MINING

CLIENT ALERT

AUGUST/2019

NEW RESOLUTION ON TAILINGS DAMS (RESOLUTION NO. 13 OF THE NATIONAL MINING AGENCY)

The National Mining Agency ("ANM") issued a new resolution on tailings dams on August 12, 2019 (and rectified it on August 15, 2019). Resolution No. 13/2019 ("Resolution") revoked Resolution No. 4/2019 and updated regulatory measures to ensure the stability of mining dams, especially those built or heightened by the "upstream" method or by methods declared "unknown". The Resolution also set forth new rules applicable to all types of tailings dams.

While maintaining the definitive prohibition of the upstream method for the construction or heightening of tailings dams across the country, as well determining the decommissioning of existing dams constructed or heightened by such method, the Resolution reformed several aspects of Resolution 4, in accordance with public consultations.

Among the main provisions of the Resolution, we highlight the following:

1. Signing of Dam Stability Statement by an Officer or Administrator – the Resolution sets forth that the Dam Stability Statement ("DCE") must now be signed by both the technical representative of the company, who was responsible for producing the DCE, and by the most highly ranked individual in the company's corporate governance.

2. Self-Rescue Zone ("ZAS") - prohibition of the construction, maintenance, planning and operation of the following structures in the areas of the mining rights or attached to title, which are in the Self-Rescue Zone ("ZAS"): (i) facilities used for administrative, living, health and recreational purposes, further specified as sanitary facilities, lodgings, cafeterias, kitchens, laundries, recreational areas and first-aid facilities; (ii) mining dams or structures related to the operational process pertaining to the storage of liquid effluents, located immediately downstream of tailings dams, the existence of which may compromise the safety of the upstream dam, and (iii) any installations, construction works or services that handle, use or storage radioactive sources.

PRACTICE AREA
Mining

COORDINATION
Pedro Garcia

For further information, please send a message to **news@veirano.com.br**

This document was prepared exclusively for informational purposes and does not constitute legal advice or an invitation to an attorney-client relationship. If you have any questions, our lawyers are available for clarification.

The reproduction or publication of this content is permitted, as long as followed by this copyright notice: © Veirano Advogados.

© 2019 Veirano Advogados.
All rights reserved.

3. Safety Factors - calculation of the safety factors for tailings dams included in the National Dam Safety Policy ("PNSB"), according to the applicable guidelines (ABNT NBR 13,028/2017), expressly requiring, for the stability analysis and studies of susceptibility to liquefaction in undrained condition, a value equal to or greater than 1.3 for peak resistance. If the safety factor, under drained or undrained conditions, is below the minimum values established by ABNT NBR 13,028/2017, the operations of the company may be stalled.

4. New Deadlines - postponement of deadlines for deactivation, decommissioning, deactivation and/or removal of facilities, works and services located within the perimeter of the ZAS and dams for the storage of liquid effluents downstream of mining dams, with the aforementioned deadlines postponed, respectively, to October 12, 2019 and August 15, 2022. Noncompliance with such obligations shall result in the prohibition of the operation of the corresponding mining dams. At the end of this alert, please find a comparison between the deadlines established by Resolution 4 and in the new Resolution.

5. Monitoring Systems - implementation under the responsibility of the company, of a full and real-time automated instrumentation monitoring system to be implemented by December 15, 2020, in cases of tailings dams qualified in the PNSB with high Potential Associated Damage ("DPA") (as long as they are not included in the second Paragraph of Clause 7 of ANM Ordinance No. 70,389/2017, i.e., those classified with high DPA, existence of downstream population with a score of 10 and technical characteristics with construction method with a score of 10).

6. Alert Systems - installation by December 15, 2020, of an automated siren activation system and other mechanisms suitable for an efficient alert at the ZAS for tailings dams requiring a Mining Dam Emergency Action Plan ("PAEBM"), the installation of which should, as a general rule, occur outside the area subject to flooding, subject to stalling of the operations.

7. Upstream Method Heightened Dams - establishment of new deadlines in relation to those previously established by Resolution 4, in order to minimize the risk of disruption, in particular by liquefaction, of mining dams heightened by the upstream method or by a method declared as unknown:

   (a) **December 15, 2019**: for the conclusion of the executive technical project for the structure's deactivation, which shall include, as a minimum, a stabilization system for the existing dam or the construction of a new downstream containment structure;

   (b) **September 15, 2021:** to complete the works of the existing dam's stabilization system or the construction of a new downstream containment structure;

   (c) (i) **September 15, 2022**: to complete the deactivation of dams with a volume of up to 12 million m^3; (ii) **September 15, 2025**: to complete the deactivation of dams with volumes between 12 million and 30 million m^3; and (iii) to **September 15, 2027**: to complete the deactivation of dams with volume exceeding 30 million m^3 (according to the National Mining Dams Register of the Integrated Mining Dam Safety Management System ("SIGBM") , and

   (d) All tailings dams, which have been constructed or heightened by the upstream method or by methods declared as unknow, may continue operating until **September 15, 2021**, provided that the safety of operations and the stability of the structure are guaranteed.

8. General Regulation of Mining Dams - amendment to DNPM Ordinance No. 70,389/2017 ("Ordinance 70,389"), modifying concepts and definitions set forth by said Ordinance, covering decommissioning, hydrological and hydrogeological control, stabilization and monitoring.

9. Water Reduction - conclusion of studies regarding the identification and implementation of potential solutions aimed at reducing the operational water intake in dams, as well as at avoiding ground and underground water intake in the reservoir contrary to the dam project, regardless of the construction method, by December 15, 2019.

The new deadlines set forth in the Resolution are briefly summarized below:

Requirements	Resolution No. 4 Revoked	Resolution No. 13 In force
Deactivation or removal of facilities for administrative, living, health and recreation activities within the ZAS.	08/15/2019	10/12/2019
Deactivation or removal of any facilities, works, or services that handle, use or store radioactive sources within the ZAS.	N/A	10/12/2019
Deactivation of mining dams (or structures linked to the operational mining process) for liquid effluent storage, located immediately downstream of the dam, the existence of which may compromise the safety of the upstream dam.	08/15/2020	08/15/2022
Conclusion of studies aiming at the identification and eventual implementation of solutions aimed at reducing the operational water supply in the structures for dams in operation.	08/15/2019	12/15/2019
Conclusion of studies aiming at technical solutions to avoid the inflow of surface and groundwater into the reservoir, for operating and inactive dams.	08/15/2019	12/15/2019
Implementation of automated instrumentation monitoring system, with real and full time monitoring.	02/15/2020	12/15/2020
Implementation of automated siren activation systems installed outside the area subject to flooding and other mechanisms suitable for na efficient alert at the ZAS.	N/A	12/15/2020
Conclusion of a technical executive project for the deactivation of the structure, contemplating, as a minimum, stabilization systems for the existing dam or the construction of a new downstream containment structure, with the objective of minimizing the risk of liquefaction rupture or reducing the DPA.	08/15/2019	12/15/2019
Completion of the works on the stabilization system for the existing dam or the construction of the new downstream containment structure.	02/15/2020	09/15/2021
Deactivation of active dams as of the effective date of the Resolution.	08/15/2021	09/15/2021
Completion of deactivation of dams up to 12 million m^3.	08/15/2023	09/15/2022
Completion of deactivation of dams with volume between 12 million and 30 million m^3.	08/15/2023	09/15/2025
Completion of the deactivation of dams with volume exceeding 30 million m^3.	08/15/2023	09/15/2027

Failure to comply, within the established deadlines, with the provisions of the Resolution may result in immediate stalling of part or all of the operations, as well as the imposition of applicable administrative sanctions.

Veirano's mining team remains at your disposal to provide further clarification on the matter.