CSR OMNIBUS UPDATING: Protocol Summary- Amendments to Schedule 9 Sediment Standards

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Protocol Summary

1. Convert CSR Schedule 9 Generic Sediment Quality Criteria to protect aquatic life into Generic Sediment Standards to protect aquatic life for inclusion into a new Schedule S, Generic Sediment Standards.

2. No changes were made to the existing values of Schedule 9 Generic Sediment Quality Criteria when converting them into Schedule S Generic Sediment Standards.

3. No attempt was made to develop sediment standards to protect human health as a component of the CSR Stage 10 amendment. Rather, possible development of sediment standards to protect human health was deferred to the next cycle of CSR standards updating.

Associated Omnibus Updating Documents

Details related to the proposed changes to CSR Schedule 9 are available in the ministry's 2015 Draft Discussion Document, CSR OMNIBUS UPDATE: Proposed Amendments to Schedule 9 [1].

Details related to ministry responses/decisions on stakeholder comment received on the proposed changes to CSR Schedule 9 are available in Omnibus Updating of CSR Standards Draft Discussion Documents – Land Remediation Response to Stakeholder Comment [2].

Protocol Details Related to Sediment Standards for the CSR Stage 10 Amendment

No sediment standards were calculated for the CSR Stage 10 amendment. Rather, the existing CSR Schedule 9 Generic Sediment Quality Criteria were adopted as Schedule S, Generic Sediment Standards.

Schedule S Generic Sediment Standards are limited to those for the protection of aquatic life in freshwater and estuarine/marine environments at "sensitive" and "typical" sediment use sites, and will not include standards for the protection of human health at this time.

Next Cycle Revisions

1. Continue to use the current Ministry 2003 [3] derivation methodology to set new generic sediment standards, until such time that stakeholder jurisdictions can agree on, and make available, an improved standardized standard derivation methodology.

2. Update existing sediment standards where new data has becomes available using the current Ministry 2003 [3] derivation methodology.

3. Develop new sediment standards for emerging toxicants using either the current ministry 2003 [3] derivation methodology or an identical narrative intent.

4. Consider changes to existing CSR sediment standards where issues have previously been identified, including:
    a. Adjusting the DDE standard so that it is more stringent than the standard for DDT, reflective of its greater toxicity.
    b. Recalculating the TCDD-TEQ based PCDDs and PCDFs standard using updated World Health Organization, 2005 TCDD-TEFs.
    c. Determining if PCBs standards should be recalculated in view of the availability of World Health Organization, 2005 TCDD-TEFs for some PCBs.
    d. Determining if a sediment standard for methylated naphthalenes (as defined under BC WQG) is needed in addition to the existing sediment standard for 2-methylnaphthalene, and where possible include other alkylated PAHs in addition to those that are included in the proposed new CSR Schedule X soil quality standards.
    e. Replacing the Total PAH sediment standard with a greater number of individual, discrete PAH standards

5. Repeal of the use of "*sediment quality quotients"* for mixtures of sediment contaminants.

6. Monitor the development of new sediment standard derivation protocols amongst the various regulatory agencies, including the work underway by Health Canada, related to the possible future derivation of sediment standards for the protection of human health.

References

[1] British Columbia. (2015). *CSR OMNIBUS UPDATING: Proposed Amendments to Schedule 9.* Ministry of Environment. June, 2015.

[2] British Columbia. (2015). *Omnibus Updating of CSR Standards Draft Discussion Documents – Land Remediation Response to Stakeholder Comment*. Ministry of Environment. November, 2015.

[3] MacDonald, D.D. et al., 2003. *Development and Application of Sediment Quality Criteria for Managing Contaminated Sediments in British Columbia.* MacDonald Environmental Sciences Ltd., Nanaimo, B.C., November, 2003.