CRIRSCO

COMMITTEE FOR MINERAL RESERVES
INTERNATIONAL REPORTING STANDARDS

CIM – Canadian Institute of Mining, Metallurgy and Petroleum

Paul Bankes November 20, 2013

ICMM
International Council on Mining & Metals

Topics for Discussion

- **Update of "CIM Definition Standards"**
- Global Mining Standards and Guidelines
- CIM Best Practice Guidelines

Standing Committee on Mineral Reserve and Mineral Resource Definitions

Committee Mandate:

- Unlike other CRIRSCO codes, NI43-101 references the "CIM Definition Standards" for major reserve and resource definitions, definition guidance and classification schemes.

- CIM Council created the CIM - Standing Committee on Mineral Reserve and Mineral Resource Definitions to:

  - maintain and update the "CIM Definition Standards"
  - represent the CIM on CRIRSCO

CIM Definition Background

- Over time, the major definitions maintained by CRIRSCO members have drifted from the common 1997 definitions

- CIM Definition Standards
  - last major update November 2005
  - update in 2010 included Feasibility and Pre-feasibility

- Over the last two years, the Standing Committee has modified *draft* definitions and guidance for the 10 definitions currently referenced to the CIM.

- The revised *draft* definitions address recent changes in NI43-101, CSA, CRIRSCO and UN requests.

CIM Draft Definitions

<u>The 10 revised *draft* definitions are listed below:</u>

Pre-Feasibility Study

Feasibility Study

Modifying Factors

Mineral Resource

Inferred Mineral Resource

Indicated Mineral Resource

Measured Mineral Resource

Mineral Reserve

Probable Mineral Reserve

Proven (Proved) Mineral Reserve

CIM Definitions Work Plan

- The Standing Committee has worked with CIM staff to develop a process for Industry and CIM member consultation. Status:

  ✓ CIM staff completed Web Site where members shared comments

  ✓ Sent notice to advise CIM members of process.

  ✓ Published an article and “call to web” in CIM Magazine – May issue

  ✓ 90 day period for member and industry consultation - May to August

  ○ Incorporate and respond to comments - September to December

  ○ Request CIM council approve of definitions - November 2013

CIM - Industry Consultation

- The Standing Committee has received a very favorable response to the proposed revisions to the *draft* definitions. In almost all cases, the industry comments:
  - Proposed minor revisions to the current *draft* wording.
  - Requested additional CIM definition clarification and guidance.
- The results from the industry consultation have been distilled into 27 comments and suggestions which are being investigated by the committee.

CIM - Industry Comments

Pre-Feasibility Study	-	1 comment
Feasibility Study	-	1 comment
Modifying Factors	-	4 comments
Mineral Resource	-	9 comments
Inferred Resource	-	9 comments
Indicated Resource	-	*no issues*
Measured Resource	-	1 comment
Mineral Reserve	-	1 comment
Probable Reserve	-	1 comment
Proven Reserve	-	*no issues*

Topics for Discussion

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- **Global Mining Standards and Guidelines**
- CIM Best Practice Guidelines

Global Mining Standards and Guidelines

Global Mining Standards and Guidelines Group

CIM ICM SME AusIMM THE MINERALS INSTITUTE

Global mining collaboration on solutions to common industry problems, needs & technology through standards, guidelines, & best practices.

Objectives:

1. Centre of facilitation
2. Information & knowledge
3. Identification/utilization of existing standards & practices
4. Drive/support standards & guidelines development where value is identified

Member Companies: 28
Participating Companies: 98
Members-at-large: 400

Budget: $260K (2013)

- Member Companies (@$5000)
- Partners (@$25,000)

Global Outreach

- ✓ Canada, USA, Australia, South Africa
- ❖ South American Strategy

Global Mining Standards and Guidelines

Global Mining Standards and Guidelines Group


Current Projects

Unified Shovel Interface and API


- ✓ Access to onboard real time systems and data
- ✓ Operational data requirements and common KPIs
- ✓ Underground Communications Infrastructure
- ✓ Leading Indicators practical guidelines to support ICMM document
- ✓ Energy consumption in communition
- ✓ Strategic development

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CIM - Best Practice Committee

- The Committee is developing industry guidance for the preparation of “Feasibility” and “Prefeasibility studies”.
- Committee has begun the first major update of “Best Practice Guidelines” since 2005.