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Greenhouse Gas Technology Verification News

NEWSLETTER Issue 1

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A third-party verifier of greenhouse gas {GHG} technology applications. The Center works to increase the use of promising GHG technologies, develop sound verification protocols, and help industry make better technology purchase decisions.

INDUSTRY WONDERS... ARE GHG's REDUCED NOW VALUABLE ?

Many energy and other technologies produce GHG emissions, and some businesses now want to include GHG emission reduction potential as a factor in their technology purchase and replacement decisions. Center engineers have recently examined new technology projects ranging from microturbine and refrigerator frost detector applications, to unique retrofit devices applicable to existing natural gas compressors. Although each project would reduce GHG emissions, none have GHG emission reduction as their primary goal. Even so, both the vendors of these technologies, and the purchasers want to know if GHG's voluntarily reduced now can be traded, sold, or credited later against potential future GHG reduction requirements. Unfortunately, answers do not exist, and this complicates purchase decisions for vendors and buyers alike. This is of special concern when several technology choices exist that are equal except for their GHG emissions, or when technologies exist which are on the economic margin. *(go to the top of page 3)*

The Executive Stakeholder Group guides the Center's Activities and Focus

Michael Terasso of Enron (left), and Dina Kruger of USEPA (right), are two Executive Stakeholders that have significantly influenced our first year activities and technology focus.

USEPA EFFORT TO YIELD NEW MITIGATION TECHNOLOGY PERFORMANCE DATA

Independent third-party performance verification will help vendors and buyers

The Greenhouse Gas Technology Verification Center is one of 12 independent performance verification organizations established under USEPA's $30 million Environmental Technology Verification (ETV) Program. The Center, which focuses exclusively on GHG mitigation and monitoring technologies, has been awarded EPA funding of $3 million, and in August, published its first verification; use of a fuel cell to produce power from landfill waste gas. Three new verifications are starting in 1999, two on methane leak recovery devices for natural gas compressor stations, and one on microturbines. Verification strategies are developed with broad Stakeholder input, and typically require the collection of field measurements, and the development of emission baseline and projection protocols. Contact the Center at www.sri-rtp.com/index.html.

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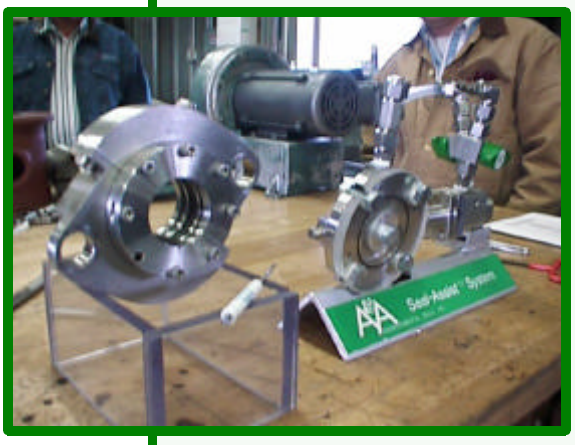
METHANE MITIGATION PROJECTS UNDER VERIFICATION IN 1999



Seal Assist System Verification. Offered to the gas industry by A&A Environmental Seals, Inc., of La Marque Texas, the ESI System captures and contains emissions from compressor rod seals. The Seal Assist System (SAS) reduces compressor leaks by placing enclosures over the rod seals, and collecting the methane for use as compressor engine fuel. The Center, in cooperation with Enron Gas Pipeline Group, is verifying the SAS at a compressor station in Arizona. The 8-month test will address economic performance (payback period), base line emission and emission reductions, projected emission reductions, and operational performance. Bud Johnson, President of A&A Environmental Seals, indicates that "we've had success with SAS in similar industries, and with the relatively low payback period, we are hopeful the gas industry will begin using the technology regularly". Independent verification results will be available in late 1999. The verification protocol is on the Center's web site.

Static Pac® Verification. Applicable to compressors that remain pressurized when off-line, this device can reduce the amount of product gas which may leak through compressor rod seals. The device, referred to as Static Pac®, can reduce or eliminate methane leaking from off-line compressor rod seals, and may reduce the wasted gas which accompanies blow down operations. The Static Pac® (see adjacent picture) is offered by C. Lee Cook of Louisville, Kentucky. Says Bob Borders of Cook, "They are most applicable to peak shaving recriprocating compressors used in the gas transmission sector. Depending on the number of shutdowns which may occur, the device could pay for itself within a year or two". The performance of the Static Pac® is currently being verified on a reciprocating compressor operated by ANR Pipeline Company, and results should be available in late 1999. As with the SAS device, the Static Pac® will be tested for several months to quantify economic and technical performance variables.

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Receiving credit for early GHG reductions is being addressed in several countries, and the manner in which it is addressed, will impact the adoption of a wide range of technologies. A recent US Senate Bill attempted to address the early reduction question by amending the Clean Air Act to authorize the establishment of agreements that would provide credit for voluntary early action to mitigate greenhouse gas emissions. The bill was referred to as the Credit For Voluntary Early Action Act, and though it must now be re-introduced to the 106th Congress, it would have ensured GHG reductions achieved by early voluntary action could be traded or used to meet potential future GHG reduction requirements. It would also have allowed GHG reduction credit to occur if participants took an action that reduced GHG emissions or sequestered carbon before 2008. In it's original draft form, the bill allowed participants to purchase credits from and sell credits to other participants, and required annual measurements or tracking by a qualified independent third-party verification organization.

In similar measures, the Canadian Federal Government has initiated the Greenhouse Gas Emissions Trading Pilot (GERT). Under this plan, traders submit offers to buy or sell GHG reductions to a multi-stakeholder committee, which ensures that the reductions are valid. The pilot offers participants economic benefits coupled with environmental improvement and an assurance that early GHG reductions have a known value.

UPCOMMING EVENTS

New Verifications. In 1999, the Center will continue seeking verification candidates for the oil and gas industry. In addition, a verification of on-site electricity production by microturbines will start in the summer, and efforts to solicit the microelectronics, aluminum, and distributed power industries will begin.

Meetings. An Executive Stakeholder meeting is planned for early spring in Washington DC. The meeting is timed to correspond with a Center hosted meeting of experts in the distributed power area. Frank Joshua, from the United Nations Conference on Trade and Development, will address the Stakeholders on efforts to establish GHG emissions trading.

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HOST SITES NEEDED...

IF YOU NEED TO DETERMINE THE ECONOMIC OR TECHNICAL PERFORMANCE OF PROMISING NEW GHG TECHNOLOGIES, OR YOU NEED CREDIBLE DATA TO JUSTIFY PURCHASE DECISIONS.... WE SHOULD TALK!

YOU CAN HELP US DO VERIFICATIONS THAT DEPICT REAL WORLD CONDITIONS

BECOME A *HOST SITE*

(CONTACT THE CENTER ON THE WEB AT WWW.SRI-RTP.COM)

BENEFITS OF BEING A HOST SITE

Tests conducted by the Center are generally free of charge for host sites (vendors and the Center co-fund verification tests). In some cases, technologies under evaluation are provided to host sites with no obligation to purchase, or, at a significantly reduced cost. It's a win-win for host sites.....

In 1999, the Center will continue seeking verification candidates and host sites in the oil and gas industries. Also, new efforts may begin in the areas of energy technology (e.g., distributed power), greenhouse gas monitoring, and PFC use in the microelectronics and aluminum industries.

Contact The GHG Technology Verification Center by calling Stephen Piccot at Southern Research Institute (919-403-0282), or David Kirchgessner at the USEPA (919-541-4021). View our site, and/or Contact us on the web at www.sri-rtp.com.

ETV