
**Mine closure and reclamation
planning —**

**Part 1:
Requirements**

*Planification de la fermeture et de la restauration des mines —
Partie 1: Exigences*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents shall be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 82, *Mining*, Subcommittee SC 7, *Mine closure and reclamation management*.

A list of all parts in the ISO 21795 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document provides requirements and recommendations for mine closure and reclamation planning applicable to both new and operating mines. The overarching objective is to promote consistency and quality in planning for mine closure and reclamation internationally. ISO 21795-2 provides guidance for implementation of this document.

The intended audience are those with responsibility for, or an interest in, planning for mine closure and reclamation. This includes mine planners and designers, mine operators, regulators, environmental assessors, communities, indigenous peoples, and financial stakeholders, amongst others.

Mine planning, design and operations must be fully integrated with the closure and reclamation process. Early, continual and comprehensive mine closure and reclamation planning is essential for all new and operating mines because it:

- leads to the highest degree of environmental and social success, usually at a lower cost than if mine closure and reclamation planning is not done from the beginning of the mining project;
- reduces risks and liabilities throughout the mine's operational life and on closure;
- allows for stakeholder involvement throughout, so that relevant knowledge and understanding are brought into the planning process;
- allows for devoting more attention to sustainable development activities identifying socio-economic opportunities for the various closure phases;
- helps build trust with governments, stakeholders and international communities;
- provides additional planning time to understand the complexity of the biophysical characteristics and socio-economic context of each mine site;
- provides for continual improvement and updating of closure and reclamation plans;
- allows companies to better integrate closure and reclamation activities with operations;
- provides time to identify, research and develop new technologies for mine closure strategies and mine closure treatments that increase robustness and resilience of mine closure and reclamation; and
- allows companies to better provision for and schedule closure and reclamation funding.

There are many leading practices and guidance documents related to mine closure and reclamation planning available in various jurisdictions and used by many mining companies and stakeholders. This document captures the intent of such guidance documents so that it can be applied globally.

Mine closure and reclamation planning —

Part 1: Requirements

1 Scope

This document specifies a framework and the processes involved in mine closure and reclamation planning for new and operating mines. Requirements and recommendations are provided on:

- mine closure and reclamation plan objectives and commitments;
- technical procedures and techniques;
- mitigation of socio-economic impacts;
- financial assurance and associated planning;
- mine closure and reclamation planning for unplanned closure;
- post-closure management plan; and
- mine closure and reclamation plan documentation.

The following aspects of mine closure and reclamation are not addressed in this document:

- infrastructure such as rail lines, ports, off-site ore loaders, power stations, etc. that are associated with the mine operation, but which are not located at the mine site;
- detailed survey, testing or monitoring methods, detailed engineering procedures, detailed product requirements, or detailed construction and operational procedures; occupational health and safety management related to closure and reclamation, construction and exploration activities;
- relinquishment of a closed and reclaimed mine site, or portions thereof, to a party (governmental or private entity) not related to the mine operator;
- specific requirements for dealing with the radiological aspects of mine closure and reclamation, such as those that occur at uranium mining and processing facilities and other mines at which naturally occurring radioactive materials are present; however, the other aspects associated with closure and reclamation of these mines are included in this document; and
- closure and reclamation of abandoned mines.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 20305, *Mine closure and reclamation — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20305 apply.