SECARB Activities Page 1 of 4

Having trouble viewing this email? Click here

Southeast Regional Carbon Sequestration Partnership (SECARB) A Southern States Energy Board

Carbon Management Program

April 20, 2010



In This Issue

SECARB and Partners Host AAPG Tour

About Us

Questions

Groundbreaking Ceremony for CO₂ Capture Unit

On April 14, 2010, <u>Alabama Power</u> hosted a Carbon Capture and Storage Demonstration Groundbreaking Celebration at the James M. Barry Electric Generating Plant in Bucks, Alabama. During the ceremony, Alabama Power, <u>Southern Company</u>, and its partners broke ground for a carbon dioxide (CO₂) capture unit that will be added to Plant Barry as part of an integrated CO₂ capture, transportation, and geologic storage project aimed at reducing greenhouse gas emissions.

The <u>Southern States Energy Board</u> (SSEB) and members of its Southeast Regional Carbon Sequestration Partnership (SECARB) lead the geologic storage component of this integrated system. The CO₂ captured at Plant Barry will be transported by pipeline to Citronelle Field for permanent geologic storage. As part of the SECARB Phase III Anthropogenic Test project, the CO₂ will be injected into a dedicated well and stored in the Paluxy Formation, a saline formation approximately two miles underground. Extensive monitoring, verification, and accounting protocols will be implemented at the Anthropogenic Test site before, during, and after the injection to ensure public safety and to accurately account for the CO₂. Southern Company, Electric Power Research Institute, and Advanced Resources International are leading this effort for SECARB.

In a statement by Dr. Gerald Hill of SSEB on April 8, 2010, he indicated that "the SECARB Program, one of seven Regional Carbon Sequestration Partnerships (RCSP) across the nation, is the only Phase III large-scale geologic storage project to utilize CO₂ captured at a coal-fired power plant."

The 25 MW CO₂ capture unit currently is under fabrication off-site. The post-combustion advanced amine technology was developed by Mitsubishi Heavy Industries and the

SECARB Activities Page 2 of 4



Groundbreaking Ceremony for CO₂ Capture Unit, Plant Barry (Bucks, AL)

Kansai Electric Power Company, Inc. From the capture unit, approximately 100,000 to 150,000 tons of CO₂ per year will be captured from Plant Barry and transported approximately 10 miles via pipeline to Denbury Resources Inc.'s Citronelle Field.

Representatives from the following organizations were in attendance at the Groundbreaking Ceremony:

- Alabama Power
- Denbury Resources, Inc.
- Electric Power Research Institute
- Mitsubishi Heavy Industries
- National Energy Technology Laboratory
- Southern States Energy Board
- Southern Company
- Drummond
- Norfolk Southern
- Parker Towing

Southern Company, an industry leader in technology reasearch and development, and its subsidiary Mississippi Power hosted one of SECARB's Phase II small-scale field tests at Plant Daniel. In October 2008, 3,000 tons of CO₂ was injected into the Tuscaloosa Formation.

Following the Groundbreaking Ceremony, members of the SECARB Anthropogenic Test team visited Citronelle Field and the future sites of the CO2 injection and observation wells.

Related Links:

New technology to capture greenhouse gas breaks ground at Alabama Power's Barry Electric Generating Plant, April 14, 2010

Southern Company to Demonstrate Technology to Reduce Greenhouse Gas Emissions From Electric Generating Plant, May 21, 2009

SECARB and Partners Host AAPG Annual Conference Tour

On April 9-10, 2010, over 35 participants of the <u>American Association of Petroleum Geologists</u> (AAPG) Annual Convention and Exhibition toured the SECARB Phase III Early Test site in Cranfield, Mississippi. Under a tent adjacent to one CO₂ injection well and two dedicated observation wells, representatives of the SECARB team provided the participants a detailed

SECARB Activities Page 3 of 4

overview of the U.S. Department of Energy's <u>Regional Carbon Sequestration Partnership</u> Program, regional geology, injection operations, and monitoring, verification and accounting (MVA) tools deployed at the site.

The tour also included:

- A visit to several well pads where SECARB Phase Il field tests are conducted;
- Phase II and Phase III MVA stations:
- Hands-on analyses of geologic core samples taken from the wells drilled under the SECARB program; and
- Denbury Resources, Inc.'s Gas Separation Facility.

On behalf of the SECARB team, The University of Texas at Austin's Bureau of Economic Geology (BEG) leads a two-phase monitoring, verification, and accounting (MVA) project at the Cranfield Oilfield, located in Southwest Mississippi. Denbury Resources, Inc. currently operates the field and is a partner in the study. Phase II MVA activities at this site began in July 2008. The study area was expanded for Phase III "Early Test" operations, and CO2 injection on a larger scale began in April 2009 and will continue through the Summer of 2011.



SECARB Phase III CO2 Injection Well and AAPG Tour Participants

The accomplishments of and the results of the SECARB project at Cranfield are significantly advancing global understanding and knowledge of available MVA tools and protocols to be used in future commercial applications of integrated carbon dioxide capture, transportation, and geologic storage systems. On April 8, 2010, Dr. Susan Hovorka of BEG reported, "BEG has monitored CO2 injection at a sustained rate of one million tonnes per year since December 2009. Later this month, the cumulative injection of CO2 into the Tuscaloosa Formation is projected to exceed two million tonnes." Monitoring at this scale of an injection is providing valuable data that can be applied to CO2 injection models for other geologic storage projects across the Southeast.

Representatives from the <u>Southern States Energy Board</u>, The University of Texas at Austin's Bureau of Economic Geology, Denbury Resources, <u>Sandia Technologies</u>, and <u>The University of Mississippi</u> were supporting participants throughout the tour.

About Us

The Southern States Energy Board (SSEB) is an interstate compact comprised of governors and state legislators from sixteen southern states, Puerto Rico, and the U.S. Virgin Islands. SSEB's mission is to enhance economic development and the quality of life in the South through innovations in energy and environmental policies, programs, and technologies.

SSEB manages the Southeast Regional Carbon Sequestration Partnership (SECARB), a regional network of more than 100 stakeholders with a common goal of determining the best approaches for capturing and permanently storing gases that can contribute to global climate change.

SECARB is funded by the U.S. Department of Energy/National Energy Technology Laboratory with cost-sharing by SECARB partners.

Questions

If you have any questions, please contact:

Ms. Kimberly Sams



SECARB Activities Page 4 of 4

Assistant Director, Geoscience Programs Southern States Energy Board 6325 Amherst Court Norcross, Georgia 30092 Phone: (770) 242-7712 Fax: (770) 242-0421 sams@sseb.org

Quick Links

Southeast Regional Carbon Sequestration Partnership

Southern States Energy Board

U.S. Department of Energy

National Energy Technology Laboratory

NETL Carbon Sequestration FAQ Portal

Forward email

SafeUnsubscribe®

This email was sent to mckinney@sseb.org by $\underline{sams@sseb.org}$. $\underline{Update\ Profile/Email\ Address}\ |\ Instant\ removal\ with\ \underline{SafeUnsubscribe}^{TM}\ |\ \underline{Privacy\ Policy}$.

Email Marketing by



Southern States Energy Board | 6325 Amherst Court | Norcross | GA | 30092