



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

SAIMM ONLINE

CONFERENCE

IN PARTNERSHIP WITH



GLOBAL TAILINGS STANDARD BY



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# GLOBAL TAILINGS STANDARDS AND OPPORTUNITIES

FOR THE MINE OF THE FUTURE

15, 17, 19, 22, 24, 26 NOVEMBER 2021



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 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

**Adam Matthews**, Chief Responsible Investment Officer, Church of England Pensions Board, United Kingdom

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

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

**Alastair Macfarlane**, Mandela Mining Precinct, South Africa

**Luis Alberto Torres-Cruz**, University of the Witwatersrand, South Africa

**Isabelle Ramdoo**, International Institute for Sustainable Development, Switzerland

**Chris Anderson**, Yirri Global LLC, USA

## SPONSORS



## FOR FURTHER INFORMATION, CONTACT:

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## 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.

## 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.

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