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

Presentations and Panel Discussion

April 29, 2019

Western Canadian Coal Society

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# Presentations and Panel Discussion

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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.
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
- December 2018
  - released ECCC (2018). “Signal Check”: Proposed Coal Mining Effluent Regulations
as proposed, CMER would apply to any coal mine that discharges 50 m$^3$/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 ongoing market fluctuations?

- Panel Discussion, Q&A
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