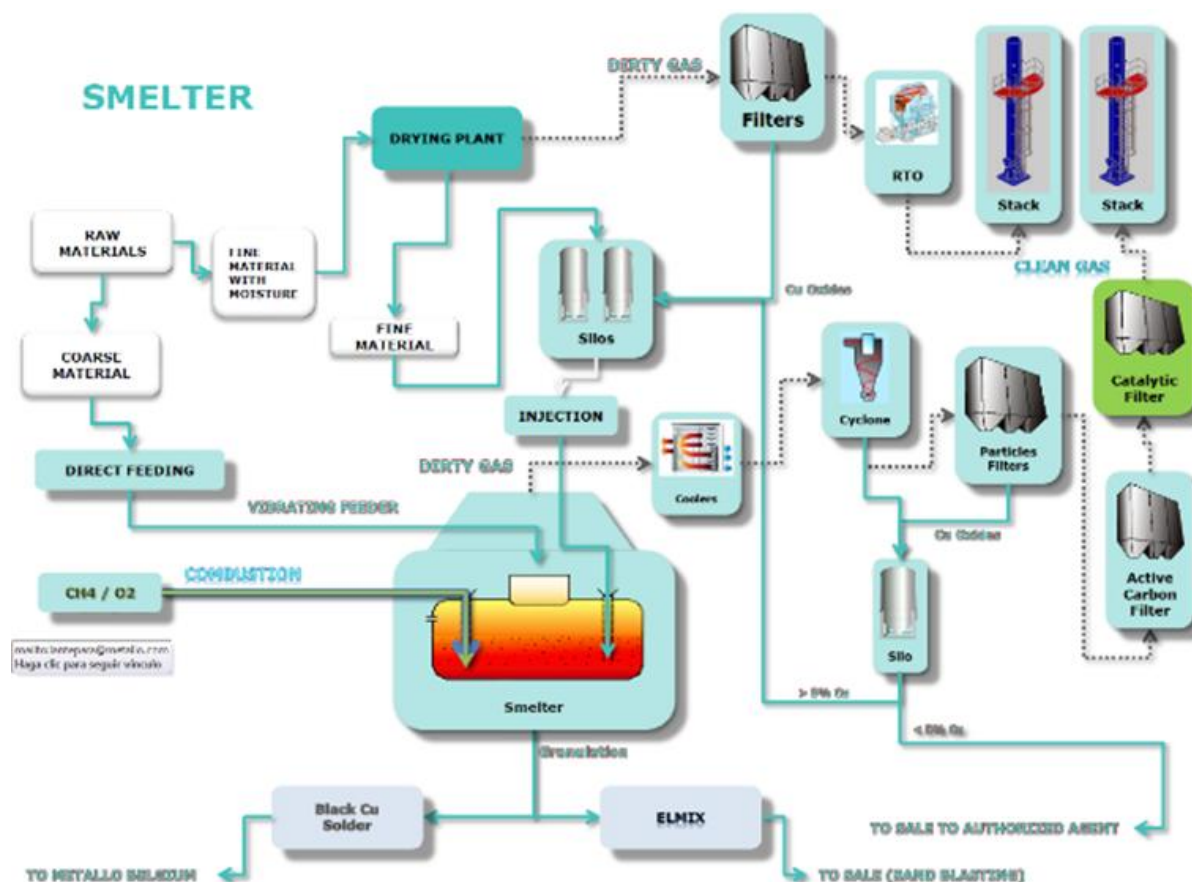


APPENDIX 9. Point No 9 of Annex II Part 3 of Regulation EC No 1013/2006: Description of the treatment process of the facility which receives the waste.

AURUBIS BERANGO is an authorized waste processor specialized in the recovery of copper bearing materials. The smelting technology used to turn waste and raw materials into products is based on the use of oxygen, because of the reduction achieved in smelting time, the consequent increase in productivity and the reduction in the overall energy costs and environmental impact of the process.

Overview:



Raw material:

The materials used in the secondary copper recovery industry can be grouped into the following basic categories: copper/iron, metal, slag and dross, fine Cu and/or Sn waste, iron scrap.

Radiological checks:

All trucks arriving at AURUBIS BERANGO carrying raw materials and all those that leave the facility go through a radiological check to ensure that there is no contamination at the plant or in our products.

Inspection:

Loading units are inspected and undergo quality control checks after unloading and before goods are loaded.

Storage of materials:

There are two covered storage areas fitted out for the storage and handling of dusty materials and material subject to leaching, plus an outdoor storage area for scrap.

Each material is stored in the appropriate pile according to its physical type (grain size) and chemical composition.

There is a traceability procedure that records processed data from the raw material used onwards.

Loading of fine materials into the furnace: drying facility:

Fines are treated at a drying facility to make them easier to be sieved and then sent to a silo via a pneumatic conveyor.

The drying kiln comprises a slightly inclined steel cylinder which is heated by a propane burner. The cylinder revolves continuously, so materials progress through it and remain inside for a preset time designed to be sufficient to eliminate any moisture.

The gases produced in the kiln are drawn in and scrubbed in a filter facility before being sent on to an RTO (regenerative thermal oxidizer), to reduce CO and TOC emissions into the atmosphere. Active charcoal is also added to eliminate dioxins and furans.

Fines are injected into the smelting furnace via a pneumatic conveyor, so there is no further contact with the exterior. Fine fractions go directly into the molten mass, where they are retained and react and melt quickly. The reactions involved are exothermic and there is very little carryover of material.

Loading of coarse materials into the furnace: vibrating feeder:

Coarse materials are loaded via a solid vibrating table made of refractory steel.

This table is fed by two storage hoppers, which enable coarse materials to be dosed as required.

Smelting:

The metallurgical smelting process takes place in a rotary furnace. A conventional rotary furnace is used, fitted with a loading mouth for coarse materials, openings for lances to inject fine materials and a fume exhauster in the centre of the cylinder.

To ensure homogenization and improve the kinetics of the reaction, a number of submerged nozzles are arranged around the furnace wall along the generatrix. Compressed air is fed through these, providing a satisfactory way of stirring the bath.

The smelting process is based on the intensive use of oxygen, which acts on the iron in the copper/iron scrap and the Si in silicon waste, enabling the need from the resulting reactions to be used to melt the materials.

All metals can be oxidized, but the process takes place in a strict order. In our furnace, with the temperatures at which we work, we obtain the following series:

Al, Si, Zn, Fe, Sn, Pb, As, Ni, Cu, Ag & Au.

Metal is poured through an opening in the furnace, which remains closed during the smelting process. The molten mix is poured onto water, which turns it into grit.

The gases generated in the furnace are captured and scrubbed in a gas cooling and filtration facility, then sent through an active carbon and lime filter to reduce emissions of SO₂ into the atmosphere. Active carbon is also added to eliminate dioxins and furans.

Oxides:

During smelting in the furnace, the most volatile metals oxidize and reach the filters along with some inevitable carryover of other materials. The predominant elements in these oxides are zinc, lead and copper.

Oxides are stored in bigbags on pallets to await shipment to the end customer. Quality control checks are run on oxides during the process and during final bagging.

Slag:

The smelting process produces slag (iron silicate) in the form of granulate, according to customer specifications.

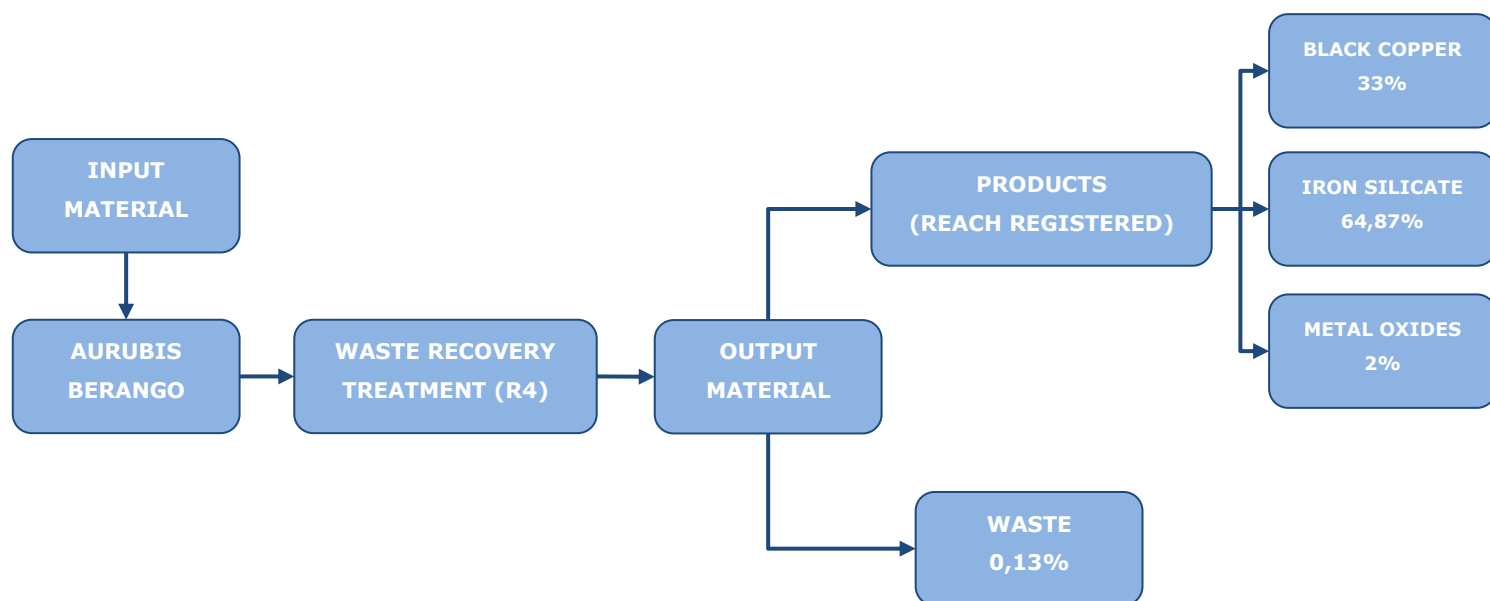
Slag is object of chemical analysis to confirm the quality meets the required characteristics and then is loaded in loose for its shipment to customer.

Black copper:

The most valuable product obtained is black copper (Cu content 80%), which is also analysed to check its composition before shipping to customers for Cu anode production.

Reclamation and traceability of recovered and non-recoverable waste:

The following picture shows the traceability of the material, including reclamation operation, recovery rates, treatment costs (recovery and disposal) and final destinations.



The waste is intended for recovery:

- The disposal method planned for the non-recoverable fraction once recovery is completed is D5 disposal in a landfill located in the Basque Autonomous Community (PREZERO, Zalla, Bizkaia).
- The quantity of recovered material in relation to non-recoverable waste: 99.87%.
- The estimated value of the recovered material: 6,295€/ton
- The cost of the recovery is 70€/ton, while the cost of disposal of the non-recoverable fraction is 75€/ton.

Non-recoverable waste fraction has been managed under EWC code 200199. The treatment contract with the waste manager can be found on the page below.

NUMERO CT	DANP30480000122320120000738
FECHA	02/01/2023

OPERADOR DE TRASLADO	
RAZON SOCIAL:	AURUBIS BERANGO, S.L.
CIF:	B48483465
DIRECCION:	Arana (Bidea/Camino) (Berango, Berango Diseminado), 20
MUNICIPIO:	Berango
CP:	48640
PROVINCIA:	Bizkaia
TELEFONO:	946 68 91 12
Nº RPGR:	16-I-01-000000000065
CORREO-e:	s.corunalla@aurubis.com
NIMA:	4800002865
ORIGEN DEL TRASLADO	
RAZON SOCIAL:	AURUBIS BERANGO, S.L.
CIF:	B48483465
NOMBRE DEL CENTRO:	AURUBIS BERANGO, S.L.
NIMA:	4800002865
DIRECCION:	Arana (Bidea/Camino) (Berango, Berango Diseminado), 20
MUNICIPIO:	Berango
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Nº RPGR:	16-I-01-000000000065
CORREO-e:	s.corunalla@aurubis.com
DESTINO DEL TRASLADO	
RAZON SOCIAL:	PREZERO GESTION DE RESIDUOS, S.A.
CIF:	A59202861
NOMBRE DEL CENTRO:	VERTEDERO DE ZALLA
NIMA:	4800001223
DIRECCION :	Llantada (Auzoa/Barrio) (Sollano-Llantada), 0A A
MUNICIPIO:	Zalla
CP:	48860
PROVINCIA:	Bizkaia
TELEFONO:	946 670 465
Nº RPGR:	16-I-01-000000000147
CORREO-e:	vertedero.zalla@prezero.es
CARACTERISTICAS RESIDUO QUE SE TRASLADA	
LER:	200199
DESCRIPCION:	Residuos de limpieza
OPERACION DE TRATAMIENTO:	D0502
CANTIDAD:	10000000
PERIODICIDAD:	A DEMANDA
OBLIGACIONES DE LAS PARTES EN CASO DE RECHAZO DEL RESIDUO	
1. Efectuado el traslado, si los residuos no son aceptados por el destinatario, éste emitirá al operador del traslado el documento de identificación señalando la no aceptación de los residuos y, de acuerdo con lo establecido en el contrato de tratamiento, podrá optar a: a) Devolver el residuo al lugar de origen acompañando documento de identificación con la indicación de la devolución del residuo. b) Enviar los residuos a otra instalación de tratamiento. Este traslado deberá ir acompañado de un nuevo documento de identificación. El operador de este nuevo traslado será el operador del traslado inicial. 2. Cuando los traslados estén sometidos al procedimiento de notificación previa, en el caso del apartado 1b), el operador del traslado inicial deberá presentar a las comunidades autónomas de origen y destino una nueva notificación correspondiente al nuevo traslado. En el caso de los apartados 1a) y 1b) el operador del traslado inicial remitirá a las comunidades de origen y destino el documento de identificación.	



Firma Operador

37388300Y
 RAUL
 DOMINGUEZ
 (R:A59202861)
 Firmado digitalmente
 por 37388300Y RAUL
 DOMINGUEZ
 (R:A59202861)
 Fecha: 2023.09.26
 15:54:12 +02'00'
 Firma responsable destino.