



MEETING SUMMARY

Risk Assessment Task Force Meeting
Edmonton, Alberta, Canada
18 May 2011

Prepared by the CSLF Secretariat

LIST OF PARTICIPANTS

Australia:	Clinton Foster, Mark Trupp
Brazil:	Paulo Negrais Seabra, Paulo Rocha
Canada:	Stefan Bachu
China:	Peng Sizhen, Ping Zhong, Qi Li, Ruina Xu
France:	Didier Bonijoly
Germany:	Jürgen-Friedrich Hake
Italy:	Sergio Persoglia
Japan:	Ryo Kubo
Netherlands:	Harry Schreurs
Norway:	Trygve Riis
Saudi Arabia:	Khalid Abuleif, Abdulmuhsen Al-Sunaid
South Africa:	Fred Goede
United Kingdom:	Philip Sharman
United States:	Joseph Giove, George Guthrie (Chair)
Global CCS Institute:	Kathy Hill
IEA GHG:	Ameena Camps
CSLF Secretariat:	John Panek, Rich Lynch

1. Welcome and Review of Task Force Activities

Chairman George Guthrie of the United States welcomed the attendees to the 7th meeting of the Risk Assessment Task Force (RATF) and provided a brief progress report on RATF activities. The mission of the RATF is to examine risk-assessment standards, procedures, and research activities relevant to unique risks associated with the injection and long-term storage of carbon dioxide (CO₂). These include risks associated with CO₂ near term injection processes (including fracturing, fault re-activation, induced seismicity), and risks associated with long-term processes related to impacts of CO₂ storage (including health, safety, and environmental risks; potential impact on natural resources such as groundwater and mineral resources; and return of CO₂ to the atmosphere).

Dr. Guthrie stated that the RATF Phase I Report was published in October 2009 and included an overview of risk assessment methodologies for engineered geologic systems, a literature review of risk assessment for CO₂ storage, identification of key potential risks, an overview

of monitoring & mitigation options that support risk assessment, and a summary of ongoing and emerging activities in CSLF countries. Dr. Guthrie stated that the Phase I Report contained three main recommendations:

- Risk assessment should be considered in the context of stakeholder outreach and communication. This recommendation was passed on to the CSLF Policy Group and in response the CSLF Communications Task Force prepared a set of five “inFocus Carbon Capture and Storage” outreach documents (now available at the CSLF website) which provide information about the safety of CCS to a non-technical audience.
- The link between risk assessment and liability should be recognized and considered. This recommendation was passed on to the Policy Group and a joint Policy-Technical Task Force on Risk and Liability was formed at the October 2010 CSLF Annual Meeting in Warsaw, Poland.
- Storage integrity goals (e.g., acceptable risk levels) for sites should be discussed. As a result, a draft paper on “Performance-based Standard Site Safety and Integrity” has been prepared by a Task Force working group led by Didier Bonijoly of France.

Dr. Guthrie stated that the proposed pathway for completing the Task Force’s Phase II activities is comprised of two main activities:

- Assessing the feasibility of developing general technical guidelines for risk assessment practices that could be adapted to specific sites and local needs. To complete this, the paper on “Performance-based Standard Site Safety and Integrity”, currently in review cycle, would be finalized.
- A gap assessment to identify CCS-specific tools and methodologies which will be needed to support future risk assessments. To complete this, the Task Force needs to develop short overview risk of technical risk-assessment considerations related to various phases of a project (i.e., development, injection, post-injection, long-term storage), and develop short overview of potential gaps relative to CO₂ storage relative to EOR operation.

2. Approval of Summary from October 2010 Meeting in Warsaw

The Summary of the previous Task Force meeting of October 2010 in Warsaw was approved with no changes.

3. Next Steps

Dr. Guthrie proposed that the Task Force develop a schedule for finalizing the paper on “Performance-based Standard Site Safety and Integrity”, and after ensuing discussion there was consensus for the following schedule:

- Paper to be sent to Task Force members for initial review with a deadline of June 17 for comments (to be sent to Dr. Bonijoly, Dr. Guthrie, and the Secretariat).
- Comments to be incorporated into the paper by Dr. Bonijoly by July 1.
- Revised paper to be sent to Task Force members for final review with a deadline of July 15 for comments (to be sent to Dr. Bonijoly, Dr. Guthrie, and the Secretariat).

- Comments to be incorporated into the paper by Dr. Bonijoly and final draft to be sent to Secretariat by August 1.

Dr. Guthrie stated that for the gap assessment to identify CCS-specific tools and methodologies, two documents are initially needed: a short overview of technical risk assessment considerations related to various phases of a project, and a short overview of potential gaps relative to CO₂ usage for enhanced oil recovery (EOR) operations. For the overview of technical risk assessment considerations, the following schedule was agreed to:

- Initial two-page draft to be developed by Dr. Guthrie, Dr. Bonijoly, and Stefan Bachu of Canada, with the Secretariat assisting as needed.
- Dr. Guthrie to send draft document to the Task Force members by June 17, with comments due back by July 17.

There was consensus for an identical schedule for the overview of potential gaps relative to CO₂ usage for EOR, except that the initial two-page draft would be developed by Dr. Guthrie, Dr. Bachu, Clinton Foster of Australia, Khalid Abuleif of Saudi Arabia, and Kathy Hill of the Global CCS Institute.

4. New Business / Adjourn

Rich Lynch of the Secretariat noted that the Task Force will need a forward work plan for 2012, if there are to be any Phase III activities. Dr. Bachu concurred and offered that the Task Force members could communicate informally via email to come up with such a plan in time for the upcoming CSLF Ministerial Meeting in September. There was consensus that Dr. Guthrie would start this activity, once the drafts of the gap assessment documents were sent out for review.

There was also discussion concerning the Clean Development Mechanism (CDM). Fred Goede of South Africa stated that CCS as a possible means for earning emissions reduction credits under the CDM has been discussed in other forums, notably the 2010 COP-16 Climate Conference in Mexico, and Abdulmuhsen Al-Sunaid offered that there would most likely be further discussions concerning CCS and the CDM at the upcoming COP-17 Climate Conference in South Africa. There was agreement that outcomes from these discussions might be useful to the Task Force for its post-Ministerial Meeting activities. Jürgen-Friedrich Hake of Germany suggested that the Task Force take a more active role in this area, or else some other organization will drive the agenda. There was consensus to include output from the Global CCS Institute's Risk Assessment Network to the Phase II Report, and to compare what resulted from the COP-16 Conference with the Task Force's Phase I results. Dr. Guthrie will have the lead for these items.

The next meeting of the Task Force will be at the CSLF Ministerial, in Beijing, China in September 2011.

Dr. Guthrie thanked the meeting participants for their involvement in the Task Force and adjourned the meeting.

Action Items

Item	Lead	Action
<i>Performance-based Standard Site Safety and Integrity Paper</i>		
1	George Guthrie	Send draft of paper to Task Force members for review.
2	Task Force members	Provide comments by June 17 on draft (to be sent to Dr. Bonijoly, Dr. Guthrie, and Secretariat).
3	George Guthrie	Send advanced draft of paper, incorporating comments received, to Task Force members for review.
4	Task Force members	Provide comments by July 15 on advanced draft (to be sent to Didier Bonijoly, George Guthrie, and Secretariat).
5	Didier Bonijoly	Send final draft of paper to Secretariat by August 1.
<i>Overview of Technical Risk Assessment Considerations Related to Various Phases of a Project</i>		
6	George Guthrie, Didier Bonijoly, Stefan Bachu	Develop two-page draft.
7	George Guthrie	Send draft to Task Force members for review.
8	Task Force members	Provide comments by July 17 on draft (to be sent to George Guthrie and Secretariat).
<i>Overview of Potential Gaps Relative to CO₂ Usage for EOR Operations</i>		
6	George Guthrie, Stefan Bachu, Clinton Foster, Khalid Abuleif, Kathy Hill	Develop two-page draft.
7	George Guthrie	Send draft to Task Force members for review.
8	Task Force members	Provide comments by July 17 on draft (to be sent to George Guthrie and Secretariat).
<i>Other Actions</i>		
9	George Guthrie	Include output from the Global CCS Institute's Risk Assessment Network into the Task Force's Phase II Report.
10	George Guthrie	Compare what resulted from the COP-16 Conference with the Task Force's Phase I results.