



February 19, 2015

133-87606  
**Via Electronic Delivery**

Mr. John Dawson  
Florida Department of Environmental Protection  
Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32339-2400

**RE: DRAFT AIR PERMIT NO. 0890441-001-AC  
EIGHT FLAGS ENERGY, LLC  
GAS TURBINE COGENERATION SYSTEM**

Dear Mr. Dawson:

Eight Flags Energy LLC (Eight Flags) and Golder Associates Inc. (Golder) have received the draft air construction permit No. 0890441-001-AC dated January 22, 2015, from the Florida Department of Environmental Protection (FDEP) regarding the application to construct a gas turbine cogeneration system. We have reviewed the draft permit and accompanying Technical Evaluation and Preliminary Determination (TE&PD). We have no comments on the TE&PD, but have a few comments on the draft permit. These are provided below.

**Comment 1.**

Pg. 7 of 12: Condition 8.b and 8.c. These two conditions specify that quarterly testing is required for NO<sub>x</sub> emissions for the first year of operation. However, Condition 17 on pg. 9 of 12 states that quarterly testing is required only if the Initial Compliance Demonstration testing (Condition 15) determines that NO<sub>x</sub> emission are equal to or greater than 90% either of the SIP-based NO<sub>x</sub> limits in Conditions 8.a., b. and c. Therefore, it is requested that Condition 8.b. and c. be revised to be consistent with Condition 17. Suggested wording is provided below:

- b. *SIP-based NO<sub>x</sub> Standard for Turbine:* Emissions of NO<sub>x</sub> from the gas turbine operating at greater than or equal to 75% of full load, without duct burner firing, shall not exceed 17 ppmvd @ 15% O<sub>2</sub>. Initial, quarterly (for first year of operation **and only if required by Specific Condition 17**) and annual compliance tests for NO<sub>x</sub> shall be in accordance with EPA Method 7E. [Application No. 0890441-001-AC; Rule 62-4.070(3), F.A.C.; PSD Avoidance]
- c. *SIP-based NO<sub>x</sub> Standard for Duct Burners:* Combined emissions of NO<sub>x</sub> from the gas turbine and duct burners shall not exceed 22 ppmvd @ 15% O<sub>2</sub>. Initial, quarterly (for first year of operation **and only if required by Specific Condition 17**) and annual compliance tests for NO<sub>x</sub> shall be in accordance with EPA Method 7E. [Application No. 0890441-001-AC; Rule 62-4.070(3), F.A.C.; PSD Avoidance]

**Comment 2.**

Pg. 9 of 12: Condition 14. This condition refers to an "emissions unit description above". However, the emissions unit description appearing on pg. 6 of 12 does not include this information. We believe this

P:\2013\133-87606 Eight Flags\Pursuit of Approval\Golder Comments on EF Draft Permit 021915.docx

**Golder Associates Inc.**  
6026 NW 1st Place  
Gainesville, FL 32607 USA  
Tel: (352) 336-5600 Fax: (352) 336-6603 www.golder.com



**Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America**

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation

condition should more appropriately refer to Specific Condition 4, Permitted Capacity. Suggested wording is provided below:

14. Operating Rate During Testing: Initial and annual stack tests shall be conducted at 90% or greater of the ~~design~~ **permitted** heat input ratings provided in ~~emissions unit description~~ **Specific Condition 4** above.

[Rule 62-297.310, F.A.C.]

**Comment 3.**

Pg. 9 of 12: Condition 18. This condition refers to an "emissions unit description above". However, the emissions unit description appearing on pg. 6 of 12 does not include this information. We believe this condition should more appropriately refer to Specific Condition 4, Permitted Capacity. Suggested wording is provided below:

18. Special Performance Test for CO and VOC: A special initial performance test for CO and VOC shall be conducted or commence within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup of the unit. The tests shall be conducted at 90% or greater of the ~~design~~ **permitted** heat input rating provided in ~~emissions unit description~~ **Specific Condition 4** above. In accordance with the methods in Condition 16, the CTG (including duct burner) shall be tested to determine the concentration and mass emission rate for CO and VOC. The test results shall be compared with the values listed below. If the listed values are exceeded, then the permittee shall submit an application with a request for enforceable CO or VOC limits and testing procedures that further ensure that the requirements of subsections 62-212.400(4) through (12), F.A.C. are not triggered.

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

Sincerely,

**GOLDER ASSOCIATES INC.**



David A. Buff, P.E., Q.E.P.  
Principal Engineer



Natalia Gonzalez, E.I.  
Project Engineer

cc: P. Mark Cutshaw, Eight Flags Energy  
Kevin Webber, Eight Flags Energy  
Terry Cole, Gunster  
Richard Rachal, DEP NED

NG/DB