

Glencore's Nickel Site-Specific Standard Renewal

Introduction

Glencore's Sudbury Integrated Nickel Operations (Sudbury INO) employs more than 400 employees, the Sudbury Smelter produced 56,523 tonnes of nickel in matte, and 12,304 tonnes of copper in matte in 2025 (www.glencore.ca/sudburyino). The nickel-copper matte is transported to Glencore's Nikkelverk refining facility in Norway for further processing. Nickel emissions are released as a by-product from the smelting process. Approved in December 2015, Sudbury INO operated under a Site-Specific Standard for nickel of $0.15 \mu\text{g}/\text{m}^3$ and $0.066 \mu\text{g}/\text{m}^3$ (annual averaging period) that expired on June 30, 2026. As such, Sudbury INO is applying for a renewal of the Site-Specific Standard of $0.15 \mu\text{g}/\text{m}^3$.

Based on the Ministry of Environment, Conservation and Parks (MECP) review comments on the previously submitted Site-Specific Standard application of $0.066 \mu\text{g}/\text{m}^3$ in May 2025, refinement to the Emission Summary and Dispersion Modelling Report emission sources, emission rate calculations and dispersion model have been made. These refinements included adding existing sources and applying additional conservatism around fugitive dust controls in the assessment tool that resulted in a higher modelled maximum nickel concentration baseline. As a result, Glencore has updated the nickel site-specific standard request to $0.15 \mu\text{g}/\text{m}^3$. This Site-Specific Standard concentration is unchanged from the previous standard and now reflects additional conservatism in the model. It is not an actual increase to existing Smelter emissions. These changes ensure that all possible sources are included. Further updates to Glencore's updated nickel Site-Specific Standard request include additional actions within the Site-Specific Standard Action Plan with shortened timelines (from 10 years to 5 years).

Continual Improvement in Nickel Emissions

At Sudbury INO, we take our environmental performance and our commitment to continual improvement very seriously and have been implementing actions to reduce nickel emissions over several decades by investing in technologies and upgrades in infrastructure to significantly reduce emissions and improve air quality.

Site-Specific Standard Application Process: Ontario Regulation 419/05

In accordance with Ontario Regulation (O. Reg.) 419/05, provisions for Site-Specific Standards aim to limit substances released into the air that can affect human health and the environment, by requiring industries to operate responsibly, under a set of publicly transparent rules. Industries can demonstrate environmental performance and continual improvement through the following three approaches:

1. Meeting a provincial air standard
2. Requesting and meeting a Site-Specific Standard; or
3. Registering and meeting the requirements under a sector-based technical standard (if available)

Instead of making the air standards less stringent for all facilities, the Site-Specific Standard Regulation allows some facilities to operate above the provincial standard if they can demonstrate that they are working to reduce emissions as much as possible with technology-based solutions and best practices.

Technology Benchmarking Report

The Technology Benchmarking Report (TBR) is an assessment of globally best available technologies and their potential application at the Smelter. The TBR only considers technical feasibility and commercial availability, not costs. Sudbury INO's TBR assessed past and new technologies in the following groups:

- Material Substitution: substituting the raw materials used at the Smelter to reduce nickel emissions (not applicable to the Site);
- Process Change: modifying the smelting process to reduce sulfur dioxide and cadmium emissions; and

Glencore's Nickel Site-Specific Standard Renewal

- Add-on Controls: technologies that reduce nickel emissions without impacting the smelting process.

No new or emerging technologies were identified as technically feasible or commercially available at this time.

Action Plan

Sudbury INO is committing to completing a number of actions in support of its nickel Site-Specific Standard renewal application. These build upon our previous continual improvement actions to further reduce nickel emissions. For the updated list of actions – please visit our website or reach out to us by using the information provided below.

Wahnapitae First Nation – We Want to Hear from You!

A more detailed version of this summary, as well as the information included with the application is available upon request from Glencore or at the Wahnapitae First Nation Community Centre of Excellence.

Your feedback is important to us. You can participate in our Site-Specific Standard Renewal Process by:

- Reviewing the Site-Specific Standard Renewal Application which will be posted on the Environmental Registry of Ontario (ERO) for comment at <https://ero.ontario.ca/> or access the QR Code below
- Providing comments directly to Sudbury INO:

Lea Willemse, Environment Lead, Sudbury Smelter

Phone: (705) 693-2761 ext. 3303

Email: sudburycommunity@glencore.ca

Community Line at 705-693-2761 ext. 3989

