

# BARRICK

## TAILINGS MANAGEMENT FREQUENTLY ASKED QUESTIONS

### What are “tailings?”

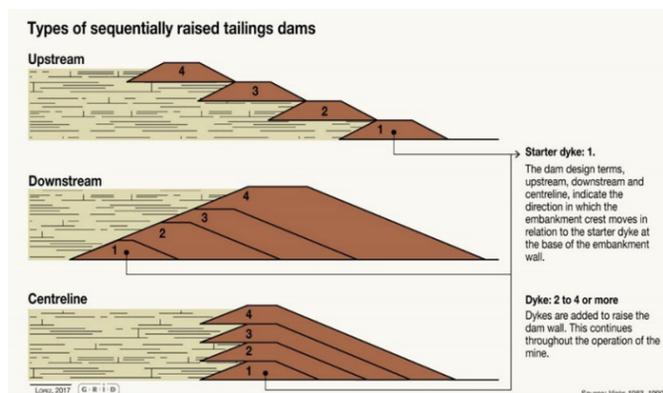
After ore is mined, it must be processed to extract the target mineral e.g. gold. Higher grade ores are often ground into small particles to increase recovery. Once the finely ground ore has been processed, the remaining material is commonly referred to as “tailings.”

### What happens to tailings after processing?

After milling and processing is complete, tailings are either incorporated into materials used to backfill pits or underground voids created by mining or pumped in a slurry form into an engineered repository. Such a repository might be called a tailings dam, tailings storage facility (TSF), tailings impoundment facility (TIF), or a tailings management facility (TMF). For this FAQ, we will use the generic term TSF.

### How is a Tailings Storage Facility (TSF) constructed?

Depending on surrounding topography and other considerations, a TSF will be constructed from one or more embankment dams. Some facilities are free-standing, while others are incorporated into surrounding geological features. Embankments (dykes) may be constructed from earthen “borrow” materials, rock removed as overburden during mining, or sometimes from tailings. Tailings embankments are constructed (raised) over their service life, most commonly by upstream, downstream and/or centreline construction methods:



### How many operating and closed tailings facilities does Barrick manage?

As of January 1, 2019, Barrick manages a total of 55 TSFs. 13 of these (24%) are operating, while 42 (76%) are closed.

### What is a “dry stack” TSF?

Because the mineral extraction process uses water, tailings are often delivered to the TSF in slurry form; some of that water is reclaimed from the TSF for re-use. Sometimes, much of the water is extracted from the tailings by filter systems in the process plant, after which the moist tailings are transported to what is commonly referred to as a dry stack TSF.

### How many of Barrick’s tailings facilities are dry stack?

Four. One active facility and three inactive facilities.

### What is a “failure” of a Tailings Dam?

It is possible that a tailings dam could “fail,” allowing the tailings to be released from the impoundment. A dam breach analysis or an inundation study estimates the downstream flow volumes and arrival times of the water and tailings mass that could be released from the impoundment in the unlikely event of a dam failure.

### Does Barrick prepare emergency action plans for potential failures?

Yes, Barrick’s active and inactive TSFs have Emergency Preparedness and Response Plans that are reviewed and updated on a regular basis.

### Have any of Barrick’s tailings dam failed?

No tailings dam operated by Barrick has failed.

### Are Barrick’s TSFs inspected?

Yes, these are our six levels of surety:

#### 1. Monitoring technology

Our operating sites employ monitoring systems such as vibrating wire piezometers, inclinometers, drone surveys, satellite surveys and imagery, static prisms for movement detection, drainage monitoring and other technologies to monitor tailings storage facilities (TSF’s), abutments, natural slopes and water levels.

#### 2. Routine Inspection

Conducted by suitably qualified and experienced operation site personnel, in compliance with Operation, Maintenance and Surveillance (OMS) Manual requirements. Intended to ensure that the TSF is operating within prescribed parameters.

#### 3. EoR / Dam Safety Inspection

Conducted by the Engineer of Record (EoR) responsible for the design of the current TSF phase, or by a suitably qualified and experienced third-party geotechnical engineer with a comprehensive understanding of the current TSF phase. Intended to verify that the existing or anticipated TSF conditions follow design intent and that site-specific performance objectives are being met.

#### 4. Dam Safety Review

Conducted by a suitably qualified and experienced third-party geotechnical engineer who is neither the EoR nor a representative of the TSF operation or closure design consulting firm and who has a comprehensive understanding of the current TSF phase. Intended to provide a detailed, independent assessment of the safety and operational stewardship of the TSF.

#### 5. Assurance Audit

Conducted by our internal corporate technical specialists. Expected audit frequency of one to three years, based in part on compliance level and previous findings. Intended to ensure that the existing or anticipated TSF conditions and management procedures comply with Barrick’s corporate Tailings Management Standard, that any past issues have been resolved and that any previously unidentified issues of concern are documented and addressed.

#### 6. Independent Tailings Review Committee

Conducted by one or more qualified and internationally-recognized experts outside of Barrick and not involved with preparation of the TSF design. Intended to provide an expert, independent opinion as to whether or not the TSF design and current and/or anticipated performance demonstrate an acceptable level of care, from geotechnical, hydrotechnical and environmental perspectives and with reference to accepted international practice.

### What aspects are included in these inspections?

A geotechnical engineer inspecting a TSF will meet with operations staff at the facility, review records, and inspect the dam, abutments, impoundment and other components of the TSF to evaluate the safety of the facility and report on the following:

- The classification of the dam based on the consequences of a failure;
- Records of the instrumentation readings and visual surveillance carried out since the last dam safety inspection;
- Changes to surface water control, including records of gauged surface water levels;
- Indications of abnormal conditions, including any signs of geotechnical distress in the dam, foundation, abutments or impoundment;
- Indications of seepage on the slopes, at the base and around the perimeter of the dam, including locations beyond the base of the dam;
- Available freeboard (the vertical distance between the top of the water level surface and the lowest point of the crest of the dam);
- Areas of surface erosion which may require additional protection; and
- Other site-specific concerns.

### Are there any communities that could be affected by a tailings dam failure?

Yes. Residential and infrastructure development downstream of our TSFs is discouraged as far as practical and risk to communities is always considered in the design and operation of our tailings impoundments. However, there are some Barrick TSFs with communities downstream that could be affected by a tailings dam failure.

### Does Barrick have any plans to close any of its TSF’s?

At the end of the life of a mine or a facility, Barrick closes its facilities in compliance with law and best practices. During the initial permitting of any facility, Barrick will typically be required by regulators to prepare and submit closure plans for each facility. These plans are updated throughout the mine’s life and advanced to detailed engineering prior to closure. Closure plans focus on ensuring that the TSFs remain geotechnically and geochemically stable and to the extent possible, satisfy understood long-term land use objectives.