

**EFAB  
CARBON CAPTURE & SEQUESTRATION WORKGROUP  
TELECONFERENCE CALL**

January 7, 2009

***Call Participants***

EFAB Members

Jim Tozzi (Workgroup Chair)  
James Barnes (EFAB Chair)  
Rachel Deming  
Mary Francoeur  
Scott Haskins  
Cherie Rice  
Steve Thompson

Not on the call

Jennifer Hernandez  
Lindene Patton  
Justin Wilson

EFAB Expert Witnesses

Not on the call

Sarah Diefendorf  
Sara Pesek  
Peter Meyer

EPA EFAB Staff

Vanessa Bowie  
Timothy McProuty

Not on the call

Stan Meiburg

EPA Program Office Liaisons

Ann Codrington (Water)  
Dina Kruger (Air)

***Call Summary***

**Background/Introduction**

EFAB Workgroup Chair Dr. Jim Tozzi opened the call by noting that there are numerous major issues that need to be addressed in dealing with climate change, including, of course, carbon capture and sequestration. He stated that, in his view, the whole liability

scheme for carbon capture and sequestration was a very big deal because of the sheer magnitude of the projected effort/program.

Dr. Tozzi then observed that, to be successful, advisory boards have to reconcile the goals and needs of their clients (in this case EPA) with the interests, resources, and expertise of the boards themselves. He further noted that this reconciliation process all too often took all too long.

To address this challenge, he described the actions that he had taken as the Workgroup Chair to get the project started. Those actions included speaking and meeting with managers and staff from the Office of Water and the Office of Air and Radiation to review EPA interests and capabilities, determine information wanted and needed, and to develop a draft charge.

Dr Tozzi stated that the purpose of this first Workgroup call was to review and comment on the draft charge as well as the items and proposals contained in the call agenda. He reminded the call participants that these materials were circulated to the Workgroup in advance of the call.

### **Project Structure/Tasks**

After some discussion, the Workgroup members agreed to look at the issue of financial assurance for carbon capture and sequestration in a two-pronged manner:

short term financial assurance issues (less than 100 years); and  
long-term stewardship issues (100-200 year term).

EFAB member Steve Thompson stated that while these two areas could be viewed as two separate and distinct operations/issues, they also were closely related.

EPA staffer Ann Codrington said that they could be viewed as either discrete or connected.

Dr. Tozzi agreed noting that if he were in the Agency, he would have to get regulations out on financial assurance in the short term; while if he were in the private sector, he would insist the long-term issue be solved before agreeing to take part in short-term proposals.

Dr Tozzi emphasized that the Workgroup's project would encompass both areas and laid out the following task structure.

### ***Task 1 Discussion***

Dr. Tozzi agreed that that EPA's immediate goal is short-term re: get regulations out that address financial assurance and the second goal is ensuring long-term stewardship of carbon capture and sequestration sites.

Dr. Tozzi suggested that the Workgroup look at any short term effort from a RCRA closure and post-closure financial assurance standpoint applying the expertise it has gained from working in this area to the UIC regulations.

Ann Codrington of EPA's Office of Water pointed out the need to discuss EPA's timeframe(s) for developing regulations and the general nature of EPA's UIC regulatory regime/proposal vis `a vis financial assurance.

She stressed that the Agency needed help in developing financial assurance guidance and really wanted to do something within the next year.

She laid out the following timeline:

1. EPA published regulatory proposal in July 2008
2. comment period closed on December 24, 2008
3. EPA is currently reviewing comments and thinking about publishing a notice of data availability before going final (EPA may decide to do so or not)
4. If EPA does a notice of data availability, the writing for it will need to be done by May 2009 and it would be published by September 2009.
5. If no notice is published, EPA plans to issue a final rule in late 2010.
6. If a notice is published, EPA plans to issue a final rule in early 2011.
7. In any case, EPA needs information, observations, and/or recommendations from EFAB on financial assurance issues by mid 2010.

### ***Task 1 Decisions/Next Steps***

EFAB members Mary Francoeur and Rachel Deming agreed to write a short draft paper building on the financial assurance work that the Board has undertaken in looking at programs managed by the Office of Solid Waste and focusing on:

- 1.) UIC class one regulations
- 2.) UIC class two guidance

### ***Task 2 Discussion***

In opening the discussion of the long-term issue, Dr. Tozzi quoted GAO as saying if you don't address long-term stewardship you will not get success with the short term issue.

Dr. Tozzi noted that there are a lot of different proposals on long-term stewardship out there, but added that he has a strong bias against putting everything (liability) on the Federal government. He shared his belief that it is important both environmentally and fiscally that the Federal government not be the payer of first resort.

Dr. Tozzi then said that he would like to write a paper for the long-term stewardship part of the project looking at the long-term liability/risk ideas developed for, and laid out in, the Price-Anderson Act related to the nuclear industry.

He laid out the general liability/financial responsibility structure of the Price Anderson Act as follows:

Tier 1 – individual generator liability;  
Tier 2 – generators liability collectively; and  
Tier 3 – Federal indemnification.

Ann Codrington suggested that any paper on long-term stewardship needed to talk about more than just the Price Anderson Act.

Dr. Tozzi agreed stating that the Price Anderson Act was just a starting point and that additional models, approaches, and concerns could and would be added.

Ann Codrington then pointed out that much of the long-term issues which must be considered and addressed are beyond EPA's statutory authorities. She suggested that any paper might not focus on recommendations, but rather needed guidance, principles, insights that would support/bolster EPA's environmental positions and goals.

EFAB member Scott Haskins suggested that the paper focus on describing principles and laying out threshold questions.

### ***Task 2 Decisions/Next Steps***

Dr. Tozzi said that he would work with EFAB member Lindene Patton (who he had already spoken to) on drafting a long-term stewardship paper and welcomed any and all additional help on it. The first draft will use the Price Anderson Act to provide insights and initiate discussions on possible approaches.

### **General Points**

#### ***EPA***

EPA is interested in seeing how different types of proposals could produce different outcomes. Ideally, EPA would want EFAB to develop alternatives and identify best practices

EPA would like an analytic framework laying out and comparing possible approaches and the considerations that go into them.

Dina Kruger with the Office of Air and Radiation said that EPA would like whatever the Board does to support the Agency looking at widely deploying technology in context of a big climate policy.

EPA hopes that EFAB will say something definitive regarding the short term issue and at least something general about principles relating to the long term issue.

EPA's OW staff will provide EFAB with links to EPA's carbon capture and sequestration docket, its UIC class two program guidance, and any other important reference works that they deem relevant.

***EFAB***

The Board believes that financial assurance related to carbon capture and sequestration is a big issue and that any work products/papers produced will be very important.

Therefore, it is very important/absolutely necessary that whatever EFAB produces be thoroughly and widely vetted. Further, it is important to get those reactions and comments earlier rather than later.

Dr. Tozzi would like to publish any EFAB work product in the Federal Register to get the maximum exposure and comment. EPA participants agreed that getting public feedback was important, but left open the exact forum by which that might be achieved.

Some of the ultimate recommendations/solutions to the issues will almost surely require new legislation.

EFAB can do something on both the short and long-term issues within the timeframe outlined by EPA.

EFAB thanks EPA staff for their participation and help to date and welcomes their comments on the draft charge, other documents, and any aspect of the ongoing work in the project.