

Greenhouse Gas Technology Center Completes Verification for Engineered Concepts' Quantum Leap Natural Gas Dehydration Technology

FOR IMMEDIATE RELEASE

Technology reduces emissions and increases profitability

RESEARCH TRIANGLE PARK, NC (March 31, 2004)—The Greenhouse Gas Technology Center (GHG Center) today announced that it has independently verified the performance of the Quantum Leap Natural Gas Dehydration (QLD) Technology, developed by Engineered Concepts, LLC, of Farmington, New Mexico. The U.S. Environmental Protection Agency (EPA) notes that natural gas systems represented almost two percent of the total greenhouse gas emissions in the U.S. in 2002. This was also approximately 20 percent of the total CH₄ emissions in the U.S. for 2002.

The QLD process is a natural gas dehydration process that eliminates hydrocarbon emissions from the glycol still column vent stream. Condensable products from this stream are either sold or further treated. Noncondensable vapors are used to fuel the process or are sold. The QLD process eliminates more than 99.74 percent of HAPs and virtually all VOC and CH₄ emissions. The application of a QLD unit rather than conventional dehydration technology would save the equivalent of 35 mmscfy of natural gas valued at approximately \$173,000, according to studies by Engineered Concepts. The tested unit reduced CO₂ emissions by almost 3000 TPY. Independent performance verification of the QLD process was conducted at the Kerr-McGee Gathering Station in Brighton, Colorado. A synopsis and final performance evaluation report can be accessed on the U.S. EPA ETV website at <http://www.epa.gov/etv/verifications/vcenter3-4.html>.

"We are already seeing that the verification test and report have given us instant credibility and opened doors to contacts that we could never reach without it," said Forrest Heath, Engineering Manager for Engineered Concepts. "The ETV Verification Program is an invaluable tool to shorten the marketing process and gain acceptance by our customers."

The GHG Center is a public/private partnership between the U.S. Environmental Protection Agency and Birmingham, Alabama-based Southern Research Institute, operating under the EPA's Environmental Technology Verification (ETV) program. The GHG Center looks for promising greenhouse gas mitigation technologies, subjects them to independent third-party performance testing, and provides performance results to the public free of charge. The Center has verified—or is in the process of verifying—25 different environmental and energy technologies to date that can significantly impact greenhouse gas and other emissions.

Verifications generally involve the measurement of energy conversion efficiency, air pollution emission rates (e.g., GHGs, criteria pollutants, other pollutants), secondary environmental impacts, electrical power quality, operational availability, cost, payback period, and other variables of interest to purchasers and stakeholders. Technology performance verifications are accomplished using measurement and analysis methods that have been reviewed and approved by independent expert stakeholder panels.

"Once we've verified a technology's performance, not only does the company who developed it benefit, but it gives potential purchasers of the technology some insurance about its worth as well," said Stephen Piccot, Director of Southern Research's GHG Center.

Currently, the GHG Center is verifying commercial-ready technologies in the following areas: (1) Advanced Energy Production Technologies; (2) Renewable Energy Technologies; (3) Oil and

Gas Production, Transmission, and Distribution; (4) GHG Monitoring, (5) Diesel Fuel Use Technologies; and (6) Transportation. The GHG Center is planning performance assessments of clean electrical-generating technologies including biomass fuels, transmission system improvements, improved fuel cell systems, industrial cogeneration and combustion systems, carbon sequestration, and monitoring systems.

About Southern Research Institute

Southern Research Institute is an independent, not-for-profit center for scientific research with facilities in Birmingham, AL, Frederick, MD, and Research Triangle Park, NC. Southern Research provides contract research in the fields of engineering, chemical and biological defense, homeland security, environmental and energy-related research, and pre-clinical drug discovery and development. The Institute is affiliated with the University of Alabama at Birmingham (UAB).

Note to Media Regarding Applicants for Technology Verification

Companies interested in verification testing of their greenhouse gas technologies can download the Application for Testing at the GHG Center website (www.sri-rtp.com) and submit the form as instructed. Additional information about the GHG Center can be obtained by contacting Stephen Piccot (piccot@sri-rtp.com or 919-806-3456).

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