



## State of Mississippi

### AIR POLLUTION CONTROL PERMIT



To Construct Air Emissions Equipment

#### **THIS CERTIFIES**

Solvay Biomass Energy LLC

252 Hickory Street

Quitman, MS

Clarke 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**

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**Mississippi Department of Environmental Quality**

Issued/Modified: **MAR 17 2015**

Expires:

Permit No. 0440-00063

Agency Interest # 54123

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## To Construct Air Emissions Equipment

Solvay Biomass Energy LLC

Subject Item Inventory

Permit Number:0440-00063

Activity ID No.: PER20150001

### Subject Item Inventory:

ID	Designation	Description
AI54123		Torrefied and Wood Pellet Manufacturing
EQPT2	AA-002	17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT01) controlling Torreactor LR-1
EQPT3	AA-003	17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT02) controlling Torreactor LR-2
EQPT4	AA-004	17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT03) controlling Torreactor LR-3
EQPT11	AA-005	17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT04) controlling Torreactor LR-4
EQPT6	AA-007	5 Pellet Mills (Facility Ref. Nos. PM1-PM5) and associated Pellet Cooler equipped with a bag filter (Facility Ref. No. BF2)
EQPT7	AA-015	1 briquetting mill (Facility Ref. No. BM1) equipped with a bag filter (Facility Ref. No. BF10)
EQPT9	AA-018	Glycerol/Ligno Sulfonate Tank (Facility Ref. No. GT)
EQPT12	AA-020	Knife Mill equipped with a bag filter (Facility Ref. No. BF4)
EQPT14	AC-001	Wood Chip Dryer (Facility Ref. No. WC1) with multiclone and 75 MMBTU/Hr Wood Dust Burner (Facility Ref. No. WB1)
EQPT13	AC-002	Wood Fuel Storage Bin with Bag Filter (Facility Ref. No BF11)
EQPT8	AC-003	5 Large Pellet Mills (Facility Ref. Nos. LPM1- LPM5) with one Large Pellet Cooler equipped with a Baghouse (Facility Ref. No. BF-12 )
EQPT15	AC-004	30 MMBTU/Hr Natural Gas Fired Boiler

### Subject Item Groups:

ID	Description	Components
GRPT1	Heat recovery thermal oxidizers (AA-002, AA-003, AA-004, and AA-005) for Torreactors LR-1 through LR-4	EQPT2 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT01) controlling Torreactor LR-1
		EQPT3 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT02) controlling Torreactor LR-2
		EQPT4 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT03) controlling Torreactor LR-3

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Permit Number:0440-00063

Activity ID No.: PER20150001

ID	Description	Components
GRPT1	Heat recovery thermal oxidizers (AA-002, AA-003, AA-004, and AA-005) for Torreactors LR-1 through LR-4	EQPT11 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT04) controlling Torreactor LR-4

### **KEY**

ACT = Activity

AREA = Area

CONT = Control Device

IA = Insignificant Activity

MAFO = Animal Feeding Operation

RPNT = Release Point

WDPT = Withdrawal Point

AI = Agency Interest

CAFO = Concentrated Animal Feeding Operation

EQPT = Equipment

IMPD = Impoundment

PCS = PCS

TRMT = Treatment

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### AI0000054123 Torrefied and Wood Pellet Manufacturing:

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Opacity	For all Emission Points, the permittee shall have emissions of Opacity $\leq 40\%$ as determined by EPA Test Method 9 as found in 40 CFR Part 60, Appendix A. [11 Miss. Admin. Code Pt. 2, Ch. 1. R. 1.3.A] This requirement is applicable during the following months: Jan-Dec.
L-2		<p>For Emission Points AA-007, AA-015, AC-001, AC-002, and AC-003, the permittee shall not cause, permit or allow the emission of particulate matter in total quantities in any one hour from the emission points to exceed the amount determined by the relationship:</p> $E = 4.1(p^{0.67})$ <p>Where: E is the emission rate in pounds per hour P is the process weight input rate in tons per hour Where E is determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A. [11 Miss. Admin. Code Pt. 2, Ch. 1. R. 1.3.F]</p>
L-3		For Emission Points AA-002, AA-003, AA-004, and AA-005, the permittee shall limit total emissions of nitrogen oxides (NOx) to less than 249 tons per year. [11 Miss. Admin. Code Pt. 2, Ch. 2.]
L-4		For Emission Points AA-002, AA-003, AA-004, and AA-005, the permittee shall limit total emissions of carbon monoxide (CO) to less than 249 tons per year. [11 Miss. Admin. Code Pt. 2, Ch. 2.]
L-5		For Emission Points AC-001 and AC-004, the maximum discharge of Sulfur Oxides (SO2) from fuel burning installations 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. [11 Miss. Admin. Code Pt. 2, Ch. 1. R. 1.4.A(1)]
L-6		For Emission Points AC-001 and AC-004, the permittee shall limit total emissions of Carbon Monoxide (CO) to less than 249 tons per year. [11 Miss. Admin. Code Pt. 2, Ch. 2.]
L-7		For Emission Points AC-001 and AC-004, the permittee shall limit total emissions of Nitrogen Oxides (NOx) to less than 249 tons per year. [11 Miss. Admin. Code Pt. 2, Ch. 2.]

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### AI0000054123 (continued):

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-8		For Emission Points AC-001, AC-002, and AC-003, the permittee shall limit total emissions of VOCs to less than 249 tons per year. [11 Miss. Admin. Code Pt. 2, Ch. 2.]
L-9		For all Emission Points the permittee shall limit total emissions of hazardous air pollutants (HAPs) emissions to less than 9.9 tons per year for any individual HAP, and 24.9 tons per year for all HAPs combined. [11 Miss. Admin. Code Pt. 2, Ch. 2.]
L-10		For Emission Points AC-001, AC-002, AC-003 and AC-004, the permittee shall limit total emissions of Particulate Matter 10 microns or less (PM10) to less than 249 tons per year. [11 Miss. Admin. Code Pt. 2, Ch. 2.]

#### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		<p>For all Emission Points, the permittee shall calculate HAP emissions monthly for each unit and in total for the facility to assure compliance with the HAP pollutant limits based on a consecutive 12-month rolling total.</p> <p>All records shall be kept in log form and must be made available for review upon request during any inspection visit by MDEQ personnel. All records shall be maintained by the permittee for a period of five (5) years following the date of such record. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</p>

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### AI0000054123 (continued):

#### 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. [11 Miss. Admin. Code Pt. 2, R. 2.5.D.]
S-2	Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. [11 Miss. Admin.Code Pt. 2, R.2.5.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. [11 Miss. Admin.Code Pt. 2, R.2.5.C(4).]

#### 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. [11 Miss. Admin.Code Pt. 2, R.2.5.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]

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### AI0000054123 (continued):

#### Narrative Requirements:

##### General Condition:

Condition No.	Condition
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 11 Miss. Admin. Code Pt.2, R. 1.10 "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. [11 Miss. Admin. Code Pt. 2, R. 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. [11 Miss. Admin.Code Pt. 2, R.2.2.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]
Condition No.	Condition
T-8	General Condition:This permit is for air pollution control purposes only. [11 Miss. Admin.Code Pt. 2, R.2.1.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. [11 Miss. Admin.Code Pt. 2, R.2.2.B(5).]



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### AI0000054123 (continued):

#### Narrative Requirements:

Condition No.	Condition
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. [11 Miss. Admin.Code Pt. 2, R.2.1.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. [11 Miss. Admin.Code Pt. 2, R.2.1.D(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. [11 Miss. Admin.Code Pt. 2, R.2.2.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. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(b).]
T-14	General Condition: The permit does not convey any property rights of any sort, or any exclusive privilege. [11 Miss. Admin.Code Pt. 2, R.2.2.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. [11 Miss. Admin.Code Pt. 2, R.2.2.B(15)(d).]
T-16	General Condition: This permit shall not be transferred except upon approval of the Permit Board. [11 Miss. Admin.Code Pt. 2, R.2.16.B.]
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. [11 Miss. Admin.Code Pt. 2, R.1.1.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. [11 Miss. Admin.Code Pt. 2, R.2.5.C(1).]

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### AI0000054123 (continued):

#### Narrative Requirements:

Condition No.	Condition
T-19	General Condition: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. [11 Miss. Admin.Code Pt. 2, R.2.5.D(3).]
T-20	General Condition: Except as prohibited in 11 Miss. Admin. Code Pt. 2,R. 2.5.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. [11 Miss. Admin. Code Pt. 2, R. 2.5.D(4).]
T-21	General Condition: Except as otherwise specified in 11 Miss. Admin. Code Pt. 2, R. 2.5.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. [11 Miss. Admin. Code Pt. 2, R. 2.5.D(5).]
T-22	General Condition: Except as otherwise specified in 11 Miss. Admin. Code Pt. 2, R. 2.5.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. [11 Miss. Admin. Code Pt. 2, R. 2.5.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. [11 Miss. Admin.Code Pt. 2, R.2.5.D(7).]

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### AI0000054123 (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"><li>1. detailed description of testing procedures;</li><li>2. sample calculation(s);</li><li>3. results; and</li><li>4. comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit</li></ol> <p>. [11 Miss. Admin. Code Pt. 2, R. 2.6.B(3),(4)&amp;(6).]</p>
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. [11 Miss. Admin.Code Pt. 2, R.2.5.A(4).]</p>
T-26	<p>The permittee shall certify construction upon start-up of each emission unit. [APC-S-2 5.D(1)]</p>
T-27	<p>For Emission Points AA-007, AA-015, AA-020, AC-001, AC-002, and AC-003, the emissions control equipment may not be bypassed at anytime when the process is operational. [11 Miss. Admin. Code Pt. 2, Ch. 1.]</p>

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### **EQPT0000000002 (AA-002) 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT01) controlling Torreactor LR-1:**

#### Narrative Requirements:

Condition No.	Condition
T-1	Beginning December 9, 2010, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-002, the 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT01) controlling Torreactor LR-1. The air emissions equipment shall be constructed to comply with the emisison limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R 2.2.B(10)]

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### **EQPT0000000003 (AA-003) 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT02) controlling Torreactor LR-2:**

#### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AA-003, the 17.8 MMBTU/Hr heat recovery thermal oxidizer (Facility Ref. No. HRT02) controlling Torreactor LR-2.</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>

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### **EQPT0000000004 (AA-004) 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT03) controlling Torreactor LR-3:**

#### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AA-004, the 17.8 MMBTU/Hr heat recovery thermal oxidizer (Facility Ref. No. HRT03) controlling Torreactor LR-3.</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>

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### **EQPT0000000011 (AA-005) 17.8 MMBTU/hr heat recovery thermal oxidizer (Facility Ref. No. HRT04) controlling Torreactor LR-4:**

#### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AA-005, the 17.8 MMBTU/Hr heat recovery thermal oxidizer (Facility Ref. No. HRT04) controlling Torreactor LR-4.</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>

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### **GRPT0000000001 (AA-100) Heat recovery thermal oxidizers (AA-002, AA-003, AA-004, and AA-005) for Torreactors LR-1 through LR-4:**

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1		For Emission Points AA-002, AA-003, AA-004 and AA-005, the maximum discharge of sulfur oxides (SO <sub>2</sub> ) from fuel burning installations 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. [11 Miss. Admin. Code Pt. 2, Ch. 1. 4.1(a)]



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**GRPT0000000001 (continued):**

### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		<p>For Emission Points AA-002, AA-003, AA-004 and AA-005, the permittee shall demonstrate compliance with emission point specific NOx, and CO limitations utilizing EPA Approved Methods 7 and 10, by performing a one-time stack test in accordance with the specified methods and the procedures outlined below:</p> <ul style="list-style-type: none"><li>a. The initial performance test shall be performed within 180 days after initial start-up of the permitted equipment.</li><li>b. A written test protocol must be submitted at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the office of pollution control. If needed, the permittee may request a pretest conference to discuss the test methods and procedures. The pretest conference should be scheduled at least thirty (30) days prior to the test date.</li><li>c. A notification of the scheduled test date(s) should be submitted ten (10) days prior to the scheduled date(s) so that an observer may be afforded the opportunity to witness the test(s).</li><li>d. Testing must be performed at full operating capacity of the system unless otherwise approved in writing by the Office of Pollution Control (OPC). In the event OPC approves testing at reduced capacity, the permittee shall notify OPC in writing no less than 30 days prior to increasing operating capacity and shall conduct follow-up testing within 90 days of the system achieving operations at the higher capacity. Reports shall be submitted in accordance with Condition (g) below.</li><li>e. The test must consist of three test runs of at least one(1) hour each.</li><li>f. The performance test results must be submitted to the Office of Pollution Control (OPC) within 60 days following completion of the test.</li><li>g. Subsequent compliance testing shall be conducted in accordance with the testing frequency described in the Title V Permit to Operate, upon issuance. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</li></ul>

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### GRPT0000000001 (continued):

#### Record-Keeping Requirements:

Condition No.	Condition
R-1	<p>For Emission Points AA-002, AA-003, AA-004, and AA-005, the permittee shall calculate HAP emissions monthly for each unit and in total for the facility to assure compliance with the HAP pollutant limits based on a consecutive 12-month rolling total.</p> <p>All records shall be kept in log form and must be made available for review upon request during any inspection visit by MDEQ personnel. All records shall be maintained by the permittee for a period of five (5) years following the date of such record. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</p>

#### Narrative Requirements:

Condition No.	Condition
T-1	<p>For Emission Points AA-002, AA-003, and AA-004, the permittee shall perform regular inspections and any required maintenance each week or more often if necessary in order to maintain proper operation of the equipment. Records of inspections and any required maintenance shall be kept in log form and made available for review upon request. All records shall be maintained by the permittee for a period of five years following the date of such record. The permittee shall also maintain on hand at all times sufficient equipment as is necessary to repair and/or replace the pollution control equipment. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</p>
T-2	<p>For Emission Points AA-002, AA-003, AA-004, and AA-005, the permittee shall conduct weekly observations for visible emissions (Opacity). If visible emissions are observed from the emission point (six-minute interval), the permittee shall conduct visible emission evaluations (VEE) in accordance with EPA Reference Method 9. The permittee shall maintain records of weekly visible emissions observations and any VEEs that are performed in log book form. A summary report shall be submitted by January 31 and July 31 for the preceeding six month period.</p> <p>The permittee may perform the observations on multiple stacks at the same time, where multiple stacks can be viewed simultaneously. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>

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**EQPT0000000006 (AA-007) 5 Pellet Mills (Facility Ref. Nos. PM1-PM5) and associated Pellet Cooler equipped with a bag filter (Facility Ref. No. BF2):**

### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AA-007, the 5 pellet mills (Facility Ref. No. PM1-PM5) and associated Pellet Cooler equipped with a bag filter (Facility Ref. No. BF2).</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R 2.2.B(10)]</p>

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### **EQPT0000000007 (AA-015) 1 briquetting mill (Facility Ref. No. BM1) equipped with a bag filter (Facility Ref. No. BF10):**

#### Narrative Requirements:

Condition No.	Condition
T-1	For Emission Point AA-015, the permittee shall perform regular inspections and any required maintenance each week, or more often if necessary, in order to maintain proper operation of the pollution control equipment. Records of inspections and any required maintenance shall be kept in log form and made available for review upon request by MDEQ personnel. All records shall be maintained by the permittee for a period of five years following the date of such record. The permittee shall also maintain on hand at all times sufficient equipment as is necessary to repair and/or replace the pollution control equipment. [APC-S-2]
T-2	Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AA-015, the briquetting mill (Facility Ref. No. BM1) equipped with a single bag filter (Facility Ref. No. BF10).  The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]

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### **EQPT0000000009 (AA-018) Glycerol/Ligno Sulfonate Tank (Facility Ref. No. GT):**

#### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning December 9, 2010, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point AA-018, the Glycerol/Ligno Sulfonate Tank(Facility Ref. No. GT).</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R 2.2.B(10)]</p>

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### **EQPT0000000012 (AA-020) Knife Mill equipped with a bag filter (Facility Ref. No. BF4):**

#### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AA-020, the Knife Mill equipped with a baghouse (Facility Ref. No. BF-4).</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>

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### **EQPT0000000014 (AC-001) Wood Chip Dryer (Facility Ref. No. WC1) with multiclone and 75 MMBTU/Hr Wood Dust Burner (Facility Ref. No. WB1):**

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1		For Emission Point AC-001, the permittee shall not exceed 75% Softwood on a 12 month rolling average basis as Wood Chip feed to the dryer. [11 Miss. Admin. Code Pt. 2, Ch. 2.]

#### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		For Emission Point AC-001, the permittee shall calculate and maintain records of the percentage of softwood fed to the dryer on a monthly basis. Records shall be maintained of each consecutive twelve (12) month total. A summary report shall be submitted by January 31 and July 31 for the preceeding six month period. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]

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**EQPT0000000014 (continued):**

### Monitoring Requirements:

Condition No.	Parameter	Condition
M-2		<p>For Emission Point AC-001, the permittee shall demonstrate compliance with Emission Point specific NOx, CO, HAP, VOC, and PM10 limitations utilizing EPA Approved Methods 7, 10, 18, 25A, and 201 or 201A and 202 by performing a one-time stack test in accordance with the specified methods and the procedures outlined below:</p> <ul style="list-style-type: none"><li>a. The initial performance test shall be performed within 180 days after initial start-up of the permitted equipment.</li><li>b. A written test protocol must be submitted at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the office of pollution control. If needed, the permittee may request a pretest conference to discuss the test methods and procedures. The pretest conference should be scheduled at least thirty (30) days prior to the test date.</li><li>c. A notification of the scheduled test date(s) should be submitted ten (10) days prior to the scheduled date(s) so that an observer may be afforded the opportunity to witness the test(s).</li><li>d. Testing must be performed at full operating capacity of the system unless otherwise approved in writing by the Office of Pollution Control (OPC). In the event OPC approves testing at reduced capacity, the permittee shall notify OPC in writing no less than 30 days prior to increasing operating capacity and shall conduct follow-up testing within 90 days of the system achieving operations at the higher capacity. Reports shall be submitted in accordance with Condition (g) below.</li><li>e. The test must consist of three test runs of at least one(1) hour each.</li><li>f. The performance test results must be submitted to the Office of Pollution Control (OPC) within 60 days following completion of the test.</li><li>g. Subsequent compliance testing shall be conducted in accordance with the testing frequency described in the Title V Permit to Operate, upon issuance.</li><li>h. VOC testing of Emission Point AC-001 must be performed with no less than 75% softwood being fed to the dryer during the test.</li><li>i. HAP testing of Emission Point AC-001 shall be limited to Methanol, Acetaldehyde and Formaldehyde.</li><li>j. The stack damper setting must be noted during the performance test. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</li></ul>



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**EQPT0000000014 (continued):**

### Monitoring Requirements:

Condition No.	Parameter	Condition
M-3		<p>For Emission Point AC-001, the permittee shall conduct weekly observations for visible emissions (Opacity). If visible emissions are observed from the emission point (six-minute interval), the permittee shall conduct visible emission evaluations (VEE) in accordance with EPA Reference Method 9. The permittee shall maintain records of weekly visible emissions observations and any VEEs that are performed in log book form. A summary report shall be submitted by January 31 and July 31 for the preceeding six month period.</p> <p>The permittee may perform the observations on multiple stacks at the same time, where multiple stacks can be viewed simultaneously. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>

### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AC-001, the Wood Chip Dryer with multi-clone collectors (WC-1) and 75 MMBTU/hr Wood Dust Burner (WB-1).</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>
T-2	<p>For Emission Point AC-001, the permittee shall perform regular inspections and any required maintenance each week or more often if necessary in order to maintain proper operation of the equipment. Records of inspections and any required maintenance shall be kept in log form and made available for review upon request. All records shall be maintained by the permittee for a period of five years following the date of such record. The permittee shall also maintain on hand at all times sufficient equipment as is necessary to repair and/or replace the pollution control equipment. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</p>

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### **EQPT0000000013 (AC-002) Wood Fuel Storage Bin with Bag Filter (Facility Ref. No BF11):**

#### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AC-002, the Wood Fuel Bin with baghouse (Facility Ref. No. BF-11).</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>
T-2	<p>For Emission Point AC-002, the permittee shall perform regular inspections and any required maintenance each week or more often if necessary in order to maintain proper operation of the equipment. Records of inspections and any required maintenance shall be kept in log form and made available for review upon request. All records shall be maintained by the permittee for a period of five years following the date of such record. The permittee shall also maintain on hand at all times sufficient equipment as is necessary to repair and/or replace the pollution control equipment. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</p>

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### **EQPT0000000008 (AC-003) 5 Large Pellet Mills (Facility Ref. Nos. LPM1- LPM5) with one Large Pellet Cooler equipped with a Baghouse (Facility Ref. No. BF-12 ):**

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1		<p>For Emission Point AC-003, the permittee shall not cause, permit or allow the emission of particulate matter in total quantities in any one hour from the eight pellet mills to exceed the amount determined by the relationship:</p> $E = 4.1(P^{0.67})$ <p>Where: E is the emission rate in pounds per hour P is the process weight input rate in tons per hour Where E is determined by EPA Test Methods 1-5, 40 CFR 60, Appendix A. [11 Miss. Admin. Code Pt. 2, Ch. 1. 3.6]</p>
L-2		<p>For Emission Point AC-003, the permittee shall operate the control equipment at all times the associated pellet mill is in operation.</p> <p>The permittee shall perform regular inspections and any required maintenance each week, or more often if necessary, in order to maintain proper operation of the pollution control equipment. Records of inspections and any required maintenance shall be kept in log form and made available for review upon request by MDEQ personnel. All records shall be maintained by the permittee for a period of five years following the date of such record. The permittee shall also maintain on hand at all times sufficient equipment as is necessary to repair and/or replace the pollution control equipment. [11 Miss. Admin. Code Pt. 2, Ch. 1. 3.6]</p>

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**EQPT0000000008 (continued):**

### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		<p>For Emission Point AC-003, the permittee shall demonstrate compliance with Emission Point specific HAP, VOC, and PM10 limitations utilizing EPA Approved Methods 18, 25A, and 201 or 201A and 202 by performing a one-time stack test in accordance with the specified methods and the procedures outlined below:</p> <ul style="list-style-type: none"><li>a. The initial performance test shall be performed within 180 days after initial start-up of the permitted equipment.</li><li>b. A written test protocol must be submitted at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the office of pollution control. If needed, the permittee may request a pretest conference to discuss the test methods and procedures. The pretest conference should be scheduled at least thirty (30) days prior to the test date.</li><li>c. A notification of the scheduled test date(s) should be submitted ten (10) days prior to the scheduled date(s) so that an observer may be afforded the opportunity to witness the test(s).</li><li>d. Testing must be performed at full operating capacity of the system unless otherwise approved in writing by the Office of Pollution Control (OPC). In the event OPC approves testing at reduced capacity, the permittee shall notify OPC in writing no less than 30 days prior to increasing operating capacity and shall conduct follow-up testing within 90 days of the system achieving operations at the higher capacity. Reports shall be submitted in accordance with Condition (g) below.</li><li>e. The test must consist of three test runs of at least one(1) hour each.</li><li>f. The performance test results must be submitted to the Office of Pollution Control (OPC) within 60 days following completion of the test.</li><li>g. Subsequent compliance testing shall be conducted in accordance with the testing frequency described in the Title V Permit to Operate, upon issuance.</li><li>h. HAP testing of Emission Point AC-003 shall be limited to Methanol, Acetaldehyde and Formaldehyde. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</li></ul>

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**EQPT0000000008 (continued):**

### Monitoring Requirements:

Condition No.	Parameter	Condition
M-2		<p>For Emission Point AC-003, the permittee shall conduct weekly observations for visible emissions (Opacity). If visible emissions are observed from the emission point (six-minute interval), the permittee shall conduct visible emission evaluations (VEE) in accordance with EPA Reference Method 9. The permittee shall maintain records of weekly visible emissions observations and any VEEs that are performed in log book form. A summary report shall be submitted by January 31 and July 31 for the preceeding six month period.</p> <p>The permittee may perform the observations on multiple stacks at the same time, where multiple stacks can be viewed simultaneously. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>

### Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AC-003, the 5 Large Pellet Mills (Facility Ref. Nos. LPM1-LPM5) and 1 Large Pellet Cooler (Facility Ref. No. LPC-1) equipped with a baghouse (Facility Ref. No. BF-12).</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>
T-2	<p>For Emission Point AC-003, the permittee shall perform regular inspections and any required maintenance each week or more often if necessary in order to maintain proper operation of the equipment. Records of inspections and any required maintenance shall be kept in log form and made available for review upon request. All records shall be maintained by the permittee for a period of five years following the date of such record. The permittee shall also maintain on hand at all times sufficient equipment as is necessary to repair and/or replace the pollution control equipment. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</p>

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### EQPT0000000015 (AC-004) 30 MMBTU/Hr Natural Gas Fired Boiler:

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1		For Emission Point AC-004, the permittee is subject to and shall comply with all applicable provisions of and any subsequent revisions to 40 CFR Part 60 Subpart Dc. [40 CFR 60_SUBPART Dc]

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### EQPT0000000015 (continued):

#### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		<p>For Emission Point AC-004, the permittee shall demonstrate compliance with Emission Point specific NO<sub>x</sub> and CO limitations utilizing EPA Approved Methods 7 and 10 by performing a one-time stack test in accordance with the specified methods and the procedures outlined below:</p> <ol style="list-style-type: none"><li>The initial performance test shall be performed within 180 days after initial start-up of the permitted equipment.</li><li>A written test protocol must be submitted at least thirty (30) days prior to the intended test date(s) to ensure that all test methods and procedures are acceptable to the office of pollution control. If needed, the permittee may request a pretest conference to discuss the test methods and procedures. The pretest conference should be scheduled at least thirty (30) days prior to the test date.</li><li>A notification of the scheduled test date(s) should be submitted ten (10) days prior to the scheduled date(s) so that an observer may be afforded the opportunity to witness the test(s).</li><li>Testing must be performed at full operating capacity of the system unless otherwise approved in writing by the Office of Pollution Control (OPC). In the event OPC approves testing at reduced capacity, the permittee shall notify OPC in writing no less than 30 days prior to increasing operating capacity and shall conduct follow-up testing within 90 days of the system achieving operations at the higher capacity. Reports shall be submitted in accordance with Condition (g) below.</li><li>The test must consist of three test runs of at least one(1) hour each.</li><li>The performance test results must be submitted to the Office of Pollution Control (OPC) within 60 days following completion of the test.</li><li>Subsequent compliance testing shall be conducted in accordance with the testing frequency described in the Title V Permit to Operate, upon issuance. [11 Miss. Admin. Code Pt. 2, Ch. 2.]</li></ol>

To Construct Air Emissions Equipment

Solvay Biomass Energy LLC

Facility Requirements

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EQPT00000000015 (continued):

Narrative Requirements:

Condition No.	Condition
T-1	<p>Beginning upon permit modification date, the permittee is authorized to construct or modify air emissions equipment for the emission of air contaminants from Emission Point AC-004, the 30 MMBTU/Hr Natural Gas Boiler.</p> <p>The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified herein. [11 Miss. Admin. Code Pt. 2, Ch. 2. R. 2.2.B(10)]</p>



## GENERAL INFORMATION

Solvay Biomass Energy LLC  
252 Hickory Street  
Quitman, MS  
Clarke County

### Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
54123	Solvay Biomass Energy, LLC	Official Site Name	3/4/2015	
044000063	BTH Quitman Hickory LLC	Air-Construction	12/9/2010	
2802300063	Solvay Biomass Energy, LLC	Air-AIRS AFS	9/9/2010	
MSR105885	BTH Quitman Hickory, LLC	GP-Construction	1/13/2011	12/31/2015
MSR002034	BTH Quitman Hickory, LLC	GP-Baseline	5/26/2011	3/9/2015
54123	BTH Quitman Hickory, LLC	Historic Site Name	9/9/2010	3/4/2015
044000063	Solvay Biomass Energy LLC	Air-Title V Fee Customer	12/15/2014	
MSR002034	Solvay Biomass Energy LLC	GP-Baseline	3/9/2015	9/28/2015
044000063	Solvay Biomass Energy LLC	Air-Construction	3/17/2015	

**Basin:** Pascagoula River Basin

**Location Description:**