OFFICE OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA

New Delhi

18th December, 2025

AUDIT REPORT ON 'PERFORMANCE OF BLAST FURNACES IN SAIL' PRESENTED IN PARLIAMENT

Report of the Comptroller and Auditor General (CAG) of India on 'Performance of Blast Furnaces in SAIL' (Audit Report No. 38 of 2025) was presented in both houses of the Parliament here today.

Major Audit Findings:

The Blast Furnace is a key unit in the production process of a steel plant and produces Hot metal which is the primary raw material for steel making. The Hot metal is processed through the Steel Melting Shop and then rolling mills for production of semi-finished/finished steel. The production performance of Blast Furnace therefore has a very significant role in the entire steel making process.

Assessment, Availability and Consumption of Raw Materials, Fuel & Services

The Steel Plants of Steel Authority of India Limited (SAIL) had planned their annual requirement of major raw material adequately except Coal Dust Injection (CDI) Coal whose availability ranged from 54 per cent to 83 per cent.

Blast Furnaces of SAIL had consumed more iron ore lump than the norm mainly due to variation in the *Fe* content in iron ore. Inconsistent use of pellets also contributed to the excess consumption of iron ore lump. Overall, there was excess consumption of 0.823 million tonne of Iron ore lump during 2017-22 which valued ₹186.26 crore. The Pellet Plant conceptualized by SAIL at Dalli mines (Bhilai Steel Plant), Rourkela Steel Plant and Gua Mines (Bokaro Steel Plant) was under process. SAIL plants consumed Sinter beyond norms during 2017-2024 intermittently which led to net excess consumption of 3.023 million tonne of sinter valuing ₹1,636.41 crore. Consumption of CDI Coal was below the target at almost all the Steel Plants of SAIL during 2017-2024 resulting in potential extra expenditure of ₹6,259.25 crore.

Specific power consumption in the SAIL Plants was more than the norms in most of the years during 2017-24 due to non-achievement of targeted production of hot metal which led to potential avoidable expenditure of ₹310.48 crore during 2017-2024.

Operational Performance of Blast Furnaces

SAIL could produce only 126.15 million tonne of hot metal during 2017-2024 against the planned production of 140.88 million tonne as per Annual Business Perspective and 130.96 million tonne

as per MoU (with Ministry of Steel). Capital repairs of Blast furnaces were not completed within time which could not ensure synchronized planned shutdowns of blast furnaces and thereby avoid deferment of capital repairs. Out of total 8,90,694 available hours for plant operation, blast furnaces were utilised for 8,20,969 hours and the blast furnaces remained off blast for 8 *per cent* of the available hours on account of unplanned shutdowns during 2017-2024 mainly due to shortage of raw materials, poor off take of hot metal by Steel Melting Shops, technical and other miscellaneous issues. This resulted in inability to produce 6.993 million tonne of hot metal and inability to gain potential contribution margin of ₹7,986.97 crore during 2017-24.

Norms for all techno-economic parameters for all blast furnaces at the steel plants were not fixed. The blast furnaces of SAIL could not completely achieve the norms/desired levels of Hot Blast Temperature, Oxygen enrichment, Blast pressure and Blast volume.

Blast Furnace Output

There were capacity imbalances and considerable delays in implementation of projects aimed at addressing the imbalance between hot metal and crude steel capacities at Rourkela and Bokaro Steel Plants. Project for installation of 4th Slab Caster and setting up of Steel Melting Shop-III at Rourkela Steel Plant and that for a new sinter plant and modernisation of Steel Melting Shop-I at Bokaro Steel Plant were delayed leading to potential loss of envisaged annual savings of ₹1,172.94 crore.

Safety and Environment Issues

Bhilai, Rourkela, and Durgapur plants had implemented all the recommendations of Safety Audits while Bokaro complied with 30 out of 40 recommendations and IISCO complied with 83 out of 84 recommendations, leaving key issues like conducting test of Pressure Relieve Valves of pressure vessels, fluorescent signs in cable galleries, non-working of Fire detection alarm etc non-complied. Effluent levels from the BF cast house de-fuming system of IISCO Steel Plant exceeded the norms during 2017-2021. Consumption of coal was more than the norm and there was excess consumption of coal which resulted in generation of 13.97 million tonne of CO₂ gas during 2017-2024. Bhilai, Bokaro, Rourkela and IISCO Steel used or sold the entire solid waste, while Durgapur Steel Plant could use only 45 *per cent* of blast furnace sludge during 2017-2024.

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