



Report Date: March 21, 2018

File: UA81126

Report Number: 081126

NYRSTAR MYRA FALLS LTD.

Myra Falls Operations
PO Box 8000
Campbell River BC V9W 5E2

Dear NYRSTAR MYRA FALLS LTD.

Inspection Details:

Requirement Description:	<p>Environmental Management Act, Environmental Management Act</p> <p>6 (2): Subject to subsection (5), a person must not introduce or cause or allow waste to be introduced into the environment in the course of conducting a prescribed industry, trade or business.</p>
Details/Findings:	<p>This inspection report concerns an unauthorized discharge (Seep) from Nyrstar Myra Falls Ltd. (Nyrstar), the seep located approximately as shown on Photo 1 (attached). The seep was first discovered as a result of sampling activities related to monitoring following an overflow at the Superpond (reference Dangerous Goods Incident Report (DGIR) 173626 and Ministry of Environment and Climate Change Strategy (ENV) Inspection Report (IR) 77735) overnight of January 20 and 21, 2018. Following the finding, Nystar reported the Seep under separate DGIR (reference DGIR 173846) on February 6, 2018. Nyrstar’s authorized waste discharges are described in ENV permit 6858.</p> <p>Nyrstar submitted a summary report (Report, attached) to ENV via email on March 8, 2019, which summarizes Nyrstar’s investigative and work activities conducted since the Seep discovery, as well lists further activities to mitigate potential impacts resulting from the Seep.</p> <p>According to the Report, the seepage zone is “...down gradient from the Lynx Tailings Dam Facility and the Superpond water treatment system...” and, “The precise cause of this seepage zone is not yet known” (p 1). The Report theorizes that the Seep may be due to changes to groundwater direction and movement resulting from earlier activities at the site.</p> <p>Samples analyzed for toxicity (results attached) taken in Myra Creek (location “Myra Creek @ 25 Sump”) on January 29, 2018 produced the following results (% v/v):</p> <p>96 hour LC50 Rainbow Trout: 58.5 [41.8 – 91.7] 48 hour LC50 Daphnia magna: 70.7 [50.0 – 100]</p> <p>The Seep is not an authorized discharge under waste management permit 6858; therefore Nyrstar is introducing or causing or allowing waste to be introduced into the environment in the course of conducting a prescribed industry, trade or business without authorization. As such, Nyrstar is out of compliance with EMA 6(2).</p>

Compliance:	Out
Actions to be taken:	The Seep is not an authorized discharge. Nyrstar may only discharge waste in an authorized manner, therefore must cease discharge to the environment via the Seep.

Discussion:

According to the Report, chemistry samples in the Seep zone show low pH and elevated metals, and that toxicity was like a result of high dissolved zinc and cadmium in the Seep. The report notes that there is currently no evidence of impact to trout population in the creek, and downstream results do not exceed applicable drinking water standards.

Nyrstar has engaged qualified professionals (QPs) to investigate the hydrogeology of the seepage zone and expects to receive the study with recommendations in September of this year. Nyrstar has provided a list of measures to attempt to further mitigate any potential impacts from the Seep; however, it is unknown at this time if the measures will reduce or prevent the Seep entirely.

It is recommended that a Pollution Prevention Order be issued to Nyrstar. The discharge that is occurring has been analysed and shown to be toxic to aquatic organisms. The long-term ramifications of exposure to the discharge are unknown, and it is unclear whether the short-term actions will reduce or prevent the Seep entirely. The recommended Order would include the requirement to go forward with the QP report to be completed as described in the Report by the end of September, 2018, as well as the requirement to take measures within 30 days of receipt of the Order to mitigate the discharge such that the Seep is controlled and contained in a manner that it is no longer entering the environment in an untreated and unauthorized state.

Please be advised that this inspection report may be published on the provincial government website within 7 days.

If you have any questions about this letter, please contact the undersigned.

Yours truly,

Laura Hunse
Environmental Protection Officer

cc:

Attachments:

Deliver via:
Email: **Fax:** **Mail:**
Registered Mail: **Hand Delivery:**

**Ministry of Environment
and Climate Change
Strategy**

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DISCLAIMER:

Please note that sections of the permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original permit, regulation or code of practice.

To see the most up to date version of the regulations and codes of practices please visit
<http://www.bclaws.ca>

If you require a copy of the original permit, please contact the inspector noted on this inspection record.

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the authorization therefore compliance is noted only for the requirements or conditions listed in the inspection record.