

Smelters & Refinery Performance Overview

Our Smelter business continued to stay on track with increased growth and expansion in FY2021, despite the pandemic putting temporary brakes on operations. Our unwavering focus on judicious management and prudent cost controls led to enhanced efficiencies and production across the plants.

Debottlenecking for Expanding Efficiently

A year after we completed the debottlenecking of our smelting capacity to 1.123 Mtpa, we are ready to take the expansion process further to scale efficiencies and productivity.

The blueprint work on smelter expansion from 1.123 Mtpa to 1.20 Mtpa via further debottlenecking is under finalization. During FY2021, we received the Environment Clearance from the Ministry of Environment & Forest (MoEF) expanding CLZS H1 & H2 from 4.20 lacs tons per annum to 5.04 lacs tons per annum.



CLZS Spreads Its Wings

Concerted efforts to streamline operations at CLZS continued during the year. An in-house process was developed to treat blocked inventory of residual zinc oxide. The smelter achieved NAMC (National Awards for Manufacturing Competitiveness) Gold award for its unit-2. In another notable achievement, the recovery of all minor metals from Jarofix waste were patented by VEXL and Hindustan Zinc, CLZS. Further, CLZS received the gold rating in CCQC 2020 case study competition in Rajsamand, and also won First Position in 38th National CII Kai-Zen Competition. CLZS has also collaborated with TERI, Delhi for Jarofix yard reclamation methods.

Safety First at Dariba Zinc Smelter

Safety continued to be the central proposition of the Dariba Zinc smelter's strategic charter during the year. Among the initiatives undertaken were the installation of a Pneumatic wrench machine for bulker top cover bolt tightening and complete fencing of the Cell House emergency tank, tyre washing area and open pits. To reduce hand injuries and implement the 'line of fire' concept, Finger Saver tools have been procured and put in use.

The plant adopted several best practices to enhance its security and safety proposition:

- > Excellent Command and Control Center for security operations
- Implementation of Integrated Truck Management System at Waste Movement Gate
- Technology-based solution for tracking quality and efficiency of patrols
- Training and awareness sessions for continuously exploring technology and automation solutions
- Sharing of safety alerts and learnings with security personnel during daily stand-downs
- > Public awareness on security & safety during each shift through public announcement system
- Weekly housekeeping and cleanliness drive Shramdaan by Guard Force at Barracks
- > Open House sessions for building connect with guard force
- Monthly Safety Choupal involving shop floor employees
- Elimination of chlorine gas risk at Water Clarifier by substituting the chlorine tonner with Sodium Hypochlorite
- > Implementation of Online Permit System

Emergency Training

Employee training at Dariba is designed to make them the best in handling emergency situations. During FY2021:

- Fire-fighting training provided at lead plant for shop floor employees and at CPP
- SCBA training and Chlorine Leakage handling training conducted with involvement of rescue teams

During the year, our emergency response and preparedness was exemplified during:

- Fire-fighting on outside fire calls, particularly the fire at SBI Bank and Rajyavas Forest
- Rescue operation of animals in nearby village
- Mock drill on Acid tanker leakage

- Protecting the Environment

Environmental protection at Dariba is a way of life, and DSC Zn has also been recommended for ISO 14001:2015 recertification and OHSAS 18001:2007 recertification. ISO 50001 - Energy management certification was awarded to Dariba Smelter and DZS for the first time.

35,000 saplings were planted during the fiscal.

With the installation of In-house Proactive Process Control Composite Sampling System at Purification Plant, manual sampling from Launder with frequency of 1-2 hours was replaced with composite sampling, with Frequency of 5 min/sample. As a result, the probability of capturing impurities in a sample has gone up from 2% to 50% in an hour. The potential savings of this move are estimated at ~500 tons/instance.