



## State of Mississippi



### FEDERALLY ENFORCEABLE AIR POLLUTION CONTROL PERMIT

Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

#### **THIS CERTIFIES**

Ethos Alternative Energy Mississippi LLC

101 65th Avenue

Meridian, MS

Lauderdale County

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with the Federal Clean Air Act and the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), the regulations and standards adopted and promulgated thereunder, and the State Implementation Plan for operating permits for synthetic minor sources.

**Mississippi Environmental Quality Permit Board**

---

**Mississippi Department of Environmental Quality**

Issued/Modified: MAY 02 2013

Expires: APR 30 2018

Permit No. 1460-00127

Agency Interest # 55240

Table of Contents

Subject Item Inventory.....i

Facility Requirements.....1

General Information.....A-1

Other Relevant Documents:

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Subject Item Inventory

Permit Number:1460-00127

Activity ID No.: PER20120001

### Subject Item Inventory:

ID	Designation	Description
AREA2	AA-001	Biodiesel Production (Facility-Wide)
AREA3	AA-002	Equipment Leak Fugitives
EQPT21	AA-003	177 HP Diesel-Fueled Fire Water Pump
EQPT3	AB-001	20,000 gallon Biodiesel Feed Stock Material Storage Tank (Ref. Tank ID# MGC-S-T8)
EQPT6	AB-002	20,000 gallon Biodiesel Feed Stock Material Storage Tank (Ref. Tank ID# MGC-S-T10)
EQPT12	AB-003	20,000 gallon Biodiesel Feed Stock Material Storage Tank (Ref. Tank ID# MGC-S-T36)
EQPT13	AB-004	30,000 gallon Biodiesel Feed Stock Material Storage Tank (Ref. Tank ID# MGC-S-T37)
EQPT14	AB-005	30,000 gallon Biodiesel Feed Stock Material Storage tank (Ref. Tank ID# MGC-S-T38)
EQPT15	AB-006	30,000 gallon Biodiesel Feed Stock Material Storage Tank (Ref. Tank ID# MGC-S-T39)
EQPT16	AB-007	20,000 gallon Glycerin Storage Tank (Ref. Tank ID# MGC-S-T40)
EQPT17	AB-008	30,000 gallon Glycerin Storage Tank (Ref. Tank ID# MGC-S-T41)
EQPT18	AB-009	20,000 gallon Methanol Storage Tank (Ref. Tank ID# MGC-S-T42)
EQPT19	AB-010	34,000 gallon Methanol Storage Tank (Ref. Tank ID# MGC-S-T43)
EQPT20	AB-011	13,000 gallon Catalyst (Potassium Hydroxide and Methanol Blend) Storage Tank (Ref. Tank ID# MGC-S-T44)
EQPT1	AB-012	3,500 gallon Catalyst (Potassium Hydroxide and Methanol Blend) Storage Tank (Ref. Tank ID# MGC-S-T45)
EQPT2	AB-013	8,000 gallon Biodiesel Blending Storage Tank (Ref. Tank ID# MGC-S-T46)
EQPT4	AB-014	8,000 gallon Biodiesel Blending Storage Tank (Ref. Tank ID# MGC-S-T47)
EQPT5	AB-015	20,000 gallon Biodiesel Storage Tank (Ref. Tank ID# MGC-S-T48)
EQPT7	AB-016	20,000 gallon Biodiesel Storage Tank (Ref. Tank ID# MGC-S-T49)
EQPT8	AB-017	34,000 gallon Biodiesel Storage Tank for Resin Wash (Ref. Tank ID# MGC-S-T50)
EQPT9	AB-018	30,000 gallon Biodiesel Storage Tank (Ref. Tank ID# MGC-S-T51)
EQPT10	AB-019	30,000 gallon Biodiesel Storage Tank (Ref. Tank ID# MGC-S-T52)

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Subject Item Inventory

Permit Number:1460-00127

Activity ID No.: PER20120001

ID	Designation	Description
EQPT11	AB-020	30,000 gallon Biodiesel Storage Tank (Ref. Tank ID# MGC-S-T53)
AREA1	AB-022	Methanol Recovery System
AI55240	55240	Biodiesel Production

### Subject Item Groups:

ID	Description	Components
GRPT1	Methanol Storage Tanks	EQPT18 20,000 gallon Methanol Storage Tank (Ref. Tank ID# MGC-S-T42)
		EQPT19 34,000 gallon Methanol Storage Tank (Ref. Tank ID# MGC-S-T43)

### 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

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 1 of 17

### AREA0000000002 (AA-001) Biodiesel Production (Facility-Wide):

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1	Particulate Matter	Particulate Matter:  For the entire facility, the permittee shall not cause or allow the emission of particles, or any contaminants in sufficient amounts or of such duration from any process as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create a condition of air pollution. [APC-S-1 3.3]
L-2		The permittee shall limit the emissions of methanol, a hazardous air pollutant, to less than or equal to 9.9 tons per year, as determined on a 12-month rolling basis. [APC-S-2 II.B(10)]

#### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		For storage tanks with potential emissions of methanol, the permittee shall monitor and record the throughput for each tank should the permittee choose to calculate the actual monthly emissions of methanol instead of using the potential to emit. Actual emissions shall be calculated using the most recent version of EPA's TANKS software. [APC-S-2 II.B(11)]
M-2		The permittee shall monitor and record the actual amount of biodiesel produced during each calendar month. [APC-S-2 II.B(11)]

#### Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee shall calculate and record the emissions of methanol for each calendar month and for each consecutive 12-month period. The permittee shall account for all potential sources of methanol in these monthly calculations. [APC-S-2 II.B(11)]

**Permit to Operate Air Emissions Equipment at a Synthetic Minor Source**

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 2 of 17

**AREA0000000002 (continued):**

**Submittal/Action Requirements:**

Condition No.	Condition
S-1	In the annual report required by Condition S-2 on page 11 of this permit, the permittee shall submit the monthly and 12-month rolling total methanol emissions. The permittee shall also provide a summary of the monthly emissions for each emission source of methanol and supporting calculations showing the data used to determine these emissions. [APC-S-2 II.B(11)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 3 of 17

### AREA0000000003 (AA-002) Equipment Leak Fugitives:

#### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		The permittee shall implement and maintain a leak detection and repair (LDAR) plan for complying with NSPS Subpart VVa. This plan shall address all equipment; including each pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service and shall be made available for review at the facility. [APC-S-2 II.B(11), 40 CFR 60.Subpart VVa]

#### Record-Keeping Requirements:

Condition No.	Condition
R-1	For all equipment subject to NSPS VVa, the permittee shall comply with the recordkeeping requirements of 40 CFR 60.486a. [40 CFR 60.486a, APC-S-2 II.B(11)]
R-2	For those equipment components monitored in accordance with Subpart VVa, the permittee may apply the control efficiencies specified by the Texas Commission on Environmental Quality (TCEQ) for the "28VHP" LDAR program. These control efficiencies shall be applied to the SOCMI Average Emission Factors found in Table 2-1 of EPA's "Protocol for Equipment Leak Emission Estimates" (November 1995) to determine VOC and methanol emissions for the equipment. [APC-S-2 II.B(11)]

#### Submittal/Action Requirements:

Condition No.	Condition
S-1	For all equipment subject to NSPS VVa, the permittee shall comply with the reporting requirements of 40 CFR 60.487a. [40 CFR 60.487a, APC-S-2 II.B(11)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 4 of 17

### AREA0000000003 (continued):

#### Narrative Requirements:

Condition No.	Condition
T-1	The permittee is subject to and shall comply with the New Source Performance Standards for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006 (40 CFR Part 60, Subpart VVa) and any applicable General Provisions (40 CFR Part 60, Subpart A). [40 CFR 60.480a]
T-2	Equipment that is designated as being in VOC service less than 300 hr/yr is excluded from the requirements of 40 CFR 60.482-2a through 60.482-11a if it is identified as required in 40 CFR 60.486a(e)(6) and it meets any of the conditions specified in paragraphs (e)(1) through (3) of 40 CFR 60.482-1a. [40 CFR 60.482-1a(e)]



## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 5 of 17

### EQPT0000000021 (AA-003) 177 HP Diesel-Fueled Fire Water Pump:

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The permittee shall comply with the emission standards in Table 4 to NSPS Subpart IIII for all pollutants. [40 CFR 60.4205(c)]
L-2		The permittee shall use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel. [40 CFR 60.4207(b)]
L-3		The permittee must operate and maintain the engine according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer over the entire life of the engine. In addition, the permittee may only change those settings that are permitted by the manufacturer. [40 CFR 60.4211(a)]
L-4		The fire pump engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]
L-5		The fire pump engine may be operated for the purpose of maintenance checks and readiness testing. Maintenance checks and readiness testing are limited to 100 hours per year for each engine. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)]

#### Record-Keeping Requirements:

Condition No.	Condition
R-1	The permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 6 of 17

### EQPT0000000021 (continued):

#### Narrative Requirements:

Condition No.	Condition
T-1	The permittee is subject to and shall comply with the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII) and any applicable General Provisions (40 CFR Part 60, Subpart A). [40 CFR 60.4200(a)]
T-2	The permittee is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, (40 CFR Part 63, Subpart ZZZZ). Emission Point AA-003 must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII for compression ignition engines. No further requirements apply for such engines under NESHAP Subpart ZZZZ. [40 CFR 63.6585, 40 CFR 63.6590(c)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 7 of 17

### AREA0000000001 (AB-022) Methanol Recovery System:

#### Limitation Requirements:

Condition No.	Parameter	Condition
L-1		The permittee must operate the methanol recovery unit at all times when processing biodiesel. Should the unit become non-operational then the respective process shall be shutdown immediately, but not as to cause damage to equipment or property, or cause further environmental problems. The process shall not startup until such time that the methanol recovery unit becomes operational. [APC-S-2 II.B(10)]
L-2		For the Methanol Recovery Unit, the permittee shall maintain a TRE index value greater than 1.0 without use of VOC emission control devices. [40 CFR 60.662(c)]

#### Monitoring Requirements:

Condition No.	Parameter	Condition
M-1		<p>The permittee that seeks to comply with the TRE index value limit specified under 40 CFR 60.662(c) shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved by the MDEQ:</p> <p>Where a condenser is the final recovery device in the recovery system:</p> <p>(i) A condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of +/- 1 percent of the temperature being monitored expressed in degrees Celsius or +/- 0.5 degrees Celsius, whichever is greater, or</p> <p>(ii) An organic monitoring device used to monitor organic compounds exiting the recovery device based on a detection principle such as infra-red, photoionization, or thermal conductivity, each equipped with a continuous recorder. [40 CFR 60.663(e)(2)]</p>
M-2		In determining the process vent stream TRE index value to determine compliance under 40 CFR 60.662(c), the permittee shall follow the test methods in Appendix A to 40 CFR Part 60, and apply them as described in 40 CFR 60.664(e). [40 CFR 60.664(e)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 8 of 17

### AREA0000000001 (continued):

#### Monitoring Requirements:

Condition No.	Parameter	Condition
M-3		The permittee shall determine the TRE index value by calculating values using both the incinerator equation in 40 CFR 60.664(e)(1) and the flare equation in 40 CFR 60.664(e)(2) and selecting the lower of the two values. [40 CFR 60.664(f)]
M-4		The permittee shall recalculate the TRE index value for the facility whenever process changes are made. Where the recalculated TRE index value is less than or equal to 1.0, the permittee shall notify MDEQ within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the permittee shall conduct a performance test in accordance with 40 CFR 60.8 and 60.664 and shall comply with 60.663, 60.664, and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change. [40 CFR 60.664(g)]
M-5		The permittee shall perform stack testing for methanol using EPA Test Method 308 within 60 days of resuming biodiesel production and every 24-months thereafter. The methanol recovery unit shall be operating as close to maximum capacity as operating conditions allow. [APC-S-2 II.B(11), 40 CFR 60.665(p)]

#### Record-Keeping Requirements:

Condition No.	Condition
R-1	Notification shall be made to the DEQ if the permittee elects at a later date to use an alternative provision of 40 CFR 60.662 with which he or she will comply. The DEQ shall be notified by the permittee 90 days before implementing a change and, upon implementing the change, a performance test shall be performed as specified by 40 CFR 60.664 within 180 days. [40 CFR 60.665(a)]
R-2	The permittee shall keep an up-to-date, readily accessible record of the following data measured during each performance test. During each performance test, the average exit (product side) temperature shall be measured at least every 15 minutes and averaged over the same time period of the performance testing while the vent stream is routed and constituted normally. Or as an alternative, the concentration level or reading indicated by the organics monitoring device at the outlet of the condenser shall be measured at least every 15 minutes, averaged over the same time period of the performance testing while the vent stream is normally routed and constituted. [40 CFR 60.665(b)(4)(ii) and (iv)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 9 of 17

### AREA0000000001 (continued):

#### Record-Keeping Requirements:

Condition No.	Condition
R-3	The permittee shall keep up-to-date, readily accessible records of all measurements and calculations performed to determine the TRE index value of the vent stream. [40 CFR 60.665(b)(4)(v)]
R-4	The permittee shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified in Condition M-1, as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. [40 CFR 60.665(g)]
R-5	<p>The permittee shall keep up-to-date, readily accessible records of:</p> <p>(1) Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;</p> <p>(2) Any recalculation of the TRE index value performed pursuant to 40 CFR 60.664(f); and</p> <p>(3) The results of any performance test performed pursuant to the methods and procedures required by 40 CFR 60.664(d). [40 CFR 60.665(h)(1-3)]</p>
R-6	The permittee shall develop a methanol emission factor for the methanol recovery unit based on the results of the stack test. This emission factor shall be used to determine monthly emissions of methanol from the recovery unit. The determination of the emission factor and the monthly methanol emissions shall be recorded and maintained on site. [APC-S-2 II.B(11)]

#### Submittal/Action Requirements:

Condition No.	Condition
S-1	The permittee shall submit a test protocol at least thirty (30) days prior to the scheduled test date to ensure that all test methods and procedures are acceptable to the DEQ. The DEQ must be notified at least ten (10) days prior to the scheduled test date so that an observer may be scheduled to witness the test(s). A stack test report containing the results of the test(s) shall be submitted within forty-five (45) days of completion of the required test(s). [APC-S-2 II.B(11)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 10 of 17

### AREA0000000001 (continued):

#### Narrative Requirements:

Condition No.	Condition
T-1	The permittee is subject to and shall comply with the New Source Performance Standards for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations (40 CFR Part 60, Subpart NNN) and any applicable General Provisions (40 CFR Part 60, Subpart A). [40 CFR 60.660(a)]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 11 of 17

### AI0000055240 (55240) Biodiesel Production:

#### Submittal/Action Requirements:

Condition No.	Condition
S-1	General Condition: Except as otherwise specified herein, the permittee shall report all deviations from permit requirements, including those attributable to upsets, the probable cause of such deviations, and any corrective actions or preventive measures taken. Said report shall be made within five (5) working days of the time the deviation began. [APC-S-2 II.B(10)]
S-2	Except as otherwise specified herein, the permittee shall Submit a certified annual synthetic minor monitoring report: Due annually, by the 31st of January for preceding calendar year. This report shall address any required monitoring specified in the permit. [APC-S-2 II.B(11)]

#### Narrative Requirements:

Condition No.	Condition
T-1	General Condition: Any activities not identified in the application are not authorized by this permit. [Miss. Code Ann. 49-17-29 1.b]
T-2	General Condition: The permittee shall at all times maintain in good working order and operate as efficiently as possible all air pollution control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit. [APC-S-2 V.A]
T-3	General Condition: Solids removed in the course of control of air emissions shall 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 1.a(i and ii)]
T-4	General Condition: Any diversion from or bypass of collection and control facilities is prohibited 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 Section 10]
T-5	General Condition: Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule. [APC-S-2 X]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 12 of 17

**AI0000055240 (continued):**

### Narrative Requirements:

Condition No.	Condition
T-6	<p>General Condition: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their authorized representatives, upon the presentation of credentials:</p> <p>(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</p> <p>(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]</p>
T-7	<p>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 cause including, but not limited to:</p> <p>(a) Violation of any terms or conditions of this permit</p> <p>(b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or</p> <p>(c) A change in any condition that required either a temporary or permanent reduction or elimination of authorized air emissions. [APC-S-2 II.C]</p>
T-8	<p>General Condition: This permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for this 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 condition of the permit. [APC-S-2 II.B(15)b]</p>
T-9	<p>General Condition: Except for data determined to be confidential under the Mississippi Air &amp; 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]</p>
T-10	<p>General Condition: 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. [APC-S-2 II.B(15)c]</p>
T-11	<p>General Condition: Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances. [APC-S-2 II.B(7)]</p>



## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 13 of 17

### AI0000055240 (continued):

#### Narrative Requirements:

Condition No.	Condition
T-12	General Condition: This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board. [APC-S-2 XVI.B]
T-13	General Condition: This permit is for air pollution control purposes only. [APC-S-2 I.D(1)]
T-14	General Condition: This permit is a Federally-approved permit to operate a synthetic minor source as described in Regulation APC-S-2, Section IV.D. [APC-S-2 IV.D]
T-15	General Condition: 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. [APC-S-2 I.D(7)]
T-16	General Condition: The permittee shall furnish to MDEQ within a reasonable time any information MDEQ 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 MDEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to MDEQ along with a claim of confidentiality. [APC-S-2 II.B(15)d]

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 14 of 17

**AI0000055240 (continued):**

### Narrative Requirements:

Condition No.	Condition
T-17	<p>General Condition: This permit does not authorize a modification as defined in APC-S-2, "Permit Regulations for the Construction and/or Operation of Air Emissions Equipment". Modification is defined as "Any physical change in or change in the method of operation of a facility which increases actual emissions or potential uncontrolled emissions of any air pollutant subject to regulation under the Federal Act emitted into the atmosphere by that facility or which results in the emission of any air pollutant subject to regulation under the Federal Act into the atmosphere not previously emitted. A physical change or change in the method of operation shall not include:</p> <ul style="list-style-type: none"><li>(a) routine maintenance, repair, and replacement;</li><li>(b) use of an alternative fuel or raw material by reason of an order under Sections 2(a) and (b) of the Federal Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;</li><li>(c) use of an alternative fuel by reason of an order or rule under Section 125 of the Federal Act;</li><li>(d) use of an alternative fuel or raw material by a stationary source which: (i) the source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR 51.166; or (ii) the source is approved to use under any permit issued under 40 CFR 52.51 or under regulations approved pursuant to 40 CFR 51.166;</li><li>(e) an increase in the hours of operation or in the production rate unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.51, or under regulations approved pursuant to Subpart I or 40 CFR 51.166; or</li><li>(f) any change in ownership of the stationary source" [APC-S-2 I.D(2)]</li></ul>
T-18	<p>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 this 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]</p>
T-19	<p>General Condition: The permittee shall retain all required records, monitoring data, supported information and reports for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-chart recordings or other data for continuous monitoring instrumentation, and copies of all reports required by this permit. Copies of such records shall be submitted to MDEQ as required by Applicable Rules and Regulations or this permit upon request. [APC-S-2 IX]</p>
T-20	<p>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 constructing or operating without a valid permit. [APC-S-2 II.B(5)]</p>

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 15 of 17

**AI0000055240 (continued):**

### Narrative Requirements:

Condition No.	Condition
T-21	<p>General Condition: Emergencies</p> <p>(a) Except as otherwise specified herein, an emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.</p> <p>(b) An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in (c) following are met.</p> <p>(c) The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs, or other relevant evidence as follows: (i) an emergency occurred and that the permittee can identify the cause(s) of the emergency; (ii) the permitted facility was at the time being properly operated; (iii) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and (iv) the permittee submitted notice of the emergency to MDEQ within two (2) working days of the time when emission limitations were exceeded due to the emergency which contained a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.</p> <p>(d) In any enforcement proceeding, the permittee seeking to establish the occurrence of any emergency has the burden of proof.</p> <p>(e) This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein [APC-S-2 II.B(10)]</p>
T-22	<p>General Condition: Upsets</p> <p>(a) The occurrence of an upset constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards or other requirements of Applicable Rules and Regulations or any applicable permit if the permittee demonstrates through properly signed contemporaneous operating logs, or other relevant evidence that include information as follows: (i) an upset occurred and that the permittee can identify the cause(s) of the upset; (ii) the source was at the time being properly operated; (iii) during the upset the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit; (iv) the permittee submitted notice of the upset to the DEQ within five (5) working days of the time the upset began which contained a description of the upset, any steps taken to mitigate emissions, and corrective actions taken.</p> <p>(b) In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.</p> <p>(c) This provision is in addition to any upset provision contained in any applicable requirement. [APC-S-1 Section 10]</p>

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 16 of 17

### AI0000055240 (continued):

#### Narrative Requirements:

Condition No.	Condition
T-23	<p>General Condition: Startups and Shutdowns</p> <p>(a) Startups and shutdowns are part of normal source operation. Emissions limitations applicable to normal operation apply during startups and shutdowns except as follows: (i) when sudden, unavoidable breakdowns occur during a startup or shutdown, the event may be classified as an upset subject to the requirements above; (ii) when a startup or shutdown is infrequent, the duration of excess emissions is brief in each event, and the design of the source is such that the period of excess emissions cannot be avoided without causing damage to equipment or persons; or (iii) when the emissions standards applicable during a startup or shutdown are defined by other requirements of Applicable Rules and Regulations or any applicable permit.</p> <p>(b) In any enforcement proceeding, the permittee seeking to establish the applicability of any exception during a startup or shutdown has the burden of proof.</p> <p>(c) In the event this startup and shutdown provision conflicts with another applicable requirement, the more stringent requirement shall apply. [APC-S-1 Section 10]</p>
T-24	<p>General Condition: Maintenance</p> <p>(a) Maintenance should be performed during planned shutdown or repair of process equipment such that excess emissions are avoided. Unavoidable maintenance that results in brief periods of excess emissions and that is necessary to prevent or minimize emergency conditions or equipment malfunctions constitutes an affirmative defense to an enforcement action brought for noncompliance with emission standards, or other regulatory requirements if the permittee can demonstrate the following: (i) the permittee can identify the need for the maintenance; (ii) the source was at the time being properly operated; (iii) during the maintenance the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements of Applicable Rules and Regulations or any applicable permit; (iv) the permittee submitted notice of the maintenance to MDEQ within five (5) working days of the time the maintenance began or such other times as allowed by MDEQ, which contained a description of the maintenance, any steps taken to mitigate emissions, and corrective actions taken.</p> <p>(b) In any enforcement proceeding, the permittee seeking to establish the applicability of this section has the burden of proof.</p> <p>(c) In the event this maintenance provision conflicts with another applicable requirement, the more stringent requirement shall apply. [APC-S-1 Section 10]</p>
T-25	<p>General Condition: For renewal of this permit the applicant shall make application not less than one-hundred eighty (180) days prior to the expiration date of the permit substantiated with current emissions data, test results or reports or other data as deemed necessary by the Mississippi Environmental Quality Permit Board. [APC-S-2 VIII]</p>

## Permit to Operate Air Emissions Equipment at a Synthetic Minor Source

Ethos Alternative Energy Mississippi LLC

Facility Requirements

Permit Number:1460-00127

Activity ID No.: PER20120001

Page 17 of 17

### GRPT0000000001 Methanol Storage Tanks:

#### Record-Keeping Requirements:

Condition No.	Condition
R-1	For Methanol Storage Tanks, AB-009 and AB-010, the permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. This record shall be kept for the life of the source. [40 CFR 60.116b(a) and (b)]
R-2	For Methanol Storage Tanks, AB-009 and AB-010, the permittee shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined in 40 CFR 60.116b(e)(1) through (3). The permittee shall maintain records for at least two years. [40 CFR 60.116b(c) and (e)]

#### Narrative Requirements:

Condition No.	Condition
T-1	The permittee is subject to and shall comply with the New Source Performance Standards for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR Part 60, Subpart Kb) and any applicable General Provisions (40 CFR 60, Subpart A). [40 CFR 60.110b(a)]

## GENERAL INFORMATION

Ethos Alternative Energy Mississippi LLC

101 65th Avenue

Meridian, MS

Lauderdale County

### Alternate/Historic Identifiers

ID	Alternate/Historic Name	User Group	Start Date	End Date
55240	Ethos Alternative Energy-Mississippi, LLC	Official Site Name	8/10/2011	
55240	GreenLight Biofuels, LLC	Historic Site Name	2/22/2011	8/10/2011
146000127	Ethos Alternative Energy-Mississippi, LLC	Air-Title V Fee Customer	8/10/2011	5/2/2013
2807500127	Ethos Alternative Energy-Mississippi, LLC	Air-AIRS AFS	8/10/2011	
MSR002027	Ethos Alternative Energy Mississippi LLC	GP-Baseline	6/13/2012	9/28/2015
146000127	Ethos Alternative Energy Mississippi LLC	Air-Synthetic Minor Operating	5/2/2013	4/30/2018

**Basin:** Pascagoula River Basin

**Location Description:**