



MEETING SUMMARY

Risk Assessment Task Force Meeting
Beijing, China
20 September 2011

Prepared by the CSLF Secretariat

ATTENDEES

CSLF Delegates

Canada:	Stefan Bachu
China:	Ping Zhong
France:	Didier Bonijoly
Japan:	Ryo Kubo
Netherlands:	Harry Schreurs
South Africa:	Tony Surrridge
United Kingdom:	Philip Sharman
United States:	George Guthrie (Chair), Joseph Giove

CSLF Secretariat

Rich Lynch, Jeffrey Price, Matt Gebert

Observer Participant

Tim Dixon, IEA Greenhouse Gas R&D Programme (IEA GHG)

Other Observers

China:	Jianghua Chen, Yiman Li, Daan Liu, Jingrui Niu, Diane Yuan Wang, Shu Wang, Yongsheng Wang, Ruina Xu
United States:	Andrew Beatty, Robert Gee, Dietrich Gross, Craig Hart, Jeffrey Jarrett, Margaret Lou, Andrew Mak, Olivia Meigs, Kevin McCauley, David Wendt, Logan West, Cheryl Wilson
United Kingdom:	Peter Holland-Lloyd
Asian Development Bank:	Mukhtor Khamudkhanov
Global CCS Institute:	Mike Miyagawa

1. Welcome and Overview of Meeting

Chairman George Guthrie of the United States welcomed the attendees to the 8th meeting of the Risk Assessment Task Force (RATF). Dr. Guthrie mentioned that the two main items to be covered by the meeting were the RATF's Phase II activities and the Joint Policy and Technical Group Task Force on Risk and Liability.

2. Approval of Summary from May 2011 Meeting in Edmonton

The Summary of the previous RATF meeting of May 2011 in Edmonton was approved with no changes.

3. Report on IEA GHG Risk Assessment Network Workshop

Tim Dixon, Manager of Carbon Capture and Storage (CCS) and Regulatory Affairs for the IEA GHG, provided a brief summary of the IEA GHG's June 2011 Risk Assessment Network Workshop that was held in Pau, France. The main issues covered by the Workshop were impacts of CCS on groundwater, induced seismicity, and incident management. Mr. Dixon stated that the Workshop was notable because for the first time, risk assessments from CCS projects were being shared. Key recommendations from the Workshop included the need for translation of risk assessment outputs into an easily understandable format; that community asset values should be included in risk assessment; consideration of induced seismicity for larger projects; and that gathering of baseline data is greatly important.

4. Summary of RATF Mission and Phase I Recommendations

Before initiating discussion on the RATF Phase II activities, Dr. Guthrie provided a brief summary of the RATF mission and recommendations resulting from Phase I. 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. Recommendations included in the report were:

- Risk assessment should be considered in the context of stakeholder outreach and communication. This was communicated to the CSLF Policy Group and in response the CSLF Communications and Public Outreach Task Force has issued five non-technical outreach documents specifically aimed at stakeholders and the general public.
- The link between risk assessment and liability should be recognized and considered. This was also communicated to the Policy Group and in response a new Joint Policy and Technical Group Task Force on Risk and Liability was created at the 2010 CSLF Annual meeting in Warsaw, Poland.
- Storage integrity goals (e.g., acceptable risk levels) for sites should be discussed. To that end, a report on "Performance-Based Standards for CO₂ Site Performance, Safety and Integrity" was written by the RATF under the lead of Didier Bonijoly of France.

5. Review of Phase II Tasks

Dr. Guthrie provided a brief description of work being covered under Phase II of the RATF's activities:

- Gap assessment to identify CCS-specific tools and methodologies that will be needed to support risk assessment. To that end, the RATF has leveraged the IEA GHG Risk Assessment Network to gain additional information and has developed two short overviews – one on risks relative to enhanced oil recovery (EOR) and one relative to project phases. Once the comment cycle is complete for these overviews they will be incorporated into the RATF Phase II Report.
- Feasibility assessment of developing general technical guidelines for risk assessment that could be adapted to specific sites and local needs. This includes completing reviews of the report on Performance-Based Standards, which will then be incorporated into the RATF Phase II Report.
- Gather information on what other organizations are doing in the area of technical risk. This is still underway. The Global CCS Institute will be providing a list of organizations to be contacted by the CSLF Secretariat. Information received from these organizations could be incorporated into the RATF Phase II Report.
- Develop a list of Phase II Recommendations. This has not yet been done. Dr. Guthrie and the rest of the RATF will develop these recommendations via email.

Ensuing discussion questioned the worth of gathering information on what other organizations are doing. Stefan Bachu of Canada stated that it would be time consuming to do, and the result would probably not represent complete coverage of all that is going on. There was general agreement with Dr. Bachu's position, with consensus that this activity will not be included in the Phase II Report but might be part of a Phase III work plan if the RATF continues on after the end of Phase II. As for the schedule for completing the Phase II report, Dr. Guthrie stated that the plan is to complete an initial draft before the end of 2011, and after comments by Task Force members are incorporated the Secretariat will circulate the revised draft to the RATF in the first quarter of 2012. The report would be presented and finalized at the next Task Force and Technical Group meetings, June 2012 in Bergen, Norway.

6. Proposed Risk and Liability Work Plan

Jeffrey Price of the Secretariat stated that the idea behind creation of the new Joint Policy and Technical Groups Task Force on Risk and Liability is that there has been little work on what harm could happen if technical risk from CCS is in fact realized. Dr. Guthrie mentioned that a Concept Paper in support of the new Joint Task Force had been developed, which includes the following proposed forward work plan:

- Perform analyses including (a) a critical review of prior work on liability, and (b) a comparison of liability frameworks that have so far been established.
- Interview a sample of key experts from the different disciplines to identify their perspectives on risk, damages and liability. Evaluate the similarities and differences among these stakeholders.
- Conduct facilitated workshops to identify gaps and methods of covering them.

- Prepare a report to both the Policy and Technical Groups proposing a path forward based on the results of the workshops. This report should be presented at the next Joint Meeting of the Policy and Technical Groups in the latter half of 2012.

There was general agreement that the proposed work plan is a good approach. Ensuing discussion centered on clarifying the leadership structure of the new Task Force. Consensus was reached that the Policy Group should have the lead, but that this should still be a Joint Policy-Technical Task Force.

7. Next Steps / Adjourn

There was discussion on whether the RATF needed a Phase III. Philip Sharman of the United Kingdom suggested that the RATF should consider ending its work after the completion of Phase II and letting the new Joint Risk and Liability Task Force take over from there. Mr. Price suggested that it might be better to wait until the new Joint Task Force makes recommendations. Mr. Dixon agreed and stated that there may be a role for the RATF in conjunction with technical risk aspects of the new Task Force's activities. Richard Lynch of the Secretariat proposed that decision about the RATF's future be put off until its next meeting, when the Phase II Report will have been completed. There was consensus to adopt Mr. Lynch's proposal and the decision about the RATF's future was postponed.

The next meeting of the RATF will be at the CSLF Technical Group meeting in Bergen, Norway, in June 2012.

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

Summary of Consensus Reached

- A summary of what other organizations are doing in the area of technical risk management for CCS will not be included in the RATF Phase II Report.
- The CSLF Policy Group should have the lead in the new Task Force on Risk and Liability, but there should still be a significant role for the Technical Group.
- Determine, at next RATF meeting, if the RATF should continue on with a Phase III.