittee electronically as instructed by MDEQ. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(e)., 40 CFR 122.41.(1)(6)]
S-5	Noncompliance Notification - Other Noncompliance

The permittee shall report all instances of noncompliance not reported under the twenty-four hour reporting requirements, at the time monitoring reports are submitted or within 30 days from the end of the month in which the noncompliance occurs. The reports shall contain the same information as is required under the twenty-four hour reporting requirements contained in this permit.

All reports required by this condition which are submitted after December 20, 2020, shall be submitted by the permittee electronically as instructed by MDEQ. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(f)., 40 CFR 122.41.(1)(7)]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 5 of 25

AI0000008587 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-6	Noncompliance Notification - Other Information
	Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permit Board, it shall promptly submit such facts or information. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(g).]
S-7	Bypassing -Notice
	Anticipated bypass- If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
	Unanticipated bypass- The permittee shall submit notice of an unanticipated bypass as required by the twenty-four hour reporting requirements set forth in this permit.
	All reports required by this condition which are submitted after December 20, 2020, shall be submitted by the permittee electronically as instructed by MDEQ. [40 CFR 122.41(m)(3)(i, ii)]
S-8	Expiration of Permit
	At least 180 days prior to the expiration date of this permit pursuant to the State law and regulation, the permittee who wishes to continue to operate under this permit shall submit an application to the Permit Board for reissuance. The Permit Board may grant permission to submit an application later than this, but no later than the expiration date of the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.5.B(1).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 6 of 25

AI0000008587 (continued):

Submittal/Action Requirements:

Condition No.	Condition
S-9	Requirements Regarding Cooling and Boiler Water Additives
	Notification shall be made to the permitting authority in writing not later than sixty (60) days prior to initiating the addition of any chemical product to the cooling water and/or boiler water which is subject to discharge, other than those previously approved and/or used. Such notification should include, but not be limited to:
	 (1) Name and composition of the proposed additive, (2) Proposed discharge concentration, (3) Dosage addition rates, (4) Frequency of use, (5) EPA registration, if applicable, and (6) Aquatic species toxicological data.
	Written approval must be received from the permitting authority prior to initiating use. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(14).]
S-10	Submit Compliance Schedule: Due within six months after permit effective date. The permittee shall submit a compliance report that describes how the facility will come in compliance with the Phase II limit for Iron. The compliance report shall include an implementation sequence of interim requirements, such as data collection, submittal of work plan, construction activities, or other milestone events (i.e., a compliance schedule), which upon completion, lead to compliance with the new effluent limit for Iron. The report, implementation schedule, and interim milestones will be enforceable conditions of the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(9), 40 CFR 122.47]
S-11	The permittee shall submit a Storm Water Pollution Prevention Plan (SWPPP) within 180 days of the permit issuance date. The SWPPP shall identify activities including proposed Landfill No.2 areas and significant materials which may potentially pollute storm water discharges. The SWPPP shall describe and ensure implementation of Best Management Practices (BMPs), which will help minimize pollutants in storm water discharges and assure compliance with the terms and conditions of this permit. The SWPPP shall, at a minimum, contain the requirements of 40 CFR 122.26(c)(1)(i)(A)-(D). [11 Miss. Admin. Code Pt. 6, Ch. 1, Subch. 1.]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 7 of 25

AI0000008587 (continued):

Narrative Requirements:

Definitions:

Condition	
No.	Condition
T-1	Definitions: General
	The permittee shall refer to 11 Miss. Admin. Code Pt. 6, R. 1.1.1.A for definitions of any permit term not specified in this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A.]
T-2	Definitions: Monthly Average
	"Monthly Average" means the average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during the month. The monthly average for fecal coliform bacteria is the geometric mean of "daily discharges" measured during the calendar month. In computing the geometric mean for fecal coliform bacteria, the value one (1) shall be substituted for sample results of zero. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(44).]
T-3	Definitions: Daily Discharge
	"Daily discharge" means the "discharge of a pollutant" measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily average" is calculated as the average measurement of the discharge of the pollutant over the day. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(15).]
T-4	Definitions: Daily Maximum
	"Daily maximum" means the highest "daily discharge" over a calendar month. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(16).]
T-5	Definitions: Toxic Pollutants
	"Toxic pollutants" means any pollutant listed as toxic under Section 307(a)(1) or, in the case of "sludge use or disposal practices", any pollutant identified in regulations implementing Section 405(d) of the Clean Water Act. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(71).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 8 of 25

AI0000008587 (continued):

Narrative Requirements:

Definitions:

Condition No.	Condition
T-6	Definitions: Hazardous Substances
	"Hazardous substances" are defined in 40 CFR 116.4. [40 CFR 116.4]
T-7	Definitions: Weekly Average
	"Weekly average" means the average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. The weekly average for fecal coliform bacteria is the geometric mean of all "daily discharges" measured in a calendar week. In computing the geometric mean for fecal coliform bacteria, one (1) shall be substituted for sample results of zero. For self-monitoring purposes, the value to be reported is the single highest weekly average computed during a calendar month. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(86).]
T-8	Definitions: Quarterly Average
	"Quarterly Average" means the average of "daily discharges" over a three month period, calculated as the sum of all "daily discharges" measured during the quarter divided by the number of "daily discharges" measured during the quarter. The quarterly average for fecal coliform bacteria is the geometric mean of "daily discharges" measured during the quarter. In computing the geometric mean for fecal coliform bacteria, the value one (1) shall be substituted for sample results of zero. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(61).]
T-9	Definitions: Quarterly Maximum
	"Quarterly Maximum" means the highest "daily discharge" measured over a three-month period. [11 Miss. Admin. Code Pt. 6, R.1.1.1.A(62).]
T-10	Definitions: Maximum Monthly Average
	Maximum Monthly Average means the highest "monthly average" over a monitoring period. [40 CFR 122]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 9 of 25

AI0000008587 (continued):

Narrative Requirements:

Definitions:

Condition No.	Condition			
T-11	Definitions: Yearly Average			
	"Yearly Average" means the average of "daily discharges" over a calendar year, calculated as the sum of all "daily discharges" measured during the calendar year divided by the number of "daily discharges" measured during the calendar year. The yearly average for fecal coliform bacteria is the geometric mean of "daily discharges" during the calendar year. In computing the geometric mean for fecal coliform bacteria, the value one (1) shall be substituted for sample results of zero. [11 Miss. Admin. Code Pt. 6, R.1.1.1.A(87).]			
T-12	Definitions: Yearly Maximum			
	"Yearly Maximum" means the highest "daily discharge" measured over a calendar year. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(88).]			
T-13	Definitions: "Submitted" means the document is postmarked on or before the applicable deadline, except as otherwise specified. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(67).]			
Condition No.	Condition			
T-14	The permittee shall achieve compliance with the effluent limitations specified herein in accordance with the following schedule:			
	Upon issuance of this permit, the permittee shall echieve compliance with the effluent limitations specified for the peremeters noted as "Phase I" and "Phase I			

Upon issuance of this permit, the permittee shall achieve compliance with the effluent limitations specified for the parameters noted as "Phase I" and "Phase I, Phase II limitations shall not apply at this time. Beginning upon completion and start-up of improvements needed to comply with Phase II limitations, but no later than three (3) years after the effective date of the permit, the permittee shall achieve compliance with the effluent limitations specified for the parameters noted as Phase II; Phase I limitations shall not apply at this time. The permittee shall notify our office of start-up for Phase II orally at least 24 hours prior to start-up and in writing no later than five (5) days after start-up. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(9)]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 10 of 25

AI0000008587 (continued):

Narrative Requirements:

Condition	
No.	Condition
T-15	Compliance Schedules
	Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted to the Environmental Compliance and Enforcement Division of MDEQ no later than 14 days following each scheduled date. Failure to submit such reports shall be considered a violation of the compliance requirements of the permit and could be subject to enforcement action.
	If permittee fails or refuses to comply with either a specific compliance requirement presented in the implementation schedule required in Permit Condition S-10 of page 6 of 25 or the Phase II limitation by the final date of compliance specified in the permit, the permittee shall be considered in violation of the permit and could be subject to enforcement action. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(10)., 11 Miss. Admin. Code Pt. 6, R. 1.1.4.A.9(c).]
T-16	Representative Sampling
	Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored wastewater. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(28)(e).]
T-17	Reporting
	If the results for a given sample analysis are such that any parameter (other than fecal coliform) is not detected at or above the minimum level for the test method used, a value of zero will be used for that sample in calculating an arithmetic mean value for the parameter. If the resulting calculated arithmetic mean value for that reporting period is zero, the permittee shall report "NODI = B" on the DMR. For fecal coliform, a value of 1.0 shall be used in calculating the geometric mean. If the resulting fecal coliform mean value is 1.0, the permittee shall report "NODI = B" on the DMR. For each quantitative sample value that is not detectable, the test method used and the minimum level for that method for that parameter shall be attached to and submitted with the DMR. The permittee shall then be considered in compliance with the appropriate effluent limitation and/or reporting requirement. [11 Miss. Admin. Code Pt. 6, Ch. 1, Subch. 2.]
T-18	Reporting

If the permittee monitors any pollutant as prescribed in the permit more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Permit Board. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c)(2).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 11 of 25

AI0000008587 (continued):

Narrative Requirements:

Condition	
No.	Condition
T-19	Reporting
	Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Permit Board in the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c)(3).]
T-20	Test Procedures
	Test procedures for the analysis of pollutants shall include those set forth in 40 CFR 136 or alternative procedures approved and/or promulgated by EPA. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(30).]
T-21	Records Retention
	All records and results of monitoring activities required by this permit, including calibration and maintenance records, shall be retained by the permittee for a minimum of three (3) years, unless otherwise required or extended by the Permit Board, copies of which shall be furnished to the Department upon request. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(a).]
T-22	Falsifying Reports
	Any permittee who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required by the Permit Board to be maintained as a condition in a permit, or who alters or falsifies the results obtained by such devices or methods and/or any written report required by or in response to a permit condition, shall be deemed to have violated a permit condition and shall be subject to the penalties provided for a violation of a permit condition pursuant to Section 49-17-43 of the Code. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(29)(d).]
T-23	Facility Expansion and/or Modification
	Any facility expansion, production increases, process modifications, changes in discharge volume or location or other changes in operations or conditions of the permittee which may result in a new or increased discharge of waste, shall be reported to the Permit Board by submission of a new application for a permit

Any facility expansion, production increases, process modifications, changes in discharge volume or location or other changes in operations or conditions of the permittee which may result in a new or increased discharge of waste, shall be reported to the Permit Board by submission of a new application for a permit pursuant to 11 Miss. Admin. Code Pt. 6, R. 1.1.2.A.of the Mississippi Wastewater Regulations, or if the discharge does not violate effluent limitations specified in the permit, by submitting to the Permit Board a notice of a new or increased discharge. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.A.]

Tronox LLC, Hamilton Facility **Facility Requirements** Permit Number:MS0002232 Activity ID No.: PER20140003

Page 12 of 25

AI0000008587 (continued):

Condition	
No.	Condition
T-24	Duty to Comply
	The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(2).]
T-25	Proper Operation, Maintenance and Replacement
	The permittee shall at all times properly operate, maintain, and when necessary, promptly replace all facilities and systems of collection, treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. Proper replacement includes maintaining an adequate inventory of replacement equipment and parts for prompt replacement when necessary to maintain continuous collection and treatment of wastewater. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(18).]
T-26	Duty to Mitigate
	The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of the permit that has a reasonable likelihood of adversely affecting human health or the environment. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(19).)]
T-27	Bypassing
	The permittee shall comply with the terms and conditions regarding bypass found in 40 CFR 122.41(m). [40 CFR 122.41(m)]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 13 of 25

AI0000008587 (continued):

Condition No.	Condition
NO.	Condition
T-28	Bypassing - Definitions
	"Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
	"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. [40 CFR 122.41(m)]
T-29	Bypassing - Bypass not exceeding limitations
	The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the notice and prohibition provisions of the bypass requirements in this permit. [40 CFR 122.41(m)]
T-30	Bypassing- Prohibition of Bypass
	 Bypass is prohibited, and the Commission may take enforcement action against a permittee unless: Bypass was unavoidable to prevent loss of life, personal injury, or sever property damage. There was no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and The permittee submitted notices as required under the Twenty-Four Hour reporting requirements set forth in this permit.
	(2) The Commission may approve an anticipated bypass, after considering its adverse affects, if the Commission determines that it will meet the three conditions listed above in paragraph (1) of this permit condition. [40 CFR 122.41(m)]
T-31	Upsets
	The permittee shall meet the conditions of 40 CFR 122.41(n) regarding "Upsets" and as in the upset requirements of this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 14 of 25

AI0000008587 (continued):

Condition No.	Condition
T-32	Upsets- Definition
	"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]
T-33	Upsets - Effect of an Upset
	An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the "conditions necessary for demonstration of upset" requirements of this permit are met. Any determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, shall not constitute final administrative action subject to judicial review. [11 Miss. Admin. Code Pt. 6, R.1.1.4.A(27).]
T-34	Upsets - Conditions necessary for demonstration of upset
	A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:
	 (1) An upset occurred and that the permittee can identify the cause(s) of the upset; (2) The permitted facility was at the time being properly operated; (3) The permittee submitted notice of the upset as required in 40 CFR 122.41(L)(6)(ii)(B)(24-hour notice of noncompliance); and (4) The permittee complied with any remedial measures required under 40 CFR 122.41(d) (Duty to Mitigate). [11 Miss. Admin. Code Pt. 6, R.1.1.4.A(27).]
T-35	Upsets - Burden of proof
	In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 15 of 25

AI0000008587 (continued):

Condition No.	Condition
T-36	Removed Substances
	Solids, sludges, filter backwash, or other residuals removed in the course of treatment or control of wastewater shall be disposed of in a manner such as to prevent such materials from entering State waters and in a manner consistent with the Mississippi Solid Waste Disposal Act, the Federal Resource Conservation and Recovery Act, and the Mississippi Water Pollution Control Act. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(21).]
T-37	Power Failures
	If electric power is required, in order to maintain compliance with the conditions and prohibitions of the permit, the permittee shall either:
	(1) Provide an alternative power source to operate the wastewater control facilities; or, if such alternative power source is not in existence, and no date for its implementation appears in the permit, (2) Halt, reduce, or otherwise control production and/or all wastewater flows upon reduction, loss, or failure of the primary source of power to the wastewater control facilities. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(22).)]
T-38	Inspection and Entry
	The permittee shall allow any authorized Commission representative to enter the permittee's premises at any reasonable time, to have access to and copy any applicable records, to inspect process facilities, treatment works, monitoring methods or equipment or to take samples, as authorized by Section 49-17-21 of the Code. In the event of investigation during an emergency response action, a reasonable time shall be any time of the day or night. Follow-up investigations subsequent to the conclusion of the emergency event shall be conducted at reasonable times. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(17).]
T-39	Transfer of Ownership or Control
	This permit is not transferable to any person without proper modification of this permit following procedures found in [11 Miss. Admin. Code Pt. 6, R. 1.1.5.C.]
T-40	Signatory Requirements
	All applications, reports, or information submitted to the Permit Board shall be signed and certified. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 16 of 25

AI0000008587 (continued):

Narrative Requirements:

Condition No.	Condition
T-41	Signatory Requirements - Application Signatures
	All permit applications shall be signed as follows:
	(1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (i) a president secretary

- (1) For a corporation: by a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (i) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making function for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
- (3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]
- T-42 Signatory Requirements -Reports and Other Information

All reports required by the permit and other information requested by the Permit Board shall be signed by a person described by the application signature requirements in this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (1) The authorization is made in writing by a person described by the application signature requirements;
- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
- (3) The written authorization is submitted to the Permit Board. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 17 of 25

AI0000008587 (continued):

Condition	
No.	Condition
T-43	Signatory Requirements - Changes to Authorization
	If an authorization under the signatory requirements of this permit is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the signatory requirements of this permit must be submitted to the Permit Board prior to or together with any reports, information, or applications. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]
T-44	Signatory Requirements - Certification
	Any person signing a document under the signatory requirements stated in this permit shall make the following certification:
	"I certify under penalty of law that this document and all attachments were prepared under the direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]
T-45	Availability of Records Except for information deemed to be confidential under the Mississippi Code Ann. 49-17-39 and 40 CFR 123.41, file information relating to this permit shall be made available for public inspection and copying during normal business hours at the office of the Department of Environmental Quality in Jackson, Mississippi. Written request must be provided in accordance with policies developed by the Commission and must state, specifically, records proposed for review, date proposed for review and copying requirements. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.E.]
T-46	Duty to Provide Information
	The permittee shall furnish to the Permit Board within a reasonable time any relevant information which the Permit Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. The permittee shall also furnish to the Permit Board upon request, copies of records required to be kept by the permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(16).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 18 of 25

AI0000008587 (continued):

Condition	
No.	Condition
T-47	Toxic Pollutants
	The permittee shall comply with any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) established under Section 307(a) of the Federal Water Pollution Control Act. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(26).]
T-48	Toxic Pollutants Notification Requirements
	The permittee shall comply with the applicable provisions of 40 CFR 122.42. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(26).]
T-49	Civil and Criminal Liability
	 (1) Any person who violates a term, condition or schedule of compliance contained within this permit or the Mississippi Water Pollution Control Law is subject to the actions defined by law. (2) Except as provided in permit conditions on "Bypassing" and "Upsets", nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. (3) It shall not be the defense of 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. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(24).)]
T-50	Oil and Hazardous Substance Liability
	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 to which the permittee is or may be subject to under Section 311 of the Federal Water Pollution Control Act and applicable provisions under Mississippi Law pertaining to transportation, storage, treatment, or spillage of oil or hazardous substances. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(23).]
T-51	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. [11 Miss. Admin. Code Pt. 6, R. 1.1.5. E.]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 19 of 25

AI0000008587 (continued):

Narrative Requirements:

ranauv	Narrative Requirements.	
Condition No.	Condition	
T-52	Severability	
	The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(25).]	
T-53	Protection of Confidential Information	
	(1) Pursuant to Miss. Code Ann. '49-17-39 and 40 CFR 123.41, the Permit Board shall make available to the public all information contained on any form and all public comments on such information. Effluent data and information concerning air or water quality shall also be made available to the public. Information that is determined by the Commission to be trade secrets shall not be disclosed to the public without prior consent of the source of such information. When a claim of confidentiality is made by a person in accordance with the provisions of Miss. Code Ann. '49-17-39, a recommendation on the questions of confidentiality shall be made by the Commission and forwarded to the Regional Administrator (or his/her designee) of EPA for his concurrence in such determination of confidentiality. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.F.]	

T-54 Protection of Confidential Information- continued

(2) A copy of a State, UIC, or NPDES permit application, public notice, fact sheet, draft permit and other forms relating thereto, including written public comment and other reports, files and information relating to the application not classified as confidential information by the Commission pursuant to part (1) of this requirement, shall be available for public inspection and copying during normal business hours at the office of the Department in Jackson, Mississippi. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.F.]

T-55 Protection of Confidential Information- continued

(3) Upon determination by the Commission that information submitted by a permit applicant is entitled to protection against disclosure as trade secrets, the information shall be so labeled and otherwise handled as confidential. Copies of the information and a notice of the Commission's action shall be forwarded to the Regional Administrator (or his/her designee). In making its determination of entitlement to protection as a trade secret, the Commission shall follow the procedure set forth in Miss. Code Ann. '49-17-39. In the event the Commission denies the claim of confidentiality, the applicant shall have, upon notification thereof, the right to appeal the Commission's determination in the same manner provided for other orders of the Commission. No disclosure, except to EPA, shall be allowed until any appeal from the determination of the Commission is completed. [11 Miss. Admin. Code Pt. 6, R. 1.1.3.F.]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 20 of 25

AI0000008587 (continued):

Narrative Requirements:

Condition No. Condition T-56 Spill Prevention and Best Management Plans Any permittee which has above ground bulk storage capacity, of more than 1320 gallons or any single container with a capacity greater than 660 gallons, of

Any permittee which has above ground bulk storage capacity, of more than 1320 gallons or any single container with a capacity greater than 660 gallons, of materials and/or liquids (including but not limited to, all raw, finished and/or waste material) with chronic or acute potential for pollution impact on waters of the State and not subject to Mississippi Hazardous Waste Management Regulations or 40 CFR 112 (Oil Pollution Prevention) regulations shall provide secondary containment as found in 40 CFR 112 or equivalent protective measures such as trenches or waterways which would conduct any tank releases to a permitted treatment system or sufficient equalization or treatment capacity needed to prevent chronic/acute pollution impact. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(12)(a).]

T-57 Reopener Clause

This permit shall be modified, or alternately, revoked and reissued, to comply with any applicable effluent standard, limitation or storm water regulation issued or approved under Section 301(b)(2)(C), and (D), 304(b)(2), 307(a)(2) and 402(p) of the Federal Water Pollution Control Act if the effluent standard, limitation or regulation so issued or approved:

- 1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
- 2. Controls any pollutant not limited in the permit.
- 3. This permit shall be modified to reflect any additional or otherwise more stringent limitations and additional monitoring as determined to be necessary by the results of a Completed TMDL. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.F(1).]

T-58 Closure Requirements

Should the permittee decide to permanently close and abandon the premises upon which it operates, it shall provide a Closure Plan to the Permit Board no later than 90 days prior to doing so. This Closure Plan shall address how and when all manufactured products, by-products, raw materials, stored chemicals, and solid and liquid waste and residues will be removed from the premises or permanently disposed of on site such that no potential environmental hazard to the waters of the State will be presented. Closure plan(s) submitted to and approved by Mississippi Department of Environmental Quality for compliance with other environmental regulations will satisfy the closure requirements for those items specifically addressed in the closure plan(s) as long as the closure does not present a potential for environmental hazard to waters of the State. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(11).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 21 of 25

AI0000008587 (continued):

Condition No.	Condition
T-59	Permit Actions
	The permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a modification of planned changes or anticipated noncompliance, does not stay any permit condition. [11 Miss. Admin. Code Pt. 6, R. 1.1.5.C(5).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 22 of 25

RPNT000000003 (MS0002232-101) Outfall 101 - (Cooling water and storm water run-off from non-process areas that include old manganese facility, the recently shutdown Chlorate plant, parking areas, and wooded area south of Tronox road between the road and the ditch that leads to Pond No. 3):

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		For Outfall 101, the permittee shall monitor for Cadmium, Copper, Selenium, Thallium, and Lead twice (2) per month for twelve months or until twenty four (24) samples have been collected. Testing should begin on the month following the effective reissuance date of the permit. The aforementioned parameters shall be monitored with a 24-hour composite sample of the effluent.
		Samples should be analyzed using those test methods set forth in 40 CFR Part 136 or alternative procedures approved and/or promulgated by EPA. All monitoring results shall be submitted to the Mississippi Department of Environmental Quality (MDEQ) no later than the 28th day of the month following the completed collection of all 24 samples. The permit may be reopened and modified if such data indicates a violation of water quality standards for any of the above mentioned parameters. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(9).]

Submittal/Action Requirements:

Condition No.	Condition
S-1	The Permittee shall submit analytical results on a monthly Discharge Monitoring Report (DMR): Due monthly, by the 28th of the subsequent month. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.15(A)(c).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 23 of 25

RPNT0000000004 (MS0002232-201) Outfall 201- (Process wastewater from the titanium dioxide plant, storm water runoff from the process areas, sanitary and laundry wastewater from Internal Outfall 301, and contaminated wastewater (i.e., leachate) and storm water from existing Landfill No.1 and proposed Landfill No.2):

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		For Outfall 201, the permittee shall monitor for Cadmium, Copper, Molybdenum, Nickel, Lead, Selenium, Thallium, and Vanadium twice (2) per month for twelve months or until twenty four (24) samples have been collected. Testing should begin on the month following the effective reissuance date of the permit. The aforementioned parameters shall be monitored with a 24-hour composite sample of the effluent.
		Samples should be analyzed using those test methods set forth in 40 CFR Part 136 or alternative procedures approved and/or promulgated by EPA. All monitoring results shall be submitted to the Mississippi Department of Environmental Quality (MDEQ) no later than the 28th day of the month following the completed collection of all 24 samples. The permit may be reopened and modified if such data indicates a violation of water quality standards for any of the above mentioned parameters. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(9).]

Submittal/Action Requirements:

Condition No.	Condition
S-1	For Outfall 201, within one (1) year of commencing discharge from Landfill No.2 operations, the permittee shall complete and submit Items V and VI of NPDES application Form 2C. [40 CFR 122.21.(K)(5)(vi), 40 CFR 122.26.(c)(1)(i)(G)]
S-2	The Permittee shall submit analytical results on a monthly Discharge Monitoring Report (DMR): Due monthly, by the 28th of the subsequent month. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.15(A)(c).]
S-3	The Permittee shall submit analytical results on an annual Discharge Monitoring Report (DMR): Due annually by the 28th of January. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.15(A(c).]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 24 of 25

RPNT0000000004 (continued):

Condition No.	Condition
T-1	The permittee shall require to test the effluent discharge for chronic whole effluent toxicity (WET) during the first year of this permit term and submit these results within sixty (60) days following completion of the WET tests data collection. This chronic testing shall conduct in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, (EPA/600/4-89/001) or the most recent edition. The sampling frequency during effluent characterization shall be at least twice per year and sampling shall be timed to cover the seasonal extremes of the year such as hot-dry and cold-wet. The chronic test results shall be evaluated and the permit may be modified with the new requirements for WET testing, if justified. After first year of monitoring, provided the IC25 is greater than or equal to 11.94%, the permittee shall no longer subject to the requirements of chronic WET testing. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.D, 11 Miss. Admin. Code Pt. 6, R. 1.2.6]

Tronox LLC, Hamilton Facility Facility Requirements Permit Number:MS0002232 Activity ID No.: PER20140003

Page 25 of 25

RPNT000000005 (MS0002232-301) Outfall 301 - (Internal Outfall - sanitary and laundry wastewater):

Monitoring Requirements:

Pt. 6, R. 1.1.4.15(A)(c).]

No.	Parameter	Condition
M-1		Fecal coliform shall be grab sampled quarterly at the point of discharge of the conventional lagoon (i.e., Pond No. 8) and before mixing with the waste water from the settling pond No.7. [11 Miss. Admin. Code Pt. 6, Ch. 1, Subch. 1.]
Submitt	tal/Action Requiremen	ts:
Submitt Condition	•	ts:

GENERAL INFORMATION

Tronox LLC, Hamilton Facility
40034 Tronox Road
Hamilton, MS
Monroe County

Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
8587	Tronox LLC	Official Site Name	12/7/2005	
2809500035	Tronox LLC, Hamilton Facility	Air-AIRS AFS	10/12/2000	
MSD007025117	Kerr McGee Chemical Corporation	Hazardous Waste-EPA ID	10/12/2000	
184000035	Kerr McGee Chemical Corporation	Air-Title V Operating	3/2/1999	3/1/2004
184000035	Kerr McGee Chemical Corporation	Air-Title V Operating	8/14/2000	3/1/2004
184000035	Kerr McGee Chemical Corporation	Air-Construction	12/17/1999	
184000035	Kerr McGee Chemical Corporation	Air-State Operating	9/22/1992	10/1/1997
184000035	Kerr McGee Chemical Corporation	Air-Construction	9/8/1999	
MSR101718	Kerr McGee Chemical Corporation	GP-Construction	9/14/2000	3/27/2005
MS0002232	Kerr McGee Chemical Corporation	Water - NPDES	5/10/1994	5/9/1999
MS0002232	Kerr McGee Chemical Corporation	Water - NPDES	9/1/2000	8/31/2005
SW0480040466	Kerr-McGee Solid Waste Management Unit	SolidWaste - NonMSW Landfill	12/8/1998	12/8/2008
184000035	Kerr McGee Chemical Corporation	Air-Construction	12/19/2003	
MS0002232	Kerr McGee Chemical Corporation	Water - NPDES	9/22/2005	4/17/2006
8587	Kerr-McGee Chemical Corporation	Historic Site Name	9/22/1992	12/7/2005
MS0002232	Tronox LLC, Hamilton Facility	Water - NPDES	4/18/2006	8/31/2010
184000035	Tronox LLC, Hamilton Facility	Air-Title V Fee Customer	3/2/1999	
184000035	Tronox LLC, Hamilton Facility	Air-Title V Operating	7/24/2007	6/30/2012
8587 001	Kerr McGee, Hamilton	GARD	12/13/1994	
WQC1988071	Kerr-McGee Chemical Coporation, Construct Effluent Discharge Pipeline Projec WQC Number		9/2/1988	
MS8801325C	Kerr-McGee Chemical Coporation, Construct Effluent Discharge Pipeline ProjecCOE Public Notice/ Permit Number		8/30/1988	9/30/1988
WQC1998126	Kerr-McGee Chemical, L.L.C., Construction of a Barge Channel	WQC Number	11/5/1998	
MS9804304E	Kerr-McGee Chemical, L.L.C., Construction of a Barge Channel	COE Public Notice/ Permit Number	11/5/1998	12/7/1998

GENERAL INFORMATION

ID	Alternate/Historic Name	User Group	Start Date	End Date
MS0002232	Tronox LLC, Hamilton Facility	Water - NPDES	7/16/2010	6/30/2015
8587	Tronox	Air-Notification	12/29/2010	
SW0480040466	Tronox LLC, Hamilton Facility Industrial Landfill	SolidWaste - NonMSW Landfill	12/21/2011	11/30/2021
8587	Tronox LLC Control Room	Air-Notification	5/14/2014	
MSR106911	Tronox LLC, Hamilton Facility	GP-Construction	6/22/2015	12/31/2015
MSR322474	Tronox LLC, Hamilton Facility	GP-Mining	6/22/2015	8/31/2017
SW0480040573	Tronox LLC, Hamilton Facility, Industrial Landfill Number 2	SolidWaste - NonMSW Landfill	7/9/2015	6/30/2025
MS0002232	Tronox LLC, Hamilton Facility	Water - NPDES	12/7/2016	11/30/2021

Basin: Tombigbee River Basin

Location Description:CE - Center of Facility. Data collected by David Hall on 3/13/02. Elevation: 325ft. PG- Plant Entrance (General). Data collected by Chris Lee on 11/15/2005. Latitude 33 43' 40.3" Longitude 88 26' 48.6". Elevation 207 feet.