



FILE NUMBER: 105719

August 12, 2013

Victor Wyprysky, CEO & President
Chieftain Metals Inc.
2 Bloor Street West Suite 2000
Toronto, Ontario, M4W 3E2

Dear Mr. Wyprysky:

RE: Tulsequah Chief Mine, Authorization # 105719, Risk Assessment of Current Mine Effluent Discharge into the Tulsequah River

On April 3, 2012 the Ministry of Environment issued *Environmental Management Act* (EMA) authorization #105719 that requires the interim collection and treatment of acid waters coming from the excavation/removal of historical waste rock, portals 5200, 5400 and 5900 at the Tulsequah Chief Mine site. The intent was that the plant would serve as an interim solution to the treatment of acid waters originating from the construction phase of the project. The operational phase of the mine was to have addressed the long term collection and treatment of acid mine water. The water treatment plant (WTP) was commissioned and operated for a 3 month period (April to June 2012) prior to Chieftain Metals Inc. (Chieftain) shutting the plant down due to design problems and the inability to pay for necessary improvements and continued operation.

As a result, Chieftain has been out of compliance with the EMA authorization #105719 since shutting down the WTP at the Tulsequah Chief Mine site in June of 2012. In an official warning letter issued July 24, 2012, the Ministry of Environment required Chieftain to implement onsite water management strategies to minimize potential impacts and to conduct water quality sampling to assess the effectiveness of the mitigation measures.

Since then, the Ministry has been receiving regular water quality submissions, and communicating with Chieftain to review the status of the project and obtain updates on their action plan to come into compliance with the EMA authorization.

The February 2013 updates identified that the feasibility of optimization, re-commissioning and operating the WTP was contingent on the project receiving financing

Ministry of Environment

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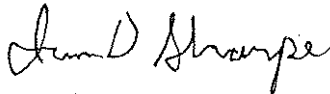
and proceeding to production. Recent updates from Chieftain are that flow through funding is in place for the project's 2013 exploration campaign and that a new timeline has been set for construction (2014 - Q1 2016), commissioning and production (Q1/Q2 of 2016).

Considering all available information regarding the status of the project, Chieftain Metals Inc., under Section 16 of the EMA is being directed to hire a qualified professional, with experience in aquatic impact assessment and in particular, fisheries impact assessment, to provide the Ministry with a risk assessment of the current mine effluent discharge into the Tulsequah River from the Tulsequah Chief mine site. The study terms of reference is attached, as agreed to by the Ministry, Chieftain and their qualified professional on August 8, 2013. A draft of the assessment report shall be submitted to the Director for review and comment by September 30, 2013 and the final assessment report shall be submitted to the Director by October 31, 2013.

The goal of the risk assessment is to provide the Ministry with an evaluation of the success of the current onsite water management strategies implemented by Chieftain to minimize potential impacts and to gather information regarding the extent of aquatic environmental risk to the Tulsequah River as a result of not operating the interim acid water treatment plant.

Please contact Lisa Torunski at (250) 847-7455 should you have any questions or concerns. We look forward to the update call, to be scheduled for September 9, 2013.

Yours truly,



Ian Sharpe
For Director, *Environmental Management Act*
Environmental Protection Division
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Ministry of Environmental, EPP

ec: Doug Flynn, Senior Inspector of Mines, Ministry of Energy & Mines, Smithers, BC
Jennifer Stalker, Project Manager, FLNRO, Smithers, BC
Wade Comin, Enforcement Officer, Environment Canada, Whitehorse, Yukon
Deb Portman, Enforcement Officer, Environment Canada, Smithers, BC
Kyle Moselle, Large Project Coordinator, Alaska Dept. of Natural Resources, Juneau
John Ward, Spokesperson, Taku River Tlingit First Nation, Atlin, BC
Eric Morrison, Environmental Manager, Douglas Indian Association, Juneau Alaska

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Terms of Reference for Risk Assessment
For the Tulsequah Chief Mine

- Provide the details on Chieftain's attempts to mitigate impacts associated with the shutdown of the WTP.
- Provide a summary of mine effluent quality that was discharged to the WTP and is now being discharged to the exfiltration pond, including statistical interpretation of any seasonal or annual trends.
- Describe the Environmental Setting:
 - Map and document all known aquatic resources in the Tulsequah River (in the vicinity of the mine and a reasonable distance downstream – i.e. to the confluence with the Taku).
 - Map and document all potential sensitive habitats in that area – i.e. clear water channels, spawning and rearing areas, and wetlands.
- Identify the zone of influence from the discharge of untreated mine effluent (recognizing that this will include non point source loadings from historical waste rock and tailings disposal). Incorporate the seasonal variability of the zone of influence. Complete the same exercise for when the WTP was operating and compare the results of the two.
- Identify the contaminants of concern and their fate and transport mechanisms at site.
 - Describe the mechanisms of ecotoxicity associated with the contaminants of concern and likely categories of receptors that could be affected. This should include both primary and secondary impact pathways (water column and deposition / remobilization).
 - Using all assessment work completed to date (water quality, sediment, benthics, fish) provide an assessment of the potential for impact on those resources at risk.
- The ecotoxicity interpretations should be based on both lethal and non lethal endpoints.
- Given what is known about the sources, pathways and receptors give an assessment of the possible impacts to aquatic resources on the zone of influence and in the Tulsequah River as a whole.