



## State of Mississippi



### WATER POLLUTION CONTROL PERMIT

Permit to Operate Waste Disposal System in Accordance with National and State Pretreatment Standards

#### **THIS CERTIFIES**

GX Technologies LLC

Plant Road off of  
Lower Woodville Road  
Natchez, MS  
Adams County

has been granted permission to discharge wastewater in accordance with 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. The issuance of this permit does not relieve the permittee from complying with any requirements which Publicly Owned Treatment Works Authority may deem necessary as a prerequisite to the use of the Authority's sewage system and associated treatment works.

**Mississippi Environmental Quality Permit Board**

**Mississippi Department of Environmental Quality**

**Issued/Modified:** December 14, 2021

**Expires:** November 30, 2026

**Permit No.** MSP092452

**Agency Interest #** 79315

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# Permit to Operate Waste Disposal System in Accordance with National and State Pretreatment Standards

GX Technologies LLC

Subject Item Inventory

Permit Number: MSP092452

Activity ID No.: PER20210002

## Subject Item Inventory:

ID	Designation	Description
AI79315		Production of Graphene Oxide
RPNT1	MSP092452	Outfall 001 (Process Wastewater)

## Receiving Stream Relationships:

Subject Item	Relationship	Receiving Stream
RPNT1 Outfall 001 (Process Wastewater)	Discharges Into	Natchez POTW MS0024252

### KEY

ACT = Activity

AREA = Area

CAFO = Concentrated Animal Feeding Operation

EQPT = Equipment

IMPD = Impoundment

RPNT = Release Point

WDPT = Withdrawal Point

AI = Agency Interest

CONT = Control Device

IA = Insignificant Activity

MAFO = Animal Feeding Operation

PCS = PCS

TRMT = Treatment

## EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

**Subject Item: Outfall 001 (Process Wastewater)**

**RPNT0000000001: MSP092452**

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

Parameter	Discharge Limitations							Monitoring Requirements		
	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
<i>Flow Effluent</i>	0.015 Monthly Average	Report Daily Maximum	Million Gallons per Day	*****	*****	*****	*****	Daily	Totalizer	Jan-Dec
<i>Oxygen Demand, biochemical, 5-day (20 degrees C) Effluent</i>	Report Monthly Average	Report Daily Maximum	pounds per day	*****	Report Monthly Average	Report Daily Maximum	mg/L	Weekly	24-hr Composite	Jan-Dec
<i>pH Effluent</i>	*****	*****	*****	6 Minimum	*****	9 Maximum	SU	Daily	Grab Sampling	Jan-Dec

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## AI0000079315 Production of Graphene Oxide:

### Limitation Requirements:

Condition No.	Parameter	Condition
L-1		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 actual discharge into the POTW collection system or mixing with non-regulated waste streams. [11 Miss. Admin. Code Pt. 6, R.1.1.4.A(28).]
L-2		<p>General Pretreatment Prohibitions</p> <p>In addition to those pollutants limited in the "Effluent Limitations and Monitoring Requirements" section of this permit, the following pollutants shall not be discharged into the POTW:</p> <ol style="list-style-type: none"><li>(1) Pollutants which create a fire or explosion hazard in the POTW, including but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;</li><li>(2) Pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the treatment works is specifically designed to accommodate such discharges;</li><li>(3) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;</li><li>(4) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration which will cause interference with the POTW;</li><li>(5) Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40 degrees Centigrade (104 degrees Fahrenheit) unless the approval Authority, upon request of the POTW, approves alternate temperature limits;</li><li>(6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;</li><li>(7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;</li><li>(8) Any trucked or hauled pollutants, except at discharge points designated by the POTW. [40 CFR 403.5(b)]</li></ol>

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## AI0000079315 Production of Graphene Oxide:

### Record-Keeping Requirements:

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Condition No.	Condition
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R-1	Recording of Results
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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:

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Condition No.	Condition
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S-1	Oral Notification Requirements
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The permittee shall notify the Mississippi Environmental Quality Permit Board and the POTW orally immediately upon becoming aware of the following:

- (1) A spill which would result in a discharge to the POTW or to State waters;
- (2) Any unanticipated bypass which exceeds any effluent limitation in the permit.
- (3) Any upset which exceeds any effluent limitation in the permit.
- (4) 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. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.M.]

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### Submittal/Action Requirements:

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Condition No.	Condition
S-2	<p>Reporting</p> <p>Monitoring results obtained during the previous reporting period shall be summarized and reported on a Discharge Monitoring Report (DMR). DMR data must be submitted electronically using the MDEQ NetDMR NO LATER THAN THE 28TH DAY OF THE MONTH FOLLOWING THE COMPLETED REPORTING PERIOD.</p> <p>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)]</p>
S-3	<p>Noncompliance Notification - Twenty-Four Hour Reporting</p> <p>(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.</p> <p>(2) The following shall be included as information which must be reported within 24 hours under this paragraph.</p> <p>(i) Any unanticipated bypass which exceeds any effluent limitation in the permit.</p> <p>(ii) Any upset which exceeds any effluent limitation in the permit.</p> <p>(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.</p> <p>(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.</p> <p>All reports required by this condition which are submitted after December 20, 2025, 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)]</p>

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### Submittal/Action Requirements:

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Condition No.	Condition
S-4	<p>Noncompliance Notification - Other Noncompliance</p> <p>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.</p> <p>All reports required by this condition which are submitted after December 20, 2025, 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)]</p>
S-5	<p>Noncompliance Notification - Other Information</p> <p>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).]</p>
S-6	<p>Bypassing -Notice</p> <p>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.</p> <p>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.</p> <p>All reports required by this condition which are submitted after December 20, 2025, shall be submitted by the permittee electronically as instructed by MDEQ. [40 CFR 122.41(m)(3)(i, ii)]</p>



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### Submittal/Action Requirements:

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Condition No.	Condition
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S-7	Expiration of Permit
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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).]

### Narrative Requirements:

#### Definitions:

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Condition No.	Condition
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T-1	Definitions: General
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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
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"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 E coli bacteria is the geometric mean of "daily discharges" measured during the calendar month. In computing the geometric mean for E coli 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).]

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### Narrative Requirements:

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Condition No.	Condition
T-3	<p>Definitions: Daily Discharge</p> <p>"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).]</p>
T-4	<p>Definitions: Daily Maximum</p> <p>"Daily maximum" means the highest "daily discharge" over a calendar month. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.A(16).]</p>
T-5	<p>Definitions: Toxic Pollutants</p> <p>"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).]</p>
T-6	<p>Definitions: Hazardous Substances</p> <p>"Hazardous substances" are defined in 40 CFR 116.4</p>
T-7	<p>Definitions: Quarterly Average</p> <p>"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 E coli bacteria is the geometric mean of "daily discharges" measured during the quarter. In computing the geometric mean for E coli 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).]</p>
T-8	<p>Definitions: Quarterly Maximum</p> <p>"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).]</p>

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### Narrative Requirements:

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Condition No.	Condition
T-9	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 E coli bacteria is the geometric mean of "daily discharges" during the calendar year. In computing the geometric mean for E coli 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-10	Definitions: Yearly Maximum  "Yearly Maximum" means the highest "daily discharge" measured over a calendar year. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(88).]
T-11	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)

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Condition No.	Condition
T-12	The issuance of this permit does not relieve the permittee from complying with any requirements which the Publicly Owned Treatment Works (POTW) Authority may deem necessary as a prerequisite to the use of the Authority's sewage system and associated treatment works. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.M.]
T-13	The permittee shall achieve compliance with the effluent limitations specified for discharge in accordance with the following schedule: Upon Permit Issuance. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(9).]
T-14	Within 14 days after either an interim or final date of compliance specified by this permit, the permittee shall provide the Permit Board with written notice of his compliance or noncompliance with the requirements or conditions specified to be completed by that date. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(10).]

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Condition No.	Condition
T-15	<p>No Discharge of Wastewater to Surface Water</p> <p>The discharge of any wastewater from this facility to the waters of the State of Mississippi shall constitute a violation of this permit, except as provided in the Bypassing and Upset conditions of this permit, or as authorized under separate permit pursuant to Section 402 of the Federal Water Pollution Control Act. [11 Miss. Admin. Code Pt. 6, R. 1.1.1.B.]</p>
T-16	<p>Facilities Operation</p> <p>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 which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. The Permit Board may require regular reporting of internal operational and maintenance parameters where necessary to confirm proper operation of a waste treatment system. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A.(18).]</p>
T-17	<p>Representative Sampling</p> <p>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).]</p>
T-18	<p>Reporting</p> <p>If the results for a given sample analysis are such that any parameter (other than E coli) 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 E coli, a value of 1.0 shall be used in calculating the geometric mean. If the resulting E coli 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]</p>

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Condition No.	Condition
T-19	<p>Reporting</p> <p>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).]</p>
T-20	<p>Reporting</p> <p>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).]</p>
T-21	<p>Test Procedures</p> <p>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).]</p>
T-22	<p>Records Retention</p> <p>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).]</p>
T-23	<p>Falsifying Reports</p> <p>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).]</p>

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### Narrative Requirements:

Condition No.	Condition
T-24	<p>Compliance with Permit Conditions</p> <p>All discharges authorized by the permit shall be consistent with the terms and conditions of the permit and the permittee shall make all reasonable efforts to meet any interim or final dates for compliance specified therein. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(13).]</p>
T-25	<p>Facility Expansion and/or Modification</p> <p>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. 1.1.4.A(14).]</p>
T-26	<p>Routine Reporting</p> <p>Such test results, reports, or other data as the Mississippi Environmental Quality Permit Board may determine to be necessary shall be submitted as specified elsewhere in the permit to the following address:</p> <p>Mississippi Department of Environmental Quality Office of Pollution Control P.O. Box 2261 Jackson, Mississippi 39225. [11 Miss. Admin. code Pt. 6, R. 1.1.4.A(16).]</p>
T-27	<p>Duty to Mitigate</p> <p>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).]</p>
T-28	<p>Bypassing</p> <p>The permittee shall comply with the terms and conditions regarding bypass found in 40 CFR 403.17. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.M.]</p>

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Condition No.	Condition
T-29	<p>Bypassing - Definitions</p> <p>"Bypass" means the intentional diversion of waste streams from any portion of the permittee's treatment facility.</p> <p>"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 403.17(a)]</p>
T-30	<p>Bypassing- Prohibition of Bypass</p> <p>Bypass is prohibited, and the Commission may take enforcement action against a permittee unless:</p> <ol style="list-style-type: none"><li>(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage.</li><li>(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate 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</li><li>(3) The permittee submitted notices as required under the notice of bypass requirement in this permit. [40 CFR 403.17(d)]</li></ol>
T-31	<p>Upsets</p> <p>The permittee shall meet the conditions of 40 CFR 403.16 regarding "Upsets" and as in the upset requirements of this permit. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.M.]</p>
T-32	<p>Upsets- Definition</p> <p>"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with categorical pretreatment standards 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).)]</p>

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Condition No.	Condition
T-33	<p>Upsets - Effect of an upset</p> <p>An upset constitutes an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if the "conditions necessary for demonstration of upset" requirements of this permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]</p>
T-34	<p>Upsets - Conditions necessary for demonstration of upset</p> <p>A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed contemporaneous operating logs, or other relevant evidence that:</p> <ol style="list-style-type: none"><li>(1) An upset occurred and that the permittee can identify the cause(s) of the upset;</li><li>(2) The permitted facility was at the time being properly operated in a prudent and workmanlike manner and in compliance with applicable operation and maintenance procedures; and;</li><li>(3) The permittee submitted notice of the upset as required in 40 CFR 403.16(c)(3)(24-hour notice of noncompliance). [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(27).]</li></ol>
T-35	<p>Upsets - Burden of proof</p> <p>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).]</p>
T-36	<p>Upsets- User responsibility in case of upset</p> <p>The Industrial User shall control production or all discharges to the extent necessary to maintain compliance with categorical Pretreatment Standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where among other things, the primary source of power of the treatment facility is reduced, lost or fails. [40 CFR 403.16(f)]</p>



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Condition No.	Condition
T-37	<p>Removed Substances</p> <p>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).]</p>
T-38	<p>Power Failures</p> <p>If electric power is required, in order to maintain compliance with the conditions and prohibitions of the permit, the permittee shall either:</p> <p>(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).]</p>
T-39	<p>Inspection and Entry</p> <p>The permittee shall allow any authorized Commission representative to enter the permittee's premises where a wastewater source is located or in which records are required to be kept under the terms and conditions of this permit, 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).]</p>
T-40	<p>Transfer of Ownership or Control</p> <p>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.]</p>
T-41	<p>Signatory Requirements</p> <p>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.]</p>

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GX Technologies LLC

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Condition No.	Condition
T-42	<p>Signatory Requirements - Application Signatures</p> <p>All permit applications shall be signed as follows:</p> <p>(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.</p> <p>(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or</p> <p>(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.]</p>
T-43	<p>Signatory Requirements -Reports and Other Information</p> <p>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:</p> <p>(1) The authorization is made in writing by a person described by the application signature requirements;</p> <p>(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</p> <p>(3) The written authorization is submitted to the Permit Board. [11 Miss. Admin. Code Pt. 6, R. 1.1.2.C.]</p>

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Condition No.	Condition
T-44	<p>Signatory Requirements - Changes to Authorization</p> <p>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. 1.1.4.M.]</p>
T-45	<p>Signatory Requirements - Certification</p> <p>Any person signing a document under the signatory requirements stated in this permit shall make the following certification:</p> <p>"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. 1.1.4.A(29)(d).]</p>
T-46	<p>Availability of Records</p> <p>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.]</p>
T-47	<p>Duty to Provide Information</p> <p>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).]</p>

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Condition No.	Condition
T-48	<p>Permit Actions</p> <p>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).]</p>
T-49	<p>Civil and Criminal Liability</p> <p>(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.</p> <p>(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.</p> <p>(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).]</p>
T-50	<p>Oil and Hazardous Substance Liability</p> <p>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).]</p>

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Condition No.	Condition
T-51	<p>Hazardous Waste Release(1) The permittee shall notify the Mississippi Department of Environmental Quality, the EPA Regional Waste Management Division Director, State hazardous waste authorities, and the POTW in writing of any discharge into the POTW of a substance, which, if otherwise disposed of, would be a hazardous waste under 40 CFR part 261. Such notification must include the name of the hazardous waste as set forth in 40 CFR part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or other). If the Industrial User discharges more than 100 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent such information is known and readily available to the Industrial User: An identification of the hazardous constituents contained in the wastes, as estimation of the mass and concentration of such constituents in the wastestream discharged during that calendar month, and an estimation of the mass of constituents in the wastestream expected to be discharged during the following twelve months. All notifications must take place within 180 days of the effective date of this rule. Industrial users who commence discharging after the effective date of this rule shall provide the notification no later than 180 days after the discharge of the listed or characteristic hazardous waste. Any notification under this paragraph need be submitted only once. However, notifications of changed discharges must be submitted under 40 CFR 403.12(j). The notification requirement in this section does not apply to pollutants already reported under the self-monitoring requirements of 40 CFR 403.12(b), (d), and (e).</p>
T-52	<p>Hazardous Waste Release (continued)</p> <p>(2) Dischargers are exempt from the requirements of paragraph (1) of the Hazardous Waste Release requirement during a calendar month in which they discharge no more than fifteen kilograms of hazardous wastes, unless the wastes are acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(d). Discharge of more than fifteen kilograms of non-acute hazardous wastes in a calendar month, or of any quantity of acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e), requires a one-time notification. Subsequent months during which the Industrial User discharges more than such quantities of any hazardous waste do not require additional notification.</p> <p>(3) In the case of any new regulations under section 3001 of RCRA identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the Industrial User must notify the POTW, the EPA Regional Waste Management Division Director, and State hazardous waste authorities of the discharge of such substance within 90 days of the effective date of such regulations. [40 CFR 403.12(p)]</p>
T-53	<p>Hazardous Waste Release (continued)</p> <p>(4) In the case of any notification made under paragraph (1) of this section, the Industrial User shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical. [40 CFR 403.12(p)]</p>

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Condition No.	Condition
T-54	<p>Property Rights</p> <p>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.]</p>
T-55	<p>Severability</p> <p>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).]</p>
T-56	<p>Protection of Confidential Information</p> <p>(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.]</p>
T-57	<p>Protection of Confidential Information- continued</p> <p>(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.]</p>

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Condition No.	Condition
T-58	<p>Protection of Confidential Information- continued</p> <p>(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.]</p>
T-59	<p>Spill Prevention and Best Management Plans</p> <p>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).]</p>
T-60	<p>Closure Requirements</p> <p>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).]</p>

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Facility Requirements

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**AI0000079315 Production of Graphene Oxide:**

**Narrative Requirements:**

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Condition No.	Condition
T-61	<p>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:</p> <ol style="list-style-type: none"><li data-bbox="226 743 1360 776">1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or</li><li data-bbox="226 776 762 808">2. Controls any pollutant not limited in the permit.</li><li data-bbox="226 808 1774 836">3. To comply with condition for the protection of the receiving collection system or treatment works. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.F(1).]</li></ol>



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**RPNT0000000001 (MSP092452) Outfall 001 (Process Wastewater):**

**Submittal/Action Requirements:**

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Condition No.	Condition
S-1	Within 180 days after the commencement of discharge, the permittee shall submit a completed Pretreatment Form 2P application. Based upon the results of the analyses, the permit may be reopened and reissued to reflect this data. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(4).]
S-2	A copy of the Discharge Monitoring Report shall be sent to Mr. Tony Moon, Superintendent Natchez POTW PO Box 1325 Natchez, MS 39121. [11 Miss. Admin. Code Pt. 6, R. 1.1.4.A(15)(c).]
S-3	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.A(15)(c).]

## GENERAL INFORMATION

GX Technologies LLC  
Plant Road off of  
Lower Woodville Road  
Natchez, MS  
Adams County

### Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
79315	GX Technologies, LLC	Official Site Name	04/04/2021	
	Branch	Branches Group - Air	04/04/2021	
2800100062	GX Technologies LLC	Air-AIRS AFS (MDEQ USE ONLY)	04/12/2021	
	Branch	Branches Group - Water	04/04/2021	
004000062	GX Technologies LLC	Air-Construction	10/26/2021	