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Press Release

MOR Technology offers next-generation fractionation and oil extraction for corn-based ethanol plants

Metropolis, IL, January 26, 2009: MOR Technology, a technology services company based in Metropolis, IL, has recently unveiled a new set of “2nd Generation” technologies targeted specifically at increasing the sustainability and profitability of corn-based ethanol plants. Their **MOR-Frac Plus+ Milling System** coupled with their breakthrough **supercritical CO₂ corn oil extraction technology** allows plants to increase and diversify revenues by producing premium, value-added food-grade products, while also decreasing operating costs and environmental footprint. These technologies, backed by MOR’s experienced team of engineers and industry partners, offer superior performance characteristics and return on investment compared to previous fractionation systems. MOR is currently working with a number of customers, design-build firms and financing institutions to install the technology in corn-based ethanol plants around the country.

The patent-pending **MOR-Frac™ Plus+ Milling System** represents the state-of-the-art in fractionation technology. Developed in conjunction with *Corn Value Products, LLC*, it combines dry and wet milling technology in a unique and proprietary way that results in phenomenal performance criteria. The process has demonstrated starch loss at less than 2%, while producing a DDG product at 58% protein (dm), and a germ product at 42% oil (by weight). The process is also designed as a GMP food-grade facility, allowing producers to capture added value from food-grade products. The system offers the product purity and product yields achieved in wet milling, but with the energy efficiency, environmental impact, and capital/operating costs much closer to those of dry milling. This results in a demonstrated host of benefits:

Compared to dry fractionation:

- High-value, food-grade market for germ and fiber
- Lower starch loss
- Near-zero sugar loss
- Returns nutrients back to fermentation, requiring fewer additional nutrients

For Immediate Release

- No additional water use (water used is simply makeup water in slurry tank)

Compared to “modified wet” fractionation:

- Higher quality germ (less denaturing of proteins)
- Lower energy use
- Lower water use (same water saving benefits as dry fractionation)
- Lower capital requirement

MOR is currently constructing a 1/20th scale demonstration facility for the new technology which is scheduled to start up at an operating Illinois ethanol plant in March of this year. MOR will perform design, engineering, training, and start-up services for the systems, and marketing services will be provided through their partner, *Quality Technology International, Inc.*

MOR Supercritical, an affiliate of MOR Technology based in Allentown, Pennsylvania, has developed a corn oil and commodity oilseeds extraction system that uses proprietary breakthroughs in supercritical CO₂ technology allowing for operating costs and energy use below that of hexane or mechanical extraction while also producing an all-natural, hexane-free corn oil for human consumption. The process has an amazingly small physical and environmental footprint, can be built directly onsite at ethanol plants, and will also produce a high quality meal with less than 1% residual oil that is ideal for food-grade applications.

MOR’s engineering team, including their President, Rodger Marentis, are leaders in commercial supercritical equipment and plant design, having been involved in the design and operation of more than 20 supercritical plants around the world including commercial applications for waste water treatment, coffee and tea decaffeination, hops extraction, and other specialty extracts. By designing several cost-saving breakthroughs, MOR has opened the door to utilizing CO₂, an all-natural, benign and abundant solvent, as a replacement for hexane – a hazardous, flammable, and potentially toxic petrochemical used to process nearly all of the food-grade oil consumed in the United States. MOR’s technology also has applications in a number of renewable fuel processes, such as oil extraction from algae for biodiesel and nutraceuticals, ethanol dehydration (as a low-energy replacement for steam distillation) and a supercritical transesterification process with improved efficiencies.

MOR is currently constructing a demonstration and toll processing plant to showcase the new technology in Allentown, on track to be completed by July of this year. The plant will also generate significant revenue for the company through custom processing of nutraceuticals and other specialty products, while offering customers unique processing capabilities. MOR is currently seeking customers for toll extractions of up to 5 tons per day.

Contact us today to learn more about these technologies by calling (618) 522-8324 or visiting our websites: www.mortechnology.com and www.morsupercritical.com.###