

## **Integro Earth Fuels Announces Pilot Torrefaction Plant**

**(Asheville, NC)** Integro Earth Fuels, LLC, a North Carolina based provider of torrefied biomass, has constructed a pilot plant in Gramling, SC. The plant is one of the first in the country to successfully produce torrefied material in a continuous flow process. The facility will produce 30 to 40 tons of torrefied wood over a period of 90 to 120 days. The torrefied biomass will be used to provide sample material for a variety of potential customers.

Integro will also use the facility to carry out contract projects for outside agencies and scientific research foundations. Integro has tested a variety of feedstock materials in a project conducted for the Electric Power Research Institute. Details for additional torrefaction tests with the Department of Energy are being finalized. In addition to the torrefied material produced, the pilot plant will provide information for Integro engineers. Data gathered at the plant will provide a final design for a full-sized commercial torrefaction facility. Integro anticipates production of 4000 tons of torrefied biomass per month beginning in 2010.

Torrefaction is a thermo-chemical treatment in which lignin cellulose is held for a specific resident period in an inert environment heated between 240°C and 270°C. The results of the process are that the biomass loses nearly all its moisture while retaining more than 90% of its original energy content. Torrefaction greatly increases the grindability of biomass, allowing it to be pulverized like coal. The products' heating values range from 9,500—11,000 Btu/lbs, with a fraction of the level of NOx and SOx found in coal.

Torrefied biomass appears to be an excellent option for coal fired utilities looking to reduce greenhouse gas emissions. The clear and obvious value of co-firing is the low capital investment required to burn the biomass with coal in the same boiler. This gives utilities an immediate answer to state-mandated Renewable Portfolio Standards and protects the large infrastructure of coal-fired facilities. Other potential uses for torrefied material include as a feedstock for biomass-fired electricity generation, as a fuel for industrial and combined heat and power furnaces and boilers, as fuel in the wood home heating market and as a feedstock for biofuels.

For more information contact Walt Childs at: 828-651-8018 or email: [wchilds@integrofuels.com](mailto:wchilds@integrofuels.com).