

Proposed “*Coal Mining Effluent Regulations* (CMER): Implications for Industry”

Presentations and Panel Discussion

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Western Canadian Coal Society

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Presentations and Panel Discussion

SPEAKER(S)

TOPIC

Guy Gilron
(Borealis Environmental)

Introduction and Overview
Regulatory Framework

Al Martin/Justin Stockwell
(Lorax Environmental)

Geochemistry, Water Quality

Martin Davies
(Hatfield Consultants)

Environmental Effects Monitoring

Mario Bianchin
(Wood)

Effluent Treatment (Nitrate, Sulphate and
Selenium)

ALL

Panel Discussion/Q&A



Rationale for a Federal effluent regulation for the Coal Mining sector

- Federal jurisdiction under *Fisheries Act* to prohibit deposition of “deleterious substances” to aquatic environments
- Administered by Environment and Climate Change Canada (ECCC), and applies to liquid effluents:
 - [Industrial] *Pulp and Paper Effluent Regulations (PPER, 1992)*
 - [Municipal] *Wastewater Systems Effluent Regulations (WSER, 2012)*
 - [Industrial] *Metal Mining Effluent Regulations (MMER, 2002)*/ Updated as *Metal and Diamond Mining Effluent Regulations (MDMER, 2018)*
- Proposed *Coal Mining Effluent Regulations* are an extension of this approach



Metal Mining Effluent Regulations (*MMER*): **10-year review**

- in that year, was not updated since its initial promulgation in 2002
- proposed revisions to the *MMER*:
 - coal and diamond sectors to be included?
 - changes to numerical effluent limits (metals, radionuclides), addition of regulated parameters (e.g., for coal: selenium, TSS, nitrate)
 - modifications to requirements for:
 - acute lethality testing (addition of *Daphnia magna*); and,
 - aspects of Environmental Effects Monitoring (EEM) program



Metal Mining Effluent Regulations (MMER): **10-year review, cont'd.**

- two-year, multi-stakeholder consultation:
 - review of EC proposals; input on scientific issues
 - debate scientific and social aspects of new proposed regulation, focused on effluent limits, EEM science and statistics
 - [my \$0.02] little attention paid to practical/logistical considerations for application
- two-year “waiting period”...
- now:
 - Diamond Mining sector - included in new *MDMERs*
 - Coal Mining sector - stand-alone effluent regulation (proposed *CMER*)



Coal Mining Sector: Effluent Management and Regulation

- Canadian coal mining sector:
 - water quality is well understood;
 - effluent is effectively managed; and,
 - already stringently regulated by provinces (BC, AB, SK, NS).
- effluent regulation for the sector is best applied on a site-specific basis (due to geography, variability): provincial permits
- in previous consultation, Coal Association of Canada data presented demonstrated “longer list” of parameters originally proposed by ECCC could be reduced (i.e., NH_4 , As, Al, Fe, Mn)
- effluent quality parameters currently proposed in *CMER*:
 - TSS, total nitrate, total selenium, pH, *Daphnia magna* acute lethality



CMER Consultation to date

- January 2017
 - released initial consultation document (ECCC 2017) Proposed Regulatory Framework for Coal Mining
- February–April 2017
 - hosted Canada-wide consultation workshops
- September 2017
 - released summary of input received on ECCC (2017) National Consultation Report, February to April 2017
- November 2017
 - released ECCC (2017). *Proposed Approach for Coal Mining Effluent Regulations – Consultation Document*
- December 2018
 - released ECCC (2018). “Signal Check”: Proposed Coal Mining Effluent Regulations



CMER – Road to Promulgation

- as proposed, *CMER* would apply to any coal mine that discharges 50 m³/day of effluent from its operations area and deposits effluent into a fish-frequented water body, or that may enter a fish-frequented water body.
- proposed *CMER* would apply to operating mines and mines under development, but not to mines under care and maintenance.
- newly-released schedule (in “Signal Check” deck):
 - 2019/early 2020: Finalize regulatory package
 - Spring/Fall 2020: Target to publish proposed regulations in *Canada Gazette, Part I*
 - Spring/Fall 2021: Target to publish final *Coal Mining Effluent Regulations* in *Canada Gazette, Part II*



Implications for the Coal Mining sector

- after several consultations on the proposed *CMERs*, details are still lacking on:
 - derivation and setting of effluent limits;
 - reduction framework rationale (e.g., selenium); and,
 - federal/provincial duplication.
- currently awaiting “regulatory package” of the proposed *CMER*
- will there be more opportunities for input/feedback? what about outstanding issues raised by industry?

Implications for the Coal Mining sector, cont'd.

- Theme of Presentations/Discussions:
 - will the new *CMER* incorporate practical and operational considerations, as well as scientific (environmental risk-based) goals?
 - issues:
 - are effluent limits scientifically-defensible? environmentally protective / over-protective?
 - will EEM program support the evaluation of *CMER*'s efficacy?
 - are treatment regimes economically achievable? options for treatment?
 - what are overall cost implications for an industry that deals with relatively on-going market fluctuations?
- **Panel Discussion, Q&A**

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