

07/02/2024

OPENING CEREMONY

**9:00 AM
to 9:30
AM**

PANELISTS:

Ana Sanches, President of Anglo American in Brazil and President of the Board of Directors of IBRAM.

Fernando Azevedo e Silva, IBRAM VP.

Geraldo Paes, Corporate Director of Geotechnics at Vale.

Reuber Koury, Technical Project Director - Samarco.

CONTRIBUTIONS OF REGULATORY IMPROVEMENTS TO ADVANCES IN THE OPERATIONS AND SAFETY OF TAILINGS DISPOSAL FACILITIES IN BRAZIL

**9:30 AM
to 11:00
AM**

In recent years, we have been following major processes of changes and restructurings in the regulation on the safety of tailings disposal structures, mainly both in the State of Minas Gerais and at the federal level. Consequently, today in Brazil we have one of the most important regulatory and standardizing frameworks in the world in tailings disposal structures. This is a remarkable moment for the Brazilian mining industry, which, through the lessons experienced with the ruptures, is converting all the lessons learned to regulate the safety actions to be adopted in all phases of operation and decommissioning of tailings disposal structures, including monitoring and follow-up

PANELISTS:

Luiz Paniago Neves, Superintendent of Geotechnics for Dams and Mining Dumps at ANM.

Marcos Antônio Lemos Júnior, Senior Manager of Environment and Dam Management at CBMM.

Paulo Alfenas, Senior Geotechnical Consultant - HYDRO .

MODERATION:

Fabio Henrique Vieira Figueiredo, .

GLOBAL STANDARDS AND RISK MANAGEMENT IN MINING PROCESSES AND BUSINESSES AROUND THE WORLD

**11:30 AM
to 12:30
PM**

On 08/05/2020, the Global Industry Standard for Tailings Management was launched, which defines responsibilities and actions that prioritize the safety of tailings disposal structures throughout all phases of their life cycle, requires the disclosure of relevant information and seeks to achieve the ultimate goal of zero harm to people and the environment with zero tolerance for human fatalities. As a way of emphasizing the importance of risk management in these processes, the global standards and protocols present criteria and requirements that extend accountability to the highest organizational levels and provide for new requirements for independent oversight, establishing clear expectations regarding compliance with transparency and disclosure requirements.

PANELISTS:

Priscilla Nelson, Professor, E&O Director for the Tailings Center, Colorado School of Mines..

THE CHALLENGES OF THE BRAZILIAN LEGAL FRAMEWORK FOR GEOTECHNICS AND WATER RESOURCES

The legislation applicable to tailings disposal has expanded significantly, with stricter requirements for structures to be considered in compliance with the regulation, providing more advanced designs, operations, monitoring and safety actions. In the medium and long term, the industry continues to search for safer and more sustainable models for managing mining tailings. On the technical side, there has been great progress in the use of technologies for dewatering tailings, in order to allow their stacking, minimizing the use of dams. With the search for increasingly safer solutions for disposal, it is also necessary to evaluate the changes and structures in the regulation and the challenges that still exist, especially from the perspective of the technological evolutions also underway.

PANELISTS:

Aloysio Portugal Maia Saliba, Technical Director of Tec3Geotechnics and Water Resources.

Carlos E. M. Tucci, Managing partner Rhama Consultoria Ambiental and Professor Emeritus at UFRGS.

MODERATION:

Paula Azevedo, Partner at Cescon, Barrieu, Flesch & Barreto Advogados..

FINANCIAL GUARANTEES: CHALLENGES AND OPPORTUNITIES

As one of the elements of the improvements in the legislation that have occurred in recent years, there are the provisions of financial guarantees. In Minas Gerais, State Decree MG 48,747/23 provides for deposits for dams in Minas Gerais. The main objective of financial guarantees is the existence of resources available for the environmental recovery of the affected area, avoiding or mitigating damage to the environment and society, in the event of an accident or deactivation of the structures.

PANELISTS:

Roberto Gomes, .

Rodrigo Gonçalves Franco, President of FEAM.

Thiago Rodrigues Cavalcanti (a confirmar), Manager of Environment and Institutional Relations at FIEMG (Federation of Industries of the State of Minas Gerais).

MODERATION:

Mauricio Pellegrino de Souza, Partner in the Mining Law and ESG & Impact area at Cescon, Barrieu, Flesch & Barreto Advogados..

**2:00 PM
to 3:00
PM**

**3:00 PM
to 4:00
PM**



RISK MANAGEMENT APPLIED TO TAILINGS DISPOSAL FACILITIES

The projects and disposal structures in operation must follow the most current and advanced principles, standards and regulations, and must be based on the criterion of integrating local social, environmental, technical and economic factors, covering the entire life cycle of the tailings disposal structures – from site selection, design and construction, through management and monitoring, to close and post-closing. The situation of tailings disposal structures is increasingly known and monitored, and the previous work of preparation, monitoring and risk management of these structures cannot be dispensed with.

**4:20 PM
to 5:30
PM**

PANELISTS:

Alice Castilho, Director of Hydrology and Territorial Management / Hydrologist Engineer - Geological Survey of Brazil.

Geraldo Paes, Corporate Director of Geotechnics at Vale.

Len Murray, President of the Kohn Crippen Berger.

Paulo R. C. Cella, Managing Partner - BVP Engineering.

MODERATION:

Paula Martins, AngloGold Ashanti Geotechnical Governance Leader.

PITCH: REACTIVE WASTE WRAP: A UFOP AND DUTCH CLUSTER PARTNERSHIP

**5:30 PM
to 5:50
PM**

PANELISTS:

Cristina Monetti e Dumont, Liaison - Institutional Relations - NBSO / DTTD.

Hernani Motta, Professor at UFOP - Federal University of Ouro Preto.

07/03/2024

LESSONS LEARNED - TECHNOLOGIES, GOVERNANCE AND COMMUNICATION

The ruptures that have occurred in recent years have been a watershed in the world of mining. Undoubtedly, the seriousness of the ruptures in Minas Gerais, which the sector deeply regrets, has brought the issue into the immediate focus of debates on the management of mining tailings. In response, several modifications to the dam legislation were made both in the state of Minas Gerais and in Brazil. But not only that. The changes in legislation reflect and bring as a consequence a great change in the entire sector. In the medium and long term, the industry continues to search for safer and more sustainable models for managing mining tailings. The companies also adopted new emergency plans and began to train communities near the mining projects with more emphasis on the possible risks. The industry seeks greater transparency and sharing of information about its operations, existing risks, and how they are being controlled.

PANELISTS:

Joaquim Pimenta de Ávila, President of ICOLD for the Americas.

Mário Cicareli Pinheiro, Consultant in Water Resources Engineering - DF+ Engenharia.

Paulo Rogério da Costa, .

MODERATION:

Julio Cesar Nery Ferreira, .

THE FUTURE OF TAILINGS DISPOSAL: STACKING AND OTHER ALTERNATIVES

Waste generation is an inherent part of mining, as well as any production process. In addition to the trend of increasing generation of mining waste, we have experienced recent changes in legislation and regulations and in society's demands; in relation to the disposal of these materials, culminating in a series of projects and developments of technical alternatives to dams. In this panel we will learn about some of these solutions that have been developed.

PANELISTS:

Michel Julien, VP:Environment & Critical Infrastructures, Agnico Eagle Mines Ltd.

**9:00 AM
to 10:30
AM**

**11:00 AM
to 12:00
PM**

THE EMERGENCY ACTION PLAN FOR MINING DAMS (PAEBM) IN BRAZIL AND MINAS GERAIS: CONSTRUCTION AND APPROVAL

The elaboration of the Emergency Action Plan for Mining Dams is required by federal and state legislation in Minas Gerais, for dams with the greatest potential damage. In Minas Gerais, a series of ordinances include the instructions for the preparation of the documents and information to be presented, for the preparation and approval of the Plan, necessary to obtain the Installation License, the Operating License of the enterprises. Guidelines for the validation of simulated exercises, studies and tests in the PAE approval process are also items in Minas Gerais legislation, and also in federal legislation.

**2:00 PM
to 3:00
PM**

PANELISTS:

Alessandro Ribeiro Campos, Coordinator of the Minas Gerais State Environmental Foundation.
Carlos Frederico Otoni Garcia, State Coordinator of Civil Defense.
Roberto Gomes, .

MODERATION:

Lauro Amorim, Director of Environmental Licensing at Vale.

INTEGRATION BETWEEN PUBLIC AUTHORITY AND ENTREPRENEURS: WORKING TOGETHER FOR SAFETY

The Global Industry Standard for Tailings Management brings several principles that reinforce the importance of working together in preparedness, mitigation, response and recovery actions involving tailings disposal structures. We highlight the main principles to this end. PRINCIPLE 2 - Develop and maintain an interdisciplinary knowledge base to support safe tailings management throughout the entire life cycle of tailings disposal structures, including in the closure phase. REQUIREMENT 11.3 - Establish mechanisms that promote cross-functional collaboration to ensure effective data and knowledge sharing, effective communication, and proper implementation of management measures to support public safety and the integrity of tailings disposal structures. PRINCIPLE 13 - Prepare for emergency response to failures in tailings disposal structures. REQUIREMENT 14.1 Based on scenarios of possible flood stains due to ruptures of tailings disposal structures and the assessment of their possible consequences, take reasonable steps to meaningfully engage public agencies and other organizations that would participate in medium- and long-term social and environmental strategies to respond to failures. PRINCIPLE 15 - Publicly disclose and provide access to information on tailings disposal structures to support public accountability and accountability.

**3:00 PM
to 4:00
PM**

PANELISTS:

Alessandro Nepomuceno, Director of Kinross Brasil Mineração S/A.
Carlos Eduardo Ferreira Pinto, Prosecutor from the Public Prosecutor's Office of Minas Gerais and Coordinator of the Operational Support Center for the Public Prosecution Service in Defense of the Environment, Historical and Cultural Heritage, Housing, and Urbanism..
Moisés Magalhães de Sousa, Lieutenant Colonel of the Military Fire Department of Minas Gerais | Specialized Fire Commander.

PAEBM OPERATIONALITY: ALERT MODELS, PROCESSES AND TECHNOLOGIES

Since September 2010, based on Federal Law No. 12,334, mining companies have had to structure themselves internally to meet dam safety standards, in order to reduce the possibility of accidents and their consequences. In 2013, through DNPM Ordinance 526, the PAEBM is regulated for the first time in Brazil. Several changes have been made over time in this area in the legislation, at the state level in Minas Gerais and at the federal level. ANM Resolution No. 95 establishes for entrepreneurs: Perform the Conformity and Operability Assessment of the PAEBM – ACO; Prepare the PAEBM – RCO Compliance and Operability Report; Issue the Declaration of Conformity and Operability of the PAEBM – DCO; Conducting Emergency Situation Drills. The provision for the installation of an audible warning system, capable of alerting and enabling the rescue of populations likely to be directly affected by the flood spot, as well as specific measures to rescue those affected, people and animals, mitigate environmental impacts, ensure the supply of drinking water to affected communities and rescue and safeguard cultural heritage are elements of these documents.

PANELISTS:

Léo Faráh, CEO of SaveUs | TEDx Speaker | Fire Captain.

Vicente Alimento, Head of Emergency at Vale's TSF.

MODERATION:

Aline Leite Nunes, .

**4:20 PM
to 5:20
PM**

CLOSING OF THE EVENT

**5:20 PM
to 5:30
PM**