FINAL DETERMINATION
Air Construction Permit

Northwest Florida Renewable Energy Center, LLC
Nominal 55 Megawatt (MW) Biomass Power Plant
DEP File No. 0450012-002-AC

PERMITTEE

Northwest Florida Renewable Energy Center (NWFREC), LLC
1331 17th Street, Suite 720
Denver, Colorado 80202

PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)
Division of Air Resource Management
Bureau of Air Regulation
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400

PROJECT

Project No. 0450012-002-AC
NWFREC Biomass Project
Nominal 55 MW Biomass Power Plant
Gulf County

The project involves the construction of a nominal 55 MW biomass fed gasification and combined cycle (BGCC) power plant called the NWFREC. The proposed project location is 521 Premier Drive in Port St. Joe, Gulf County, Florida. In addition to biomass, the NWFREC will use natural gas, biodiesel and/or ultra low sulfur distillate (ULSD) fuel oil as startup fuels and natural gas as a pilot and combustion stabilization fuel for the flare system. Biodiesel or ULSD fuel oil will also be used as the fuels for all emergency equipment.

NOTICES AND PUBLICATION

NWFREC, LLC submitted an air construction permit application on February 1, 2011. On April 27, 2011, the Department gave notice of its intent to issue an air permit to the applicant for the project. The applicant published the Public Notice of Intent to Issue Air Permit for the project on May 5, 2011 in The Star. The permitting file is available at:

www.dep.state.fl.us/air/emission/bioenergy/northwest_renewable.htm

COMMENTS ON AIR PERMIT APPLICATION

On March 11, 2011, the Department received a letter from Mr. Dan Tonsmeire of the Apalachicola Riverkeeper® expressing concerns regarding the proposed biomass plant in the Port St. Joe area. The concerns related to human health, environmental health and water quality. The letter can be accessed at the web link below:

www.dep.state.fl.us/air/emission/bioenergy/northwest_renewable/Riverkeeper_Concerns.pdf

On April 14, 2011, the Department received a letter from Ms. Margaret E. Sheehan, Esq. of the Biomass Accountability Project regarding the procedures for public notice, comment and opportunity for a public hearing on the draft permit for the NWFREC project. The letter also addressed Prevention of Significant Deterioration (PSD) applicability and environmental justice issues. The letter can be accessed at the web link below:

www.dep.state.fl.us/air/emission/bioenergy/northwest_renewable/PSJ%20DEP%204-12-11.pdf

The comments in the above referenced letters were not specific to the draft air permit and consequently are not addressed by this final action.

PETITION FOR ADMINISTRATIVE HEARING

On May 10, 2011, the Help Save the Apalachicola River Group, Inc. filed a Petition for Administrative Hearing with the Department requesting referral of the matter to the Division of Administrative Hearings (DOAH) for an administrative hearing pursuant to Section 120.57 and 120.569, Florida Statutes (F.S.).

The original petition and entire case record are available in the docket for DOAH Case No. 11-2440 at:

DOAH NWFREC Docket

On June 2, 2011, the Help Save the Apalachicola River Group, Inc. filed a Notice of Voluntary Dismissal without Prejudice of the petition for an administrative hearing.

On June 2, 2011 DOAH issued an Order Relinquishing Jurisdiction to the Department to issue a Final Air Construction Permit reflecting the Draft Air Construction Permit.

COMMENTS FROM NWFREC, LLC. REGARDING THE DRAFT AIR PERMIT

Besides comments pertaining to typos and other minor errors, thirteen comments on the draft permit were received from NWFREC, LLC. The comments were highlighted on a markup copy of the draft permit or in one case by email. The requested changes from NWFREC, LLC along with the rationale for the changes are paraphrased below along with the Department's response. A copy of the markup permit with the NWFREC, LLC comments can be found at the following link:

www.dep.state.fl.us/air/emission/bioenergy/northwest_renewable/NWFREC.pdf

- *In the second sentence of the first paragraph in Section 1 - General Information: Facility and Project Description, please remove the term "exclusively" from the phrase "exclusively untreated biomass." The word exclusively conflicts with the use of fossil fuels and possibly biodiesel for facility startup and the use of natural gas for flare pilots and combustion stabilization.*

  Response: The Department agrees with the rationale for this change and will remove the word "exclusively" as requested.

- *In the fifth bullet in Section 1 - General Information: Facility Regulatory Classification, please clarify that the Clean Air Interstate Rule (CAIR) only applies to the facility if the 45.6 MW GE Model MS6001B is the CTG option selected.*

  Response: The Department agrees with the rationale for this change. To be affected by CAIR, units must serve at least one single generator with a capacity of greater than 25 MW. If the SOLAR CTG option is selected, no single generator greater than 25 MW will be used at the NWFREC and consequently the facility will not be subject to CAIR.

- *In the second sentence of Specific Condition 1.h in Section 3 - Emission Unit Specific Conditions, Subsection A: Biomass Handling, Storage and Drying Systems (EU-001), please remove the phrase "at approximately 23% moisture content" and replace with the phrase "on a dry basis". The 900 tons per day (TPD) feed rate of biomass to the storage/feeder bin is a design rate at 0% moisture (dry basis) even through the biomass will normally leave the dryer at a moisture content of approximately 23%.*

  Response: The Department agrees with the rationale for this change and will make the requested change to Specific Condition 1.h and throughout the permit where required. In addition, the Department will add the following permitting note to clarify this issue throughout the permit:

  {Permitting Note: The term dry basis when pertaining to biomass means 0% moisture. The biomass coming from the dryer will usually be at a moisture content of approximately 23%, but for design purposes the mass of processed biomass has been normalized to 900 TPD on a dry basis.}

- *In the second sentence of Specific Condition 4 in Section 3 - Emission Unit Specific Conditions, Subsection A: Biomass Handling, Storage and Drying Systems (EU-001), remove the term "covered" from the phrase "covered storage area". The storage area will not be covered.*

  Response: The use of the word "covered" in this instance was an error and the Department will make this change.

- *In the first sentence of Specific Condition 3 in Section 3 - Emission Unit Specific Conditions, Subsection B: Biomass Gasifier with NG Startup Burner (EU-002), please change the phrase "maximum rate" to "design rate". As previously stated, the 900 TPD biomass feed rate is a design rate at 0% moisture content. The actual moisture content of the biomass will be higher.*

  Response: The Department agrees with this rationale and will make this change.

- *In Specific Condition 4 in Section 3 - Emission Unit Specific Conditions, Subsection B: Biomass Gasifier with NG Startup Burner (EU-002), at the end of the condition after the phrase "25 million Btu per hour (mmBtu/hr)" please added the phrase "on a lower heating value (LHV) basis". The heat input from natural gas is usually defined on a LHV basis.*

  Response: The Department agrees with this rationale and will make this change. The Department will also make this clarification where necessary through the permit to be consistent.

- *In the first sentence of Specific Condition 3 in Section 3 - Emission Unit Specific Conditions, Subsection D: BPG Cleanup System and Flare/TO System (EU-004), please add after the term "BPG" the statement "and natural gas as required to sustain proper operation." When the heat content of the BPG is below approximately 200 Btu/scf, for example during startup, complete combustion of BPG by the flare/TO may not occur. Supplemental natural gas is required to ensure complete combustion under this low heat condition.*

  Response: The Department agrees with this rationale and will modify the second sentence of the condition to read: *NG shall be used as fuel for the pilots and to sustain complete combustion when the heat content of the BPG is low*.

- *In Specific Condition 6 in Section 3 - Emission Unit Specific Conditions, Subsection D: BPG Cleanup System and Flare/TO System (EU-004), please change the condition to read: "Tars shall be continuously returned to the char combustor and be disposed of on-site." This change will provide a more accurate description of tar handling and provide more flexibility.*

  Response: To provide the requested flexibility, the Department will change the entire condition to read: *Tars shall be returned to the char combustor*.

- *In Specific Condition 1 in Section 3 - Emission Unit Specific Conditions, Subsection F: Auxiliary Boiler (EU-006), please change the second sentence to indicate that the auxiliary boiler will be used for the purpose of starting up and shutting down equipment at the facility and not just the startup of the gasification system.*

  Response: The Department agrees to make this change since the allowable operational hours of the auxiliary boiler will not change. The Department will change the second sentence of the condition to read: *The auxiliary boiler shall be operated for purposes of starting up and shutting down*.

- *In Specific Condition 3 in Section 3 - Emission Unit Specific Conditions, Subsection F: Auxiliary Boiler (EU-006), please indicate that the averaging basis for the heat input limit is a 4-hour block.*

  Response: The Department agrees that a basis for the averaging time is required. To be consistent with other heat input limitations in other permits, the Department will add that the basis is a 4-hour rolling average.

- *In Specific Condition 1.a in Section 3 - Emission Unit Specific Conditions, Subsection I: BPG-Fueled CTG and HRSG (EU-009, EU010 and EU011), please delete the natural gas compressor system and natural gas as a fuel option during commissioning and startup, malfunctions and shutdowns. The SOLAR CTG will only use liquid fuels during these events and does not require a natural gas compressor.*

  Response: The Department will remove natural gas as a fuel option including the compressor for the SOLAR CTG.

- *In Specific Condition 1.b in Section 3 - Emission Unit Specific Conditions, Subsection I: BPG-Fueled CTG and HRSG (EU-009, EU010 and EU011), please remove biodiesel and ULSD fuel oil as fuel options during commissioning and startup, malfunctions and shutdowns. The GE CTG will only use natural gas during these events.*

  Response: The Department will remove biodiesel and ULSD fuel oil as fuels for the GE CTG.

- *In Appendices – Appendix KKKK: NSPS – Standards of Performance for Stationary Combustion Turbines, please change the CTG EU numbers to reflect those that are used in the main body of the permit.*

  Response: The incorrect EU will be corrected in Appendix KKKK to reflect those used in the main body of the permit for the CTG.

OTHER LETTERS WITH COMMENTS

On May 10, 2011, the Department received a letter from the Law Office of David A. Ludder representing Annie S. Fields, John B. Byrd and Marilyn Blackwell. The letter asserts that emissions from the facility will have disparate impacts on nearby African-American residents and advises "if a permit is issued for this facility, my clients intend to file an administrative complaint with the EPA …". The letter can be accessed at the below web link:

www.dep.state.fl.us/air/emission/bioenergy/northwest_renewable/ludder_letter.pdf

The Department does not agree with these assertions. The letter did not include comments or recommendations regarding the draft permit specific conditions. Two of the individuals (Ms. Fields and Ms. Blackwell) were involved in the previously cited petition from the Help Save the Apalachicola River Group, Inc. that was voluntarily dismissed as discussed above. That dismissal returned jurisdiction to the Department and a final permit will be issued.

On May 19, 2011, the Department received a letter from the Office of General Counsel for the National Association for the Advancement of Colored People (NAACP) requesting use of "discretionary authority to stay the issuance of the final permits for the Northwest Florida Renewable Energy Center pending an independent evaluation by the State of Florida to determine the discriminatory effects of the facility on surrounding communities". The letter can be accessed at the web link below:

www.dep.state.fl.us/air/emission/bioenergy/northwest_renewable/Gilmore%20EO-54711.pdf

The Department does not agree that the facility will have discriminatory effects, nor does the Department have the authority to stay an ongoing permitting proceeding. The letter did not include comments or recommendations regarding the draft permit specific conditions. It is noted that emissions from the facility will be less than those governed by the major stationary source (Prevention of Significant Deterioration) construction program. Based on the Department rules and criteria for review of comments regarding such minor permits, the appropriate action is to issue a final permit.

CONCLUSION

The final action of the Department is to issue the final permit reflecting the draft permit with the minor revisions, corrections, and clarifications discussed above.