Rio Tinto’s strategic assurance response to the Brumadinho tailings dam failure


ABSTRACT

The devastating failure of the Brumadinho tailings dam at the Córrego do Feijão iron ore mine in Brazil on 25th January 2019 left at least 248 people dead and 22 missing. In the immediate aftermath of this event, many mining companies commenced reviews of their tailings and water storage facilities (T&WSF), and Rio Tinto was no exception. Rio Tinto has an interest in over 250 T&WSFs across 47 sites in 13 countries as owner-operator, as managing JV partner, and through non-managed partnerships and other ownership arrangements; T&WSF experts from Rio Tinto’s Surface Mining Centre of Excellence visited the sites in order to complete Technical Risk Reviews of each T&WSF. These reviews looked beyond the day-to-day operational aspects of T&WSF management, and the site’s compliance with local regulations and Rio Tinto’s internal D5 Standard for the management of tailings and water storage facilities, in order to provide a strategic, second-line of assurance perspective. The reviews focused on design and construction; operational controls; risk control framework; and competencies and capabilities of personnel across the design, operation, closure and post-closure life cycle of each T&WSF. Additional activities were carried out in parallel with these reviews, including the development of a consistent approach to dam break studies; the disclosure of information on Rio Tinto’s management of T&WSFs to investors and the public; and contribution to external programs such as the development of a global tailings guideline by the International Council on Mining and Metals (ICMM). This paper provides an overview of the tailings and water storage assurance work undertaken by Rio Tinto’s Surface Mining Centre of Excellence to date, along with a summary of the future planned work that will continue to improve governance and assurance for all of Rio Tinto’s T&WSF.