

Carbon Sequestration Leadership Forum (CSLF) Risk Assessment Task Force Meeting Summary Cape Town, South Africa 13 April 2008

List of Attendees

Chair Australia Canada France Japan United Kingdom United States IEA GHG CSLF Secretariat George Guthrie (United States) John Kaldi, Bill Koppe Stefan Bachu Hubert Favriol, Claudia Vivalda Makoto Akai, Chiaki Shinohara, Shinichi Tereda Rachel Crisp Victor Der Tim Dixon John Panek, Scott Miles

Welcoming Remarks

The Chair of the Task Force, George Guthrie of the United States, called the meeting to order and stated that the focus of the meeting would be a discussion on the Task Force's activities and the Phase I report.

Agenda

George Guthrie presented the agenda items for the meeting. No modifications to the agenda were proposed. The agenda for the Task Force meeting was as follows:

- Review of Task Force progress/status
 - goal for Phase I report
 - outline of Phase I report
 - major remaining needs for completion of the Phase I report
- Discuss Phase I report outline and proposed changes
 - proposed changes to Sections 1 & 2
 - Section 2.3
 - assess directions for Sections 3, 4, 5
- Discuss Country-Information Request Form
 - modify if necessary
 - adopt as mechanism to collect information
 - Discuss section on international frameworks
 - What are we going to include?

- Discuss gap analysis and next steps
 - How are we going to develop gap analysis (and next steps)?
- Next set of writing assignments

Review of Task Force Progress/Status

George Guthrie reviewed the activities of the Task Force since its establishment at the Paris CSLF meeting in March 2008. The Task Force is drafting a Phase I report. The goals of this report are as follows:

Goals of the Phase I Report:

- Conduct a review of the existing literature on risk assessment for geologic storage of CO₂.
- Summarize ongoing risk-assessment activities in various countries.
- Highlight critical issues.
- Identify areas where additional information is needed.

The outline of the Phase I report is as follows:

- 1. Introduction
 - 1.1. Risk Assessment and Geologic Storage of CO₂
 - 1.2. Charter
 - 1.3. Membership
 - 1.4. Goals of Phase I Task Force Activities
 - 1.5. Risk Assessment and Engineered Geologic Storage of CO₂
 - 1.6. Risk Assessment Methodologies
- 2. Existing Literature on Risk Assessment for Geologic Storage of CO₂
 - 2.1. General Methodologies
 - 2.2. CO₂ Risk Assessment Literature Review
 - 2.2.1. Risk Assessment Framework
 - 2.2.2. Risk Assessment Process and Tools
 - 2.2.3. Modeling for Risk Assessment
 - 2.2.4. Analogue Studies
 - 2.2.5. Field Cases
 - 2.3. Key Common Risks and Issues Identified for Engineered Geological Storage of CO₂
 - 2.4. Review of Literature on Monitoring and Mitigation Options
- 3. Ongoing and Emerging International Activities on Risk Assessment
- 4. Critical Issues in the Status of Risk Assessment for Engineered Geologic Storage of CO₂
- 5. Proposed Next Steps for CSLF Risk Assessment Task Force

REFERENCES

APPENDIX 1: Detailed summaries of country-by-country activities in risk assessment

Phase I Report Outline and Proposed Changes

Task Force members reviewed and considered the outline for the Phase I report and proposed the following changes:

- Add a section to the Introduction to lay the foundation for the need for a Risk Assessment Task Force.
- Integrate Sections 1-2 where appropriate to reduce eliminate redundancy and edit the new section.
- Reserve Section 1 for the background on risk assessment and Section 2 for the literature review.
- Move Section 2.3 to Introduction.
- Focus Section 4 on gap analysis. This was the original intent of the Phase I report.
- Tim Dixon (IEA GHG) will provide a summary of London Convention and OSPAR Convention guidelines for risk assessment.

George Guthrie asked Task Force members to consider and provide input into Section 2.3: Key Common Risks and Issues Identified for Engineered Geological Storage of CO₂.

The following ideas were presented:

- Potential Impacts (end point)
 - Other subsurface resources (positive and negative)
 - Groundwater impacts
 - Oil/gas/existing natural gas storage
 - Coal
 - Competing pore space
 - Induced seismicity
 - Brine displacement
 - Environmental risk
 - Soils, vegetation, etc.
 - Release CO₂ back to the atmosphere
- Groundwater chemistry
- Contamination
 - Groundwater
 - Mineral resources
 - CO₂ getting into the resource

Country Information Request Form

George Guthrie presented a draft of a request form to be sent out to CSLF Technical Group delegates on ongoing and emerging CO_2 storage projects related to risk assessment. The Task Force members reviewed the form and proposed no changes. The Chair stated he would discuss this form during his presentation on behalf of the Risk Assessment Task Force at the CSLF Technical Group Business meeting on 16 April 2008 and solicit input from Technical Group delegates. With the approval of the Technical Group, the CSLF Secretariat would be instructed to distribute the Country Information Request Form to Technical Group delegates via e-mail. Feedback from the delegates is requested by the end of June 2008.

Adjournment

George Guthrie thanked the Task Force members for their input and hard work and adjourned the meeting.