

**VALE
CORPORATE**

**EXTERNAL VERIFICATION
OF
TOWARDS SUSTAINABLE MINING
SELF-ASSESSMENT**

OCTOBER 2022

Report Number: VALE019 PR006

October 24, 2022

Glen Watson
Sustainability and Government Relations Specialist
Vale Canada Ltd. - North Atlantic Operations
North Atlantic Operations Centre
337 Power Street
Copper Cliff, ON P0M 1N0

Dear Glen:

Re: Vale Corporate - External Verification for Self-Assessment of MAC's Towards Sustainable Mining

Vale has a process in place to verify the information provided to the Mining Association of Canada ("MAC") with respect to the Company's Towards Sustainable Mining ("TSM") Performance Indicators.

The "TSM Verification Process" included an independent review performed by Rubinoff Environmental Inc. The Verifier reviewed the process developed and implemented by Vale Corporate ("the Company") with respect to the TSM self-assessment information provided. The Verifier assessed the Company's reported TSM performance indicator results as measured against the requirements of MAC's Towards Sustainable Mining Performance Indicators.

The scope of the review for Vale's Corporate included the Company's processes for Crisis Management and Communications Planning (Corporate) and Prevention of Child and Forced Labour. Other protocols are relevant at a facility-level only. The verification did not include a review of any other processes that the Company has in place.

The External Verification was conducted in accordance with the Terms of Reference for Verifiers and, accordingly, consisted primarily of interviews, data analysis, and examination (on a sample basis) of other evidence relevant to management's assertion of conformance to the requirements of the TSM performance indicators.

The scores indicated in this report are verified as being accurate based on the evidence reviewed during the External Verification. The review confirms that the TSM results for Corporate fairly state the company's performance.

Yours very truly,



Dianne S. Rubinoff, P.Eng., EP(CEA), VSP
Principal Consultant
Rubinoff Environmental Inc.

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External Verification of Towards Sustainable Mining Self-Assessment

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Dianne S. Rubinoff, P.Eng., EP(CEA), VSP
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Executive Summary

Rubinoff Environmental Inc. was engaged by Vale to conduct an External Verification of the Corporate's Self-Assessment of the performance indicators established by the Mining Association of Canada's Towards Sustainable Mining initiative. This report details the results of the verification at Vale's Corporate operations.

Two protocols were reviewed: Crisis Management and Communications Planning and Prevention of Child and Forced Labour. Other protocols are relevant at a facility-level only.

The external verification was conducted in accordance with the Terms of Reference for Verifiers and, accordingly, consisted primarily of interviews, data analysis, and examination (on a sample basis) of other evidence relevant to management's assertion of conformance to the requirements of the TSM performance indicators.

The scores indicated in this report are verified as being accurate based on the evidence reviewed during the external verification of this facility. The review confirms that the TSM results for Corporate fairly state the company's performance.

Vale – Corporate
External Verification of Towards Sustainable Mining Self-Assessment

1. Introduction

Rubinoff Environmental Inc. was engaged by Vale to conduct an External Verification of the Vale's Corporate Self-Assessments of the performance indicators established by the Mining Association of Canada's Towards Sustainable Mining initiative.

The results of the verification for Corporate Operations are presented in detail in the following sections of this report.

1.1 Background - Towards Sustainable Mining and External Verification

The Towards Sustainable Mining (TSM) Guiding Principles are a set of commitments that address all areas of the mining industry's performance. They were developed by industry, in consultation with its communities of interest. The TSM Guiding Principles are backed by specific performance indicators, which member companies report against each year in the Towards Sustainable Mining Progress Report. Performance indicators help to show Canadians what the industry's current performance is and how it can be improved. Performance indicators have been developed for Biodiversity Conservation Management, Crisis Management and Communications Planning, Energy and Greenhouse Gas Emissions Management; Indigenous and Community Relationships, Prevention of Child and Forced Labour, Safety and Health; Tailings Management; and Water Stewardship.

In 2021, facilities began reporting on their performance at the time of reporting, rather than the previous year's results.

The Mining Association of Canada (MAC) has established a process of external verification to ensure that MAC member companies reporting on TSM performance indicators is consistent, accurate and transparent. External verification of each company's self-assessment is intended to give MAC members and their communities of interest confidence in the integrity of reported company performance.

1.2 Scope of Work

The scope of work was defined in Rubinoff Environmental Inc's proposal dated March 24, 2022.

Two protocols were reviewed: Crisis Management and Communications Planning and Prevention of Child and Forced Labour. Other protocols are relevant at a facility-level only.

The activities for the verification included a documentation review, interviews with key site and corporate personnel and follow-up e-mails and telephone conversations as required. A visit to the site was conducted.

1.3 Verification Logistics

Verification of Corporate indicators were conducted during the verification of Sudbury Operations during the week of June 30, 2022.

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Rubinoff Environmental Inc. meets the Terms of Reference for Verification Service Providers (VSP) established by the Mining Association of Canada. Dianne Rubinoff is certified as a Verification Service Provider by the Mining Association of Canada.

The Verifier reviewed files and documents provided by the site and held discussions with site and corporate personnel.

1.4 Conditions and Limitations

This verification report does not constitute a legal opinion. The disclosure of any information contained in this report is the sole responsibility of the client. The principles, procedures and standards applied in conducting an external verification are neither regulated nor universally the same. Rubinoff Environmental Inc. has conducted this verification in accordance with the methodology contained in the proposal dated March 24, 2022.

It is important to note that the methods of evaluation, while aimed at minimising the risk of unidentified nonconformance of management's assertion of conformance to the requirements of the TSM Protocols, cannot guarantee their absence. Even though the information provided by the company was thoroughly reviewed, Rubinoff Environmental Inc. was required to rely on some of this information without being able to independently verify its accuracy.

Rubinoff Environmental Inc. prepared this report for Vale Canada Limited. The material in it reflects Rubinoff Environmental Inc.'s best judgement in light of the information available at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Rubinoff Environmental Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

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2. Summary of Findings

The results of the External Verification are shown below for each applicable protocol area. For each indicator, the self-assessed level and the verified level are presented. As per guidance from MAC, all assessment criteria must be met at each indicator level. Where the verified level is different than the self-assessed level, comments are provided to explain the difference.

2.1 Crisis Management and Communications Planning – Corporate

INDICATORS	SELF-ASSESSED LEVEL (Y/N)	VERIFIED LEVEL (Y/N)	COMMENTS
1. Crisis management preparedness	Y	Y	<p>Vale standards show that the company is committed to supporting crisis management readiness. Vale's Executive Vice President Base Metals attended the 2022 Crisis table top. The Severity Matrix identifies credible threats. EMQnet is used to manage the roles and responsibilities as well as notification of events and event action tracking. Contact lists are available in EMQnet.</p> <p>Corporate performance meets the criteria for this indicator.</p>
2. Review	Y	Y	<p>The Corporate Crisis Management Plan was updated in 2021. Profile packs were reviewed as part of the Dec 2021 Table Top. EMQnet alerts are sent out at least 2x per year. Training is provided to new team members. Training can be through EMQnet modules, facilitated training or participation in an exercise.</p> <p>Corporate performance meets the criteria for this indicator.</p>
3. Training	Y	Y	<p>A corporate level table-top exercise was conducted in December 2021 using an SO2 release at Port Colborne as the trigger event. Table-top exercises or actual events triggered the Corporate Crisis Team in 2020 and 2019.</p> <p>Corporate performance meets the criteria for this indicator.</p>

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2.2 Prevention of Child and Forced Labour

INDICATORS	SELF-ASSESSED LEVEL (Y/N)	VERIFIED LEVEL (Y/N)	COMMENTS
1. Preventing Forced Labour	Y	Y	<p>Vale’s Human Rights Policy states “We prohibit the use of any types of employment practice that may be construed as equivalent to forced or mandatory labor.”</p> <p>Vale’s Supplier Code of Conducts requires “All suppliers must prohibit and renounce the use of child labour, forced labour and slave-like labour.”</p> <p>Vale meets the requirements of a Yes.</p>
2. Preventing Child Labour	Y	Y	<p>Federal regulation prohibits children under the age of 17 from working in an underground mine. Various Provincial regulations (including Ontario, Manitoba and Newfoundland & Labrador) prohibit children under the age of 18 from working in an underground mine.</p> <p>Vale’s Human Rights Policy states “We prohibit the use of child labor...”</p> <p>Vale’s Supplier Code of Conducts requires “All suppliers must prohibit and renounce the use of child labour, forced labour and slave-like labour.”</p> <p>Vale meets the requirements of a Yes.</p>

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3. Summary of Recommendations

3.1 Crisis Management and Communications Planning – Corporate

No recommendations

3.2 Prevention of Child and Forced Labour

No recommendations

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4. Verification Evidence

This section presents a summary of the evidence used to verify the self-assessed levels.

4.1 Crisis Management and Communications Planning – Corporate

Key Personnel Interviewed:

- Nikki Lefebvre, Disaster Management for Base Metals
- Glen Watson, Sustainability and Government Relations Specialist

Documents Reviewed:

- NFN-001 Planning, Development and Management Standard (Section 9 Emergency, Crisis and Business Continuity Management)
- PNR- 000066 - Emergency Response Management
- NOR-0003-G Risk Management Norm
- EMQnet
- EMQnet Crisis Management Team
- Vale Base Metals Crisis Management Severity Matrix
- Crisis Management Profile Packs including Pre-Incident Responsibilities and Corporate Support Team (CST) Roles and Responsibilities checklists for Crisis Team Leader and Crisis Team Coordinator
- Fast Facts on EMQnet with site-specific information
- Contact list for all primary and alternate member of CST with roles identified
- Base Metals Media List
- EMQnet Team Status Report
- EMQnet Summary of Events for Tabletop exercise May 13, 2022 SO2 Release at Port Colborne
- EMQnet reports for Totten Mine Actual Event Sep 2021- Employees Trapped Underground

4.2 Prevention of Child and Forced Labour

Key Personnel Interviewed:

- Jennifer Bagley, HR Manager NA
- Paula Sheeny, PMO Analyst for HR Team
- Stella Aneto, Analyst Talent Acquisition
- Jorge Mottecy, Procurement Manager
- Glen Watson, Sustainability and Government Relations Specialist

Documents Reviewed:

- Human Rights Policy
- Human Rights Guide
- Supplier Code of Ethics and Conduct

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- General Service Agreement (Section 15)
- Terms and Conditions
- Vendor Registration requiring Vendors to accept Supplier Code of Ethics