

# Samarco seeks authorizations to lend continuity to its business

Application for licensing of new tailings disposal system is one of the steps needed to resume operations

The new tailings disposal system using the Alegria Sul mine pit, as proposed in the licensing process which is at SEMAD (the Minas Gerais State Environmental Agency), is one of the steps in the operational planning of Samarco. Located in Ouro Preto, MG, in the Germano-Alegria Industrial Unit, the structure provides operational safety due to being a confined space, thus not requiring the construction of a dam similar to Fundão, which failed on 05 November 2015.

The Alegria Sul pit is a temporary alternative that will allow tailings disposal upon the future resumption of operations at 60% of the Company's production capacity. At this production rate, the Company will be able to generate sufficient revenue to maintain jobs and contribute to the development of the economies of the states of Minas Gerais and Espírito Santo, and the country as a whole.

The disposal of tailings in the pit has the approval of the National Department of Mineral Production (DNPM), an autonomous government agency subordinated to the Ministry of Mines and Energy. According to the technical note issued by this entity on 21 November of this year, "the proposed solution is extremely safe, as it represents disposal in a pit allowing the confinement of the tailings".

In addition to using an already existing opening in the soil, the structure will also have a 10 meter high dike made of compacted soil, allowing a total storage capacity of 17 million cubic meters of tailings. This will assure a horizon of about two years for Samarco operations.

During this period, the Company will intensify the studies to find alternatives for the medium and long range. The options being analyzed refer to structures available and already environmentally impacted in the region of the Germano unit, employing new technologies of tailings treatment.

# Seeking trust

Since the failure of the Fundão dam, Samarco has adopted emergency measures and started the long term planning to provide socioenvironmental recovery and compensation. A Framework Agreement (TTAC) was signed between Samarco and its shareholders VALE and BHP Billiton, and the Federal Government, the State



Governments of Minas Gerais and Espírito Santo, in March 2016, establishing socioeconomic and environmental programs of recovery and compensation. These programs are now under the responsibility of Fundação Renova, which was created upon the signing of the TTAC.

"This has been a period of intense learning for Samarco, which recognizes that it has caused great social, environmental and economic impacts. After a year of suspended operations, we need to restart in order to continue honoring our standing commitments. In addition, we can contribute to the generation of jobs and the boosting of the state and national economies. Social approval, represented by the consent given by society to the resumption of the Company's operations, is as important as getting the technical licenses", says Samarco CEO, Roberto Carvalho.

### **First phase**

The licensing of the Alegria Sul pit for tailings disposal is one of the phases of Samarco's operational planning. However, it is not enough to allow the Company to restart. For that it still needs the Corrective Operational License (LOC) which will encompass in a single environmental license all of the structures within the Germano Complex. The LOC was requested by SEMAD to assure the environmental feasibility of the project.

Should Samarco get the necessary license approval, the operational planning involves a first phase of operation at 60% capacity, producing 18 million tons of pellets per year. In the Integrated Economic Development Plan filed with the DNPM, the Company estimated a production of about 36.7 million tons of ore in the first two years.

Currently, the Company has reserves of 2.86 billion tons of ore in the Germano complex, in Mariana and Ouro Preto. This volume and the transportation infrastructure represented by its three pipelines plus the four pellet plants in Espírito Santo provide the necessary conditions for Samarco to continue operating competitively on the international market, if it obtains the approval of the environmental entities.

The Company has been inactive for over 12 months, since the failure of the dam. With the delay in the resumption of Samarco's operations, involving a loss of R\$ 4.4 billion of direct and indirect revenue in the Company's production chain in 2017 – an amount corresponding to 1% of the GDP of the state of Minas Gerais – the government fails to obtain a tax revenue of R\$ 989 million, among federal, state and municipal levies.

This total, projected for 2017, represents almost double the amount of all public expenses of the municipalities of Mariana (MG), Ouro Preto (MG), Anchieta (ES) and Guarapari (ES) related to health, education, sanitation and transportation. The numbers were determined by the survey of Tendências Consultoria Integrada, announced this week.



Samarco also had to reduce its work force, dismissing 924 employees through a Voluntary Dismissal Plan, and 153 in an Involuntary Dismissal Plan.

The study produced by Tendências Consultoria Integrada concluded that the continued inactivity of Samarco will place at risk almost 20 thousand direct and indirect jobs. Minas Gerais will be the most affected state, with a potential impact of 14,531 job opportunities, and Espírito Santo may lose 4,111 potential jobs.

Without these jobs, the study showed that the loss of income mass in one year may reach R\$ 1.2 billion, an amount which represents 4.6% of the Bolsa Familia budget in 2016. The study also shows that, in the long run, the loss of accumulated income mass may reach R\$ 13 billion in ten years.

#### Samarco in numbers

In the year of 2015, at the end of which the Fundão dam failed, Samarco produced 24.9 million tons, where 97% were pellets and 3% were pellet feed. In that year, the Company was the 12<sup>th</sup> largest exporter of Brazil and generated 3027 direct jobs, of which 1736 in Minas Gerais and 1291 in Espírito Santo.

Samarco's operation may assure the maintenance of jobs in the Company, the creation of jobs in the supply chain and the boosting of the economies of Minas Gerais and Espírito Santo, with beneficial consequences on the country's trade balance.

The Company's revenue, when it was in full operation, corresponded to 5.8% of the GDP of Espírito Santo and 1.5% of the GDP of Minas Gerais. These numbers translate into acquisitions of R\$ 4.4 billion in 2014 and 2015, which helped to attenuate the effects of the economic crisis.

At the time of the Fundão event, Samarco had a supplier chain involving 7 thousand companies, of which 41% were located in the area of the Ubu unit in Anchieta, Espírito Santo, and the Germano unit in Mariana, Minas Gerais.

# About Samarco

Samarco has been in operation for 39 years. It has two operational units – Germano, in Mariana, Minas Gerais, where it mines the iron ore and beneficiates it using three concentrators, and Ubu, in Anchieta, Espírito Santo, where it has four pellet plants and its own port facility. These two units are linked by 3 pipelines of 400 km each.

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