# CERRO MATOSO S.A. TSF EMERGENCY PLANNING



Emergency Preparedness and Response Planning (GISTM Requirement 15.1 B8)

Cerro Matoso S.A. (CMSA) has provided local authorities and emergency services with relevant information as part of our emergency preparedness and response planning.

The Emergency Preparedness and Response Plan (EPRP) for the Sajana tailings storage facility (TSF) establishes all measures for prevention, preparedness and response to emergencies, disasters, and contingencies, as well as continuity and recovery actions in the event of a failure. The EPRP aims to protect life and minimise the actual and potential impact on people, assets, property, health and the environment. It also covers cultural assets and potentially exposed population in the area of influence.

According to CMSA's risk management system, the structure of the emergency, contingency, crisis and disaster management plan for the 'tailings or water dam failure' risk is composed of the following plans:

## 1. Strategic Plan

The results of the risk analysis informing the different prevention, reduction and mitigation measures is contained in the strategic plan. The definition of the different levels of response is informed by the materialisation of a risk. Three levels have been defined as follows:

#### Level 1 – Normal Status

Non-emergency. Stable operation. Geotechnical monitoring shows no new cracks, deformations or settlements exceeding the normal level. No piezometer in the embankment section exceeds the normal levels established by instrument. In addition, the piezometric level is less than the historical maximum recorded up to the time of updating the Operation, Maintenance and Surveillance Manual (OMS).

### Level 2 – Alert Status

Deformation of embankment. This situation may eventually lead to a failure and flooding downstream, but there is not an immediate threat of dam failure.

## Level 3 – Alarm Status

Imminent failure or major damage. If two or more instruments on the embankment exceed the alarm threshold recorded each time the OMS manual is updated, the area should be evacuated (or even prohibiting) as a precautionary measure by minimising the presence of people in and around the unstable area.

# 2. Operational Plan

The operational plan establishes the basic procedures for the attention or response plan to a contingency, and defines the notification, organisation, and operation mechanisms for the eventual activation of the contingency plan. It is the plan that contains actions for coordination and preparation of emergency or disaster situations, where information on training, simulations, drills, equipment, planning and responsibilities are documented.

In addition, it establishes actions for emergency levels, types of alerts, alarms, early warning systems, activation levels and communication of the response with internal and external stakeholders.

## 3. Information and Communication Plan

The information and communication plan establishes protocols related to management and logistics information systems, including data such as: telephone numbers of personnel involved in the emergency response, both internal and external, mutual aid plans, list of available equipment, among others.

CMSA has established a 24-hour emergency control centre, which handles all internal and external emergency and preventive emergency calls for external support plan activities. This communications centre, called CECOM, is responsible for the activation of emergency plans and the deployment of response teams.

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## 4. Expected Actions

Expected actions will be based on the alert level and example lists are included in the EPRP to assist.

## Level 1 - Normal Status

- Frequency of monitoring is maintained; and
- Report stability status internally. The Responsible Tailings Facility Engineer (RTFE) and Engineer of Record (EoR) will be notified of the condition of the TSF or dam with regular visual inspections.

## Level 2 - Alert Status

- Ongoing complete visual inspections and surveys will occur. Increased frequency of measurements every three days;
- Need for feedback measurements and verification of the condition of other instruments in the sector;
- The RTFE and EoR will be notified immediately, and corrective actions will be identified; and
- Report to Area Leaders and Superintendents.

## Level 3 – Alarm Status

- Managers, Vice President Operations and Chief Operating Officer will be notified;
- Field Response Team (FRT) will be formed; and
- Need to issue warning and closure announcements.

Ongoing monitoring and a complete visual inspection and survey will occur where it is safe to do so. Emergency remedial action plan will be developed and enacted. Once the event has passed, a geotechnical review of the facility will be undertaken to understand the root cause of the event.

# 5. Close Out

Once the emergency event is over, the emergency must be closed out and follow-up procedures completed.

Assessment of social, environmental, and local economic impacts will be conducted as soon as possible after people are safe and short-term needs have been met.

The Sajana TSF EPRP is aligned with the current Colombian legislation. In addition, it includes the specific guidelines as outlined in South32's Crisis and Emergency Management Standard and Procedure. In line with this, CMSA will also facilitate the monitoring and public reporting of post-failure outcomes and work with regulators and affected people towards the development of reconstruction, restoration and recovery plans that address the medium- and long-term social, environmental, and local economic impacts of the failure.