

Proposed Regulatory Approach to Recovery of Minerals

Context and Background

In recent years, modern mining and mineral processing technologies have unlocked potential economic value from materials previously viewed as wastes. The shifting demand for minerals to support the low carbon economy have created the economic conditions to support investments in the recovery of minerals from mining wastes.

Through the *Supporting People and Business Act, 2021*, the Ontario government introduced amendments to the *Mining Act* to enable a new regulatory pathway for the recovery of minerals from mining wastes, described as “Recovery and Remediation” under Part VII of the *Mining Act*. These amendments, once proclaimed, would eliminate the need for an applicant to file a closure plan prior to undertaking the proposed recovery of minerals.

Specifically, the *Mining Act* was amended to:

- require applicants for a recovery permit to submit an application to the Ministry of Mines (the Ministry) that conforms to prescribed requirements and describes the proposed recovery activity, as well as including a proposed remediation plan that satisfies all statutory requirements and any additional requirements that may be prescribed,
- provide the Minister with the authority to issue a permit and impose terms and conditions, and provides factors that must be considered by the Minister while doing so (including, among other things, the purpose of the *Mining Act* and whether the Crown’s duty to consult has been met, as well as other factors that may be prescribed),
- provide the Minister with discretion to determine the amount of financial assurance required, if any,
- provide the Minister with additional order-making authority such as stop-work, remedial or preventative orders at current operating, closed or abandoned mine sites where a recovery permit has been issued.

These amendments received Royal Assent on December 2, 2021, but will not come into effect until the sections are proclaimed into force. Through *Bill 71 - Building More Mines Act*, further amendments were made to the unproclaimed portion of the legislation to remove ambiguity and increase certainty on the requirements for a recovery permit. These provisions also remain unproclaimed.

As noted above, the amendments deferred certain issues to “prescribed requirements”, meaning requirements set out in a future regulation. The Ministry is now preparing this draft regulation as well as related elements of a regulatory framework (such as, among

other things, an application form, a set of practices intended to ensure sufficient consultation, and an administrative approach to evaluating and processing applications).

The following sections provide information on the proposed approach for various components of the draft regulation and regulatory framework, including a discussion of whether and how the issues deferred to a future regulation would be prescribed.

Elements of the Recovery Permits Regulatory Framework

Project Categorization

The Ministry is proposing that permit applicants' projects be categorized based on the scale of the project and the potential for impacts to either the environment and/or public health and safety. Projects would fit into one of three categories which would allow for a risk-based approach to determining application content, processing these applications, and attaching terms and conditions to approved recovery permits.

As further described under "Application" below, the Ministry is proposing an administrative approach where applications for low-risk projects (Category 1) would require less information than higher risk projects (Category 3). Projects that fall into a higher risk category may require additional Ministry attention to ensure that, if a permit is issued, terms and conditions can be attached that adequately mitigate project risk. Categorization would be self-assessed by the applicant, guided by the application form. In processing the application, the Minister may review the categorization to consider the appropriateness of the self-assessment, and where an application does not appear to have adequate supporting information given the risk profile of the activity, an applicant may be asked to provide additional supporting documentation or resubmit with more information.

Category 1 – Smaller projects which:

- are relatively short-term,
- have existing information available to understand potential site hazards and environmental conditions, such as information from the Abandoned Mine Information System (AMIS), a filed closure plan or annual reports prepared for the Ministry of Environment, Conservation and Parks (MECP),
- maintain a safe distance from openings to surface, or sub-surface workings on site,
- maintain a specified distance from existing tailings dams,
- limit on-site mineral processing to crushing, grinding, or sifting,
- may disturb materials with the potential for metal leaching or acid rock drainage
- do not involve on-site disposal of tailings,
- do not involve impacts to surface water and groundwater (e.g., no dewatering, no material changes to surface or groundwater flow, no impact to nearby groundwater wells).

Possible Example: A project that would include the removal of historic waste rock or low-grade stock from a site. Larger materials may be processed by a portable crushing or grinding processor, with further processing taking place off site.

Category 2 – Small to medium projects which:

- may take place over multiple years,
- have existing information available to understand potential site hazards and environmental conditions,
- maintain a safe distance from openings to surface, or sub-surface workings on site,
- may disturb materials with the potential for metal leaching or acid rock drainage (ML/ARD)
- may include on-site mineral processing other than crushing, grinding, or sifting,
- may require supporting technical information (e.g., ML/ARD management plan, geotechnical assessment),
- may involve the deposition of waste into an existing tailings area on site, if consistent with waste already present,
- may involve excavation of tailings from within a Tailing Management Area,
- do not impact the structure of a tailings dam,
- do not involve impacts to surface water and groundwater (e.g., no dewatering, no material changes to surface or groundwater flow, no impact to nearby groundwater wells).

Possible Example: A project that would include the removal of mine tailings from a historic tailings impoundment area in a manner that would not impact the stability of the dam. Once removed, the material is concentrated and taken off site for further refinement. Residual waste from the process remains onsite and goes back into the original tailings area. Work can move forward on the permit based on certifications, and confirmation of the findings would be documented in the post operation condition report.

Category 3: Medium to large projects which:

- are complex, multi-year project,
- may have limited information available to understand potential site hazards and environmental conditions,
- are likely to impact surface or sub-surface workings on site,
- are likely to impact surface and ground water (e.g., receiving water including groundwater wells and on/offsite waterbodies, dewatering activities),
- are likely to disturb material that has the potential for metal leaching or acid rock drainage (ML/ARD)
- have the potential to access existing underground mine workings,
- have the potential to impact tailings dam stability,

- may involve work on existing tailings dam or within a specified distance from an existing dam,
- may require supporting technical studies and post-project monitoring.

Possible Example: Projects that include the complete removal and processing of a tailings impoundment, including the perimeter dam which is constructed of tailings, over multiple years. The operation would require water management activities such as dewatering and water treatment as well as stabilization of the tailings during operation. Tailings could be processed on site producing a concentrate that is shipped off site for further processing. The residual tailings would be stored in an existing tailings management area on site.

Term of Permit

Recovery permits would be approved for a 5-7-year term. Through a request to the Minister, the applicant may apply for an additional 3-year renewal of the permit.

Site Remediation

The applicant would be required to remediate the site to an extent consistent with the disturbance caused by its activities. The Ministry would expect that the Recovery and Remediation Plan would contain details that describe how the disturbed area would be returned to a condition that is comparable to or better than it was prior to the activity with respect to public health and safety and the environment.

Application

The contents of an application for a recovery permit are established in the *Mining Act* (see s. 152.1(3)). The *Mining Act* outlines the following:

152.1(3) An application under subsection (1) must be made in accordance with the regulations, and must contain,

- (a) a recovery and remediation plan that meets the prescribed requirements, setting out,
 - (i) a description of the land on which the tailings or other waste materials are located,
 - (ii) how the minerals or mineral bearing substances would be recovered,
 - (iii) how the land would be remediated such that the condition of the land with respect to public health and safety and the environment is comparable to or better than it was before the recovery and remediation, as determined by the Minister,
 - (iv) the estimated costs of the recovery and remediation,
 - (v) a proposed schedule for the recovery and remediation, and
 - (vi) any other information specified by the regulations.

(b) the written consent to the recovery and remediation of every owner of the land that is not the applicant or the Crown; and

(c) any other prescribed document or information.

At present, the Ministry is only proposing to prescribe that the application be made in a form approved by the Ministry. The goal would be to use a dynamic “smart form” that supports the categorization process. The form would be housed on the Ontario Forms Repository and would contain a series of detailed questions that are designed to support the categorization process referred to above and elicit the information needed by Ministry staff in order to fully understand the activities being proposed and, if an application is approved, impose appropriate terms and conditions. Applications in higher-risk categories would require more supporting information than applications in lower-risk categories, with the dynamic “smart form” ensuring that such information is provided.

The Ministry is considering whether the application form should require a certification from a qualified person that the recovery and remediation activities proposed would result in the condition of the land with respect to public health and safety and the environment being comparable to or better than it was before the recovery and remediation. If this certification were required, it could streamline the Ministry’s review of the application by allowing the Ministry to rely on the opinion of the qualified person; however, it could also increase transactional costs for applicants who do not already have a professional engineer or professional geoscientist retained on the project. The Ministry is open to feedback on this issue.

Recovery and Remediation Plan

The contents of the recovery and remediation plan (required in each case for any recovery permit project) are set out in the *Mining Act* (see s. 152.1(3)(a)). The Ministry is proposing that the application form itself include a template for a recovery and remediation plan, which would include the requirements listed in the legislation:

- (i) a description of the land on which the tailings or other waste materials are located
 - This would include information such as the location of the lands and a description of the current site conditions, including mine features and hazards, supported by maps and studies, as applicable to the project categorization.

- (ii) a discussion of how the minerals or mineral bearing substances would be recovered, including:
 - project plans (such as where any infrastructure such as new roads, stockpiles, or buildings may be located);
 - a description of recovery activities that includes a detailed project description of all activities relating to the recovery aspects of the project;

- details on how the minerals would be refined and processed if applicable; and
 - a description of operational project risks including proposed controls.
- (iii) a discussion of how the land would be remediated such that the condition of the land with respect to public health and safety, and the environment is comparable to or better than it was before the recovery and remediation, as determined by the Minister
- A description of the measures to be taken to ensure the land is made comparable to or better than it was pre-recovery activity; and
 - A description of how any infrastructure installed as part of the recovery activity, such as roads, infrastructure, and milling works would be removed or otherwise rehabilitated.
- (iv) the estimated costs of the recovery and remediation
- Estimates must be sufficiently detailed to give the Ministry a clear understanding of the costs of the recovery and remediation aspects of the project.
 - Applicants may be required to provide third-party quotes for proposed remediation work.
- (v) a proposed schedule for the recovery and remediation

Beyond the above, the Ministry is not proposing to prescribe additional informational requirements in recovery and remediation permits at this time.

Permit Decision-Making and Aboriginal Consultation

The *Mining Act* provides the factors to be considered by the Minister in deciding whether to issue a recovery permit and what terms and conditions, if any, should apply. One of these factors is whether Aboriginal consultation has occurred in accordance with any requirements.

The Ministry is proposing an administrative approach to consultation that would be tailored to the potential impacts from the project on the exercise of Aboriginal and treaty rights. The proposed process would include:

- The ability for proponents to request a pre-determination of the Indigenous communities to which the duty to consult may be owed.
- Consultation would be led by the Ministry with the support of the applicant for technical project details and information. Procedural aspects would not be delegated to the applicant.
- A determination by the Minister whether the Crown's duty to consult is triggered by the proposed activities and the appropriate process for discharging that duty (selecting from a number of "tracks" established for consultation). Currently, there are three proposed tracks:

- No consultation required (only if appropriate, in circumstances where it is not foreseeable that Aboriginal or treaty rights would be adversely impacted) such as removal of waste rock from a previously disturbed, and unrehabilitated site that is not suitable for the practice of rights and not subject to a claim for reserve land entitlement or Aboriginal title;
- Consultation process with a decision made in 30 days unless further consultation required; and
- More thorough consultation, with no 30-day target timeline.

Certifications

As mentioned above, the Ministry is considering whether this regulatory regime would rely on certifications provided by qualified persons in order to narrow the scope of Ministry review that would be necessary. In addition to the option of a certification at the time of application regarding the outcomes of the recovery and remediation work, there could also be a role for other certifications to be required, either at the application stage or as terms and conditions of an approved permit. These certifications could be technical in nature and specific to the project activities and site conditions. For example, there could be a requirement for a qualified person to certify specific aspects of the project that are related to mine workings or tailings dams stability, or ML/ARD conditions. These certifications could accompany a study supporting the statement or be provided as standalone certification statements, the Ministry is open to feedback on this proposal.

Mandatory Terms and Conditions for Recovery Permits

As per the legislated requirements, all permits will be subject to the standard condition that the permittee ensures the remediation of the land on which the tailings or other waste materials are located, such that the condition of the land with respect to public health and safety, and the environment is comparable to or better than it was before the recovery and remediation.

In addition, a permit will be subject to any additional terms and conditions that the Minister specifies in the permit. Terms and conditions will be imposed on a case-by-case basis. Anticipated terms and conditions could include, where appropriate, measures that:

- mitigate concerns raised during Aboriginal consultation;
- mitigate concerns raised by the public;
- prevent an increase to site access post activity;
- require a minimum distance be maintained between the recovery and remediation activities and the toe (base) of a tailings dam; and
- address concerns relating to water, noise, air.

As noted above, there could also be opportunities to require qualified persons to certify to particular risk-related issues as terms and conditions of the permit, either prior to the commencement of a project or after the remediation work is complete. The Ministry is

considering whether conditions of this nature would be appropriate and is open to feedback on this.

Certification could also be required to demonstrate that the lands have met remediation objectives and that the lands are comparable to or better than before the recovery project. This certification could be used as assurance prior to the release of any Financial Assurance (see below) held by the Ministry. The Ministry is open to feedback on whether it is necessary to have both an upfront and post activity certification as to the state of the lands when the recovery and remediation work is complete.

Financial Assurance

Financial assurance (FA) may be required for a recovery permit. Under the *Act*, FA can be required for the performance of any activity authorized by the permit that is specified in the permit (including, but not limited to, remediation costs), and/or measures taken to prevent, eliminate or ameliorate any adverse effect arising from the recovery or remediation undertaken under the permit. If an application is approved and FA is required, the FA requirements would be a condition of the permit and the FA would be required to be delivered prior to the commencement of the project.

Although FA requirements would be assessed on each application, the Ministry is proposing an administrative approach where FA requirements would generally be commensurate with the project category. The amount would generally be determined based on the estimates of remediation costs given by the proponent, although the estimates would not be binding on Ministry decision-making in this regard and FA could be adjusted upward or downward if merited.

Acceptable forms of FA would include cash, a letter of credit, a surety bond, or such other forms of FA as the Minister may accept. As set out in the unproclaimed amendments to the *Act*, FA can be returned to the permit holder, on request, at any point during the life of the project, or after the project is over, if the Minister is satisfied that the amount is not required in respect of the permit (for example, if some or all of the recovery and remediation work has been completed).

Instruments Prescribed under the Environmental Bill of Rights

The Ministry will be working with the Ministry of the Environment, Conservation, and Parks to propose appropriate changes to O. Reg. 681/94: Classification of Proposals for Instruments made under the *Environmental Bill of Rights*, so that existing and new instruments (e.g., recovery permit) are accurately reflected and classified appropriately.

Request for Comments

The goal is to support the rethinking of mining wastes, reduce regulatory barriers and promote economic development opportunities to facilitate exploration, testing and reprocessing tailings or other waste materials resulting from mining. This would allow further remediation of the environment, public health and safety at mine sites (including

inactive and abandoned sites) reducing liabilities associated with mine tailings and waste storage.

The Ministry is seeking input on the topics identified within this appendix.

Your feedback will inform the Ministry as staff finalize the regulations to support the implementation of the new framework for the recovery of minerals from mine waste. Your feedback is welcome on these opportunities and other considerations.