

GISTM Public Disclosure Report

Neves-Corvo Mine Cerro do Lobo Tailings Storage Facility

October 2024

1. Introduction

Lundin Mining is committed to the implementation of the Global Industry Standard on Tailings Management (GISTM) at its Neves-Corvo Mine in Portugal, which includes one active tailings facility. Principle 15 of the GISTM requires public disclosure and access to information about the tailings facility to support public accountability. This disclosure document has been prepared in accordance with the requirements of Principle 15 of the GISTM and reviewed by Lundin Mining's Accountable Executive.

2. Tailings Storage Facility Description

The Cerro do Lobo Tailings Storage Facility (TSF) is an active facility that is part of the Neves-Corvo Mine operation. The operation is owned and operated by Lundin Mining's Portuguese subsidiary SOMINCOR. The operation has been in continuous production since 1988.

Located in the Alentejo district of southern Portugal, the operation is situated approximately 15 km southeast of the town of Castro Verde and approximately 200 km southeast of Lisbon. The climate of the region is Mediterranean with an average annual temperature of 17°C. The average temperature in July is 30°C while the average temperature in January is 10°C. Temperatures below freezing are rare. Rainfall occurs predominantly from October through April. Average annual rainfall in the last ten years is 380 mm; however, this is highly variable year on year. Most rainfall occurs from October through February with little or no rainfall occurring during the summer months.

The processing facility at Neves-Corvo comprises two plants. The copper plant processes copper ores and has a capacity of approximately 2.8 million tonnes per annum (Mtpa). The zinc plant, which can process zinc or copper ores, has recently undergone a significant expansion to a design nameplate capacity of 2.5 Mtpa. Tailings generated from ore processing are either sent to underground workings and used as paste backfill or are deposited in the Cerro do Lobo TSF located about 3 km southeast of the processing plants.

The tailings facility was originally developed for sub-aqueous tailings deposition, with an area of 191.5 hectares or 1.9 km², allowing for a total of 17 Mm³ to be deposited using this method. In 2010, the TSF was converted to a thickened tailings deposition facility with a thickened tailings plant to increase storage capacity, without any future raises of the main and perimeter rockfill embankments. The design included disposal of tailings with run-of-mine waste rock, which is potentially acid generating (PAG), in a co-disposal system. Waste rock is used for peripheral berms and cover construction, where the berms demarcate the deposition areas and levels. The storage capacity of the facility using this method was increased to 33.3 Mm³, based on a vertical expansion of five tiers.

In 2022, SOMINCOR received approval to expand the footprint of the Cerro do Lobo tailings facility to the south area to allow for sufficient additional storage capacity through 2033. Construction of the new embankment for the South Expansion Area started in 2022 and the deposition of thickened tailings in the new area started in April 2024. Additional lifts to the expanded facility will be constructed in accordance with the mine plan. The expanded facility occupies a total area of approximately 210 hectares or 2.1 km². With this expansion the TSF storage capacity has increased in capacity from 33.3 to 50 Mm³ of extractive waste (tailings and waste rock), keeping the current system of co-disposing thickened tailings and run-of-mine waste rock. The expansion involved a footprint extension (18.5 hectares), already included in the current 210 hectares, to the south, limited by a new south embankment, and a vertical expansion from tier 5 at 266.5 masl to tier 13 at 283.5 masl.

The tailings facility currently includes the Main Dam (Corpo Principal), the south embankment, and seven perimeter/secondary dams (MD, PCP, ME1, ME2A-C, and Monte Branco), resulting in a total embankment length of approximately 5.6 km.

The operation has an efficient water management system which maximizes recycling of water and transfer between the mining and mineral processing operations and the TSF. Process water is mostly obtained directly from the recirculated

overflow of the three paste thickeners preparing the tailings for deposition in the Cerro do Lobo TSF. Excess overflow water and runoff of pore and rainwater from the Cerro do Lobo TSF is stored in the Cerro da Mina fully lined water storage facility. The Cerro da Mina water storage facility, with a capacity of 1.4 Mm³, was built to cope with the reduction of water storage capacity in the TSF, when the operations switched from sub-aqueous disposal of slurry tailings to subaerial deposition of thickened tailings.

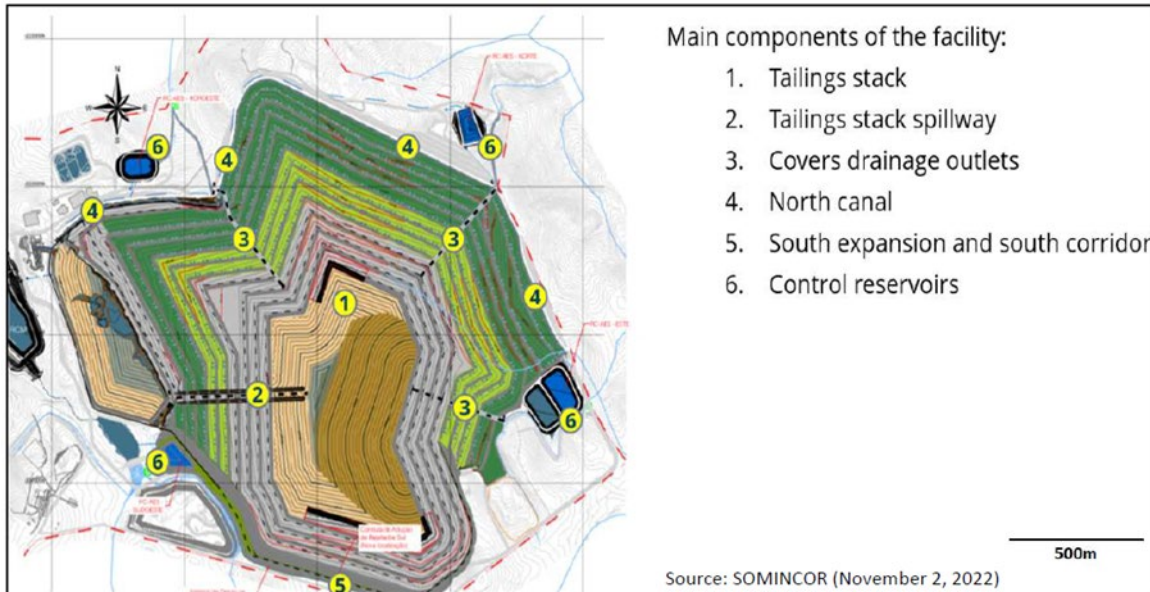


Figure 1: Cerro do Lobo Tailings Storage Facility Layout (Final Configuration)

3. Consequence Classification

The consequence of failure classification for the tailings facility is determined by assessing the downstream conditions and selecting the classification corresponding to the highest Consequence Classification from the following incremental loss categories: potential population at risk, potential loss of life, environment, health, safety, cultural, and infrastructure and economics.

The GISTM Consequence Classification for the Cerro do Lobo TSF was determined and documented after conducting a series of hypothetical breach analyses considering credible failure modes and scenarios. The Consequence Classification of the Cerro do Lobo TSF is Very High based on the potential environmental impact according to the system defined within the GISTM.

4. Summary of Risk Assessment Findings

Lundin Mining applies a risk-informed decision-making approach for all TSF lifecycle phases. Risk assessments are used to identify, analysis and evaluate risks to prevent catastrophic failures, and to inform decisions to manage risks to as low as reasonably practicable (ALARP). This approach focuses on credible failure modes and to reduce the risks at our facilities by reducing the likelihood of occurrence and/or downstream impacts, regardless of the consequence classification defined using credible or hypothetical failure modes.

The most recent risk assessment for the Neves-Corvo TSF was conducted in 2023 by an external independent facilitator with participation from a multidisciplinary site team and the Engineer or Record (EOR). The risk assessment included a semi-quantitative Failure Mode and Effects Analysis (FMEA). As part of this assessment, potential failure modes were deemed as credible or non-credible regardless of their likelihood, and then the risk of credible failure modes was

evaluated. All failure modes were sorted according to Lundin Mining's risk management framework, with risk mitigation controls identified and tracked.

The results of the risk assessment indicate the credible failure modes (foundation failure, liquefaction and slope instability, overtopping) for the current TSF configuration, along with their controls and mitigation measures. The risk assessment methodology and results were reviewed by the Independent Tailings Review Board (ITRB) in 2023.

Following the FMEA risk assessment workshop, additional risk mitigation measures were identified to achieve ALARP through either reducing likelihood or consequences to people and the environment. These potential measures will undergo further evaluations in 2024 and 2025.

5. Summary of Impact Assessments and of Human Exposure and Vulnerability to Tailings Facility Credible Flow Failure Scenarios

Hypothetical dam breach analyses and inundation studies have been conducted for the Cerro do Lobo TSF to identify potentially impacted areas and waterbodies in the extremely unlikely event of a tailings breach. Potentially affected areas primarily include agricultural properties and local roads/bridges located along or adjacent to the Oeiras River. No urban areas or rural villages will be directly impacted by a potential dam failure.

Under Portuguese Legislation, the people at risk are quantified by the number of permanent residential buildings downstream affected within the inundation areas, and internal employees potentially affected are not considered. For the potential loss of life category under GISTM, internal employees/contractors with a full-time work function on the facility or downstream are considered. For the Cerro do Lobo TSF, potentially affected internal employees include four people. The criteria for the quantification of the temporary workers are a third of the estimated number that are likely simultaneously in one work shift (one construction foreman, one bulldozer operator, one signaller and three trucks). For the Cerro da Mina water storage area, the number of potential losses of life is classified as unspecified since only occasional monitoring or maintenance work is conducted within the facility or downstream.

The controls and mitigations that have been implemented to reduce the likelihood and consequences of credible tailings facility failure scenarios at the Cerro do Lobo TSF were defined during the risk assessment.

6. Description of the Design for all Phases of the Tailings Facility Lifecycle

The current crest elevation for all main and perimeter dams is 255 m with a maximum dam height on the Main Dam (Corpo Principal) of 42 m and a crest width of eight meters. The outer slope is currently 1.8H:1V overall with catchment berms located every ten meters vertically on the downstream faces of the larger dams.

The dams were built in four phases. Phase 1 (completed in 1987) was built as a starter dam to elevation 244 m using mine waste rock for the upstream and downstream shells, weathered schist as an impervious core and coarse sand as a filter between the core and the downstream rockfill shell and as the blanket underdrain. For the successive three lifts (two four meter high lifts and a final three meter high lift), the impervious weathered core was replaced with a geomembrane either anchored into the core or attached to a concrete plinth attached to bedrock. All upstream shells have been constructed using mine waste rock, while the downstream shells of Phases 2 and 3 (first and second raise completed in 1990 and 1993, respectively) are mixed non-acid generating quarry rock and mine waste rock. The Phase 4 downstream shell (final raise) was constructed with non-acid generating quarry rock. The final lift of the rockfill embankment in Phase 4 was completed in 2005 to a crest elevation of 255 m. All lifts below the start of thickened tailings placement have used the downstream method of dam construction.

Since 2010, thickened tailings are pumped and retained by internal berms (waste rock) 40 m apart and raised two meters, with an overall mean slope of 5%. The berms have a downstream slope of 4H:1V and an upstream slope of 2.5H:1V. The tailings deposition sequence enables a free superficial drainage inside the stack from East to West, towards the stack

spillway which conveys the water to Cell 15 and then to the Cerro da Mina water storage facility. Waste rock is used for berm and cover construction. The final cover – a multi-layer low flux cover – with a capillary break, followed by a geotextile, and then a clean rock and topsoil layer will be placed on the top of waste rock cover.

The Cerro da Mina facility serves as a process water storage facility and is located downstream on the western perimeter of the TSF. This facility receives the excess water from the TSF impoundment, by the Cell 15 spillway, connected to the Cerro da Mina main inlet. Cerro da Mina is lined with HDPE geomembrane over a bentonite geotextile composite placed on fine grained rockfill to prevent egress of low pH water. The final crest elevation of the Cerro da Mina facility is 240 m with a maximum dam height of 30 m, crest width of six meters, and 1,270 m long. The downstream slope is 2H:1V and the upstream slope is slightly flatter with one berm located at elevation 228 m.

7. Summary of Material¹ Findings of Annual Facility Performance Review and Dam Safety Review (DSR)

The most recent independent DSR for the Cerro do Lobo TSF was completed in 2023. The DSR findings concluded that the Cerro do Lobo TSF met dam safety requirements. The next DSR will be completed in 2028.

The last Cerro do Lobo TSF Performance Review was performed by the EOR in 2024. No significant risks were identified based on the site visit inspections and review.

8. Summary of Material Findings of the Environmental and Social Monitoring Program

Our operations are subject to environmental regulations in the various jurisdictions in which we operate. Permitting, approvals and compliance management are important for the effective regulation of mining-related activities to prevent possible adverse impacts on the natural environment, as well as to protect the interests and rights of local communities. There were no material environmental incidents associated with the Cerro do Lobo TSF from the 2024 environmental monitoring program to date.

Lundin Mining's approach to stakeholder engagement is based on clear communication, transparency, and trust. Our goal is to better understand and respond to the interests and concerns of our stakeholders and any emerging issues and risks to our operations. The Responsible Mining Policy (RMP) and Responsible Mining Management System (RMMS) set the framework for a consistent approach to engaging with stakeholders across our organization. We use insights gained from the Social License to Operate (SLO) Index to identify stakeholders and engage on perceived and actual impacts. The SLO is not a one-time achievement; it can vary over time and therefore needs to be constantly maintained. Since 2018, the Neves-Corvo operation engaged an independent third-party to measure the SLO Index. To better integrate social performance in the internal decision-making process on TSF operations and emergency planning, a set of questions covering the community perception on the TSF are included in the semesterly perception surveys. There have been no material findings associated with the Cerro do Lobo TSF from the already implemented surveys.

¹ Material findings are defined as unacceptable tailings facility risks such as a dam safety issue considered immediately dangerous to life, health or the environment, or a significant risk of regulatory enforcement.

9. Summary of the Tailings Facility Emergency Preparedness and Response Plan (EPRP)

The Cerro do Lobo TSF and Industrial Water Reservoir of Cerro da Mina Dam Breach Analysis and Emergency Preparedness and Response Plan were updated in 2021. A joint Emergency Preparedness and Response Plan was prepared covering both facilities. The hypothetical dam breach analysis was completed for the TSF south expansion project (13 tiers), considering failure scenarios for the TSF Main Dam, the saddle dam, and the south expansion embankment. Failure through the foundation of the embankment, triggered by a seismic event, was the failure more considered in the analysis. The cascade failure of Cerro da Mina, due to the TSF south embankment flow was also considered. The failure mode considered for Cerro da Mina was overtopping of the embankment caused by the inflow of the TSF south expansion embankment failure. Outputs from these analyses include inundation maps, flow depth and velocity, self-rescue zone, and downstream consequences. The warning system specified in the Emergency Preparedness and Response Plan is undergoing final engineering with implementation expected to be completed between Q4 2024 and Q1 2025.

10. Independent Reviews

The last Independent Tailings Review Board (ITRB) site visit was completed in November 2023. The next ITRB site visit and review is scheduled for November 2024 while the next independent DSR is planned in 2028.

11. Financial Capacity

Lundin Mining confirms that it has sufficient financial resources to meet its business requirements for the planned closure, early closure, reclamation, and post-closure of the Cerro do Lobo TSF and its appurtenant structures. These costs are disclosed annually in aggregate form in our financial statements contained within our [Annual Management's Discussion & Analysis \(MD&A\) Report](#). Further, Lundin Mining maintains insurance for the Cerro do Lobo TSF to the extent commercially reasonable and available.

12. Management System Reviews and Audits

Neves-Corvo is implementing the Lundin Mining RMP through the RMMS, which includes 16 requirements. The RMMS specifies Company-wide requirements for managing health, safety, environmental and community (HSEC) aspects of our business. In 2021, Neves-Corvo conducted an internal audit on the RMMS requirements, resulting in a 78% alignment.

In support of GISTM implementation, Lundin Mining has developed a corporate guideline for the development of a site-specific performance-based Tailings Management System (TMS). An initial TMS implementation self-assessment was carried out in April 2024 at Neves-Corvo. The self-assessment results indicated that several components of the TMS already exist at the site level. The percentage of alignment to the TMS guideline was 69%. It is anticipated that the site-specific TMS will be completed by Q4 2024. A formal internal review of the defined site-specific TMS document is planned for 2025.

13. GISTM Conformance

Lundin Mining has retained an external auditor to perform conformance assessments on the GISTM for the Cerro do Lobo TSF. These assessments have been performed in accordance with the ICMM Conformance Protocols issued in May 2021.

For the Cerro do Lobo TSF, all requirements have been met, or met with a plan in place, and verified by our external auditor.