



State of Mississippi



AIR POLLUTION CONTROL PERMIT

Permit To Construct Air Emissions Equipment

THIS CERTIFIES

Stion Corporation
95 W L Runnels Industrial Drive
Hattiesburg, MS
Forrest County

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Mississippi Environmental Quality Permit Board

Mississippi Department of Environmental Quality

Issued/Modified: AUG 12 2011

Expires:

Permit No. 0800-00111

Agency Interest # 55798

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Permit To Construct Air Emissions Equipment

Stion Corporation
Subject Item Inventory
Permit Number:0800-00111
Activity ID No.: PER20110001

Subject Item Inventory:

ID	Designation	Description
AI55798		
AREA1	AA-001	Chemical Vapor Deposition Backwipe Station Brush-off
AREA2	AA-002	Metal Particle Backwipe Station-Removal
AREA3	AA-003	Substrate Washing and Drying Machine
AREA4	AA-004	Chemical Vapor Deposition and Room Normal Flow Exhaust
AREA5	AA-005	Chemical Vapor Deposition Room Purge Flow Exhaust
AREA6	AA-006	Metal Oxide Coating Tool Operations
AREA7	AA-007	Chemical Vapor Deposition PVI Type (also referred tp as SAS system)
AREA8	AA-008	Chemical Vapor Deposition Type
AREA9	AA-009	Metal Particle Process System (CBD Process) controlled by Three (3) Ammonia Scrubbers
AREA10	AA-010	Substrate Washing and Drying Machine
AREA11	AA-011	Substrate Washing and Drying Machine
AREA12	AA-012	Substrate Washing and Drying Machine
AREA13	AA-013	Jbox Attachment
EQPT1	AA-014	Two Emergency Generators (2011 HP and 2346HP)
EQPT2	AA-015	1,400 Gallon Wastewater Equalization Storage Tank (Ref. TK-1)
EQPT3	AA-016	1,400 Gallon Wastewater Equalization Storage Tank (Ref. TK-2)
EQPT4	AA-017	1,400 Gallon Wastewater Equalization Storage Tank (Ref. TK-3)
EQPT5	AA-018	1,400 Gallon Wastewater Equalization Storage Tank (Ref. TK-4)
EQPT6	AA-019	1,400 Gallon Feed pH Adjust Tank (Ref. TK-5)
EQPT7	AA-020	1,400 Gallon Feed pH Adjust Tank (Ref. TK-6)
EQPT8	AA-021	1,400 Gallon Feed pH Adjust Tank (Ref. TK-7)

*** Official MDEQ Permit - Version 1.1 ***

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ID	Designation	Description
EQPT9	AA-022	1,400 Gallon Feed pH Adjust Tank (Ref. TK-8)
EQPT10	AA-023	2,016 Gallon Duall Waste Tank (Ref. TK-9)
EQPT11	AA-024	2,016 Gallon Duall Waste Tank (Ref. TK-10)
EQPT12	AA-025	463 Gallon 30% Potassium Hydroxide Tank (Ref. TK-11)
EQPT13	AA-026	463 Gallon 30% Potassium Hydroxide Tank (Ref. TK-12)
EQPT14	AA-027	1,063 Gallon 30% Ammonium Hydroxide Tank (Ref. TK-13)
EQPT15	AA-028	123 Gallon 30% Sodium Hydroxide Tank (Ref. TK-14)
EQPT16	AA-029	1,000 Gallon 36% Sulfuric Acid Tank (Ref. TK-15)
EQPT17	AA-030	1,000 Gallon 36% Sulfuric Acid Tank (Ref. TK-16)
EQPT18	AA-031	8,500 Gallon DI Water Tank (Ref. TK-17)
EQPT19	AA-032	2,500 Gallon Acid Waste Neutralization Tank (TK-18)
EQPT20	AA-033	2,500 Gallon Acid Waste Neutralization Tank (TK-19)
EQPT21	AA-034	315 Gallon 30% Hydrochloric Acid Tank (TK-20)

Subject Item Groups:

ID	Description	Components
GRPT1	Chemical Vapor Deposition Exhaust controlled by 14 Dry Scrubber Units	AREA4 Chemical Vapor Deposition and Room Normal Flow Exhaust
		AREA5 Chemical Vapor Deposition Room Purge Flow Exhaust
GRPT2	SAS System controlled by Three (3) 2-Stage Wet Scrubbers	AREA7 Chemical Vapor Deposition PVI Type (also referred tp as SAS system)

*** Official MDEQ Permit - Version 1.1 ***

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Subject Item Inventory

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ID	Description	Components
GRPT2	SAS System controlled by Three (3) 2-Stage Wet Scrubbers	AREA8 Chemical Vapor Deposition Type

KEY

ACT = Activity

AREA = Area

CONT = Control Device

IA = Insignificant Activity

RPNT = Release Point

AI = Agency Interest

CAFO = Concentrated Animal Feeding Operation

EQPT = Equipment

MAFO = Animal Feeding Operation

TRMT = Treatment

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AI0000055798:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The maximum opacity from any point source or emissions at any time shall not exceed 40% as determined by EPA Test Method 9, 40 CFR 60, Appendix A. [APC-S-1 3.2]
L-2		The maximum permissible emission of ash and/or particulate matter from each fossil fuel burning installations of less than 10 million BTU per hour heat input shall not exceed 0.6 pounds per million BTU per hour heat input. [APC-S-1 3.4(a)1]
L-3		The maximum discharge of sulfur oxides from each fuel burning installation in which the fuel is burned primarily to produce heat or power by indirect heat transfer shall not exceed 4.8 pounds (measured as sulfur dioxide) per million BTU heat input. [APC-S-1 4.1(a)]
L-4		The Permittee shall operate all control devices at all times that the facility is operating and/or manufacturing solar panels. [APC-S-2 II.B(10)]

Submittal/Action Requirements:

Condition No.	Condition
S-1	General Condition: The permittee shall submit certification of construction: Due within thirty (30) days of completion of construction or installation of an approved stationary source or prior to startup, whichever is earlier. The notification shall certify that construction or installation was performed in accordance with the approved plans and specifications. In the event there is any change in construction from the previously approved plans and specifications or permit, the permittee shall promptly notify MDEQ in writing. If MDEQ determines the changes are substantial, MDEQ may require the submission of a new application to construct with "as built" plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an "as built" application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. [APC-S-2 V.D]
S-2	Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. [APC-S-2 V.C(2)]
S-3	The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. [APC-S-2 V.C(3)]

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AI0000055798 (continued):

Narrative Requirements:

General Condition:

Condition No.	Condition
T-1	General Condition: The stationary source shall be designed and constructed so as to operate without causing a violation of any Applicable Rules and Regulations or this permit, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. [APC-S-2 V.A]
T-2	General Condition: Any activities not identified in the application are not authorized by this permit. [Miss. Code Ann. 49_17_29 1.b]
T-3	General Condition: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. [Miss. Code Ann. 49_17_29]
T-4	General Condition: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. [APC-S-1 10]
T-5	General Condition: The permittee shall allow the Mississippi Environmental Quality Commission, the Mississippi Environmental Quality Permit Board, MDEQ staff and/or their authorized representatives, upon the presentation of credentials: a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring equipment or monitoring method required in this permit, and to sample any air emission. [Miss. Code Ann. 49_17_21]
T-6	General Condition: After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for good cause shown including, but not limited to, the following: a. Persistent violation of any terms or conditions of this permit; b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or c. A change in any condition that requires either a temporary or permanent reduction or elimination of previously authorized air emissions. [APC-S-2 II.C]
T-7	General Condition: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control. [Miss. Code Ann. 49_17_39]

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Narrative Requirements:

Condition No.	Condition
T-8	General Condition: This permit is for air pollution control purposes only. [APC-S-2 I.D]
T-9	General Condition: The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. [APC-S-2 II.B(5)]
T-10	General Condition: It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. [APC-S-2 I.D(6)]
T-11	General Condition: The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. [APC-S-2 II.B(7)]
T-12	General Condition: It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. [APC-S-2 II.B(15)a]
T-13	General Condition: The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [APC-S-2 II.B(15)b]
T-14	General Condition: The permit does not convey any property rights of any sort, or any exclusive privilege. [APC-S-2 II.B(15)c]
T-15	General Condition: The permittee shall furnish to the DEQ within a reasonable time any information the DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality. The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. [APC-S-2 II.B(15)d]
T-16	General Condition: This permit shall not be transferred except upon approval of the Permit Board. [APC-S-2 XVI.B]

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Narrative Requirements:

Condition No.	Condition
T-17	General Condition: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the 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. [APC-S-2 I.D(7)]
T-18	General Condition: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. [APC-S-2 V.C(1)]
T-19	General Condition: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. [APC-S-2 V.D(3)]
T-20	General Condition: Except as prohibited in APC-S-2, Section V.D.7, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by APC-S-2, Section XIII.G. [APC-S-2 V.D(4)]
T-21	General Condition: Except as otherwise specified in APC-S-2, Section V.D.7, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12) months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing. [APC-S-2 V.D(5)]
T-22	General Condition: Except as otherwise specified in APC-S-2, Section V.D.7, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. [APC-S-2 V.D(6)]
T-23	General Condition: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to net out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. [APC-S-2 V.D(7)]

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AI0000055798 (continued):

Narrative Requirements:

Condition No.	Condition
T-24	<p>General Condition: Regarding compliance testing:</p> <p>(a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.</p> <p>(b) Compliance testing will be performed at the expense of the permittee.</p> <p>(c) Each emission sampling and analysis report shall include but not be limited to the following:</p> <ol style="list-style-type: none">1. detailed description of testing procedures;2. sample calculation(s);3. results; and4. comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit. [APC-S-2 VI.B(3, 4 and 6)]
T-25	<p>General Condition: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. [APC-S-2 V.A(4)]</p>

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EQPT0000000001 (AA-014) Two Emergency Generators (2011 HP and 2346HP):

Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The permittee is subject to 40 CFR 60-New Source Performance Standards, specifically Standards of Performance for Stationary Compression Ignition Internal Combustion Engine. [40 CFR 60_Subpart IIII.4200(a)(1)i]
L-2		The permittee shall comply with the emission standards in 40 CFR 60.4202 (in 40 CFR 89.112 and 40 CFR 89.113for all pollutants) for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. [40 CFR 60_Subpart IIII.4205(b)]
L-3		The permittee shall use diesel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [40 CFR 60_Subpart IIII.4207(b)]
L-4		For determining compliance with 40 CFR 60.4205(b), the permittee shall comply by purchasing a generator certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The generator must be installed and configured according to the manufacturer's specifications. [40 CFR 60_Subpart IIII.4211(c)]

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall operate and maintain the generator according to the manufacturer's written instructions. In addition, the permittee may only change those settings that are permitted by the manufacturer. The permittee shall also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you. [40 CFR 60_Subpart IIII.4211(a)]
M-2		The permittee may operate the generators for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency generator in emergency situations. Any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited. [40 CFR 60_Subpart IIII.4211(f)]

GENERAL INFORMATION

Stion Corporation
95 W L Runnels Industrial Drive
Hattiesburg, MS
Forrest County

Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
55798	Stion Corporation	Official Site Name	6/9/2011	
55798	Stion Corporation	No Exposure Certification	8/5/2011	8/4/2016
080000111	Stion Corporation	Air-Construction	8/12/2011	

Basin: Pascagoula River Basin

Location Description: