



**State of Mississippi**



**WATER POLLUTION CONTROL PERMIT**

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

**THIS CERTIFIES**

Southern Ionics R and D Lab  
5123 South Frontage Road  
Columbus, MS  
Lowndes 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**

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**Mississippi Department of Environmental Quality**

Issued/Modified: JUN 12 2012

Expires: MAY 31 2017

Permit No. MS0052531

Agency Interest # 14289

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

Southern Ionics R and D Lab  
 Subject Item Inventory  
 Permit Number:MS0052531  
 Activity ID No.: PER20110001

**Subject Item Inventory:**

<b>ID</b>	<b>Designation</b>	<b>Description</b>
AI14289	MS0052531	R&D Facility
RPNT1	MS0052531-001	Outfall 001 (Domestic Wastewater)

**Receiving Stream Relationships:**

<b>Subject Item</b>	<b>Relationship</b>	<b>Receiving Stream</b>
RPNT1 Outfall 001 (Domestic Wastewater)	Discharges Into	Motley Slough

<b><u>KEY</u></b>	
ACT = Activity	AI = Agency Interest
AREA = Area	CAFO = Concentrated Animal Feeding Operation
CONT = Control Device	EQPT = Equipment
IA = Insignificant Activity	MAFO = Animal Feeding Operation
RPNT = Release Point	TRMT = Treatment

## EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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

**RPNT000000001: MS0052531-001**

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>Ammonia Nitrogen, Total (as N) Effluent</i>	*****	*****	*****	*****	3 Annual Average	4.5 Annual Maximum	mg/L	Annually	Grab Sampling	Jan-Dec
<i>Chlorine, total residual Effluent</i>	*****	*****	*****	*****	0.011 Annual Average	0.017 Annual Maximum	mg/L	Annually	Grab Sampling	Jan-Dec
<i>Fecal coliform, general Effluent</i>	*****	*****	*****	*****	200 Annual Average	400 Annual Maximum	# of colonies/100 ml	Annually	Grab Sampling	Jan-Dec
<i>Flow Effluent</i>	0.0003 Annual Average	Report Annual Maximum	Million Gallons per Day	*****	*****	*****	*****	Annually	Instantaneous Sampling	Jan-Dec
<i>Oxygen Demand, biochemical, 5-day (20 degrees C) Effluent</i>	*****	*****	*****	*****	20 Annual Average	30 Annual Maximum	mg/L	Annually	Grab Sampling	Jan-Dec
<i>Oxygen, dissolved Effluent</i>	*****	*****	*****	6.0 Minimum	*****	*****	mg/L	Annually	Grab Sampling	Jan-Dec
<i>pH Effluent</i>	*****	*****	*****	6.0 Minimum	*****	9.0 Maximum	SU	Annually	Grab Sampling	Jan-Dec
<i>Solids (Total Suspended) Effluent</i>	*****	*****	*****	*****	30 Annual Average	45 Annual Maximum	mg/L	Annually	Grab Sampling	Jan-Dec

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

Southern Ionics R and D Lab  
Facility Requirements  
Permit Number:MS0052531  
Activity ID No.: PER20110001

## AI0000014289 (MS0052531) R&D Facility:

### Limitation Requirements:

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Condition No.	Parameter	Condition
L-1		There shall be no discharge of floating solids or visible foam in other than trace amounts. [WPC-2 Section II.2]
L-2		The discharges shall not cause the occurrence of a visible sheen on the surface of the receiving waters. [WPC-2 Section II.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. [WPC-1 Chapter One Section IV.A(28)]
L-4		The effluent shall not cause an accumulation of solids or sewage sludges in the receiving stream. [WPC-2 Section II.2]

### Record-Keeping Requirements:

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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. [WPC-1 Chapter One Section IV.A(29)a]

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Southern Ionics R and D Lab  
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**AI0000014289 (continued):**

**Submittal/Action Requirements:**

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Condition No.	Condition
S-1	<p data-bbox="210 600 336 633">Reporting</p> <p data-bbox="210 665 1974 787">Monitoring results obtained during the previous reporting period shall be summarized and reported on a Discharge Monitoring Report Form (EPA No. 3320-1) POSTMARKED NO LATER THAN THE 28TH DAY OF THE MONTH FOLLOWING THE COMPLETED REPORTING PERIOD. Copies of these, and all other reports required herein, shall be signed in accordance with Chapter One Sections II.C. and II.E. of the Mississippi Wastewater Permit Regulations, and shall be submitted to the Mississippi Environmental Quality Permit Board at the following address:</p> <p data-bbox="210 812 1008 941">Mississippi Department of Environmental Quality Office of Pollution Control P.O. Box 2261 Jackson, Mississippi 39225. [WPC-1 Chapter One Section IV.A(15)c(1)]</p>
S-2	<p data-bbox="210 966 861 998">Noncompliance Notification - Twenty-Four Hour Reporting</p> <p data-bbox="210 1023 1974 1177">(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 data-bbox="210 1201 1428 1234">(2) The following shall be included as information which must be reported within 24 hours under this paragraph.</p> <ul data-bbox="210 1242 1974 1388" style="list-style-type: none"><li>(i) Any unanticipated bypass which exceeds any effluent limitation in the permit.</li><li>(ii) Any upset which exceeds any effluent limitation in the permit.</li><li>(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.</li><li>(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. [WPC-1 Chapter One Section IV.A(29)e]</li></ul>

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Southern Ionics R and D Lab  
Facility Requirements  
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## AI0000014289 (continued):

### Submittal/Action Requirements:

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Condition No.	Condition
S-3	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. [WPC-1 Chapter One Section IV.A(29)f]
S-4	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. [WPC-1 Chapter One Section IV.A(29)g]
S-5	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. [WPC-1 Chapter One Section V.B(1)]

### Narrative Requirements:

#### Definitions:

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Condition No.	Condition
T-1	Definitions: General  The permittee shall refer to WPC-1, Chapter 1, Section I.A for definitions of any permit term not specified in this permit. [WPC-1 Chapter One Section I.A]

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Facility Requirements  
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## AI0000014289 (continued):

### Narrative Requirements:

#### Definitions:

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Condition No.	Condition
T-2	<p>Definitions: Monthly Average</p> <p>"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. [WPC-1 Chapter One Section I.A(40)]</p>
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. [WPC-1 Chapter One Section I.A(14)]</p>
T-4	<p>Definitions: Daily Maximum</p> <p>"Daily maximum" means the highest "daily discharge" over a calendar month. [WPC-1 Chapter One Section I.A(15)]</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. [WPC-1 Chapter One Section I.A]</p>
T-6	<p>Definitions: Hazardous Substances</p> <p>"Hazardous substances" are defined in 40 CFR 116.4. [40 CFR 116.4]</p>

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## AI0000014289 (continued):

### Narrative Requirements:

#### Definitions:

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Condition No.	Condition
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 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. [WPC-1 Chapter One Section I.A(26)]</p>
T-8	<p>Definitions: Quarterly Maximum</p> <p>"Quarterly Maximum" means the highest "daily discharge" measured over a three-month period. [WPC-1 Chapter One Section I.A(57)]</p>
T-9	<p>Definitions: Yearly Average</p> <p>"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. [WPC-1 Chapter One Section I.A(77)]</p>
T-10	<p>Definitions: Yearly Maximum</p> <p>"Yearly Maximum" means the highest "daily discharge" measured over a calendar year. [WPC-1 Chapter One Section I.A(78)]</p>

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Condition No.	Condition
T-11	<p>Representative Sampling</p> <p>Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored wastewater. [WPC-1 Chapter One Section IV.A(28)e]</p>

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## AI0000014289 (continued):

### Narrative Requirements:

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Condition No.	Condition
T-12	<p>Reporting</p> <p>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. [WPC-1 Chapter One Section II.G]</p>
T-13	<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. [WPC-1 Chapter One Section IV.A(15)c(2)]</p>
T-14	<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. [WPC-1 Chapter One Section IV.A(15)c(3)]</p>
T-15	<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. [WPC-1 Chapter One Section IV.A(30)]</p>

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## AI0000014289 (continued):

### Narrative Requirements:

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Condition No.	Condition
T-16	<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. [WPC-1 Chapter One Section IV.A(29)a]</p>
T-17	<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. [WPC-1 Chapter One Section IV.A(29)d]</p>
T-18	<p>Duty to Comply</p> <p>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. [WPC-1 Chapter One Section IV.A(2)]</p>
T-19	<p>Proper Operation, Maintenance and Replacement</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 that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. [WPC-1 Chapter One Section IV.A(18)]</p>

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**AI0000014289 (continued):**

Narrative Requirements:

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Condition No.	Condition
T-20	<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. [WPC-1 Chapter One Section IV.A(19)]</p>
T-21	<p>Bypassing</p> <p>The permittee shall comply with the terms and conditions regarding bypass found in 40 CFR 122.41(m). [40 CFR 122.41(m)]</p>
T-22	<p>Bypassing - Definitions</p> <p>"Bypass" means the intentional diversion of waste streams from any portion of a 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 122.41(m)]</p>
T-23	<p>Bypassing - Bypass not exceeding limitations</p> <p>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)]</p>
T-24	<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. [40 CFR 122.41(m)]</p>

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## AI0000014289 (continued):

### Narrative Requirements:

Condition No.	Condition
T-25	<p>Bypassing- Prohibition of Bypass</p> <p>(1) Bypass is prohibited, and the Commission may take enforcement action against a permittee unless:</p> <ul style="list-style-type: none"><li>(i) Bypass was unavoidable to prevent loss of life, personal injury, or sever property damage.</li><li>(ii) 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</li><li>(iii) The permittee submitted notices as required under the Twenty-Four Hour reporting requirements set forth in this permit.</li></ul> <p>(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)]</p>
T-26	<p>Upsets</p> <p>The permittee shall meet the conditions of 40 CFR 122.41(n) regarding "Upsets" and as in the upset requirements of this permit. [WPC-1 Chapter One Section IV.A(27)]</p>
T-27	<p>Upsets- Definition</p> <p>"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. [WPC-1 Chapter One Section IV.A(27)]</p>
T-28	<p>Upsets - Effect of an Upset</p> <p>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. [WPC-1 Chapter One Section IV.A(27)]</p>

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**AI0000014289 (continued):**

Narrative Requirements:

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Condition No.	Condition
T-29	<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> <ul 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;</li><li>(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</li><li>(4) The permittee complied with any remedial measures required under 40 CFR 122.41(d) (Duty to Mitigate). [WPC-1 Chapter One Section IV.A(27)]</li></ul>
T-30	<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. [WPC-1 Chapter One Section IV.A(27)]</p>
T-31	<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. [WPC-1 Chapter One Section IV.A(21)]</p>
T-32	<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> <ul style="list-style-type: none"><li>(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,</li><li>(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. [WPC-1 Chapter One Section IV.A(22)]</li></ul>

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**AI0000014289 (continued):**

Narrative Requirements:

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Condition No.	Condition
T-33	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. [WPC-1 Chapter One Section IV.A(17)]
T-34	Transfer of Ownership or Control  This permit is not transferable to any person without proper modification of this permit following procedures found in WPC-1, Chapter 1, Section V.C. [WPC-1 Chapter One Section V.C]
T-35	Signatory Requirements  All applications, reports, or information submitted to the Permit Board shall be signed and certified. [WPC-1 Chapter One Section II.C]

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## AI0000014289 (continued):

### Narrative Requirements:

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Condition No.	Condition
T-36	<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. [WPC-1 Chapter One Section II.C]</p>
T-37	<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. [WPC-1 Chapter One Section II.C]</p>

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**AI0000014289 (continued):**

**Narrative Requirements:**

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Condition No.	Condition
T-38	<p data-bbox="210 600 777 633">Signatory Requirements - Changes to Authorization</p> <p data-bbox="210 657 1890 755">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. [WPC-1 Chapter One Section II.C]</p>
T-39	<p data-bbox="210 779 630 812">Signatory Requirements - Certification</p> <p data-bbox="210 836 1575 868">Any person signing a document under the signatory requirements stated in this permit shall make the following certification:</p> <p data-bbox="210 901 1974 1055">"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." [WPC-1 Chapter One Section II.C]</p>
T-40	<p data-bbox="210 1079 462 1112">Availability of Records</p> <p data-bbox="210 1136 1974 1258">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. [WPC-1 Chapter One Section III.E]</p>
T-41	<p data-bbox="210 1282 525 1315">Duty to Provide Information</p> <p data-bbox="210 1339 1974 1435">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. [WPC-1 Chapter One Section IV.A(16)]</p>

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

Southern Ionics R and D Lab  
Facility Requirements  
Permit Number:MS0052531  
Activity ID No.: PER20110001

## AI0000014289 (continued):

### Narrative Requirements:

Condition No.	Condition
T-42	<p>Toxic Pollutants</p> <p>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. [WPC-1 Chapter One Section IV.A(26)]</p>
T-43	<p>Toxic Pollutants Notification Requirements</p> <p>The permittee shall comply with the applicable provisions of 40 CFR 122.42. [WPC-1 Chapter One Section IV.A(26)]</p>
T-44	<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. (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. [WPC-1 Chapter One Section IV.A(24)]</p>
T-45	<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. [WPC-1 Chapter One Section IV.A(23)]</p>
T-46	<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. [WPC-1 Chapter One Section V.E]</p>

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

Southern Ionics R and D Lab  
Facility Requirements  
Permit Number:MS0052531  
Activity ID No.: PER20110001

## AI0000014289 (continued):

### Narrative Requirements:

Condition No.	Condition
T-47	<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. [WPC-1 Chapter One Section IV.A(25)]</p>
T-48	<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. [WPC-1 Chapter One Section III.F]</p>
T-49	<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. [WPC-1 Chapter One Section III.F]</p>
T-50	<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. [WPC-1 Chapter One Section III.F]</p>

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

Southern Ionics R and D Lab  
Facility Requirements  
Permit Number:MS0052531  
Activity ID No.: PER20110001

## AI0000014289 (continued):

### Narrative Requirements:

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Condition No.	Condition
T-51	<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. [WPC-1 Chapter One Section IV.A(12)a]</p>
T-52	<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. [WPC-1 Chapter One Section IV.A(11)]</p>
T-53	<p>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. [WPC-1 Chapter One Section IV.A(10)]</p>
T-54	<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. [WPC-1 Chapter One Section V.C(5)]</p>

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

Southern Ionics R and D Lab  
Facility Requirements  
Permit Number:MS0052531  
Activity ID No.: PER20110001

**AI0000014289 (continued):**

Narrative Requirements:

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Condition No.	Condition
T-55	<p>The permittee shall achieve compliance with the effluent limitations specified for discharge in accordance with the following schedule:</p> <p>Effluent limits have been developed such that the waste treatment system should protect water quality. However, this permit is subject to modifications if future evidence, monitoring results, or nuisance conditions indicate that a higher degree of treatment is required to maintain water quality. The discharge from this facility shall cease and connection made to a regional sewer system when the sewer system is available in the area. At that time the discharge from the system shall be terminated. The Office of Pollution Control must concur with plans and specifications for the installation or modification of the wastewater treatment facility and sewer collection system, if applicable, prior to the commencement of construction. [WPC-1 Chapter One Section IV.A(9)]</p>
T-56	<p>Reopener Clause</p> <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>1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or</li><li>2. Controls any pollutant not limited in the permit; or</li><li>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. [WPC-1 Chapter One Section IV.F(1)]</li></ol>

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

Southern Ionics R and D Lab  
Facility Requirements  
Permit Number:MS0052531  
Activity ID No.: PER20110001

**RPNT0000000001 (MS0052531-001) Outfall 001 (Domestic Wastewater):**

Submittal/Action Requirements:

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Condition No.	Condition
S-1	The Permittee shall submit analytical results on an annual Discharge Monitoring Report (DMR): Due annually by the 28th of January. [WPC-1 Chapter One IV.A(15)c]

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## GENERAL INFORMATION

Southern Ionics R and D Lab  
5123 South Frontage Road  
Columbus, MS  
Lowndes County

### Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
14289	Southern Ionics R and D Lab	Official Site Name	10/8/1996	
MS0052531	Southern Ionics R and D Lab	Water - NPDES	10/8/1996	9/30/2001
MS0052531	Southern Ionics R and D Lab	Water - NPDES	12/17/2001	9/8/2006
MS0052531	Southern Ionics R and D Lab	Water - NPDES	9/8/2006	8/31/2011
MS0052531	Southern Ionics R and D Lab	Water - NPDES	6/12/2012	5/31/2017

**Basin:** Tombigbee River Basin

**Location Description:** Copy of 001