Considerations for the Analysis and Design of Tailings Storage Structures in accordance with the Processing Technology

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Summary

The physical and chemical properties of the tailings/relake produced in a mine depend, among other things, on the properties of the ore body mined, the milling, recovery or extraction process and these properties are rarely constant over the life of the mine. This presentation will discuss actual cases, where the analysis and design of tailings storage facilities were developed in anticipation (in the case of new projects) or in sync with (in the case of historical or existing facilities) processing technology; ranging from pulp and thickened high density tailings to paste and filtered tailings.

Brief biography

Dr. Preciado has over 28 years of engineering experience in mining, transportation, commercial, industrial and infrastructure projects. He has led or participated in numerous geotechnical designs and characterization of tailings storage facilities in the Americas using different tailings management technologies, ranging from slurry to thickened and high density filtered tailings. He has been a senior reviewer for mine closure projects in North and South America and has participated in numerous geotechnical evaluations for mining infrastructure projects. He has extensive experience in foundation engineering for a variety of projects including nuclear and solar power plants, dams, bridges, skyscrapers, as well as commercial and industrial facilities. In addition, he has performed seismic and liquefaction hazard analyses for buildings, dams, tailings, heap leach facilities and mining infrastructure projects.