



Plains CO₂ Reduction (PCOR) Partnership Monthly Update February 1–28, 2010

PHASE III ACTIVITIES

Task 1 – Regional Characterization (Wesley D. Peck)

Highlights

- Participated in a Geographic Information Systems (GIS) Working Group conference call on February 1 with representatives from the other regional sequestration partnerships along with Tim Carr and his group.
- Continued efforts to assist on a presentation to be given at the North American Carbon Atlas Partnership (NACAP) meeting to be held in Mexico this March. The presentation includes a review of the methodologies section of the recent national Regional Carbon Sequestration Partnership (RCSP) atlas.
- Continued review of the decision support system (DSS, © 2007–2009 EERC Foundation). The following efforts have been undertaken:
 - Worked on a prototype for a new introduction page for the interactive map portion of the DSS. This new page will offer options intended to streamline the use of the GIS component of the DSS.
 - Initiated a design for a new section of the DSS that will cover carbon markets.
 - Held a meeting to discuss new material for the regulations section of the DSS.
 - Made significant progress in developing the media gallery portion of the DSS. This specifically includes the development of a Flash-based navigation interface for browsing for photos, maps, and illustrations.
- Examined resources pertaining to earthquakes and active faults in Nebraska.
- Aggregated characterized saline aquifer data for submission to NATCARB.
- Continued rectifying saline storage calculations with the Iowa Geological Survey.
- Mailed a PCOR Partnership Atlas, 3rd Edition, to each partner contact who did not already receive a copy at the 2009 Annual Meeting.

Task 2 – Public Outreach and Education (Daniel J. Daly)

Highlights

- Prepared a revised script based on in-house and National Energy Technology Laboratory (NETL) comments for the draft documentary “Carbon Footprint: One Size Does Not Fit All.”
- Held internal discussions regarding the update to the outreach action plan and prepared an initial draft for review.

- Discussed methods for the expanded tracking of outreach activities to support the outreach information system.
- Prepared a draft description of the on-location filming and interview needs as a first step in the production of the 30-minute Fort Nelson carbon capture and storage (CCS) project documentary.
- Met with EERC library staff on February 19 to discuss improved archiving of video images and the potential for outreach activities involving regional libraries.
- Met with Prairie Public Broadcasting (PPB) staff on February 19 to discuss the scope and scheduling for future activities, and prepared and distributed a draft plan based on discussions.
- Continued to review draft video clips and completed a transcript of the presentations from last summer's (July 29–30, 2010) Keystone CSI: Climate Status Investigations education workshop coordinated in conjunction with the PCOR Partnership in Omaha, Nebraska.
- Participated in a conference call of the Weyburn-Midale Outreach Advisory Panel on February 25 to review public and partners-only Web pages and outreach budgets.
- Submitted an abstract in collaboration with the RCSP Outreach Working Group and the Petroleum Technology Research Center in Regina, Saskatchewan, for presentation at the 9th Annual Carbon Capture and Sequestration (CCS) Conference in Pittsburgh (U.S.–Canada session) on the collaborative role of developing site communication plans. The PCOR Partnership will represent the Outreach Working Group with this presentation, as well as a discussion of the RCSP Best Practices Manual.

Task 3 – Permitting and NEPA (National Environmental Policy Act) Compliance (Lisa S. Botnen)

Highlights

- Participated in multiple conference calls of the Interstate Oil and Gas Compact Commission's (IOGCC's) Pipeline Transportation Task Force (PTTF).
- Continued work with British Columbia regulators on the development of a comprehensive review of acid gas disposal and potential CCS regulations.
- Continued development of a PCOR Partnership regulatory meeting expanded to include pipeline regulators, tentatively scheduled for July 21–22 in Deadwood, South Dakota.
- Attended the 2010 Carbon and Climate Change Conference in Austin, Texas. Met with various PCOR Partnership partners, potential partners, and service providers at this conference.

Task 4 – Site Characterization and Modeling (James A. Sorensen)

Highlights

- Participated in a conference call with Encore Acquisition Company regarding desired data sets and transfer protocol for the U.S. test site.
- Continued the laboratory analysis of rock samples from outcrops of the Newcastle Formation in Wyoming, which are analogous to the reservoir rocks of the Bell Creek oil field, to evaluate their mineralogy and petrologic properties.
- Continued laboratory experiments on rock cutting samples from the Fort Nelson CCS Project exploratory well on selected portions of the core as part of an ongoing series of

geomechanical and geochemistry experimental activities. These activities include the use of x-ray diffraction and scanning electron microscope techniques.

- Participated in meetings with Spectra Energy in Calgary on February 22 and 23. Meetings focused on presentations and discussions with upper management at Spectra's Calgary offices regarding the key technical elements and issues associated with the Fort Nelson CCS project.
- Met with key subcontractors in Calgary to examine core samples from the Fort Nelson CCS project exploration well, and discussed analytical plans for those samples.

Task 5 – Well Drilling and Completion (Steven A. Smith)

Highlights

- Nothing to note at this time.

Task 6 – Infrastructure Development (Melanie D. Jensen)

Highlights

- Revised the summary of information about water usage during CCS activities.
- Participated in the RCSP Water Working Group (WWG) conference call on February 25.
- Conducted an informal survey of projects at the EERC that deal with both CO₂ capture and water use/reuse/minimization to prevent duplication of effort.
- Continued preparation of the capture technology overview.
- Web-based information about capture technologies is being reviewed on a weekly basis.
- Initiated the collection of specific operating data for various CO₂ compression technologies.
- Completed a draft discussion document for a carbon management plan for a partner. This included collection of information to cost the activities required, as well initiating actual cost calculations.
- Researched solubility information of CO₂ and H₂S in NMP (N-methylpyrrolidone).
- Reviewed the Carbon Sequestration Leadership Forum's draft definition for the concept of "capture- and storage-ready."
- In response to a question from a partner for information about the "average" energy cost during CO₂ compression, calculations for various compressor types were made and summarized.

Task 7 – CO₂ Procurement (John A. Harju)

Highlights

- Continued discussions with potential CO₂ suppliers. Because of the sensitive nature of negotiations, specifics cannot be shared at the present time.

Task 8 – Transportation and Injection Operations (Steven A. Smith)

- This task is anticipated to be initiated Quarter 3 – Budget Period (BP) 4, Year 4 (April 2011).

Task 9 – Operational Monitoring and Modeling (Charles D. Gorecki)

Highlights

- Continued working on simulations for the Fort Nelson CCS Project and the development of history-matching techniques with CMOST.
- Staff traveled to Houston, Texas, for training on Computer Modeling Group's CMOST and GEM. This training will help the EERC reduce model uncertainties with some new modeling software and techniques.
- Continued discussions with Oxand Risk & Project Management Solutions and RPS Energy Canada about performing a wellbore study for Spectra Energy.
- Assisted Spectra Energy in the development of PowerPoint slides for a meeting on February 23 in Calgary on Fort Nelson CCS project modeling and simulation results.
- Attended the IEA Greenhouse Gas R&D Programme's CO₂ Geological Storage Modeling Meeting on February 16–17, 2010, in Salt Lake City, Utah.
- Discussed modeling outputs with Spectra Energy.

Task 10 – Site Closure (to be announced [TBA])

- This task is anticipated to be initiated in Quarter 1 – BP5, Year 9 (October 2015).

Task 11 – Postinjection Monitoring and Modeling (TBA)

- This task is anticipated to be initiated in Quarter 1 – BP5, Year 9 (October 2015).

Task 12 – Project Assessment (Katherine K. Anagnost)

Highlights

- Nothing to note at this time. The next project assessment report is due December 31, 2010.

Task 13 – Project Management (Edward N. Steadman)

Highlights

- Attended and presented at the EUEC 2010: Energy & Environment Conference held February 1–3, 2010, in Phoenix, Arizona.
- Continued discussions with Spectra Energy on the proposed cost-share agreement.
- Continued discussions with Encore Acquisition Company on gathering cost-share data.
- Established a password-protected ftp site for the exchange of data for the upcoming Bell Creek project.
- Participated in a conference call on February 12 with NETL, Stefan Bachu and Scott Frailey, regarding the upcoming NACAP conference in March in Mexico.
- Participated in several conference calls with DOE and NETL personnel regarding the upcoming NACAP conference in March in Mexico
- Met with several partners including PPB, Lignite Energy Council, and North American Coal Corporation and updated them on program activities.

- Held a PCOR Partnership group meeting on February 18, comprising EERC personnel participating fully or peripherally in the program. These meetings are anticipated on a quarterly basis for informational and educational purposes.
- Held an internal meeting to discuss preliminary plans for the upcoming annual meeting, e.g., location, dates.
- Traveled to Calgary, British Columbia, Canada, on February 22–24, to present an update on the PCOR Partnership activities on the Fort Nelson CCS project before Spectra Energy executive management.
- Responding to a request from DOE, submitted an abstract on the U.S.–Canada Collaboration to the 9th Annual CCS Conference.
- Accepted an invitation to attend the first Bilateral National Conference on CCS under the U.S.–Canada Clean Energy Dialogue on May 10, 2010.
- Deliverables for February:
 - January monthly update
 - M23: Task 14 – monthly WWG conference call held

Task 14 – RCSP Water Working Group (WWG) Coordination (Charles D. Gorecki)

Highlights

- Drafted an abstract on WWG activities for the 9th Annual Carbon Capture and Sequestration Conference in Pittsburgh, Pennsylvania.
- Continued efforts to prepare a one-page fact sheet (front and back) providing an overview of issues and opportunities associated with the nexus of water and CCS, due April 30, 2010.
- The WWG held its monthly conference call on February 25, including a discussion of upcoming conferences where WWG presentations could be given.
- Scheduled a date and location for the second WWG annual meeting on May 13, in Pittsburgh, following the conclusion of the 9th Annual Carbon Capture and Sequestration Conference.

Travel/Meetings

- January 31 – February 3, 2010: traveled for a presentation on February 1, 2010, at the 2010 EUEC Energy and Environment Conference in Phoenix, Arizona.
- February 15–18, 2010: attended the IEA Greenhouse Gas R&D Programme’s CO₂ Geological Storage Modelling Meeting on February 16–17, 2010, in Salt Lake City, Utah.
- February 16–18, 2010: presented as an invited speaker at the Texas Carbon Capture and Storage Association CO₂ Storage Policy seminar and attended the 2010 Carbon and Climate Change conference in Austin, Texas.
- February 21–24, 2010: attended project meetings with Spectra Energy, Weatherford Laboratories, and RPS Energy Canada in Calgary, Alberta, Canada.
- February 22–27, 2010: attended Computer Modeling Groups’ courses: CMOST and CO₂ Sequestration with GEM on February 23–26, 2010, in Houston, Texas.
- February 25, 2010: attended a meeting with Denbury Resources in Bismarck, North Dakota.