Florida Department of Environmental Protection
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Rick Scott
Governor

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Lt. Governor

Herschel T. Vinyard Jr.
Secretary

DRAFT PERMIT

PERMITTEE

Agri-Source Fuels, LLC
15000 Citrus Country Dr., Suite 110
Dade City, Florida 33523

Authorized Representative:
Mr. Rodney Sutton, President

Air Permit No. 1010505-003-AC
Permit Expires: 06/30/2015
Minor Air Construction
Project Name: Revise Construction Permit 1010505-002-AC

This is the final air construction permit for redefining the facility's emissions units by removing the glycerin refining operation from Emissions Unit No. 001 (Biodiesel Production and Glycerin Refining) and permitting it as Emissions Unit No. 003 (Glycerin Refining). This permit also increases the permitted production rate for the glycerin refining operation from 1.2 to 3.6 million gallons per year of refined glycerin. The proposed work will be conducted at the Agri-Source Fuels, LLC facility (Standard Industrial Classification No. 2869). The facility is located in Pasco County at 15000 Citrus Country Dr., Suite 110 in Dade City, Florida. The UTM coordinates are Zone 17, 383.45 km East, and 3139.53 km North. As noted in the Final Determination provided with this final permit, no changes or only minor changes and clarifications were made to the draft permit.

This final permit is organized by the following sections:

Section 1. General Information

Section 2. Administrative Requirements and Facility-wide Specific Conditions

Section 3. Emissions Unit Specific Conditions

Section 4. Appendices

Due to the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

This air pollution permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida
DRAFT

_____ _____

Robert C. Wong Effective Date
District Air Program Administrator
Southwest District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination, the Final Permit and the Appendices) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on _____ to the persons listed below.

Mr. Rodney Sutton, Agri-Source Fuels, LLC (Rodney.Sutton@cluv.net)
Mr. Scott McCann, P.E., Golder Associates Inc. (Scott_McCann@Golder.com)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

DRAFT

_____ _____
(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

The existing facility is a biodiesel production facility permitted under Construction Permit 1010505-002-AC. The construction permit authorized:

(1) the after-the-fact construction of a biodiesel production facility with a production limit of 12 million gallons of biodiesel per year;

(2) the construction and installation of a methanol distillation column and associated equipment, two evaporators to recover methanol from glycerin byproduct and a methyl ester drying system; and,

(3) the construction that will include the addition of a methanol vapor recovery system and a glycerin refining system along with other modifications to the process and equipment.

After completion of the methanol vapor recovery system and the glycerin refining system, the facility will be permitted to produce up to 60 million gallons of biodiesel per year and up to 1.2 million gallons of refined glycerin per year.

The existing facility, as defined by Construction Permit 1010505-002-AC, consists of the following emissions units.

Facility ID No. 10101505	
ID No.	Emission Unit Description
001	Biodiesel Production
002	Hot Oil Heater

{Note: Construction of the methanol vapor recovery system and glycerin refining operations are complete. The methanol vapor recovery system became operational on February 4, 2010 and was used to process approximately 727 thousand gallons of stored bottoms (i.e., bottom layer from the biodiesel batch reactor). The methanol vapor recovery system was shutdown later in 2010 after processing the stored bottoms and has remained in shutdown mode. The glycerin refining operation became operational on July 8, 2010. }

Project Description and Affected and Proposed Emission Units

This project includes the construction authorized in Construction Permit 1010505-002-AC. This project also authorizes the following:

(1) the removal of the glycerin refining operation from Emissions Unit 001 and the creation of a new emissions unit specifically for the glycerin refining operation (i.e., Emissions Unit No. 003 - Glycerin Refining); and,

(2) an increase in the maximum permitted production limit for refined glycerin from 1.2 to 3.6 million gallons per year of refined glycerin.

This project will create or modify the following emissions units.

Facility ID No. 10101505	
ID No.	Emission Unit Description
001	Biodiesel Production
003	Glycerin Refining

NOTE: *Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is not a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.
- This facility is a synthetic non-Title V source for the pollutants volatile organic compounds (VOC) and hazardous air pollutants (HAP).

PERMIT HISTORY/AFFECTED PERMITS

Replaces Permit No. 1010505-002-AC

SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC CONDITIONS (DRAFT)

1. Permitting Authority: The permitting authority for this project is the Florida Department of Environmental Protection (Department), Southwest District's Air Resource Management Section. The Southwest District's mailing address and phone number is:

   Florida Department of Environmental Protection
   Southwest District Office
   Air Resource Management Section
   13051 North Telecom Parkway
   Temple Terrace, Florida 33637-0926
   Telephone: 813-632-7600

   All documents related to applications for permits shall be submitted to the above address.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office's Air Resource Management Section (see above mailing address and phone number).

3. Appendices: The following Appendices are attached as part of this permit:
   a. Appendix A. Citation Formats and Glossary of Common Terms;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions; and
   d. Appendix D. Common Testing Requirements.
   e. Appendix E. 40 CFR 60, Subpart A;
   f. Appendix F. 40 CFR 60, Subpart Dc;
   g. Appendix G. 40 CFR 60, Subpart Kb;
   h. Appendix H. 40 CFR 60, Subpart NNN;
   i. Appendix I. 40 CFR 60, Subpart VVa.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
   [Rule 62-4.080, F.A.C.]

6. Modifications: Unless otherwise exempt by rule, the permittee shall not initiate any construction, reconstruction, or modification at the facility and shall not install/modify any pollution control device at the facility without obtaining prior authorization from the Department. Modification is defined as: Any physical change or changes in the method of operations or addition to a facility that would result in an increase in the actual emissions of any air pollutant subject to air regulations, including any not previously emitted, from any emission unit or facility.
[Rules 62-210.200 - Definition of "Modification" and 62-210.300(1)(a), F.A.C.]

7. Annual Operating Report: On or before **April 1** of each year, the permittee shall submit a completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" (AOR) for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or a hardcopy may be sent to the Compliance Authority.
[Rule 62-210.370(3), F.A.C.]

8. Application for Non-Title V Air Operation Permit: This permit authorizes construction or modification of the permitted emissions unit(s) and initial operation to determine compliance with Department rules. A Non-Title V air operation permit is required for continued operation of the permitted emissions unit(s). The permittee shall apply for an initial Non-Title V air operation permit that includes the Hot Oil Heater (E.U. No 002) and the Glycerin Refining Operation (E.U. No. 003) no later than 180 days after the effective date of this permit. After commencing operation of the Biodiesel Production Unit (E.U. No. 001), the permittee shall apply for a Non-Title V air operation permit revision to incorporate E.U. No. 001 at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation or commencing operation as modified. Commencing operation means setting into operation of any emissions unit for any purpose. See Specific Condition No. A.16., "Notification of Operation Commencement". To apply for a Non-Title V air operation permit, the applicant shall submit the following:

   a. the appropriate permit application form *(see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: http://www.dep.state.fl.us/air/)*;

   b. the appropriate operation permit application fee from Rule 62-4.050(4)(a), F.A.C.; and

   c. copies of the most recent two months of records specified in Specific Condition No(s). A.19. if applying for E.U. No. 001, B.5. if applying for E.U. Nos. 002 , and C.8. if applying for E.U. No. 003.

   The application shall be submitted to the Permitting Authority.

   [Rules 62-4.030, 62-4.050 and 62-4.220, F.A.C.]

A. EU No. 001 – Biodiesel Production

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
001	Biodiesel Production (Process With Methanol vapor Recovery): The facility (with the methanol vapor recovery system included) will be permitted to produce up to 60 million gallons per year of methyl ester which is commercially known as Biodiesel (B100). The facility will also produce glycerin as a byproduct of the process. The methanol vapor recovery system includes a common vent header used to collect methanol vapors from process tanks and prevents them from emitting directly to the atmosphere. The system also includes a chiller system used to condense and recover the methanol vent vapors for reuse in the process. The hazardous air pollutant methanol is synthetically limited below the Title V threshold by limiting biodiesel production and by recovering methanol vapors from process tanks vents. 1) Raw Materials and Reaction Biodiesel will be produced from the reaction of tri-glycerides (in the form of animal fats or plant oils), 30 percent sodium methylate (used as the catalyst for the reaction) and excess methanol. The raw materials, tri-glycerides, methanol and 30% methanol are all received by truck. Tri-glycerides are unloaded into tank 23A, 23B, 23C and 23D and heated to 130 degF using hot oil from the facility's hot oils system. Methanol is unloaded into methanol storage tanks MT-1 and MT-2. Methanol is also recovered from the process and returned to one of the methanol storage tanks. Sodium Methylate is unloaded into tanks NMT-1, NMT-2, NMT-3 and NMT-4. Methanol and 30% sodium methylate solution are pumped to Mix Tank-1 or Mix Tank-2 resulting in a solution with a final concentration of approximately 4% sodium methylate. The heated Tri-glycerides and sodium methylate solution are continuously pumped to a mixing tee at a ratio of 100 parts oil and 18 parts methylate solution by weight. The mixture is pumped through a high shear mixer (CM-1, HSM-1, or HSM-2) to tank LMT-1 or LMT-2 which operates as constant level tanks. From these tanks, the mixture is pumped to a batch reactor (TK-B1, TK-B2, TK-104 or TK-105). After the reaction is complete, the batch (consisting of a mixture of the product biodiesel and the byproduct glycerin) is pumped to one of several settling tanks (TK-5, TK-6, TK-7, TK-12, TK-13, TK-14, TK-15, TK-20, TK-22, TK-26A, TK-26B, TK-26C or TK-27A). Glycerin is relatively insoluble in biodiesel and is denser than biodiesel. As a result, a biodiesel layer forms as the top layer in the settling tank and a bottoms layer (Bottoms) consisting of glycerin, methanol, soap, caustic and water forms in the bottom of the tank. The settling process may take up to 4 day. 2) Glycerin Processing After the settling process is complete, the Bottoms from the settling tanks are pumped to bottom holding tank TK-24C or TK-24D. The biodiesel layer from the

top of the settling tank is pumped to the Glycerin Wash Settling Tank (TK-26D) and washed with de-methylated glycerin. Glycerin settles to the bottom of tank TK-26D and is also pumped to one of the Bottoms Holding Tank (TK-24C or TK-24D). The glycerin, methanol and water collected in the bottoms holding tanks is pumped to Evaporator E-1where water and methanol are evaporated and fed to Methanol Column C-1. Methanol recovered from the distillation column overhead is collected in the reflux tank (TK-103) which drains to the methanol recovery tank (TK-106) and is then pumped to tanks MT-1 or MT-2. Water from the distillation column bottoms is collected in the Reboiler Water Tank (TK-102). The glycerin from the evaporator is pumped to the De-Methylated Bottoms pH Adjustment Tank (TK-31). The pH is lowered with hydrochloric acid to a value between 3 and 9 to manage fatty acids and meet customer requirements. The glycerin is then pumped to the Fatty Acid Settling Tank (TK-21) where the fatty acid floats in the top of the tank. The fatty acid is pumped to tank TK-1 and shipped to customers. The glycerin in tank TK-21 is pumped to the Crude Glycerin pH Adjustment Tank (TK-32). The glycerin pH is adjusted with sodium hydroxide to meet customer requirements. The glycerin is then pumped to one of the Crude Glycerin Tanks (TK-8, TK-16, TK-24A or TK-24B) and then shipped by trucks or rail to customers. Crude glycerin can also be further refined in the glycerin refining process.

3) Biodiesel Processing

Biodiesel remaining in the settler (after the Bottoms removed) is pumped to the Glycerin Wash Settling Tank (TK-26D) and washed with de-methylated glycerin. The top layer, consisting primarily of biodiesel, is pumped to a water wash settling tanks (TK-27B or TK-27D). The biodiesel in the settling tanks are given a final wash with recycled water from the methanol distillation column's Reboiler Water Tank (TK-102). The washed biodiesel is pumped to the Drying Column (D-1) removing any remaining water and methanol and collecting it as condensate in the Dryer Condensate Tank (TK-100). Dried biodiesel that meets the customer specifications for impurities is then pumped from Drying Column C-1 to biodiesel product tanks (TK-29A, TK-29B, TK-29C, TK-29D, TK-30A, TK-30B, TK-30C and TK-30D). The biodiesel is then filtered and shipped by trucks or rail to customer. Dried biodiesel that does not meet the customer specifications for impurities is pumped from Drying Column C-1 to tank TK-10. From tank TK-10, biodiesel is then pumped to tank B3 which overflows to tank A3 or tank B4 which overflows to A4. These tanks contain the material "Purolite" which remove any residual soaps, water and methanol impurities from the biodiesel. The biodiesel from tanks A3 or A4 is then pumped to tank BLT-1 and then through a filter to one of the biodiesel product tanks (TK-17, TK-18, or TK-19). The biodiesel is shipped by trucks or rail to customer.

4) Methanol Vapor Recovery

The vent recovery system is used to recover methanol vapors from the process. The system consists of several process tank vents connected together by a common

	header system. The header vents to the atmosphere through a chiller system that condenses the methanol vapors. The recovered methanol is then pumped to either the Methanol Storage Tanks (MT-1 or MT-2) or to the bottoms holding tanks (TK-24C or TK-24D) for reuse. Tanks connected to the vent recovery system include tanks MT-1, MT-2, NMT-1, NMT-2, NMT-3, NMT-4, Mix Tank-1, Mix Tank-2, LMT-1, LMT-2, TK-B1, TK-B2, TK-2, TK-3, TK-4, TK-5, TK-6, TK-7, TK-9, TK-10, TK-11, TK-12, TK-13, TK-14, TK-15, TK-20, TK-22, TK-24C, TK-24D, TK-25A, TK-25B, TK-26A, TK-26B, TK-26C, TK-26D, TK-27A, TK-27B, TK-27D, Methanol Recovery Tank, TK-103, TK-104, TK-105, and TK-106. Tanks venting directly to the atmosphere include tanks TK-1, TK-8, TK-16, TK-17, TK-18, TK-19, TK-21, TK-24A, TK-24B, TK-29A, TK-29B, TK-29C, TK-29D, TK-30A, TK-30B, TK-30C, TK-30D, TK-31, TK-32, TK-100, TK-101, TK-A-3, TK-A-3, TK-B-3, TK-B-4, TK-BLT-1, Vacuum Pump and S-2.

PERFORMANCE RESTRICTIONS

A.1. Federal Regulatory Requirements: This emission unit is subject to the regulatory requirements listed below.

a. 40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984", which is adopted by reference in Rule 62-204.800, F.A.C. Specifically, methanol storage tanks MT-1 and MT-2 are subject to and shall be in compliance with all applicable requirements of 40 CFR 60 Subpart Kb.

b. 40 CFR 60, Subpart NNN – Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations, which is adopted by reference in Rule 62-204.800, F.A.C. Specifically, the Methanol Column (C-1) is subject to and shall be in compliance with all applicable requirements of 40 CFR 60 Subpart NNN.

c. 40 CFR 60, Subpart VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, which is adopted by reference in Rule 62-204.800, F.A.C.

[Rule 62-204.800(8), F.A.C.]

A.2. Permitted Capacity: Biodiesel production shall not exceed the following limit.

Description	**Maximum Annual Production** (per any consecutive 12-month period)
Biodiesel Production Limit	60.0 Million Gallons of Biodiesel

Note: Compliance with biodiesel and glycerin production limits (E.U. Nos. 001 & 003) will limit the VOC and HAP potential emissions.
[Rule 62-210.200(PTE), F.A.C.]

A.3. Hours of Operation: The hours of operation are not limited (8760 hours per year).
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

A.4. Fugitive Organic Solvents (OS), and Volatile Organic Compounds: The permittee shall not store, pump, handle, process, load, unload, or use in any process or installation OS, or VOC without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The following procedures shall be utilized to minimize pollutant emissions:

a. Maintain covers, lids, etc., on all containers of VOC/OS when they are not being handled, tapped, etc.

b. Prevent excessive air turbulence across exposed VOC/OS.

c. All fittings, valve lines, etc., shall be properly maintained.

d. All VOC/OS spills shall be attended to in a timely manner and the waste properly disposed of, recycled, etc.

[Rule 62-296.320(1), FAC]

OPERATION AND EMISSIONS STANDARDS

A.5. 40 CFR 60 Subpart NNN - Operation Standards: The permittee shall comply with one of the following provisions of 40 CFR 60.662 (40 CFR 60.662 (a), (b), or (c)) listed below for each distillation unit vent stream:

a. 40 CFR 60.662(a) - Reduce emissions of TOC (less methane and ethane) by 98 weight-percent, or to a TOC (less methane and ethane) concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen, whichever is less stringent. If a boiler or process heater is used to comply with this paragraph, then the vent stream shall be introduced into the flame zone of the boiler or process heater; or

b. 40 CFR 60.662(b) - Combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or

c. 40 CFR 60.662(c) - Maintain a total resource effectiveness (TRE) index value greater than 1.0 without use of VOC emission control devices.

[Rule 62-204.800(8) F.A.C.; 40 CFR 60.662]

A.6. 40 CFR 60 Subpart VVa - Operation Standards: The permittee shall comply with all applicable requirements of 40 CFR 60.482-1a through 40 CFR 60.482-10a or with 40 CFR 60.480a(e) for all equipment. The permittee shall also comply with all applicable requirements of 40 CFR 60.482-11a for connectors. The following is a list of the standards contained in the subpart:

60.482-1a	Standards: General.
60.482-2a	Standards: Pumps in light liquid service.
60.482-3a	Standards: Compressors.
60.482-4a	Standards: Pressure relief devices in gas/vapor service.
60.482-5a	Standards: Sampling connection systems.
60.482-6a	Standards: Open-ended valves or lines.
60.482-7a	Standards: Valves in gas/vapor service and in light liquid service.
60.482-8a	Standards: Pumps, valves and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.
60.482-9a	Standards: Delay of repair.
60.482-10a	Standards: Closed vent systems and control devices.
60.482-11a	Standards: Connectors in gas/vapor service and in light liquid service.

[Rule 62-204.800(8) F.A.C.; 40 CFR 60.482-1a and 40 CFR 60.482-11a]

A.7. 40 CFR 60 Subpart Kb – Standards: The permittee shall comply with all applicable requirements of 40 CFR 60.112b "Standards for volatile organic compounds" for Methanol Storage Tanks MT-1 and MT-2.
[Rule 62-204.800(8) F.A.C.; 40 CFR 60.112b]

{Permitting notes: The addition of the methanol vapor recovery system may also affect the classification of tanks MT-1 and MT-2. After the construction modification, these tanks may meet the specifications for a "closed vent system" as described in 40 CFR 60.112b(a)(3). }

TESTING REQUIREMENTS

A.8. 40 CFR 60 Subpart NNN - Initial Compliance Demonstration: For the methanol distillation column (C-1), the permittee shall demonstrate compliance with the standard selected (see Specific Condition No. A.17 [40 CFR 60.662]) for each vent stream on and after the date on which the initial performance required by 40 CFR 60.664 is completed, but no later than 60 days after achieving the maximum production rate at which the emission unit will operate, or no later than 180 days after the commencing operation as modified, whichever comes first.

[Rules 62-4.070(3), 62-204.800(8) F.A.C.; 40 CFR 60.662]

A.9. 40 CFR 60 Subpart NNN - Compliance After Initial Demonstration: Subsequent compliance demonstrations will be determined based upon the compliance method selected by the permittee (see Specific Condition No. A.17).
[Rule 62-204.800(8) F.A.C.; 40 CFR 60.482-1a]

A.10. 40 CFR 60 Subpart VVa - Initial Compliance Demonstration: The permittee shall demonstrate compliance with the requirements of the applicable standards listed in Specific Condition No. A.6. (i.e. 40 CFR 60.482-1a through 40 CFR 60.482-11a) or with 40 CFR 60.480a(e) for all equipment within 180 days after the commencing operation as modified.
[Rule 62-204.800(8) F.A.C.; 40 CFR 60.482-1a]

A.11. 40 CFR 60 Subpart VVa - Compliance After Initial Demonstration: The permittee shall demonstrate compliance with the requirements of the applicable standards listed in Specific Condition No. A.6. (i.e. 40 CFR 60.482-1a through 40 CFR 60.482-11a) or with 40 CFR 60.480(e) for all equipment based on the frequencies specified in each standard. Demonstration of compliance with 40 CFR 60.482-1a to 60.482-11a will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485a.
[Rule 62-204.800(8) F.A.C.; 40 CFR 60.482-1a]

A.12. 40 CFR 60 Subpart NNN - Test Methods: To demonstrate compliance with the standard selected in Specific Condition No. A.5., the permittee shall use the test methods and procedures outlined in 40 CFR 60.664.
[Rule 62-204.800(8), F.A.C.; 40 CFR 60.664]

A.13. 40 CFR 60 Subpart VVa - Test Methods: To demonstrate compliance with the standards listed in Specific Condition No. A.6. (i.e. 40 CFR 60.482-1a through 40 CFR 60.482-10a) or with 40 CFR 60.480a(e), the permittee shall use the test methods and procedures outlined in 40 CFR 60.485a.
[Rule 62-204.800(8), F.A.C; 40 CFR 60.485a]

MONITORING REQUIREMENTS

A.14. 40 CFR 60 Subpart NNN - Monitoring of Emissions and Operations: The permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications the monitoring equipment required for each vent stream. Required monitoring equipment is determined based on the requirements of 40 CFR 60.663 and the standard selected in Specific Condition No. A.5. (Operation Standards).
[Rule 62-204.800(8) F.A.C.; 40 CFR 60.663]

NOTIFICATION REQUIREMENTS

A.15. Test Notification: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required test and at least 30 days prior to any test required by 40 CFR 60. The notification must include the following information: the date, time, and location of each

test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and the telephone number of the person conducting the test.

{***Permitting Note****: The notification should also include the relevant emission unit ID No(s)., test method(s) to be used, and pollutants to be tested.*}

[Rules 62-4.070(3) and 62-297.310(7)(a)9., F.A.C.]

A.16. Notification of Operation Commencement: The permittee shall notify the Compliance Authority in writing of the date of commencing operation of the EU No. 001, no later than fifteen (15) days after that date. Commencing operation means setting into operation of any emissions unit for any purpose.
[Rule 62-4.070, F.A.C., and Rule 62-210.200, F.A.C., (Definition of Commence Operation) and 40 CFR 60.7(a)(3)]

A.17. 40 CFR 60 Subpart NNN - Notification of Compliance Method: The permittee shall notify the Compliance Authority of the specific provisions of 40 CFR 60.662 (40 CFR 60.662 (a), (b), or (c)) (see Specific Condition No. A.5) with which the permittee has elected to comply. Notification shall be submitted with the corresponding Notification of Operation Commencement listed in Specific Condition No. A.16. 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, then the Department shall be notified by the owner or operator 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.
[Rules 62-4.070(3), 62-204.800(8), F.A.C.; 40 CFR 60.665]

RECORDS AND REPORTS

A.18. Daily Production Recordkeeping During Test: On the dates when compliance or performance test are performed, the permittee shall keep the following daily records:

a. Facility Name, Facility Number (1010505), Emission Unit No. (001), Date;

b. The total quantity of biodiesel produced, in gallons, for the day.

[Rule 62-4.070(3), F.A.C. and 40 CFR 60.8(c)]

A.19. Monthly Production Records: To demonstrate compliance with the production limits of Specific Condition No. A.2., the permittee shall keep the following records:

a. Facility Name, Facility Number (1010505), Emission Unit No. (001), Month, Year;

b. The total quantity of biodiesel produced, in gallons, for the month;

c. The total quantity of biodiesel produced, in gallons, for the most recent consecutive 12-month period.

[Rule 62-4.070(3), F.A.C.]

A.20. 40 CFR 60 Subpart NNN Recordkeeping: The permittee shall keep up-to-date, readily accessible records as required by 40 CFR 60.665(b).
[Rule 62-204.800(8), F.A.C.; 40 CFR 60.665(b)]

A.21. 40 CFR 60 Subpart VVa Recordkeeping: The permittee shall keep readily accessible records as required by 40 CFR 60.486a. The following list summarizes the records that may be applicable:

a. Leak Detection Recordkeeping (40 CFR 60.486a(b)&(c)),

b. Closed Vent System and Control Devices Recordkeeping (40 CFR 60.486a(d)),

c. Equipment Identification and Recordkeeping (40 CFR 60.486a(e)),

d. Unsafe-to-Monitor Valves and Pumps/Difficult-to-Monitor Valves Identification Recordkeeping (40 CFR 60.486a(f)),

e. Valves Complying with Alternative Standards Recordkeeping (40 CFR 60.486a(g)),

f. Seal System and Barrier Fluid Failure Design Criteria Recordkeeping for Pumps and Compressors (40 CFR 60.486a(h)),

g. Subpart Exemption Recordkeeping (40 CFR 60.486a(i)),

h. Equipment not in VOC Service Recordkeeping (40 CFR 60.486a(j)).

[Rule 62-204.800(8), F.A.C.; 40 CFR 60.486a]

A.22. 40 CFR 60 Subpart Kb Recordkeeping: The permittee shall keep all applicable records and furnish reports as required by 40 CFR 60.115b.
[Rule 62-204.800(8), F.A.C.; 40 CFR 60.115b]

A.23. 40 CFR 60 Subpart VVa - Subsequent Semiannual Report: The permittee shall submit semiannual reports to the Compliance Authority. All semiannual reports shall include the following information, summarized from the information in 40 CFR 60.486a:

a. Process unit identification.

b. For each month during the semiannual reporting period,
   (1) Number of valves for which leaks were detected as described in 40 CFR 60.482–7a(b) or 40 CFR 60.483–2a,
   (2) Number of valves for which leaks were not repaired as required in 40 CFR 60.482–7a(d)(1),
   (3) Number of pumps for which leaks were detected as described in 40 CFR 60.482–2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii),
   (4) Number of pumps for which leaks were not repaired as required in 40 CFR 60.482–2a(c)(1) and (d)(6),
   (5) Number of compressors for which leaks were detected as described in 40 CFR 60.482–3a(f),

(6) Number of compressors for which leaks were not repaired as required in 40 CFR 60.482–3a(g)(1),
(7) Number of connectors for which leaks were detected as described in 40 CFR 60.482–11a(b)
(8) Number of connectors for which leaks were not repaired as required in 40 CFR 60.482–11a(d), and
(9) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

c. Dates of process unit shutdowns which occurred within the semiannual reporting period.

d. Revisions to items reported according to 40 CFR 60.487a(b) if changes have occurred since the initial report or subsequent revisions to the initial report.

[Rule 62-204.800(8), F.A.C.; 40 CFR 60.487a(c)]

{Permitting Note: Initial Semiannual Report was submitted September 17, 2009.}

B. EU No. 002 – Hot Oil Heat

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
002	Hot Oil Heater (when fired with biodiesel as the primary fuel) This emission unit consists of a Cleaver Brooks CPT 700-50 hot oil heater. The hot oil heater will be fired with biodiesel as the primary fuel with natural gas as a backup and will have heat input rate of approximately 5 million Btu per hour. Approximately 60,000 gallons of biodiesel fuel is required per year to meet the process heating requirements and assuming the heat value of biodiesel is approximately 128 MMBTU/1000 gallons, this equivalent to 7,680 million BTU per year. Pollutants generated by this emission unit are the product of combustion and include CO, NOx, PM10, SO_2 and VOC. This hot oil heater is subject to New Source Performance Standards (NSPS) Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
002	Hot Oil Heater (when fired with natural gas as the primary fuel) This emission unit consists of a Cleaver Brooks CPT 700-50 hot oil heater. The hot oil heater will be fired with natural gas as the primary fuel with biodiesel as a backup and will have a maximum heat input rate of 50 million Btu per hour. Approximately 240 million standard cubic feet of natural gas is required per year to meet the process heating requirements and assuming natural gas has a heat value of approximately 1050 BTU/SCF, this is equivalent to 252,000 million BTUs per year. Pollutants generated by this emission unit are the product of combustion and include CO, NOx, PM10, SO_2 and VOC. This hot oil heater is subject to New Source Performance Standards (NSPS) Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

PERFORMANCE RESTRICTIONS

B.1 Federal Regulatory Requirements: This emission unit is subject to 40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units., which is adopted by reference in Rule 62-204.800, F.A.C.
[Rule 62-204.800(8), F.A.C.]

B.2. Permitted Capacity: The hot oil heater shall not exceed the following heat input limits:

Description	**Maximum Heat Input Rate** (per any consecutive 12-month period)
Hot Oil Heater Maximum Heat Input Rate (when fired with biodiesel as the primary fuel)	7,680 Million BTU
Hot Oil Heater Maximum Heat Input Rate (when fired with natural gas as the primary fuel)	252,000 Million BTU

{Permitting note: The two Hot Oil Heater Maximum Heat Input Rates are based on the mode of operation of the facility. The use of biodiesel as the primary fuel corresponds to the facility operating without the methanol recovery system and the use of natural gas as the primary fuel corresponds the facility operating with the methanol recovery system.}

[Rule 62-210.200(PTE), F.A.C.]

B.3. Authorized Fuel: The hot oil heater shall be fired with either biodiesel or natural gas fuel only.
[Rules 62-4.070(3), 62-210.200(PTE), F.A.C.]

B.4. Hours of Operation: The hours of operation are not limited (8760 hours per year).
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

RECORDS AND REPORTS

B.5. Monthly Log: To demonstrate compliance with Specific Condition No. B.2. and the record keeping requirements of 40 CFR 60 Subpart Dc, the permittee shall maintain the following records:

a. Facility Name, Facility ID, Emission Unit No. (002), Month and Year;

b. The quantity of each fuel used (biodiesel and natural gas) to fire the hot oil heater for the month;

c. The total quantity of each fuel used (biodiesel or natural gas) to fire the hot oil heater for the most recent consecutive 12-month period;

d. The calculated heat input rate to the hot oil heater (based on fuel consumption and heat values of the fuel) for the most recent consecutive 12-month period.

Monthly records shall be completed by the end of following month and shall be maintained as required by record retention requirements of Appendix C.

[Rules 62-204.800(8) and 62-4.070(3), F.A.C.; 40 CFR 60.48c(g)(2)]

C. EU No. 003 – Glycerin Refining

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
003	Glycerin Refining: Crude glycerin is received by truck and stored in Storage Tanks Nos. 23B, 23C, 25A and 25B at ambient temperature. VOC emissions are minimized (and not significant) because a nitrogen blanket is maintained in the vapor space of these tanks and there is no significant vapor pressure associated with glycerin until it is heated to 350 degrees Fahrenheit (°F). Crude glycerin is pumped from these tanks, heated via a heat exchanger that is part of the Hot Oil System (Emissions Unit ID No. 002), and piped to Saponification Process Tank 2100. In this tank, the crude glycerin is treated with caustic (sodium hydroxide) from the caustic storage tank to convert traces of dissolved fats and esters into non-volatile soaps. Tank No. 2100 is a sealed tank and is not a source of VOC emissions. The mixture in Tank No. 2100 is pumped to one of three Saponified Crude Process Tanks, designated as Tank Nos. 2101A, 2101B and 2101C, where it is held at a temperature between 180 and 200 °F using heat from the hot oil system. At this point in the process, these tanks contain 82 percent crude glycerin and 0.4 percent sodium hydroxide, with the remainder being water and non-volatile soap. Although the three Saponified Crude Process Tanks are open to the atmosphere, VOC emissions are not significant because the vapor pressure of glycerin is negligible at 200 °F. From the three Saponified Crude Process Tanks, the mixture containing the crude glycerin is pumped through a heat exchanger (again with heat provided by the Hot Oil System) to the evaporator. The crude glycerin enters the evaporator at a temperature of approximately 335 °F and is subjected to a vacuum of 10 millimeters of mercury (mmHg), absolute or 1.33 kilopascals (kPa). Because the evaporator is operated at a vacuum, there are no VOC emissions associated with it. Still under vacuum, the vapors from the evaporator are sent via piping to the condenser. Liquids and solids from the evaporator are piped to Process Vessel No. 2111 and then to a centrifuge where solids are removed from the liquid. Solids are disposed of and the centrate, which is approximately 88 percent glycerin, is stored in Centrate Storage Tank Nos. 28A, 29C and 29D. VOC emissions are minimized (and not significant) because a nitrogen blanket is maintained in the vapor space of these tanks. The vapor piped from the evaporator is further processed through the condenser. The condenser is operated at a vacuum similar to the evaporator. Refined glycerin (purity of 99 percent plus) is pulled from the first two stages of the condensing train and transferred to Carbon Column Feed Tank No. 2107, which is a sealed tank with no VOC emissions. Glycerin from Tank No. 2107 is further processed in one of six carbon columns that can be operated in parallel or in series. The carbon columns are also sealed vessels with no VOC emissions. The finished refined glycerin is transferred to Finished Product Storage Tank Nos. 2108A, 2108B, 2108C and 2108D where a nitrogen blanket is maintained in the vapor space of these tanks to minimize VOC emissions. Yellow glycerin (purity of approximately 92 percent) is pulled from the third stage of the condenser and alternatively returned to Saponification Process Tank No. 2100 for

	reprocessing or storing in Yellow Glycerin Storage Tank No. 23A where a nitrogen blanketing system is used to minimize VOC emissions. Condensate collected before and after the vacuum pump and after the vacuum booster pump is stored in Condensate Storage Tank No. 30A. Vapors from the vacuum booster pump are exhausted to the atmosphere. Test results have demonstrated that this exhaust contains VOC emissions. The refined glycerin in the Finished Product Storage Tanks may be transferred to Storage Tank No. 29A for preparation for truck loadout or sent directly to truck loadout. A nitrogen blanketing system is used to minimize VOC emissions from Tank No. 29A. Yellow glycerin may also be transferred for truck loadout. *{Note: When the construction modification to add methanol vapor recovery system to the Biodiesel Processing (E.U. No. 001)is completed, crude glycerin produced at the facility will be stored in Storage Tanks Nos. 8, 16, 24A and 24B and can be used as feed to the glycerin refining system.}*

PERFORMANCE RESTRICTIONS

C.1. Federal Regulatory Requirements: This emission unit is subject to the regulatory requirements listed below.

a. 40 CFR 60, Subpart NNN – Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations, which is adopted by reference in Rule 62-204.800, F.A.C. Specifically, the glycerin evaporator and condenser are subject to and shall be in compliance with all applicable requirements of 40 CFR 60 Subpart NNN. The following exemption is applicable to this emissions unit:

(1) TRE Exemption - Per Rule 60.660(c)(4), if this emissions unit maintains a total resource effectiveness (TRE) index value greater than 8.0, it is exempt from all the provisions of this subpart except for 40 CFR 60.662; 60.664(d), (e), and (f); and 60.665 (h) and (l).

b. 40 CFR 60, Subpart VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, which is adopted by reference in Rule 62-204.800, F.A.C. The following exemptions are applicable to this emissions unit:

(1) Heavy Liquid Chemicals Exemption - Per Rule 40 CFR 60.480a(d)(3), this emissions unit can be exempt from §§60.482–1a through 60.482–11a if it produces heavy liquid chemicals only from heavy liquid feed or raw materials.

(2) Vacuum Service Exemption - Per Rule 40 CFR 60.482-1a(d), equipment that is in vacuum service is excluded from the requirements of §§60.482–2a through 60.482–10a if it is identified as required in §60.486a(e)(5).

[Rule 62-204.800(8), F.A.C.]

C. EU No. 003 – Glycerin Refining

C.2. Permitted Capacity: This emissions unit is limited to a maximum production of 3.6 million gallons of refined glycerin per any consecutive 12-month period.
{Permitting note: Compliance with biodiesel and refined glycerin production limits (E.U. Nos. 001 & 003) will limit the facility's VOC and HAP potential emissions.}
[Rule 62-210.200(PTE), F.A.C.]

C.3. Hours of Operation: The hours of operation are not limited (8760 hours per year).
[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.]

OPERATION AND EMISSIONS STANDARDS

C.4. 40 CFR 60 Subpart NNN - Operation Standards: The permittee shall maintain a total resource effectiveness (TRE) index value greater than 1.0 without use of VOC emission control devices.
[Rule 62-204.800(8) F.A.C.; 40 CFR 60.662(c)]

C.5. 40 CFR 60 Subpart NNN - Exemption Standards: If the emissions unit has a total resource effectiveness (TRE) index value greater than 8.0, it is exempt from all the provisions of this subpart except for 40 CFR 60.662; 60.664(d), (e), and (f); and 60.665 (h) and (l).
[Rule 62-204.800(8) F.A.C.; 40 CFR 60.660(c)(4)]

{Permitting notes: (1) Per Rule 40 CFR 60.480a(d)(3), if an affected facility produces heavy liquid chemicals only from heavy liquid feed or raw materials, then it is exempt from 40 CFR 60.482–1a through 60.482–11a. The glycerin refining operation is covered because it produces heavy liquid chemicals only (i.e. refined glycerin, yellow glycerin) from heavy liquid feed or raw materials (i.e. crude glycerin). (2) Per Rule 40 CFR 60.482-1a(d), equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482–2a through 60.482–10a if it is identified as required in 40 CFR 60.486a(e)(5). The evaporator and condenser are covered by this rule because they operate at 1.33 kPa (absolute) which is much lower than the minimum 5 kPa below ambient pressure necessary to be considered in vacuum service.}

TESTING REQUIREMENTS

C.6. 40 CFR 60 Subpart NNN - Compliance After Initial Demonstration: To comply with Exemption requirements of 60.660(c)(4), the permittee shall recalculate the TRE index value for the emission unit whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

a. Where the recalculated TRE index value is less than or equal to 1.0, the owner or operator shall notify the Administrator 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 §60.662(a). 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.

b. 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 owner or operator shall conduct a performance test in accordance with 40 CFR 60.8 and 60.664 and shall comply with 40 CFR 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.

[Rule 62-204.800(8) F.A.C.; 40 CFR 60.664(g)]

{Permitting note: Initial compliance test for 40 CFR 60, Subpart NNN was performed on December 20, 2011. VOC emissions rate from the vacuum booster pump exhaust vent were determined to be 0.8 lb/hr which corresponds to a TRE Index of 17.0. The report also shows the VOC emissions rate from the vacuum booster pump exhaust vent could reach 13.3 lb/hr before the TRE Index drops to 1.0.}

RECORDS AND REPORTS

C.7. Daily Production Recordkeeping During Test: On the dates when compliance or performance test are performed, the permittee shall keep the following daily records:

a. Facility Name, Facility Number (1010505), Emission Unit No. (003), Date;

b. The total quantity of refined glycerin produced, in gallons, for the day.

c. The daily average crude glycerin feed rate to the evaporator, in gallons/hr.

[Rule 62-4.070(3), F.A.C. and 40 CFR 60.8(c)]

{Permitting note: The initial compliance test for 40 CFR 60, Subpart NNN was performed on December 20, 2011 at a crude glycerin feed rate of 420 gallons/hour (7 gallons/minute). If process changes are made that increase the crude glycerin feed rate, then the permittee is required to recalculate the TRE Index as described in Specific Condition C.6.}

C.8. Monthly Production Records: To demonstrate compliance with the production limits of Specific Condition No. C.2., the permittee shall keep the following records:

a. Facility Name, Facility Number (1010505), Emission Unit No. (001), Month, Year;

b. The total quantity of refined glycerin produced, in gallons, for the month;

c. The total quantity of refined glycerin produced, in gallons, for the most recent consecutive 12-month period.

[Rule 62-4.070(3), F.A.C.]

C.9. 40 CFR 60 Subpart NNN Recordkeeping: To demonstrate compliance with the TRE index standard of 40 CFR 60.662(c), the permittee shall keep up-to-date, readily accessible records of:

a. Any changes in production capacity, feedstock type, or catalyst type, or of any replacement, removal or addition of recovery equipment or a distillation unit;

b. Any recalculation of the TRE index value performed pursuant to 40 CFR 60.664(f); and

c. The results of any performance test performed pursuant to the methods and procedures required by 40 CFR 60.664(d).

[Rule 62-204.800(8), F.A.C.; 40 CFR 60.665(h)]

C.10. 40 CFR 60 Subpart NNN Semiannual Report: The permitte shall comply with the applicable semiannual report requirements of 40 CFR 60.665(l). The initial report shall be submitted within 6 months after the initial start-up date.
[Rule 62-204.800(8), F.A.C.; 40 CFR 60.665(l)]

C.11. 40 CFR 60 Subpart VVa Recordkeeping: The permittee shall maintain a statement listing the feed or raw materials and products from the emissions unit and an analysis demonstrating these chemicals are heavy liquids. The statement shall be kept in a readily accessible location for use in determining exemption as provided in §60.480a(d)(3)
[Rule 62-204.800(8), F.A.C.; 40 CFR 60.480a(d)(3) and 40 CFR 60.486a(i)]