

# **Tailings Facilities Management**

Tailings are waste produced by mining and mineral processing. Tailings management facilities (TMF) are a major source of safety and environmental hazards for mining enterprises. In accordance with the 15 principles of the Global Industry Standard on Tailings Management set by the International Council on Mining and Metals (ICMM), the Company takes responsibility at all stages of the life cycle of its tailings management facilities, making the safety of tailings management facilities





a top priority. As of the end of Fiscal 2022, Henan Found and Guangdong Found operated three TMFs, two wet TMFs located at the Ying Mining District in Henan Province, and one dry stack TMF at the GC Mine in Guangdong Province. Henan Found plans to build a new 3,000 t/d processing plant along with a relevant supporting TMF, which is expected to be put into operation in 2025. In Fiscal 2022, the Company had zero significant safety accidents at its TMFs.

Set up sound management system, accountability mechanism, and TMFs safety

Strictly implement the TMFs closing inspection of the safety facilities



SILVERCORP IN CHINA

STRATEGY AND MANAGEMENT

CORPORATE GOVERNANCE

ENVIRONMENTAL PROTECTION

SOCIAL RESPONSIBILITY

## **Risks and Challenges of TMFs**

TMFs are usually man-made sources of mudslides with high potential energy, and the collapse or breach of a TMF can be catastrophic for nearby populations, infrastructure, and the environment. Silvercorp places a heightened focus on the safety and environmental risks of its tailings ponds and puts

the safety of people above everything else. The Company actively works with the government and regulators to monitor and check for hazards at the tailings ponds to ensure top-tier safety management.

#### **Response Measures**

Silvercorp strictly follows the Global Industry Standard on Tailings Management and the Tailings Pond Safety Regulations (GB39496-2020), and in doing so ensures that tailings discharge and dam construction are carried out in accordance with relevant design requirements, operation plans, and technical specifications, ensuring effective water level control, flood control, and



	We continuously optimize our TMFs management following systems and regulations:
Systems and regulations	The Safety Management System for Control and
	The Safety Management System for Flood Contr
	The Safety Management System for Tailings Tra
Emergency planning	We have developed emergency plans to enhanc disasters at the TMFs, including the Comprehensiv TMF, the Special Emergency Plan for Production Saf Stack TMF, and the Emergency Rescue Plan for Prod
	An online monitoring system has been set up in t making by supporting real-time monitoring of th warning.
Online Monitoring	<b>GC Mine</b> : Obtains critical real-time data from the as the infiltration line, the internal displacement, are synchronized to the Sky Eye and Earth Eye sa mine TMFs of the Department of Emergency Mar supervision.
	<b>Ying Mining District</b> : The online TMF monitoring the Emergency Management System of Luoyang monitoring platform as required in the future.
Responsibility management	We have designated personnel for production sa more than ten years of experience responsible fo
	We have established a multi-level TMF safety eva
Periodic evaluation	Conducting a TMF safety status evaluation every reaches a specified height (which is 1/2 to 2/3 of 1/2 of the final design height for Grade I and Gra
	Reviewing our emergency response plans every
Accident report	Performing flood routing and a dam stability ass events such as heavy rains during the flood seas
	Utilizing a system that provides an open and trar while keeping the information of the reporters st
	We use the Eblog App to facilitate information-ba
Public disclosure	Silvercorp is committed to transparency through reports, on its website, and via the media.

seepage control. In addition, we have a monitoring system in place to monitor the main technical data of the TMFs in real time and carry out regular inspections for safety hazards. We have also developed a sound emergency management system to ensure the safe and stable operation of our TMFs.

nt system. In Fiscal 2022, we revised and optimized the

d Seepage Drainage Facilities

rol Measures and Flood Drainage Facilities

ansportation, Dam Building and Discharge

ce the response and preparedness for emergencies and ve Emergency Plan for Production Safety Accidents in Dry Stack fety Accidents in Dry Stack TMF, the On-site Rescue Plan for Dry duction Safety Accidents.

the two major mining areas, informing scientific decisionhe safety status at the TMFs and enabling predictions and early

online monitoring system in the dry stack tailings area, such the surface displacement, and the precipitation. The data afety risk early warning and prediction system for non-coal nagement of Guangdong Province, subject to government

system and the key operational data are integrated into City, Henan Province and will be connected to the national

afety, with each subsidiary appointing a safety engineer with or identifying, preventing, and managing TMF risks.

aluation mechanism to ensure the stability of the TMF dams.

three years and a dam stability analysis when the tailings dam the final design height for Grade III TMF (or lower) and 1/3 to ade II TMFs).

three years.

sessment every year before the occurrence of extreme weather son.

nsparent channel for reporting production safety accidents trictlv confidential.

ased monitoring and problem solving regarding TMFs.

disclosure of TMFs management in its annual sustainability



# **Emergency Response Plans**

Seepage treatment	Clogged or damaged drainage facilities	Crack treatment	Landslide treatment	Anti-overflow measures	Flood preventior
Seepage treatment is twofold:	For a blocked drain: remove debris and monitor the drain to ensure an unobstructed	Treat sliding cracks in combination with strengthening the dam slope	Once a landslide occurs, reliable treatment measures should be taken to restore and reinforce the dam slope and improve its stability	Danger may occur when the drainage facilities have been fully used but the water level continues to rise	In the event of a flood, first tailings to the TMF and incr discharge, using mechanic measures to lower the wat
Seal leaks outflow. upstream of the dam to For a collap block further drain: remo water inflow. identify the the collapse Safely drain repair the d	outflow. For a collapsed drain: remove debris, identify the cause of the collapse, then repair the drain once	For non-sliding cracks, shallow cracks, or cracks in anti-seepage areas: treat with excavation and	The basic principle of landslide treatment is to cut the slope at the main crack site and to put weight at the foot of the dam. Minimize the reservoir water level and open ditches along the sliding body and the nearby	Measures should be taken to build sub-dams promptly to increase the water retaining height. If the top of the dam is not wide enough and the soil quality is poor, an ad- hoc sub-dam can be built	much as possible. Mechani vehicles can be stacked on dam stability. Increase the o energy dissipation pool in f prevent the rising water lew dam stability through soaki dam slope. Plug, fill and co
seepage downstream of the dam using filtration systems to prevent soil erosion and	drainage is restored. For poor drainage as a result of a collapsed drain: if inflow is not strong, shut down the drainage tunnel and repair the collapse; if	backfill. For deep surface cracks or cracks in the dam body: treat with grouting. For medium-depth	slope to quickly drain seepage. If the sliding crack reaches the foot of the slope, put weight on first. When treating a backwater slope landslide caused by leakage from the earth dam, the water-facing slope shall be treated at the same time by dumping soil on the slope to prevent seepage.	with earth bags.	pits to prevent further dama If the hazard expands and a occur, promptly notify peop evacuation and actively cor government authorities to a and shelter following their
maintain t stability. c	the collapse is severe, evacuate people downstream ascracks due to high water levelsdownstream as necessary, then take measures to control drainage.or excavation difficulties: treat with a combination of excavation, backfill, and grouting.	Before landslide treatment, the area shall be covered with waterproof materials such as plastic film to prevent rainwater from seeping into cracks. Intercepting ditches shall also be dug above the crack to divert water from the top of the dam.	Actions in Fiscal 2022  Henan Found carried out the dam	n surface covering and dam su	
				<ul><li>TMF, and the dam surface concret</li><li>Guangdong Found invested \$0.1 r</li></ul>	ing of the Zhuangtou TMF. million to carry out the strength

• Guangdong Found digitalized TMF safety management, adding 12 new forms the Eblog App, including 1 production process and position form, 7 equipment inspection forms, and 4 safety management forms.

64 SASB: EM-MM-540a.1, EM-MM-540a.2

#### measures

### Measures to prevent dam collapse

stop the discharge of rease the flow of flood cal pumps or other ter level in the TMF as nical equipment and the dam to increase discharge of the front of the dam to vel from affecting king the foot of the ompact cracks and hage to the dam.

d a dam collapse may ple to prepare for operate with local organize evacuations emergency plan.

When a hazard occurs, first stop the discharge of tailings to the TMF and take measures to maximize the drainage capacity of the reservoir area. Mobilize personnel and vehicles to seal the cracks with sandbags, possibly with the help of mechanical equipment. At the same time, stack gravel on the dam to strengthen dam stability, while the local government immediately evacuates people downstream.

urface ditch concreting of the 12th Phase of the Shiwagou

thening project of its dry stack TMF.