

## IN PARTNERSHIP WITH



## GLOBAL TAILINGS STANDARD BY



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Tailings storage facilities have been a feature of mining operations around the globe since mining began. They are the depositories of waste or gangue material from mining operations and mineral processing plants, or the storage facilities for pollution control. In some cases, they may still contain low grade minerals, high grade fines that are not economically viable to treat. They may also contain reagents and other radioactive or potentially harmful minerals and chemicals, that could damage ecosystems in the event of their escape. Tailings facilities are each in a way unique, either in terms of location, terrain, design and construction. Furthermore, in terms of design and construction, debate occurs globally on the merits and demerits of upstream and downstream facilities, and wet or dry facilities.

Following failures of TSFs over many decades, but especially in the last few years, great pressure from civil society and the investment community has resulted in calls for more stringent standards and audits, as well as public disclosure of the results of risk analysis and monitoring.

This has culminated in the recent publication of the Global Industry Standard on Tailings Management by ICMM, UNEP and PRI as well as guidance by the International Commission on Large Dams (ICOLD). At the same time, the Global Mining Professionals Alliance has called on its members to participate actively on a Global Action on Tailings (GAT) group, to ensure cross fertilisation of knowledge and learnings about TSFs across the globe.

In addition, and in response to calls from the Church of

# GLOBAL TAILINGS STANDARDS AND OPPORTUNITIES

FOR THE MINE OF THE FUTURE

8-9 NOVEMBER 2021 - CONFERENCE

10 NOVEMBER 2021 - TECHNICAL TOURS

MISTY HILLS CONFERENCE CENTRE, MULDRSDRIFT,  
GRADLE OF HUMANKIND, JOHANNESBURG

England Pensions Board and the Council on Ethics for the Swedish Public Pension Funds, many mining companies conducted deep-dive self-audits during 2019 and 2020 which they published on their websites for public scrutiny.

In South Africa, the SAIMM has convened a Task Group which includes industry professionals, Academia, the SAIMM, and the South African Institute of Civil Engineers (SAICE). This group has formed the organizing committee for the presentation of this very important international conference.

**KEYNOTE SPEAKERS:**

**Aidan Davy**, *ICMM, United Kingdom*

**Ross Cooper**, *Sibanye Stillwater, South Africa*

**Mariette Liefferink**, *Federation for a Sustainable Environment, South Africa*

**FOR FURTHER INFORMATION, CONTACT:**

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Conference Co-Ordinator

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**SAIMM**  
THE SOUTHERN AFRICAN INSTITUTE  
OF MINING AND METALLURGY

## CALL FOR PAPERS

Selected papers will be published in the SAIMM Journal. If your paper is selected you will be notified for permission and your paper will go through the Journal review process. Papers that are published in the Journal will not be published in the conference proceedings. The resulting book of proceedings will have an ISBN.

### TOPICS TO BE COVERED

The topics to be covered will follow the format of the ICMM, UNEP, PRI Standard, as well as other topics. These include:

#### AFFECTED COMMUNITIES PRINCIPLE

- Respect the rights of project-affected people and meaningfully engage them at all phases of the tailings facility lifecycle, including closure.

#### INTEGRATED KNOWLEDGE BASE

- Develop and maintain an interdisciplinary knowledge base to support safe tailings management throughout the tailings facility lifecycle, including closure
- Use all elements of the knowledge base - social, environmental, local economic and technical - to inform decisions throughout the tailings facility lifecycle, including closure.

#### DESIGN, CONSTRUCTION, OPERATION AND MONITORING OF THE TAILINGS FACILITY

- Develop plans and design criteria for the tailings facility to minimize risk for all phases of its lifecycle, including closure and post closure
- Develop a robust design that integrates the knowledge base and minimizes the risk of failure to people and the environment for all phases of the tailings facility lifecycle, including closure and post-closure
- Plan, build and operate the tailings facility to manage risk at all phases of the tailings facility lifecycle, including closure and post-closure
- Design, implement and operate monitoring systems to manage risk at all phases of the facility lifecycle, including closure.

#### MANAGEMENT AND GOVERNANCE

- Establish policies, systems and accountabilities to support the safety and integrity of the tailings facility
- Appoint and empower an Engineer of Record
- Establish and implement levels of review as part

of a strong quality and risk management system for all phases of the tailings facility lifecycle, including closure

- Develop an organizational culture that promotes learning, communication and early problem recognition
- Establish a process for reporting and addressing concerns and implement whistleblower protections.

#### EMERGENCY RESPONSE AND LONG-TERM RECOVERY

- Prepare for emergency response to tailings facility failures
- Prepare for long term recovery in the event of catastrophic failure.

#### PUBLIC DISCLOSURE AND ACCESS TO INFORMATION

- Publicly disclose and provide access to information about the tailings facility to support public accountability.

#### OTHER TOPICS INCLUDE:

- The reasons for failures and important learnings
- Risk management and processes for TSFs
- The role of the regulatory authority
- The view of industry
- Stakeholder engagement and affected communities
- An integrated knowledge base created through case studies and learnings
- Design, construction and operation of TSFs
- Monitoring of TSFs in real-time : internal, external and satellite imagery
- Management, governance and reporting of TSFs
- Emergency response and long term recovery
- Public disclosure and access to information
- Competence and qualifications of 'Engineers of Record'
- Environmental impacts
- Modelling and simulation
- Research and the possibility of mining with no tailings
- Remining of TSFs
- Case studies.

**PLEASE CONTINUE TO SUBMIT YOUR ABSTRACTS AND CHECK [WWW.SAIMM.CO.ZA](http://WWW.SAIMM.CO.ZA) REGULARLY FOR UPDATES.**

**GLOBAL TAILINGS STANDARDS  
AND OPPORTUNITIES**  
FOR THE MINE OF THE FUTURE  
HYBRID EVENT

8-9 NOVEMBER 2021 - CONFERENCE  
10 NOVEMBER 2021 - TECHNICAL TOURS

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CRADLE OF HUMANKIND, JOHANNESBURG

## WHO SHOULD ATTEND

- Industry professionals
- Academics and researchers
- Environmental Scientists
- Hydrologists
- Mineral Processing Engineers
- Civil Engineers
- Metallurgists
- Mine Management
- Stakeholders
- Community leaders
- State officials
- Union officials
- Consultants
- Technology developers and suppliers.

## DATES AND VENUE

8-9 November 2021 - Conference  
10 November 2021 – Technical Tours  
Misty Hills Conference Centre, Muldersdrift,  
Cradle of Humankind, Johannesburg

## FORMAT OF THE EVENT

At this point in time, the event is planned as a full conference with international participation through web links. It is also planned to hold technical visits to nearby facilities.

However, as we are still in lockdown as a result of COVID-19, this will be constantly reviewed, and if it appears that the effects of the pandemic are still such as to pose a threat to the health and safety of delegates, this will be changed to a digital event.

**PLEASE SUBMIT YOUR  
ABSTRACTS AND PAPERS  
AS THESE WILL BE PEER  
REVIEWED AND PUBLISHED  
FOR ALL CONTACT  
AND HYBRID/ONLINE  
CONFERENCES.**

## CALL FOR PAPERS

Papers or presentations are invited on any topic related to the conference.

Prospective authors are invited to submit titles and abstracts of their papers in English. The abstracts should be no longer than 500 words and should be submitted to:

**Gugu Charlie, Conference Coordinator**  
Tel: +27 (11) 834 1273/7  
Email: [gugu@saimm.co.za](mailto:gugu@saimm.co.za)

## KEY DATES:

Submission of Abstracts – 14 April 2021  
Acceptance of Abstracts – 20 April 2021  
Submission of Papers – 15 June 2021



### FOR FURTHER INFORMATION, CONTACT:

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Conference Co-Ordinator

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