ALUM SA TULCEA

General Director
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Alum activity plan for 2024

The energy crisis from 2021-2023 as well as the deterioration of the international situation caused by the conflict in Ukraine escalated the prices of electricity and natural gas. This resulted in unsustainable costs for calcined alumina production with a negative impact on calcined alumina and electrolytic aluminium production costs.

For 2024, in the current market conditions and considering electricity and natural gas prices, it is proposed to keep the activity of calcined alumina production suspended.

The main activities in Alum in 2024 will be the following:

1. Production, packaging and delivery of dry, sieved and ground aluminium hydroxide
2. Preparing the component machinery in the manufacturing lines to resume the production of metallurgical alumina from bauxite for the period when this production will be economically viable with the normalization of electricity and natural gas prices.
3. Continue the research activity on the equipment provided by the Alum Research Department to increase Alum's competitiveness by obtaining and marketing new products with high added value.
4. Operation of ALUM as commission agent from March 2024.

Staff

Considering the suspension of the production activity in August 2022, the number of employees to be directly involved in the cleaning of installations, maintenance / repair activities, as well as the continuation of the research activity within the CDI department was reassessed.

In the new conditions of activity in Alum, the company's organizational chart was revised considering to maintain a core of specialists from all departments of the plant, in order to prepare the restart of the production activity when the evolution of electricity and natural gas prices will allow it.
For the year 2024, it is considered to maintain 100 employees. Apart from the personnel in the administrative and auxiliary sectors, the operating personnel carry out dry hydrate production activities using both hydrate from the Alum stock and imported hydrate.

Also, starting from March 2024, the structure of the Purchases-Logistics-Sales Department (DALV) will change, the new structure ensuring the organizational framework for the

operation of ALUM as a commission agent (intermediary purchase of imported alumina for ALRO). Also, the operational organization chart of ALUM with 100 employees also includes the new structure of DALV.
During the suspension of the production activity, measures will be taken to maintain all operating permits (AIM, GES, ISCIR, etc.) as well as accreditations according to the integrated management standards for which we are certified: SR EN ISO 9001:2015, SR EN ISO 14001:2015, SR EN ISO 45001:2018 AND SR EN ISO 50001:2019.

Activities carried out during the suspension of calcined alumina production

A. Commercial Department (DALV)

Considering the challenges imposed by the change in the logistics chain of supply of raw materials for its main client - ALRO SA, ALUM SA will continue contracting and intermediating the supply of calcined alumina from external suppliers. ALUM SA will mediate the logistics of calcined alumina to the port of Constanța, performing customs formalities, contracting handling services, as well as rail transport on the Constanța - Slatina route, so that its client can benefit from complete logistics services, thus covering the amount of calcined alumina required for the development the production process.

B. Production Department

During the period when production is suspended in Alum, the Production Department provides process solution management activities. The volumes resulting from the emptying of installations are stored in the vessels in Pre-desilication, Red filtration, Desilication, Evaporation.

The on-shift staff is provided for 9 positions in the factory, at the retention Basin, SC1, basic sections, and at the workstations outside the factory at step 1 Danube, GZA, the pond pump station, the Pond's thickener. The staff on shift will ensure the management and neutralization of rainwater from the technological platforms, the safe storage of solutions and the immediate resolution of possible problems that may arise. These activities are intended to keep the plant installations safe.

The maintenance and monitoring activity continue in order to maintain the red mud pond in a safe condition. New water distribution networks are being installed to moisten the surface of the landfill.

For 2024, the delivery to third parties of a total amount of 19348 tons of calcined alumina and special products is considered as follows:

- 4800 tons of dry hydrate
- 1850 tons of dry sieved hydrate
- 6790 tons of calcined alumina (type SGA and alpha alumina)
- 650 tons of ground dry hydrate
- 5258 tons of wet hydrate

The bauxite processing activity continues to obtain the grade below 10 mm and humidity below 10%. The annual quantity contracted to be sold is approximately 2000 tons.

C. Maintenance and Repair Department activities

C1. Maintenance and repair activities

The main activity of the Maintenance and Repairs Department is to keep the facilities related to the technological flow in working order and carry out repairs according to the Overhauls and Repairs Plan.
For the year 2024, the activity will contain repairs and conservation operations for the machines taken out of operation following the suspension of the production activity, respectively the preparation for the restart of all the necessary equipment, ensuring the continuous operation of the machines necessary for the current activities (eg: ensuring the operation of all the water pumping equipment from the Danube to the Red Mud Pond).

The budget for these activities for the year 2024 has a value of approximately USD 120,000 for repairs made with third-party companies, for own repairs and maintenance services.

The repairs that will be carried out with own forces will be prioritized in order to provide the equipment that will be necessary to restart the plant, consisting in general revisions without replacing some components that can be used.

A particularly important activity of the department for the year 2024 is the permanent maintenance, operation and maintenance of the facility for unloading alumina into wagons in Port Constanța.

C2. Continuous improvement activities

The most important works to improve the technological flow or to improve the Alum activity scheduled for the year 2024 are:

- Extension of the Red Mud Pond moistening system
- Replacement of some pumps or routes to reduce energy consumption (technological flow optimization)
- Removal of unusable pipes from Alum flyovers, decommissioning of some scrapped and unused machinery for recovery as scrap metal

About 60,000 USD have been allocated for the recovery activity with a view to valorization as scrap metal for the necessary auxiliary materials (oxygen, acetylene), the estimated revenues being about 360 thousand USD.

D. Activity of the Technical Quality Investments Direction

In 2024, the research activities will continue with the use of the equipment provided by the Alum Research Department to increase the competitiveness of Alum by obtaining and capitalizing on new products with high added value:

- "Independent Equipment/ Installation for research and development of technology to obtain dried aluminium hydroxide";
- "Independent Equipment/Installation for research and development of the technology of grinding and screening the dried aluminium hydroxide";
- "Independent Equipment/Installation for research and development of the technology of wet aluminium hydroxide classification";
  These equipment have been acquired and put into operation through the EU co financed project: „*Endow the Research & Development Department of SC ALUM SA with independent and efficient research facilities to support the economic competitiveness and business development", through the purchase procedure*

applicable to the projects financed by the Competitiveness Operational Programme 2014-2020, Priority Axis 1 "Research, Technological Development and Innovation (CDI) in Support of Economic Competitiveness and Business Development".

The activities necessary to fulfil the obligations assumed through the implementation of the EU co-financed projects will continue:
For the project with EU funds no. 64/08.09.2016 (UE1) in the sustainability period:

- Annual reports are drawn up and submitted to the project monitoring officer.
- To fulfil the last indicator related to ALUM's participation in a Horizon 2020 co-financed project using the existing research equipment, project proposals were developed and proposed. Thus, the 4th project proposal submitted on the Horizon 2020 platform is MiniMAX - Minimization of Bauxite Residue Tailings with Maximum Valorisation of Critical Raw Minerals (the project is in the first stage of evaluation for financing).

For the Reactive project

- the remaining obligations to participate in the periodic progress meetings, dissemination of results and preparation of the final progress report (April 2025) will be ensured.

For the Reescue project - the monitoring of the results obtained in the tests carried out by the other project participants continues.

The CDI department carries out:

- research tests necessary for the development of new types of products (boehmitic hydrate, recrystallized) and those necessary for the homologation of the slurry as a construction material or as an adjuvant for the treatment of acidic soils;
- the quality control of the purchased products and those delivered by ALUM (calcined alumina, dry hydrate, sieved and ground) is ensured;
- the necessary documents to maintain all Alum authorizations and permits are drawn up.

Proposed budget

The budget for the year 2024 was built on the basis of the premises presented in the Activity Plan, which involves the intermediation purchase of calcined alumina from the market, with an optimized cost to cover Alro's needs.

The total budgeted revenues for the year 2024 are in the amount of 26,385,937 USD, of which revenues obtained from the sale of alumina and hydrate in the amount of 18,668,568 USD and other revenues obtained from various activities in the amount of 7,717,369 USD. Total budgeted spending for 2024 is 30,571,300 USD.

Thus, in the Alum budget for the year 2024, a loss of 4,185,363 USD is estimated.

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