



**ICCL**  
international  
committee on  
contaminated  
land

October 4–5, 2011 ▪ Washington, DC Metro Area



## Survey on Mining Site Remediation and Reuse

The 10<sup>th</sup> meeting of the International Committee on Contaminated Land (ICCL) will be held in the Washington, DC Metro Area on the 4<sup>th</sup> and 5<sup>th</sup> of October 2011 at Renaissance Arlington Capital View Hotel (Arlington, Virginia).

Four themes will focus the 10<sup>th</sup> meeting of the ICCL:

- Integrating contaminated site remediation and reuse strategies (with emphasis on sustainable remediation concepts);
- Improving community involvement in site remediation decisions (with emphasis on site-specific examples);
- Improving technical communication and collaboration on new challenges for site remediation;
- Mining site remediation and reuse: Legal, technical, financial, and social issues.

The survey for the 10<sup>th</sup> meeting will focus on mining site remediation and reuse. The results of the survey are the foundation for substantive discussion at the meeting.

Complete this survey by providing short answers in response to the questions listed below. These questions are intended to provide insight into the technical, legal, financial and social aspects of mining site remediation and reuse in your country.

Provide website URLs in your responses when appropriate for organizations, guidances, and programs. If any questions are not relevant or do not apply to your country, please add "N/A" to the corresponding response section.

Context for your survey responses should include:

- Type of substances/wastes covered by your legislation/regulation/management plans? (heap/dump piles either from exploitation or processing, overburden, under cut-off, grade ore, tailings, waste rock, mine waters, mineral ores, coal, beneficiation and mineral processing wastes, etc.). Radionuclides and associated processing facilities?
- Types of sites covered by your legislation/regulation/management plans? (extraction, beneficiation, mineral procession sites, impacted areas, etc.)

Completed surveys are due no later than August 31, 2011.

This survey is available for you to complete online through SurveyMonkey and can be found at:

[http://www.surveymonkey.com/s/2011\\_ICCL](http://www.surveymonkey.com/s/2011_ICCL). If you experience difficulties using the online survey website, please complete the downloaded survey and e-mail your responses to Dominique Darmendrail at [d.darmendrail@brqm.fr](mailto:d.darmendrail@brqm.fr).

In you intend on completing the survey through the online survey website, please note that a partially completed survey may not save until the online survey is completed. If possible, please try to complete the survey once you begin. If you require further assistance related to completing the survey online, please contact Jen Grund, Tetra Tech, Inc. by e-mail at [jen.grund@tetratech.com](mailto:jen.grund@tetratech.com).

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\* denotes required field

QUESTIONS

**I. Risk Assessment and Cleanup Technologies**

- Are cleanup goals used when remediating contaminated mining sites?

- Yes
- No

Other (please specify)

Mining sites fall under two sets of laws/regulations/ministries

- 1) Tailings pound and mining waste sites are managed under the Mining Regulation (Natural Resources Ministry). Compulsory to the site owner to restore the tailings (most often cover and vegetate it) at the end of the operation
- 2) The rest of the mining site falls under the Environmental Quality Act (Environment Ministry) and cleaned goals are used.

- Is site-specific risk assessment used to clean up mining sites?

- Yes
- No

If yes, what methodology is being used?

**II. Waste and Water Management/Treatment Technologies**

- Are any Best Management Practices (BMP) or Best Available Technologies (BAT) implemented when treating mining waste, mine tailings and/or mine influenced waters?

- Yes
- No

Other (please specify)

**III. Recovery, Reuse, and other Sustainable Practices**

- Is mining waste being reused for beneficial purposes?

- Yes
- No

If so, what are the common beneficial uses of mining waste (for example, road bed/road construction projects, capping materials)?

Yes. Mining waste may be used on the tailing as capping material.

- Are there any initiatives or practices to encourage locating alternative energy facilities at contaminated or active mining sites?

- Yes  
 No

If so, what kind of alternative energy projects are being sited (e.g., solar, wind, hydroelectric)?

This has been done once at Murdochville (former mining city where the mine has been shut down). To help the city switch to a new economy, windmills have been built around the site.

- Are reuse practices (such as carbon sequestration) and/or ecological revitalization activities implemented at contaminated mining sites (e.g., education centers, historical landmarks, commercial or industrial parks, wildlife refuge, etc.)?

- Yes  
 No

Other (please specify)

Yes. Historical landmarks on some sites.

#### IV. Legal/Policy

- Do you have a regulatory framework(s) or other programs in your country that addresses the cleanup of properties impacted by mining contamination?

- Yes  
 No

Who is responsible for the cleanup of sites?

The polluter (normally the mine owner) is responsible.

- What types of enforcement measures and/or programs are available to recover costs from mining companies that caused the contamination?

- Yes  
 No

Other (please specify)

Environmental Quality Act allows the Ministry of the Environment to order assessment (article 31.49) and rehabilitation (31.43).

Article 31.51 stipulates that anyone closing a mine must assess the site and provide a copy of the assessment to the Environment ministry. If there is contamination in soils above regulated values, a rehabilitation plan and timeline must be provided to the minister for approval.

- Is cleanup and reclamation of mined land part of the mine permitting process?

Yes  
 No

Other (please specify)

But only for the tailing pounds and mineral waste site. For being authorized, the owner must provide an estimation of the rehabilitation cost and provide to the Natural Resources Ministry a financial guarantee equal to 70 % of the estimated cost. Costs are reviewed each 5 years and the guarantee adjusted.

- Is "designing for closure and post-closure" actively practiced?

Yes  
 No

Other (please specify)

- Is an Environmental Impact Analysis/Statement (EIA/EIS) performed for proposed mining operations?

Yes  
 No

If so, how is closure and long-term liability considered in this process?

See former answer

## V. Financial

- What are the funding mechanisms used to clean up abandoned mine/mining impacted areas?

See former answer for tailing pounds and mineral waste sites.

As for the site contamination (oil contamination in soils, soils contaminated by dust, etc), there is no funding mechanism. The owner must pay while cleaning up the site, often at closure or following an accidental spill.

- How are these mechanisms funded (e.g., public or mining industry contributions)?

Mining industry contributions

- Are there any laws, regulations, and policies and practices setting the approach for environmental financial assurance for mine closure?

- Yes  
 No

If so, what are key issues associated with the application of these policies?

## VI. Social

- How does the local community participate in mine permitting, design/construction, financial responsibility calculations and the mine closure process?

They do not participate.

- Are there any regulations/programs that address/manage social impacts of mining and mine reclamation?

It has to be considered in the impact assessment.