

Paralyzed for a year and a half, Samarco is seeking licenses to restart its operations

Public hearing of the Legislative Assembly of Minas Gerais will discuss the restart of the company's activities

With its activities paralyzed for a year and a half, since the Fundão dam burst, Samarco has made every effort to obtain the necessary licenses to restart its operations. However, external factors have generated uncertainties regarding the date of the resumption. As a consequence, the company signed a new agreement with the unions of Minas Gerais and Espírito Santo to suspend the layoff of its employees.

The measure will start on June 1st, with a duration of two months, and may be extended until October. It is the third layoff period adopted by Samarco, within its efforts to maintain jobs. Samarco, which used to have about 3,000 direct employees, today counts 1,800 people in its own staff.

These issues and Samarco's efforts to restart operations will be presented on Tuesday, May, 23rd, by the CEO of Samarco, Mr. Roberto Carvalho, during a Public Hearing of the Economic Development Committee of the Minas Gerais Legislative Assembly (ALMG).

"We have worked for the resumption of Samarco's operations. Within this plan, maximum security is a premise for us to be able to re-operate and thus, and to make sure we can continue contributing to the economic development of the States of Minas Gerais and Espirito Santo", stated Mr. Roberto Carvalho. "Our purpose is to work for a safer mining, putting into practice the important lessons learned from the Fundão dam burst."

Safety and Tailing Containment System

Soon after the dam burst, Samarco initiated an emergency recovery schedule for dikes and dam structures in order to contain the remaining tailings in the Fundão. The tailing containment system, composed of the Nova Santarém dam and the S3 and S4 dikes, was completed in January this year and increased sediment retention capacity by 6 million cubic meters. The turbidity levels of the water after S4, which is the last barrier before the Gualaxo River, have remained below the limit of 100 NTUs, limit established by the resolution 357 of the National Environmental Council (Conama).

In January 2017, in parallel with the completion of the tailing containment system, Samarco filed a Fundão Degraded Area Recovery Plan (PRAD) at the State Department for the Environment and Sustainable Development (Semad). The document proposes guidelines based on geotechnical studies for the environmental recovery of the site, including the definitive stabilization of the slopes, the structures and the remaining





tailings, in addition to the contemplating revegetation of the area.

New technologies

At the same time that Samarco implemented emergency actions, the company developed a re operation plan with the use of new technologies for the disposal of tailings. The proposal is to dispose the tailings of the future operation in the "Cava de Alegria Sul" (mine pit), a confined structure located within the company's area. A mine pit is where the ore is extracted.

After the first year of use of the Cava de Alegria Sul mine pit, Samarco plans to build two filtration plants. The filtration technology will allow the removal of the water and the stacking of 80% of the sandy tailings. Only 20% of the tailings will be sludge, which will increase the Cava de Alegria Sul mine pit's life for about 4 years.

Licenses

The use of the Cava Alegria Sul mine pit for both the tailing disposal and the return of the operations of the Germano complex in Mariana, depends on two different licenses. The process of the Cava Alegria Sul mine pit began in June last year and is awaiting deliberation from the State Department for the Environment and Sustainable Development (Semad). Once the license for the placement of tailings obtained, Samarco will need five months to prepare the site.

The Corrective Operational License (LOC) of the existing structures at the Germano complex in Mariana is the other necessary authorization that Samarco needs, in order to restart its operations. The LOC was required by the Semad right after the suspension of all Samarco licenses in October 2016.

However, Samarco still depends on a statement of compliance from the existing water collection station in Santa Barbara to file the LOC with the Semad. This municipality conditioned the delivery of the declaration document to the environmental counterparts, but a recent decision of the Court of Justice of Minas Gerais determined that only the land use and occupation legislation should be taken into account. The prefectures of Mariana, Ouro Preto, Matipó and Catas Altas already granted the document.

Samarco

The company has two operational units: Germano, in Mariana (MG), where the extraction and processing of iron ore is carried out in three concentrators; And Ubu, in Anchieta (ES), where there are four pelletizing plants and a port. The units are interconnected by three 400-kilometer pipelines, crossing 25 municipalities.

In 2015, the year of the Fundão dam burst, Samarco had produced 24.9 million tons: 97% in pellets and 3% in iron ore fines. That year, Samarco had been the 12th largest exporter in Brazil and had generated 3,027 direct jobs: 1,736 in Minas Gerais and 1,291





in Espírito Santo.

In 2011, when iron ore reached record prices, Samarco was the 4th largest exporter in the country.

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