**ALUM SA TULCEA**

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# Alum activity plan for 2025

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 2025, 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 2025 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.

## Staff

Considering the current state of suspension of production activity, it is envisaged to maintain 100 employees for 2025. In addition to the administrative and auxiliary staff, the operating staff carries out dry hydrate production activities using both hydrate from Alum stock and imported hydrate. Maintenance/repair activities, as well as research activity within the R&D department, are also continuing.

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 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 5 positions in the factory, at the retention Basin, SC1, basic sections, and at the workstations outside the factory at step 1 Danube, Water Management Station, 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 2025, the delivery to third parties of a total amount of 3201 tons of calcined alumina and special products is considered as follows:

- 1656 tons of dry hydrate
- 705 tons of dry sieved hydrate
- 540 tons of calcined alumina (type SGA and alpha alumina)
- 300 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 2025, 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 2025 has a value of approximately USD 150,000 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 2025 is the permanent maintenance, operation and maintenance of the facility for unloading alumina into wagons in Port Constanța.
The most important budgeted expense is the repair of the alumina loading facility in the Tulcea Port Dock, which requires the support barge to be moved to an authorized naval equipment repairer for verification and reauthorization (approximately 60 thousand USD).

### C2. Continuous improvement activities

The most important works to improve the technological flow or to improve the Alum activity scheduled for the year 2025 are:

- Extension of the Red Mud Pond moistening system
- Removal of unusable pipes from Alum pipe racks, decommissioning of some scrapped and unused machinery for recovery as scrap metal

About 35,000 USD have been allocated for the recovery activity with a view to valorization as scrap iron for the necessary auxiliary materials (oxygen, acetylene), the estimated revenues being about 180 thousand USD (equivalent of 600 tons of scrap iron recovered).

## D. Activity of the Technical Quality Investments Direction

In 2025, 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.
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".*

For the Reactiv project, which is in its last year of implementation, participation and technical support will be ensured at the periodic progress meetings and dissemination of project results, and a final financial and progress report will be prepared and submitted (June 2025, Athens).

Within the CTI Department:

- the following will continue:
  - • participation in Innovation Hub meetings;
  - • monitoring the Horizont Europe platform in order to identify possible European-funded research projects that ALUM could join in order to increase competitiveness and development.
- laboratory research tests necessary for the development of new types of products focused on obtaining recrystallized boehmite hydrate will continue;
- laboratory research tests will be carried out and documentation drawn up necessary for the approval of sludge as a construction material and as an adjuvant for the treatment of acidic soils will be prepared;
- quality control of purchased products and those delivered by ALUM (calcined alumina, dry, sieved and ground hydrate) will be ensured;
- all documents necessary to maintain all Alum authorizations, permits and recertifications will be drawn up, internal and external audits will be carried out, sustainability documentation will be prepared, ISCIR and EMM documentation will be monitored and verified;

Investment Activity

The ALUM investment program for 2025 requires a total estimated budget of 125,000 USD and includes a number of 3 investment projects necessary for:

- ensuring the operational continuity of the red mud pond (and of the plant) for a period of time of at least 10 years by bonding the 27 hectars land that was purchased in the period 2022-2023 with the actual red mud pond area, and the completion of the studies related to the expansion of the Red mud pond (86 th. USD);
- prevention of possible incidents and accidental stops due to the deterioration in time of the erasures from the foundations of the hydroseparators vessels (30 th. USD);
- finalizing of the rehabilitation and extension works of the CCTV monitoring system (6 th USD)s;
- renewal of the annual license for the "PDF5 + Full File" database for the Bruker D8 Advance diffractometer within the LCI Service (3 th. USD).

## E. Proposed budget

The budget for the year 2025 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 2025 are in the amount of 6,406,047 USD, of which revenues obtained from the sale of alumina and hydrate in the amount of 1,528,221 USD, revenues obtained from agent commission 4,037,557 USD and other revenues obtained from various activities in the amount of 840,269 USD.

Total budgeted spending for 2025 is 9,639,904 USD.

Thus, in the Alum budget for the year 2025, a loss of 3,233,857 USD is estimated.

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