Cooperative Project: Best Guidance Document on Methane Capture and Use to Improve Mine Safety

Coal Subcommittee Meeting
Methane to Markets, Monterrey México
29 January 2009
Project Background

Lead Organisations:

• **Methane to Markets Partnership**
  International partnership to further CH$_4$ recovery and utilisation; 27 countries & EU

• **UN Economic Commission for Europe**
  Regional Commission for N. America, Europe, FSU, Turkey

• **US Environmental Protection Agency**
  Expertise in domestic and international efforts on CMM recovery and utilisation

• **World Coal Institute**
  International coal industry association representing producers and regional associations
Project background

Methane released during coal mining cause of a significant number of accidents globally

Risk factors identified;

- Difficult geological conditions
- Underinvestment in methane drainage and utilisation
- Poor operational practices
- Ineffective or counter-productive regulatory standards
- Inadequate enforcement of safety regulations
Partnership’s Goals

‘Support safer mining practices to reduce fatalities, injuries and property losses, whilst also encouraging use of the CMM to reduce greenhouse gas emissions and use otherwise wasted energy resources’

Project aims to:
• Strive toward goal of zero fatalities, injuries and property losses
• Demonstrate the global coal industry’s commitment to mine safety, climate change mitigation, corporate social responsibility and good citizenship
• Establish an industry-to-industry dialogue and network between the industries from the developed economies and those in the emerging economies
• Create the necessary linkage between the industry and government/regulatory officials
• Link effective CMM capture as a part of an effective risk management portfolio
Project Objectives

Number of bilateral and multilateral initiatives to support improved mine safety
- UNDP – Strengthening Coal Mine Safety Capacity in China
- ILO – Code of Practice on Safety and Health in Underground Coalmines
- APP – Coal Mine Health and Safety

Industry lacks set of recommended principles and standards for methane recovery and utilisation

Audience: mine operators, regulators, government officials and technical professionals
Deliverables

- Publication of best practices guidance on methane drainage and utilisation
- Primarily a technical document
- Detailed objectives and principles, NOT prescriptive
- Available in multiple languages
- Supportive workshop / seminar series: Add value and disseminate findings
Structure (i)

• Executive Steering Committee

  Responsible for overall project management
  – Pamela Franklin, US EPA & Methane to Markets
  – Roland Mader, Chair UNECE Ad Hoc Group of Experts on CMM
  – Ray Pilcher, UNECE, Chair Task Force on Improving Mine Safety through the Extraction & Use of Coal Mine Methane
  – Adam Sek, UNECE
  – Luke Warren, World Coal Institute

• Technical Experts Drafting Group

  Recognised experts to develop technical content
  – Subrata Chaudhuri, former Chairman India Central Mine Planning Design Institute
  – David Creedy, Sindicatum Carbon Capital
  – Mike Pitts, GreenGas International
  – Ralph Schlueter, DMT
  – Hilmar von Schoenfeldt, Petron Resources
  – Bharath Belle, Anglo Coal
  – Pramod Thakur, CONSOL
<table>
<thead>
<tr>
<th>Best Guidance Drafting Process</th>
<th>Steering Committee</th>
<th>Drafting Group</th>
<th>Stakeholders Advisory Group</th>
<th>Peer Review Technical Experts</th>
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</thead>
<tbody>
<tr>
<td>Provide Overall Direction and Guidance to Process</td>
<td>Provide Technical Expertise to Draft and Finalize the Best Practice Guidance</td>
<td>Policy Advice Provided by Experts from China, India, Russia and Ukraine</td>
<td>Global Technical Expertise Providing Feedback on</td>
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<tr>
<td>Connect Draft Outline</td>
<td>Prepare Working Draft</td>
<td>Working Draft</td>
<td>Public forum presentation of working draft product</td>
<td>Review document for technical merit</td>
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<tr>
<td>Assists SGG advise and provide input to drafting group</td>
<td>Reviewed Draft</td>
<td>Document circulated for peer review</td>
<td>Advise and comment on structure, relevancy and applicability via public forum</td>
<td></td>
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<tr>
<td>Preparation for publishing and public launch</td>
<td>Published Document</td>
<td>Final Draft</td>
<td>Finalize document for publication</td>
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Indicative Report Structure

• **Introduction**
  – Purpose and objectives of guidelines

• **Assessing the Methane Resource**
  – Techniques for measuring methane content
  – Assessing methane desorption, production, emissions, costs

• **Methane drainage**
  – Overview of global practices
  – Technology assessment, design and installation of the drainage system

• **Mine ventilation**
  – Optimal design considerations, performance criteria for ventilation system

• **Methane utilisation**
  – Summary of utilisation options
  – Highlight other available resources

• **Case studies**
Timeline

- **To date**
  - Executive Steering Committee convened a number of meetings
  - Technical Experts Drafting Group formed
- **Dec. 2008**
  - Technical Experts Drafting Group kick-off meeting, Beijing
- **1Q 2009**
  - First draft report completed by Technical Experts
  - Technical Review Group finalised
- **2Q 2009**
  - Draft report circulated for comment to Technical Review Group
- **3Q 2009**
  - Comments from Review Group addressed
  - Draft final report sent for wider peer review
- **4Q 2009**
  - Report finalised and published
- **4Q 2009 – 2010**
  - Dissemination of report via workshops, seminars as appropriate
Thank you

Email: lwarren@worldcoal.org