

Mining Regulations in Saudi Arabia and Geotechnical Requirements

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ABSTRACT

As part of Saudi Arabia's 2030 vision, the mining sector is being developed to become the third pillar of the kingdom's industrial growth. In line with this development, new mining laws and executive regulations have been established. These new laws and regulations, which align with the best international practices, focus on the sustainability of the mining sector. One aspect of the new regulation emphasizes the importance of geotechnical stability in both surface and underground mining. These requirements are taken into consideration during the design and operation of the mine, as well as during its closure and rehabilitation. However, these requirements need to be detailed and explained further. This contribution aims to address some of these issues and provide a roadmap for moving forward.

1. INTRODUCTION:

Saudi Arabia boasts a diversity of metallic and non-metallic resources that range in size from occurrences to large deposits. Most metallic-mineral resources are located in the Precambrian rocks of the Arabian Shield, situated in the western half of the Kingdom. The Arabian Shield area spans approximately 620,000 km², accounting for about 25% of Saudi Arabia's total area. In 2020, Saudi Arabia enacted a new mining investment law, considered one of the most competitive globally. A third of its articles and clauses are dedicated to achieving sustainability goals (Mining Investment Law, 2020). The Executive Regulations of the Mining Investment Law, implemented in 2021, provide details for relevant articles in the law and stipulate several technical requirements for obtaining mining rights (Executive Regulations of the Mining Investment Law, 2021). The executive regulations offer several licensing categories for different classes of materials. This lecture presents the various types of licensing and major requirements under the mining investment law.

2. MINING INVESTMENT LAW:

The Mining Investment Law, a new legislation in Saudi Arabia, was ratified in June 2020 and became effective from January 2021. This law is a part of the Vision 2030 initiative of Saudi Arabia, which is aimed at diversifying the economy by promoting and facilitating investments in the mining sector. The law introduces three classes of minerals: Class A for metallic minerals, precious and semi-precious stones, and ores that require advanced operations; Class B for metallic minerals, industrial minerals, and raw materials; and Class C for materials used in construction. In addition, the mining law emphasizes the environmental aspect, social performance, local communities monitoring, and inspections.

3. GEOTECHNICAL REQUIREMENTS:

Four articles in the executive regulations refer to geotechnical aspects as follows:

- Article 40.1.3.1: Copies of geotechnical studies that were conducted on the proposed Licence Site.
- Article 79.1: As part of Rehabilitation and Closure works, a Licensee shall carry out Rehabilitation and Closure works for the Licence Site in a manner that ensures that it is stable from a geotechnical standpoint, environmentally unpolluted, and does not pose a threat to the safety of humans or animals.
- Article 79.1.6: Rehabilitate slopes and terrains to be sufficiently safe, and stable from a geotechnical standpoint, and to resist the risks of collapse or fall.

- Article 81.1.11: Evaluation of the geotechnical stability of the slopes and rocky and sandy terrain, and the necessary measures that will be taken to ensure the geotechnical stability of the Licence Site after Closure.

This lecture offers insights into implementing these regulations and outlines strategies for developing the local market for mining requirements. A key aspect of this development involves training local consultant offices to prepare the necessary documents in accordance with executive regulations. Additionally, it is essential for university students in mining engineering and geology to understand these regulations, as they will play a crucial role in future compliance and industry advancement. Furthermore, it is important for mining companies to conduct comprehensive geotechnical site investigations, in order to properly design the mine.

REFERENCES

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