



The Minerals Engineering Society (formerly The Coal Preparation Society) Technology Supplement

SALORO APPROACHES PRODUCTION



After a year-long construction effort in 2018 the new processing facilities at Saloro's Barruecopardo Tungsten mine, in Spain, are being brought into production during the early part of 2019. As seen above the multi-stage crushing and screening plant was the first part to be readied for testing with the main concentrator following closely behind. The state-of-the-art production facility, that combines both modern day technology and traditional minerals processing systems, will treat a Scheelite ore mined at site to pro-

duce a Tungsten (WO_3) rich concentrate that will account for around 13% of non- Chinese global supply of tungsten concentrates.

The Barruecopardo mine has a history dating back almost 100 years. It is located in the Salamanca Province of western Spain, an area of substantial historic tungsten production. For the majority of its operating life Barruecopardo was the largest tungsten mine in Spain, producing a high-quality tungsten concentrate from an open-pit mining and related processing operations. Activities ceased at the old mine in the early 1980's.

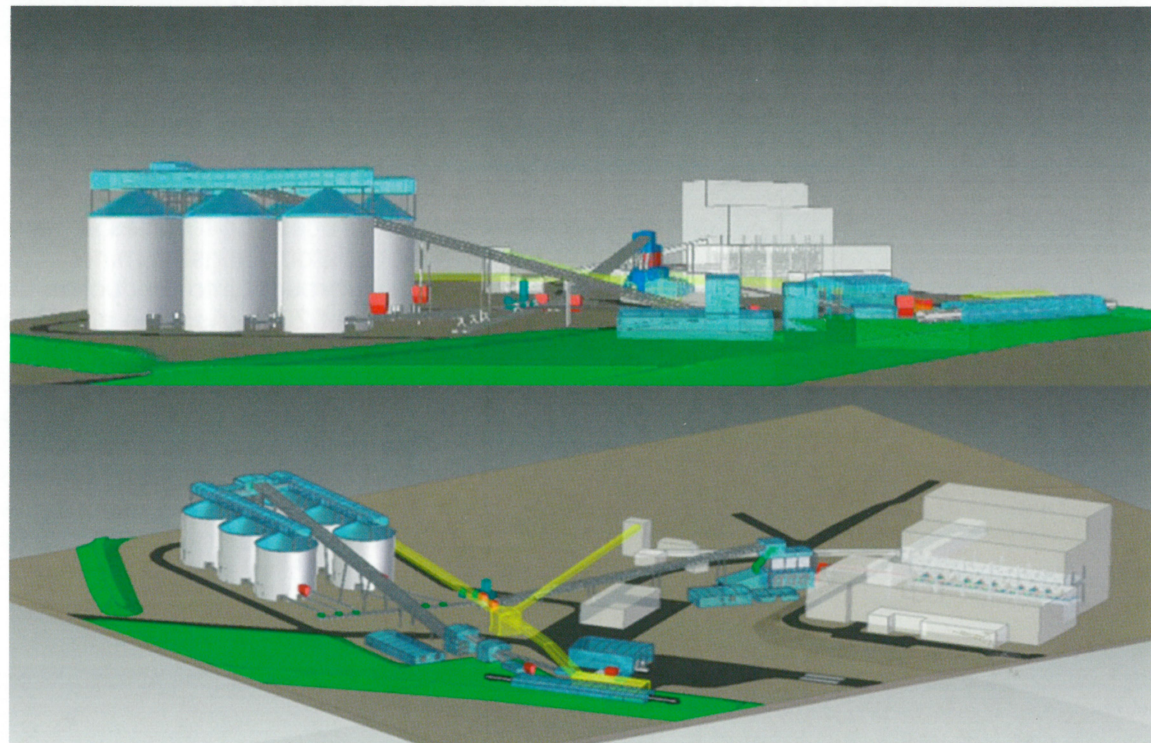


Since Saloro's inception in 2004 it has diligently advanced studies, permitting and funding activities related to its project for the re-opening of the Barruecopardo mine and has been supported by Fairport Engineering since 2014 in the plant design and engineering aspects. Please see the Drone Flyover (below) for more views of the project.



Lynemouth — The Finished Article.

Fairport Engineering Ltd of Adlington, Lancashire has been working on the Lynemouth power station conversion project, since 2016, as the main contractor's, SRM, specialist materials handling engineer and designer thus allowing this land-mark project to benefit from the combined strengths of both organisations. This major multi-million pound project is totally focussed on replacing the previous fuel (coal) handling and storage systems with a new regime that will be suitable for biomass (wood pellets) and achieved constructional completion during the second half of 2018. Major design & build projects for solid fuel power stations are nowadays the exception rather than the rule here in the UK and so it is appropriate to use this article to show the transition of this project from concept to reality.



In order to ensure security of supply Lynemouth is able to accept biomass fuel by two means – rail and road. Rail is the predominant means of delivery and the station is provided with biomass wood pellets by a dedicated rail spur that can receive up to four 2,000t trains a day from a specialised bulk store con-



structed at Port of Tyne. As will be observed from the following photographs adjacent to the rail unloading facility are three road vehicle unloading stations.

Having been unloaded the fuel pellets are then transported by a twin, air supported, belt conveying system to the main station storage silos. The six concrete slip-formed silos are fitted with a Fairport designed bottom to encourage mass flow and are also inter-connected by drag link conveyors in such a manner that the storage silos can operate on a FIFO (First In First Out) basis.



As will be noted, and expected, each of the main storage silos are fitted with explosion panels and slam-shut valves to protect the silos and their contents. Once having been extracted at a controlled rate from the main storage silos the biomass fuel pellets are, once again, transported to the intermediate silos by a twin, air supported, belt conveying system.



The intermediate storage silos hold the pellets prior to them being fed into 12 individual dense phase conveying systems to reach the grinding mills that will pulverise the pellets before being injected into the boiler burners. Lynemouth has three boilers and each is served by four mills each of which has four dedicated dense phase conveying systems, one of which is a hot standby



The reality of the project is now established for all to see and it is fervently hoped that it will serve the UK power industry for years to come.

For more information please contact :

Linda White :

Marketing Communications Manager

Tel : 01257 484000 E Mail : LWhite@fairport.co.uk



Fairport Completes 5 week shut down

Dangote Sugar is the leading Nigerian sugar refiner supplying the food and beverage sector. The Dangote Sugar refinery at the Apapa Wharf complex was commissioned in 2000, with an initial refining capacity of 600,000mt/a. Over the years, the facility has undergone major upgrades that have turned it into one of the largest sugar refineries in the world with a refining capacity of 1.44Mt/a. With a current 70% capacity utilization, Dangote is implementing various initiatives and projects to achieve continuous improvements in its operations.



One of these initiatives is the provision of a new sugar cooling system. The sugar cooler and screens apart the system included the following equipment supplied by Fairport Engineering Ltd :

- Five new sugar elevators,
- Twelve new screw conveyors,
- One new sugar lump breaker, and
- One new triple metering screw feeder.



Fairport, as well as being able to design and supply these specialist machines also has an all-round turnkey capability that allows it to work in an advantageous partnership manner with many clients. On this particular project Fairport supplied the proprietary electrical and instrumentation equipment for the system. The client provided to Fairport's design the structural and civil works, electrical cabling and overall installation all of which was undertaken in accordance with Fairport's on-site management and supervision requirements. Working to a five week, round the clock shutdown programme the project was successfully installed and commissioned and the refinery brought back on-line as expected.

For more information please contact :

Linda White : Marketing & Communications Manager Tel : 01257 484000

E Mail : LWhite@fairport.co.uk

