

CARBON CAPTURE & SEQUESTRATION WORKING GROUP

MEETING MINUTES

December 9, 2009

I. CALL TO ORDER

Stephanie Timmermeyer, Chair, called to order the regular meeting of the **CCS Working Group** at **9:30 a.m. on December 9, 2009** at the headquarters of the West Virginia Department of Environmental Protection, 601 57th Street Southeast, Charleston, West Virginia. Agendas were distributed.

II. ROLL CALL

The following members were present: Stephanie Timmermeyer, Dave McMahon, Ken Nemeth, Vickie Wolfe, Dave Flannery, Dick Winschel, Alan Dennis, Tim Mallan, Jim Laurita, Greg Wooten (proxy for Nick Carter), Paul Kramer, Earl Melton, Christy Risch (proxy for Cal Kent), Forrest Leeson, Leonard Knee, and Tim Grant, Vice Chair. Grant Bromhal and Billy Jack Gregg were absent.

The meeting was also attended by Laura Swingle, Drew McCallister, Rachel Shantean, and Eric Hayhurst, Michael Hohn of the Geologic and Economic Survey, and Jeff Knepper, Bill Timmermeyer, Pam Nixon, and Kristin Boggs of DEP.

III. SUBCOMMITTEE REPORTS

A. Report from the Legal Issues Subcommittee by David M. Flannery, Chair

Mr. Flannery summarized the Subcommittee's four meetings, which dealt with the issues of pore space ownership and acquiring property rights for CCS facilities that include the taking of all pore space rights. He discussed the North Dakota and Wyoming programs, as well as the recommendations of the Midwest Governor's Association, CCSReg, and the Kentucky CCS Working Group. Mr. Flannery distributed a handout summarizing the Subcommittee's meetings and outlining next steps the Subcommittee will take in its analysis of the legal issues surrounding CCS.

B. Report from the CCS Feasibility Subcommittee by Tim Mallen, Chair

Mr. Mallen advised the group that his subcommittee has divided its four areas of study amongst themselves and undertaken to draft four white papers addressing each issue. The first paper addresses the magnitude of the question what is carbon capture and sequestration and how it fits into the overall need and/or process of reducing carbon dioxide emissions. The second paper discusses guidelines regarding how to look at the economic impacts of CCS on the State. The third paper deals with estimating the costs, vis-à-vis the amount of capital and expense, involved in getting carbon capture equipment on facilities. The fourth

paper concentrates on pipeline issues (i.e. pipelines crossing state borders, pipeline safety, transportation, and construction issues).

The Group then discussed the possibility of amending a section of the PSC's article of the Code (W. Va. Code § 24-2-1g) regarding rate incentives by adding CCS technologies to the list of things that are incentivized in that section.

C. Report from the Geology & Technology Subcommittee by Tim Grant, Chair

Mr. Grant advised the Group that his Subcommittee has been working primarily on three main issues. The first issue is to identify geologic sequestration monitoring sites. The Subcommittee has looked at the perspectives of other states, namely Washington, Montana, North Dakota, Louisiana, and Texas, and found that all of those states tie their legislation to the SDWA and UIC regulations. The second issue is an assessment of the feasibility of carbon dioxide sequestration in West Virginia. The last issue is an assessment of the potential for carbon dioxide sequestration in West Virginia, which involves an analysis of NATCAB data from Atlas 2d Edition on potential storage capacity in this state and a discussion of the MRCRP assessment of the various horizons that can act as storage or as a seal.

Finally, members of the Subcommittee answered questions posed by other subcommittees. Some of those questions include whether carbon dioxide is an asphyxiate; whether there are regulations that would minimize the probability of groundwater contamination; whether there is a possibility of saturation of plant roots by migrating carbon dioxide; what level of leakage from storage is acceptable; what monitoring techniques are needed to confirm that stored carbon dioxide is "permanently sequestered;" and whether CCS can be deployed in time and quantity to impact climate change.

IV. ANNOUNCEMENTS

- A. Tim Mallan advised the Group that AEP has gotten a \$334 million grant from the federal Department of Energy to upgrade its facility at Mountaineer. With the fifty percent match from AEP, the total project cost will be more than \$700 million. They expect the project to be online by 2015 and that no carbon dioxide will leave AEP's property. Finally, Mr. Mallan again invited anyone who has not done so to visit and tour the Mountaineer facility in Mason County.
- B. Subcommittee reports are due to Stephanie Timmermeyer on **January 9, 2010**.
- C. The next working group meeting is **Wednesday, February 3, 2010 at 9:30 a.m.** at DEP headquarters in Kanawha City.

V. ADJOURNMENT

_____ moved that the meeting of the Working Group be adjourned so that the subcommittees could meet, _____ seconded the motion, and it carried by a majority vote of the Working Group. The meeting was adjourned at 2:30 p.m.