**LIBERTY GALATI S.A.**

**Environment Department**

REQUIREMENTS FOR OILY MILLS SLUDGE PROCESSING

LIBERTY GALATI

1. **Purpose:**

The customer assigns the processing of oily mills scale – hazardous waste, EUC: 10.02.11\* generated by Liberty Galati and provide various services related to its activities.

The provider undertakes for its part the technical solution, implementation, authorizations, and processing of the hazardous waste – oily mills scale for obtaining processed scale in Liberty required quality described below in this spec.

The solutions offered and process applied must be as much is possible in the direction of environmentally friendly.

All other work or service that the customer may request extra will be an amendment to this contract. The customer, however, reserves the right to ask other suppliers for such services.

1. **Safety and Environment**

SUPPLIER commits itself into progress activities (to be defined between PARTIES) to avoid any incident related to SUPPLIER activities on site. Before activity starts, CUSTOMER and SUPPLIER shall prepare a Health & Safety Plan (PSS), including operation planning and a Particular Health & Safety Plan (PPSS) from the SUPPLIER, which will describe all cooperation conditions related to Health, Safety and Environment.

SUPPLIER commits itself in respecting all legal and CUSTOMER prescriptions related to the protection of the environment. It must be stressed that no accidental event nor diffuse emission will be tolerated. In parallel, every dangerous situation (near miss…) must be immediately secured and signalized for being addressed.

SUPPLIER commits into protecting the environment and limiting its consumption of resources. Contract will have KPI on consumption of fluids (energy, water…) supplied by the CUSTOMER.

Before activities start on CUSTOMER property, SUPPLIER and CUSTOMER will commonly describe by writing all zones and possible pollutions that may exist before the start-up. This report will be used as comparison with the description of the same zones at the end of the contract. If differences appear, SUPPLIER may be forced to have the different zones back into their original state.

The SUPPLIER will obtain Environmental Authorization and all the authorizations necessary to operate his installation applied.

1. **Operational conditions**

The oily mills scale is generated in the mills (HSM and PM). Currently is not recycled.

It is stored separated in pile 11, homogenizing area, in Sinter Plant number 2. Estimated stock level is 50 kt, average generation: 150-400 t / month.

This material is not consumed in the sinter plant due to higher oil content is needed to be processed for oil decreasing

Potential environmental issue due to temporary storage.

Average chemical analysis (%):

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Fe | Mn | SiO2 | CaO | MgO | Al2O3 | K2O | Na2O | Zn | S | P | Moisture | Oil |
| 72,2 | 0,73 | 0,7 | 0,3 | 0,00 | 0,00 | 0,08 | 0,08 | 0,00 | 0,07 | 0,05 | > 15 | > 1.5 |

1. **Scope description**

Processing the Oily mills scale to reduce the oil and water content for obtain processed scale to be introduced in sinter mix.

Solution proposed will be tested and validated by the technical team of Liberty Galati. Laboratory an industrial test will be in supplier scope.

Solution, technical data, authorization, equipment’s, implementation, and operation, also in the supplier scope.

The emissions in air, water and soil must be in the limits as per environmental regulations.

1. **KPI`s for processed scale for sinter use:**

* Quantity of processed scale: until 5 kt/month.
* Size: 0 -10 mm.
* Oil content < 0.5%.
* Moisture max. 8%.
* Oil and water content analyses, on each lot before delivery to sinter plant;
* Without impurities.

1. **Facilities provided by Liberty:**

* Access and utilities will be provided by LG (energy, natural gas, water);
* Place for equipment’s implementation.
* Access and quantity to be processed.

1. **Technical offer will include:**

* A technical solution to achieve the above proposed activities.
* Detailed flow chart of activities.
* Implementation time frame.
* Reference for similar work on other`s companies.

1. **Proposed for performance of the contract term:**

* 3 years, with the possibility of extension.

**Rosca Victor**

**Craciun Toader Dobrin**

**Salanti Stanica**