

File No.: 557.10

September 20, 2021

Jeff Fountain Superintendent – Environment Vale Manitoba Operations PO Box 5000 Thompson MB R8N 1P3

Dear Jeff Fountain:

Re: Vale Manitoba Operations - Notice of Alteration Approval – Environment Act Licence No. 960 VC – Clarification regarding Hazardous Waste Operation and Groundwater Monitoring

Thank you for your August 27, 2021 Notice of Alteration relative to a request for alteration to Environment Act Licence No. 960 VC (Licence), issued to Vale Manitoba Operations (Licensee) for the operation of the nickel mine, mill, smelter, refinery, and tailings disposal facilities located in the general vicinity of Thompson, Manitoba. The submission is considered a Notice of Alteration pursuant to Section 14 of The Environment Act.

The intent of the Notice of Alteration is to continue to collect and store hazardous waste generated on site and clarify the groundwater monitoring requirements of the waste management facility.

The October 16, 2020 Notice of Alteration approval authorizes the Licensee to continue to operate its two existing Waste Management Facilities located at Pt NE T77-R3 WPM in PIP's 579, 580, 581, and 582 and located at Parcels 2 and 3 of Survey Plan No. 4725 in parts of Townships 77 and 78, Ranges 2 and 3 WPM, in the Province of Manitoba, under the authority of Environment Act Licence No. 960 VC.

Upon review of the alteration request, I am satisfied that the environmental effects as would result from the proposed alteration would be insignificant. Therefore, pursuant to Section 14(2) of The Environment Act, I amend clause 9 of the October 16, 2020 Notice of Alteration approval respecting hazardous waste and amend Environment Act Licence No. 960 VC as follows:

Hazardous Wastes

1. The Licensee shall not accept hazardous waste generated outside the Facility, but shall collect, store and dispose only hazardous waste generated at the Facility in accordance with the Dangerous Goods Handling and Transportation Act, and its future amendment thereto, and other Provincial and Federal Regulations.

Monitoring and Reporting Requirements

- 2. The Licensee shall collect, store, and analyze groundwater monitoring well samples using approved field and laboratory techniques for dissolved analysis. The analytical results shall be retained in a format acceptable to Manitoba Conservation and Climate.
- 3. The Licensee shall sample the groundwater monitoring wells for those parameters identified in Appendix A of this Notice of Alteration Approval once per year, or at a frequency approved by the Director.
- 4. The Licensee shall submit an annual report, in a format acceptable to the Director, detailing the sampling methodology, field observations, and results of groundwater sampling analyses along with previous results and trends. The report shall be submitted annually to the designated environment officer of Environmental Compliance and Enforcement Branch no later than December 31 of each year.

Closure Plan

5. The Licensee shall submit a closure plan to the Director of Environmental Compliance and Enforcement in accordance with the Waste Management Facilities Regulation, and its future amendment thereto.

If you have any questions concerning this Notice of Alteration Approval, please contact Edwin Yazon, Environmental Engineer, Environmental Approvals Branch, at <u>Edwin.Yazon@gov.mb.ca</u> or 431-335-2554.

For questions relating to the ongoing administration of the Licence, please contact Cristal Huculak, Regional Supervisor, Environmental Compliance and Enforcement Branch, at <u>Cristal.Huculak@gov.mb.ca</u> or 204-620-5797.

Sincerely,

Original signed by,

Laura Pyles, A/Director The Environment Act

c. Kristal Harman, Yvonne Hawryliuk, Cristal Huculak - Environmental Compliance and Enforcement Asit Dey, Edwin Yazon, Jennifer Winsor - Environmental Approvals Public Registry

Appendix A to September 20 Notice of Alteration Approval, **Environment Act Licence No. 960 VC**

Ground Water Chemistry Parameters

Chemical Parameters	
Inorganics	
Alkalinity – Total	Magnesium – Dissolved
Ammonia – Total	Manganese – Dissolved
Arsenic – Total	Mercury – Dissolved
Barium – Dissolved	Nitrate - Reported as N
Boron – Dissolved	Nitrite - Reported as N
Cadmium – Dissolved	Total Kjeldahl Nitrogen – Reported as N
Calcium – Dissolved	Total Phosphorous
Calcium Carbonate	Potassium – Dissolved
Chloride	Silicon – Dissolved
Chromium – Dissolved	Sodium – Dissolved
Conductivity	Total Dissolved Solids (TDS)
Copper – Dissolved	Sulphate
Iron – Dissolved	Uranium – Dissolved
Lead – Dissolved	Zinc – Dissolved
Volatile Organic	c Compounds (VOC's)
BTEX	
Othe	r Organics
Biological Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)
Dissolved Organic Carbon (DOC)	
Field	Parameters
рН	Groundwater Elevation
Conductivity	Dissolved Oxygen
Temperature lote: *This Appendix is subject to revision at any tig	

*All metals (except Arsenic) are to be sampled for dissolved analysis.

*Dissolved samples should be filtered in the field and preserved in the field at time of sampling. If dissolved samples are not to be filtered and preserved in the field then the Director and the Laboratory must be notified prior to sampling.