



September 14, 2011

Mr. Jeff Koerner, Air Program Administrator
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

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DIVISION OF AIR
RESOURCE MANAGEMENT

103-87668

**RE: HIGHLANDS ENVIROFUELS, LLC
DEP FILE NO. 0550063-001-AC (PSD-FL-416)
ADVANCED BIOREFINERY AND COGENERATION PLANT
COMMENTS ON DRAFT AIR CONSTRUCTION PERMIT**

Dear Mr. Koerner:

Highlands EnviroFuels, LLC (HEF) and Golder Associates Inc. (Golder) have received the Department's draft Air Construction Permit No. 0550063-001-AC/PSD-FL-416 dated August 12, 2011, for the ethanol advanced biorefinery and cogeneration power plant. We are providing the following comments on the draft air permit.

Section 3.B. Cogeneration Biomass Boiler (EU-002)

Page 13 of 39: Emission Unit Description: Under *Capacity*, please change the 4-hour steam production from 275,800 lb/hr to 275,000 lb/hr.

Page 14 of 39: Condition 1. Construction of Biomass-Fueled Boiler: Please change the 4-hour steam production rate from 270,000 lb/hr to 275,000 lb/hr.

Page 17 of 39: Emission Limits:

Regarding SO₂ limits, HEF would like to respectfully document its concern over the lower limit of 0.06 lb/MMBtu, 30-day rolling average, equivalent to 110.58 TPY. HEF had requested higher limits equivalent to 200.4 TPY (0.14 lb/MMBtu for sorghum bagasse; 0.078 lb/MMBtu for sugarcane bagasse and wood). Even with the DSIS, HEF is concerned that the lower limit will not be able to be met at all times, particularly when burning sorghum bagasse. HEF had requested the higher SO₂ limits due to the potentially higher sulfur content of sweet sorghum bagasse. HEF recognizes and understands the Department's belief that the 0.06 lb/MMBtu SO₂ limit will be achievable at all times, and is not formally requesting revision of the permit draft. However, if the 0.06 lb/MMBtu limit cannot be complied with through good faith efforts using the DSIS, we respectfully request that the Department be willing to increase the emission limit appropriately without enforcement action.

Footnote "m" of table: 24-hour average heat input rate should be 458.5 MMBtu/hr instead of 488 MMBtu/hr.

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Conditions 14.a and 14.b: Should these conditions refer to 40 CFR 60, Appendix B and F, consistent with Appendix CEMS?

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Condition 14.d. HCl CEMS: This condition states that the method used to perform the RATA tests is EPA Method 320. This should be changed to Method 26, to be consistent with Appendix CEMS.

Page 20 of 39: Condition 22.b, Organic HAP: Please remove the sentence "Tests shall be conducted between 90% and 100% of the maximum heat input rate when firing sugarcane or sweet sorghum bagasse as the primary fuel and biomass (energy crops, wood chips and vegetative debris) as a supplemental fuel." The next sentence is correct.

Condition 22.c, Other Pollutants and Metal HAP: Remove the sentence "RATA test for CEMS can constitute initial stack tests for these pollutants." There are no CEMS required for these pollutants.

Page 21 of 39: Condition 23. Test Methods: Change Method 10B to Method 10, consistent with Condition 14.c. Also, should Method OTM-22 also be listed?

Page 27 of 39: Conditions 11-14. It is suggested that these conditions be revised to read as below, to provide clarification and additional flexibility in the testing requirements.

11. Initial Compliance Tests: The fermentation liquid scrubber stack and the distillation/dehydration liquid scrubber vent shall be tested to demonstrate initial compliance with the emissions standards for VOC and HAP given in **Specific Conditions 9 and 10**, of this subsection respectively. The initial tests shall be conducted within 60 days after achieving permitted capacity, but not later than 180 days after initial operation of the unit. During scrubber VOC and organic HAP testing, the water temperatures of each scrubber shall be measured and recorded.

a. *VOC Testing:* VOC testing shall be performed using EPA Methods 25 or 25A to demonstrate compliance with the VOC emissions limit. [Rules 62-212.400 (BACT); 62-4.070, Reasonable Assurance; 62-210.200(PTE); and 62-297.310(7)(a)1, F.A.C.]

b. *Organic HAP Testing:* Initial organic HAP testing shall be performed using EPA Method 320, or EPA Method 18, CARB Method 430 and NCASI Method 98.01, to demonstrate compliance with the organic HAP emissions limit and to identify the key organic HAP emitted by the ethanol process scrubbers. The permittee shall submit to the office of Permitting and Compliance an organic HAP testing protocol for approval prior to the initial testing activities. [Rules 62-212.400 (BACT); 62-4.070, Reasonable Assurance; 62-210.200(PTE); and 62-297.310(7)(a)1, F.A.C.]

12. Annual and Quarterly Compliance Tests: During the first 24 months of the HEF facility operation, VOC and organic HAP testing shall be conducted annually during each federal fiscal year (October 1st to September 30th) to demonstrate compliance with the emissions standard for VOC and organic HAP given in **Specific Conditions 9 and 10**, of this subsection respectively. During scrubber VOC and organic HAP testing, the water temperatures of each scrubber shall be measured and recorded.

a. *VOC Testing:* If after 24 months, the Cogeneration Boiler Ox-cat system is removed due to catalyst poisoning, quarterly VOC testing shall be required during each subsequent federal fiscal year to demonstrate compliance with the emissions standard for VOC using EPA Methods 25 or 25A. If the Ox-cat system is not removed, VOC testing shall continue on an annual basis during each federal fiscal year. [Rules 62-212.400 (BACT); 62-4.070, Reasonable Assurance; 62-210.200(PTE); and 62-297.310(7)(a)4, F.A.C.]

b. *Organic HAP Testing:* Annual organic HAP testing shall be performed using EPA Method 320, or EPA Method 18, CARB Method 430 and NCASI Method 98.01. In lieu of Method 320, Method 18 may be used once the key organic HAPs emitted by the ethanol process scrubbers are identified during initial compliance testing. If after 24 months, the Cogeneration Boiler Ox-cat system is removed due to catalyst poisoning, quarterly

organic HAP testing shall be required during each subsequent federal fiscal year to demonstrate compliance with the emissions standard for organic HAP. The applicant may propose alternative methods to fulfill the annual and quarterly organic HAP testing requirements. The alternative method could utilize EPA Methods TO-14A or TO-15 where the scrubber flue gas is collected in specially prepared canisters with subsequent analysis by gas chromatography mass spectrometry (GC/MS). The permittee shall submit to the office of Permitting and Compliance an organic HAP testing protocol for approval prior to the initiation of annual and quarterly (if required) testing activities. The annual and quarterly organic HAP testing shall follow the approved testing protocol. If the Ox-cat system is not removed, organic HAP testing shall continue on an annual basis during each federal fiscal year. [Rules 62-212.400 (BACT); 62-4.070, Reasonable Assurance; 62-210.200(PTE); and 62-297.310(7)(a)4, F.A.C.]

13. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix CTR (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

14. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
CTM-027 320	Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive Fourier Transform Infrared (FTIR) Spectroscopy
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis and Moisture Content
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25	Determination of Total Gaseous Nonmethane organic Emissions as Carbon
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)
TO-14A	Determination of Volatile Organic Compounds (VOCs) in Ambient Air Using Specially Prepared Canisters with Subsequent Analysis by Gas Chromatography
TO-15	Determination of Volatile Organic Compounds (VOCs) in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography Mass Spectrometry (GC/MS)
CARB 430 (modified)	For determination of acrolein and acetaldehyde, modified to use small impingers with DNPH/toluene
NCASI 98.01	Chilled water impinge for methanol and acetone

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

Page 38 of 39: Please rename this section "Facility-Wide Fugitive VOC Equipment Leaks".

Appendix CEMS: Condition 8.c, HCl CEMS: To be consistent with Conditions B.14.a and b. of the draft permit, add "EPA Method OTM-22 or equivalent or alternative specifications approved by the Department." in addition to Performance Specification 15.

Condition 19: The language should refer to "Conditions 18 **and** 19 of Subsection 3 B". Also, delete Condition 19.a, Opacity, since it is not necessary in this Appendix.

Thank you for the opportunity to present these comments. If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.

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Enclosures

cc: Brad Krohn, HEF
Dan Garrett, Fagen & Assoc.

DB/tz