सत्यमेव जयते

Report of the Comptroller and Auditor General of India

for the year ended 31 March 2020

भारतीय लेखापरीक्षा और लेखा विभाग ✦ INDIAN AUDIT AND ACCOUNTS DEPARTMENT

लोकहितार्थ सत्यनिष्ठा
Dedicated to Truth in Public Interest

Compliance Audit of Activities of Steel Authority of India Limited Union Government (Commercial) No. 8 of 2022

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Comptroller and Auditor General of India

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CONTENTS

PREFACE

1. This Report of the Comptroller and Auditor General of India has been prepared for submission to the Government under the provisions of Section 19-A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, as amended in 1984.

2. This Audit Report contains reviews on 02 selected areas of operation relating to Steel Authority of India Limited (SAIL) under the administrative control of Ministry of Steel, Government of India as detailed below:

a. Refractory Management
b. Financial Management

3. The Audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

EXECUTIVE SUMMARY

I Introduction

This Audit Report contains reviews on 02 selected areas of operation relating to Steel Authority of India Limited (SAIL) under the administrative control of Ministry of Steel, Government of India. These areas were selected in Audit for review on the basis of their relative importance in the functioning of the concerned organisation. This Audit Report includes the following reviews related to SAIL:

1. Refractory Management
2. Financial Management

II Highlights

Highlights of significant observations on the selected areas included in the Report are given below:

Refractory Management in Steel Authority of India Limited

Refractories are non-metallic material used in steel industry for internal linings of furnaces and ladles to resist heat and withstand temperature and in the vessels for holding and transporting metal and slag. SAIL did not take adequate steps to upgrade and modernize its production capacity for refractories, despite the critical role of refractories in Steel making process.

(Paras 1.1, 1.3.1, 1.3.2, 1.3.3, 1.3.4 & 1.3.5)

The Company failed to constitute the Refractory Task Force, envisaged to assess annual requirement of refractory, at Durgapur Steel Plant, Alloy Steels Plant and Indian Iron & Steel Company Steel Plant. Its inability to assess its requirements led to excess inventory holding worth ₹257.15 crore (31 March 2020) while in some cases inventory of refractories lay blocked for 15 to 20 years.

(Para 1.3.7)

SAIL also failed to make optimum utilisation of idle capacity available in-house and incurred extra expenditure of ₹34.83 crore during 2015-16 to 2019-20 due to procurement from outside sources at higher cost.

(Para 1.3.10)

Delays in procurement process and consequent expiry of the price validity period also led to extra expenditure of ₹13.07 crore during 2015-16 to 2019-20.

(Para 1.3.9)

SAIL also failed to develop a good vendor base and continued to procure items on single tender basis. Rourkela Steel Plant procured tundish refractories on Single Tender for ₹113.39 crore during 2013-14 to 2019-20 and Bokaro Steel Plant procured refractory sets worth ₹90.28 crore from the same supplier during 2015-16 to 2019-20 on proprietary basis.

(Para 1.3.8)

The Company incurred avoidable expenditure on account of delays in implementation of Total Ladle Management System and partial implementation of new generation slide gate system. Bhilai Steel Plant could have saved ₹19.47 crore had it awarded the order for Total Ladle Management System within stipulated time. Though total ladle management was found beneficial, Management has not implemented the same at Rourkela Steel Plant and Alloy Steels Plant.

(Para 1.3.11)

As such the refractory management system in SAIL requires improvement so that in house facilities are optimally utilised and costs for procurement of refractories are reduced.

(Para 1.4)

With regard to Chapter on Refractory Management in Steel Authority of India Limited, Audit recommends that:

- ***The Company may take steps to augment and upgrade the in-house production facility for refractories like basic bricks, magnesia carbon bricks, fireclay/ high alumina bricks and slide gate, silica bricks etc., in accordance with the demand of the steel plants and avoid purchases from private parties.***
- ***Management may take necessary steps to utilize used or rejected material like basic bricks, dry ramming mass, magnesia carbon bricks etc., as per stipulated norms and explore the possibility to utilize old refractory silica bricks lying at SAIL Refractory Unit.***
- ***Management may ensure that Refractory Task Force or any other similar supervisory body be constituted in all the steel plants of the Company for assessment of requirement of refractories like basic bricks, magnesia carbon bricks, fireclay/high alumina bricks and slide gate, silica bricks etc.***
- ***Efforts may be made by Management to keep inventory as per the norms stipulated by the Company and procurement should be made after considering existing inventory holding and assessment of requirement based on technical upgradation/ modernisation plans.***
- ***Management may make efforts to broaden the vendor base regularly for refractory items to avoid dependence on one or limited suppliers.***

- ***The procurement processes may be completed within prescribed time as delays result in expiry of bid price validity leading to additional costs, detrimental to the financial interest of the Company.***
- ***The production planning may be synchronized between the steel plants and the refractory units to ensure that the in-house facilities are utilized to the fullest and external purchases are minimized.***
- ***As total ladle management was found beneficial by Management, Rourkela Steel Plant and Alloy Steels Plant may evaluate the feasibility of implementation of the same.***

Financial Management in Steel Authority of India Limited

SAIL incurred losses during 2015-16 to 2017-18 and subsequently earned profits during 2018-19 and 2019-20 mainly on account of valuation of sub-grade fines, scrap etc. The Company was faced with declining/stable Credit Rating over last 5 years, which was attributable to weak operational performance, debt levels and interest cost. Borrowings by SAIL had increased from ₹16,320 crore in 2011-12 to ₹54,127 crore as on 31 March 2020. Audit noted that the decision to hedge loan and interest by the Company was not consistent. Non-hedging of loans of USD 400 million in terms of foreign exchange fluctuation led to avoidable expenditure of ₹194 crore. The Company did not hedge the interest on Buyers Credit (LIBOR) except in few cases during March 2017 to December 2017.

(Paras 2.4.1 & 2.4.4)

Out of 21 Joint Venture Companies of SAIL, eight were operational, three under project/ feasibility stage and ten were inactive or under closure. Company had not framed any policy or guidelines for investment of funds in the Joint Venture Companies. Audit noted cases of unfruitful investment in the Joint Venture Companies by SAIL.

(Para 2.4.5)

Debtors had increased from ₹3,297 crore (2015-16) to ₹9,020 crore (2019-20). There was delay in submission of claim of ₹1,959.46 crore towards price escalation for rails.

(Para 2.4.8)

Extra expenditure was incurred due to non-drawal of minimum guaranteed gases by the steel plants. Avoidable expenditure of ₹41.09 crore towards Engine Hire Charges was incurred by Indian Iron and Steel Company Steel Plant due to detention of engine beyond free time allowed by the Railways. SAIL also paid idle freight of ₹397.90 crore due to underloading of wagons and ₹7.66 crore as penalty for overloading of wagons. Consumption of excess water than the permitted quantity led to extra expenditure of ₹58.33 crore by Bhilai Steel Plant.

(Para 2.4.10)

The critical ratios depicting SAIL's financial position like Debt Equity ratio, Interest Coverage Ratio and Net Debt to Earnings before interest, taxes, depreciation and amortization ratio also indicated financial instability and worsening credit profile of the Company.

(Paras 2.4.2 & 2.5)

With regard to Chapter on Financial Management in Steel Authority of India Limited, Audit recommends that:

- ***Management may consider all factors that are likely to affect the budget estimates so that the budget prepared is realistic and achievable.***
- ***In order to avoid paying interest on debit balances in SBI Centralised Cash Credit account, the Company may ensure accurate estimation of its fund requirement and may also assess the impact of payment of avoidable interest on such debit balances.***
- ***The Company may follow consistent practice for hedging of loans for Foreign Exchange fluctuations and interest to secure the financial interest of the Company.***
- ***Policy for investment of funds in joint ventures/ others may be framed and funds should be invested in a prudent manner to ensure optimum return.***
- ***The Company may make efforts to finalise and communicate quarterly prices timely and persuade NTPC to make payment on the basis of provisional price.***
- ***The Company may make effort to incorporate a clause for levy of interest in case of realization of dues beyond due dates to safeguard its financial interest.***
- ***The Company may develop a structured and robust cost accounting and information system in order to provide product-wise and process-wise consumption/ input-output details and cost data on real time basis to the Chief Advisor, Cost, Ministry of Finance so that claims from vendors (Railways) are not delayed and extra expenditure on cost of financing is not incurred.***
- ***Management may take initiative to revise minimum offtake quantity downwards considering actual consumption pattern of gases in previous years to avoid such penalty.***
- ***The Company may (a) set target for reduction in demurrage charges (b) take necessary measures to arrest the controllable delays in loading/ unloading materials within the stipulated time allowed under the scheme to reduce Engine hire charges (c) set tolerance limits for idle freight with reference to the type, size and carrying capacity of wagons to minimize avoidable expenditure on account of idle freight.***

CHAPTER I: Refractory Management

1.1 Introduction

Steel Authority of India Limited (SAIL or the Company), a leading steel-producing company in India produced around 17.5 million tonnes of hot metal annually during 2018-20. It operates five integrated steel plants at Bhilai, Bokaro, Rourkela, Durgapur and Burnpur; three Special Steel Plants at Durgapur, Salem and Bhadravati and a Ferro Alloy Plant at Chandrapur.

Refractories are non-metallic material that retains its strength on elevated temperature and are resistant to heat and pressure. Refractories are used in steel industry for internal linings of furnaces and ladles[1] to resist heat and withstand temperature and in the vessels for holding and transporting metal and slag. The requirement of refractories is met from in-house facilities as well as outside parties. During 2015-20, SAIL procured refractories worth ₹7,913 crore and consumed refractories worth ₹6,676 crore[2].

1.2 Audit objectives and scope of Audit

The Audit objectives were to assess whether:

i) requirement for refractories were determined realistically and procurement process was fair and transparent ensuring efficiency, economy and effectiveness;

ii) cost comparison of the refractories produced in-house and that purchased was done and where required necessary action was taken by Management for enhancement of facilities of in-house production and cost efficiency thereto; and

iii) the monitoring mechanism for contract management existed and the incoming material were inspected and terms and conditions of purchase orders with respect to deduction of penalty etc., were adhered to.

Audit examined records of all steel plants[3] of SAIL and SAIL Refractory Unit[4] for a period of five years from 2015-16 to 2019-20.

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[1] ***Vessel used to transport and pour out molten metals.***

[2] ***2015-16: ₹1,311.91 crore, 2016-17: ₹1,103.58 crore, 2017-18: ₹1,034.60 crore, 2018-19: ₹1,332.59 crore, 2019-20: ₹1,893.78 crore.***

[3] ***Steel plants at Bhilai, Bokaro, Rourkela, Durgapur and Burnpur and three Special Steel Plants at Durgapur, Salem and Bhadravati.***

[4] ***The head office of SAIL Refractory Unit is located at Bokaro Steel City. There are four production units of SAIL Refractory Unit, out of which three are located near Bokaro in Jharkhand and one in Bhilai, Chhattisgarh.***

1.3 Audit findings

1.3.1 Performance of in-house facilities

SAIL gets refractories from (i) in-house facilities at SAIL Refractory Unit; Refractory Manufacturing Plants in Bhilai Steel Plant and Lime Dolomite Brick Plant at Rourkela Steel Plant, (ii) SAIL Refractory Company Limited, a subsidiary of SAIL and (iii) procurement from outside sources. SAIL plants procured refractories for ₹7,913 crore[5] during 2015-20 out which 42 *per cent* was in-house and rest was purchased from Indian manufacturers and foreign suppliers.

1.3.2 Performance and augmentation of SAIL Refractory Unit

SAIL Refractory Unit produces refractories like basic bricks, magnesia carbon bricks, fireclay/ high alumina bricks and slide gate, silica bricks etc., with annual capacity of 1.27 lakh tonnes. The production performance of SAIL Refractory Unit for 2015-16 to 2019-20 is given in the table below:

Table 1.1: Production performance of SAIL Refractory Unit for 2015-16 to 2019-20

(*units in tonnes*)

Year	Present capacity	Annual production plan	Annual planned production to capacity in *per cent*	Actual production	Actual production to annual planned production in *per cent*	Actual production to capacity in *per cent*
2015-16	127200	121800	96	95613	79	75
2016-17	127200	114100	90	86863	76	68
2017-18	127200	109000	86	88392	81	69
2018-19	127200	109000	86	95396	88	75
2019-20	127200	108569	85	93272	86	73

From the table given above it can be seen that the annual production planned by the SAIL Refractory Unit was between 85 and 96 *per cent* of the capacity, whereas the actual production was between 76 and 88 *per cent* of the planned production and 68 to 75 *per cent* of the capacity during 2015-16 to 2019-20. Thus, the Annual production plan has been steadily decreasing over the five-year period.

1.3.3 Augmentation of SAIL Refractory Unit

Substantial increase in the demand for refractory after completion of modernisation and expansion plan (expected to be completed by 2015) of SAIL plants was anticipated. In order to avoid dependency on external market especially in critical areas, to take care of supply fluctuations and have indirect check on market pricing, the SAIL Management decided to study the present capacities of in-house refractory production and devise an action plan. Accordingly, a Committee was constituted (February 2014) to ascertain refractory products for which the Company did not have capacity and which required to be developed to meet the entire refractory requirement of SAIL after modernization. The

[5] ***During the period 2015-16 to 2019-20, SAIL plants procured refractories for ₹7,913 crore, out of which refractory worth ₹6,676 crore were consumed. The remaining would be in the inventory.***

Committee was also to identify products, areas, services where SAIL needed outside technology.

The Committee recommended (April 2014) for (i) augmentation of existing manufacturing facilities in SAIL at SAIL Refractory Unit and SAIL Refractory Company Limited, including upgradation of existing technology and equipment; (ii) installation of new modern manufacturing facility in SAIL Refractory Unit either through technology transfer/ tie-up or in Joint Venture with major global refractory manufacturer for those items which it did not produce; and (iii) installation of new Mudgun Mass[6] manufacturing facility inside Bokaro Steel Plant and subsequent augmentation of capacity of that plant etc., at an estimated cost of ₹690 crore.

In this regard, Audit observed the following:

(i) Management did not take adequate steps for upgradation even after a lapse of five years. Modernisation and Expansion Plan of SAIL plants was implemented with expected increase in production by around 70 *per cent*. However, the modernisation and upgradation of SAIL Refractory Unit was not yet completed (May 2021).

(ii) SAIL Refractory Unit supplies 'single heat slide gate refractory'[7] to Bokaro Steel Plant. However, after Bokaro Steel Plant shifted (2015) from 'single heat slide gate refractory' to 'multiple heat slide gate refractory'[8], SAIL Refractory Unit did not upgrade the technology. As a result, Bokaro Steel Plant procured material worth ₹31 crore from private suppliers during 2015-20. Bhilai Steel Plant asked (2014) SAIL Refractory Unit to change the technology to supply new generation 'slide gate refractory system', which was not implemented by the SAIL Refractory Unit. As a result, Bhilai Steel Plant procured the same from private suppliers for ₹35.01 crore during 2015-20.

Further, requirement of silica bricks by Bhilai Steel Plant was not fulfilled by SAIL Refractory Unit for cold repair of Coke Oven Battery-2. SAIL Refractory Unit agreed (September 2018) to supply 1,043 tonnes against requirement of 4,600 tonnes and for Coke Oven Battery-10, SAIL Refractory Unit agreed (September 2017) to supply 1,400 tonnes against requirement of 8,800 tonnes. Further, against the requirement of Bhilai Steel Plant for 5,300 tonnes of silica bricks to be supplied during April 2018 to September 2018, SAIL Refractory Unit did not supply the material. Thus, due to non-supply of silica bricks by SAIL Refractory Unit, Bhilai Steel Plant had to procure silica bricks for ₹58.98 crore from private players.

Thus, as SAIL Refractory Unit did not supply the refractory material, steel plants at Bokaro and Bhilai had to make purchases amounting to ₹125 crore from private parties.

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[6] Mudgun Mass is a type of refractory used in Blast Furnace.

[7] When liquid steel is poured for further processing in the tundish, a special type of refractory known as Slide Gate Refractory system is used. When this refractory set is changed after each heat it is called Single Heat Slide Gate Refractory set.

[8] When the Slide Gate Refractory set is changed after more than 2 heats, it is called multiple heat slide gate refractory set.

(iii) The Company did not take any action on the recommendations of the Committee regarding installation of 'New Mudgun Mass manufacturing facility'. Indian Iron and Steel Company Steel Plant (located at Burnpur), Rourkela Steel Plant and Bhilai Steel Plant procured mudgun mass from private players for ₹151.35 crore (Indian Iron and Steel Company Steel Plant: ₹41.24 crore, Bhilai Steel Plant: ₹30.75 crore, Rourkela Steel Plant: ₹79.36 crore).

Figure 1.1: Mudgun Mass

Management/ Ministry replied (May 2021/ November 2021) that Centre for Engineering and Technology, SAIL was assigned study of capacity expansion at SAIL Refractory Unit in March 2018 and follow up action has been taken up on their recommendations (September 2018). An approach note submitted (November 2020) by Centre for Engineering and Technology, SAIL was under active consideration.

It further stated that, Expression of Interest was floated (March 2020) inviting global partners for development of in-house capability for Mudgun Clay manufacturing. One technically compliant vendor was found and Centre for Engineering and Technology, SAIL had been requested by SAIL Refractory Unit to make an appropriate proposal.

Reply of Management/ Ministry is not tenable in view of the fact that Centre for Engineering and Technology, SAIL was assigned study of capacity expansion at SAIL Refractory Unit in March 2018 after four years of recommendations of the Committee. Besides, the recommendations of both the Committee (formed in 2014) and that of Centre for Engineering and Technology, SAIL, were yet to be fully complied with.

Centre for Engineering and Technology, SAIL had submitted its Approach Note in September 2018 for Capacity Expansion of Steel Refractory Unit for fulfilment of Refractory Requirement of SAIL Plants. The Approach Note had considered certain aspects for immediate, short-term and long-term measures for increasing production capacity and upgradation of technology in consonance with technology changes in steel plants. Even after a lapse of 2.5 years, the same were not fully complied with till April 2021. Thus, due to non-upgradation of SAIL Refractory Unit, the steel plants had to depend on supplies from private players.

1.3.4 Performance and augmentation of Lime Dolomite and Brick Plant

Lime Dolomite Brick Plant of Rourkela Steel Plant was upgraded in 1991 for production of magnesia carbon bricks. Two hydraulic presses (Press 4 and 5) of 1,600 tonnes capacity each were installed in 1991. Annual production from Lime Dolomite Brick Plant was between 4,213 tonnes and 4,910 tonnes per annum only during 2015-16 to 2019-20 against its capacity of 8,570 tonnes per annum and the average annual requirement of 12,200 tonnes of Rourkela Steel Plant.

Audit observed that both Presses 4 and 5 had outlived their life span of 20 years and required frequent repair which was difficult due to unavailability of spares. Press 4 was written off in August 2017. Centre for Engineering and Technology, SAIL submitted (December 2018) a Feasibility Report for replacement of existing 1,600 tonnes press by 2,000 tonnes hydraulic press at an estimated cost of ₹19.82 crore. The proposal submitted in May 2019 was, however, not cleared by the Investment Proposal Screening Committee. Considering poor condition of Press 5 and high demand of ladle and converter bricks, the above proposal was resubmitted (17 August 2019) for consideration to Investment Proposal Screening Committee, which was again turned down. Non-upgradation of Brick Plant and non-replacement of written off presses resulted in poor production from Lime Dolomite Brick Plant and continued dependence of procurement of magnesia carbon bricks from outside sources.

Management replied (May 2021) that case was expected to be cleared by 2020-21. Ministry added (November 2021) that the proposal was put up in Investment Proposal Screening Committee in July 2020 where in it was suggested that a fresh estimate may be prepared. Since the offer was very high in comparison to the estimate, fresh estimate was being prepared so that case may be put up to Investment Proposal Screening Committee for approval.

Audit noted that proposal was resubmitted to Investment Proposal Screening Committee after 11 months and even after a lapse of three years of the recommendation of Centre for Engineering and Technology, SAIL, the Management was in process of revising estimates.

1.3.5 Performance and augmentation of Refractory Material Plants

Bhilai Steel Plant has two Refractory Material Plants I and II which produce Castables[9] and magnesia carbon bricks respectively. Audit noted that production from Refractory Material Plants I and II was between 16 to 97 *per cent* and 5 to 12 *per cent* respectively of their capacity during 2015-16 to 2019-20 as enumerated in the table below:

Table 1.2: Capacity and actual production of Refractory Material Plants during 2015-16 to 2019-20

(*units in tonnes*)

Year	Refractory Material Plant I : Castable			Refractory Material Plant II: Magnesia Carbon Bricks		
	Capacity	Actual production	Percentage of actual production to capacity	Capacity	Actual production	Percentage of actual production to Capacity
2015-16	5,000	4,853	97	6,600	648	10
2016-17	5,000	2,791	56	6,600	339	5
2017-18	5,000	2,036	41	6,600	620	9
2018-19	5,000	2,649	53	6,600	686	10
2019-20	5,000	782	16	6,600	794	12
Total	**25,000**	**13,111**	**53**	**33,000**	**3,087**	**9**

[9] ***Castable is a type of refractory used for refractory lining and repair for various equipments like steel ladle, hot metal ladles, blast furnaces, reheating furnaces etc.***

During 2015-16 to 2019-20, total production from Refractory Material Plant I was only 13,111 tonnes (53 *per cent*) against production capacity of castable of 25,000 tonnes. At Refractory Material Plant II, the production of magnesia carbon bricks was only 3,087 tonnes (9 *per cent*) as against the capacity of 33,000 tonnes during 2015-16 to 2019-20.

Rated capacity of Refractory Material Plant-II was 6,600 tonnes per annum for magnesia carbon bricks which could not be produced due to non-availability of suitable mould and dyes. Audit noted that for upgrading the above, a proposal initiated to procure hydraulic press for ₹35 crore was kept in abeyance. Due to non-procurement of hydraulic press, Bhilai Steel Plant purchased costly magnesia carbon bricks from SAIL Refractory Unit and from private parties.

Management replied (May 2021) that proposal to install a new generation press in Refractory Material Plant-II was kept in abeyance because such presses are available at SAIL Refractory Unit and SAIL Refractory Company Limited. Ministry added (November 2021) that upgradation of SAIL Refractory Unit was taking place at the same time. Hence, it was not thought prudent to invest simultaneously in upgradation of Brick shop of Refractory Material Plant-II also for the same cause.

Reply of the Management/ Ministry is not acceptable as the augmentation in SAIL Refractory Unit had not yet taken place and had the upgradation of Refractory Material Plant-II been carried out timely, the existing capacity to produce 33,000 tonnes of magnesia carbon bricks (during 2015-20) could have been utilized. Also due to such non-upgradation, Bhilai Steel Plant procured magnesia carbon bricks from private sources valuing ₹81.86 crore at the rate of ₹1.55 lakh per tonne during 2019-20, which was much higher than the variable cost of Refractory Material Plant II being ₹1.20 lakh per tonne and could have been avoided.

Recommendation No. 1: The Company may take steps to augment and upgrade the in-house production facility for refractories like basic bricks, magnesia carbon bricks, fireclay/ high alumina bricks and slide gate, silica bricks etc., in accordance with the demand of the steel plants and avoid purchases from private parties.

1.3.6 Other issues of in-house facilities

1.3.6.1 SAIL Refractory Unit being Central Procurement Agency of Sea Water Magnesia, raw material for magnesia carbon bricks, issued (January 2018) Letter of Acceptance to M/s RHI Austria for supply of 22,450 tonnes of Sea Water Magnesia for two years (11,232 tonnes for first year and 11,218 tonnes in second year) at the rate of Euro 999 per tonne from July 2018 to June 2020 in a phased manner.

In this regard, Audit observed that SAIL Refractory Unit had issued Letter of Acceptance for one year in 2015-16 when the rate was Euro 575 per tonne and in 2016-17 when the rate was Euro 436 per tonne. Thus, when the rate was low, SAIL Refractory Unit entered into commitment for one year and when the rate increased sharply, it did so for two years

in 2018. Audit noted that the price of Sea Water Magnesia declined continuously during 2019-2020. After expiry of the Letter of Acceptance in 2020, the Company again issued Letter of Acceptance for one year at the rate of Euro 505 per tonne. Had SAIL Refractory Unit issued Letter of Acceptance for one year in 2018-19 like in previous years, the Company could have saved ₹15.80 crore for 6,805 tonne of Sea Water Magnesia received in the second year.

Management/ Ministry stated (May 2021/ November 2021) that in view of the uncertainty prevailing in market during end of financial year 2017-18 and to ensure raw material security for Sea Water Magnesia, most appropriate and befitting decision was taken.

Reply of the Management/ Ministry is not tenable because in case of uncertainty in market, the Company should not have gone for long term contract for two years.

1.3.6.2 SAIL Refractory Unit partially utilizes used or rejected material recovered from Steel Plants, as per technically acceptable norms, to produce various products like basic bricks, dry ramming mass, magnesia carbon bricks etc. For reduction in cost of production, Management has fixed norms for using the used basic brick grog, Alumina Silicate grog and magnesia carbon bricks in place of its raw materials i.e., dead burnt magnesia, rotary kiln calcined bauxite and Sea Water Magnesia respectively. Quantity of used/ rejected bricks was not consumed as per the norm resulting in excess cost of raw material by ₹28.09 crore. Less consumption of used materials was due to less availability of ball mill[10] and manpower constraints. Audit observed that inability of Management to ensure adequate availability of ball mill resulted in less consumption of used material.

Management/ Ministry replied (May 2021/ November 2021) that use of rejected bricks is limited to certain specific quality of bricks and masses and use is strictly based on the quality and as such there is marginal variance in actual use from budgeted. The use is also subject to quantity of used brick grog available from steel plants which had become critical during recent past. SAIL Refractory Unit would review the disposable stock of brick grog at Bokaro and Bhilai Steel Plants for its likely use at its end.

Reply of Management/ Ministry is not acceptable as it was noted that the actual consumption of rejected bricks ranged between 9 *per cent* and 80 *per cent* of the annual target of quantity prescribed for consumption of such bricks by the Company itself. Further, huge stock of rejected bricks was lying in Bokaro Steel Plant and Bhilai Steel Plant (as highlighted in para 1.3.12.2). Moreover, it was also noted that during 2015-16 to 2019-20, consumption of all types of rejected bricks was lower than that of the target fixed (except in respect of brick grog during 2017-18 and 2018-19).

1.3.6.3 4,695.17 tonnes of silica bricks valuing ₹23.94 crore were lying at SAIL Refractory Unit for more than 15-20 years. Out of the total stock, 1,500 tonnes was produced against Bhilai Steel Plant order and 3,200 tonnes silica bricks accumulated due

[10] ***Ball Mill is an equipment used for crushing the materials. The used materials and fresh materials are crushed separately in the ball mill.***

to excess production. Audit observed that (i) cold repair of Coke Oven Battery-1 of Bhilai Steel Plant was carried out in 2017-18 and (ii) repairs of Coke Oven Battery-2 was in progress (March 2020). However, Bhilai Steel Plant neither utilised these bricks in the above coke oven repair works nor allotted space for the transfer of stores. These refractories were, therefore, lying at SAIL Refractory Unit. Management also could not sell the excess silica bricks to its sister plants or units. Thus, inability to sell the excess produced material resulted in blocking of ₹23.94 crore.

Management/ Ministry replied (May 2021/ November 2021) that SAIL Refractory Unit was in constant touch with Bhilai Steel Plant and also with other SAIL Units for booking its order of silica brick production and that in case any upcoming order with identical shape was received, the stock was likely to be liquidated.

The reply of the Management/ Ministry is not acceptable as Bhilai Steel Plant had regularly carried out repair and maintenance in coke oven batteries and the last repair was carried out in Coke Oven Battery-1 in 2017-18. As repair of Coke Oven Battery-2 was in progress, Management should explore the possibility of use of these bricks. Further, as the stock was 10-15 years old, its utilisation at the earliest needs to be explored especially due to the fact that SAIL Refractory Unit has also made provision for these material in its accounts.

Recommendation No. 2: Management may take necessary steps to utilize used or rejected material like basic bricks, dry ramming mass, magnesia carbon bricks etc., as per stipulated norms and explore the possibility to utilize old refractory silica bricks lying at SAIL Refractory Unit.

1.3.7 Poor Inventory Management

Para 5.2 of the Policy guidelines on Inventory Management of Stores and Spares, 2017 (Policy 2017) stipulated that inventory holding for refractories should be equal to three month's consumption.

Audit noted that there was excess holding worth ₹257.15 crore in the Steel Plants at Bhilai, Bokaro, Durgapur, Rourkela and Burnpur as on 31 March 2020 as the inventory held was worth ₹578.15 crore which was higher than the norms of ₹321 crore for three months. Of this, inventory valuing ₹34.31 crore were lying unmoved for more than five years. The excess stock of ₹90.27 crore lying in Bokaro Steel Plant and Rourkela Steel Plant was not discussed by the Refractory Task Force for utilization or disposal whereas in Bhilai Steel Plant, though Refractory Task Force discussed the same, no action was taken.

Management/Ministry accepted (May 2021/ November 2021) that inventory level had been higher than the norms during the period under review while Rourkela Steel Plant had not furnished any reply on the high inventory level.

Audit observed the following relating to assessment of requirement of refractories:

1.3.7.1 Refractory Task Force, comprising members from refractory user departments, Material Management Department, Finance Department and Refractory Department was constituted to assess the annual requirement of refractory in the steel plants.

Audit noted that Refractory Task Force were constituted in Bhilai Steel Plant, Bokaro Steel Plant and Rourkela Steel Plant but not at Durgapur Steel Plant, Alloy Steels Plant and Indian Iron and Steel Company Steel Plant at Burnpur. In these three plants, requirement of refractory is being assessed by Refractory Department and respective refractory user departments. In Salem Steel Plant, assessment is done by the user departments themselves. Thus, there was lack of uniformity in formation of Refractory Task Force or any other supervisory body in the various steel plants.

Management replied (May 2021) that seeing the benefits of Refractory Task Force in Rourkela Steel Plant since 2005-06, it was implemented in Bhilai and Bokaro in 2015-16. Ministry replied (November 2021) that Refractory Task Force was not constituted in Salem Steel Plant due to lower requirement. For better governance, Durgapur Steel Plant and Indian Iron and Steel Company Steel Plant have already been advised to form a task force in line with steel plants at Rourkela, Bokaro and Bhilai.

Recommendation No. 3: Management may ensure that Refractory Task Force or any other similar supervisory body be constituted in all the steel plants of the Company for assessment of requirement of refractories like basic bricks, magnesia carbon bricks, fireclay/high alumina bricks and slide gate, silica bricks etc.

1.3.7.2 Bokaro Steel Plant proposed (January 2014) to undertake hot complex repair of Coke Oven Battery-6, wherein the requirement of silica bricks and silica mortar was computed on estimation basis. Accordingly, purchase order was issued (July 2014) for ₹13.41 crore on M/s TRL Krosaki Refractories Limited. Material was supplied (September 2014 to November 2014) as per schedule and Management conducted hot complex repair of Coke Oven Battery-6 during October - November 2014. Audit observed that out of refractories valuing ₹13.41 crore, actual consumption was worth ₹2.05 crore (15 *per cent*) only. Further, without consuming the above material fully, Bokaro Steel Plant purchased (June 2015 and November 2016) refractories (silica bricks and silica mortar) for ₹5.82 crore (₹3.67 crore and ₹2.15 crore) for repair and maintenance of Coke Oven Batteries-5 and 6.

Audit observed that Coke Oven Battery-6 was under shut down from December 2017 for rebuilding and these refractories were not used because in subsequent rebuilding of the new coke oven battery, all the materials including refractories were supplied by the construction agency. Thus, due to lack of proper assessment of requirement of silica bricks inventory remained blocked.

Management while replying (May 2021) furnished the overall consumption data in respect of some commonly used silica bricks and stated that consumption of silica bricks was

booked inadvertently not only in Coke Oven Battery-6 cost centre but also in other cost centres.

The reply is not tenable because Management had not responded to the specific case highlighted by Audit in respect of Coke Oven Battery-6 and only furnished consumption data of some commonly used silica bricks. Audit noted that silica bricks valuing ₹0.29 crore (1.69 *per cent*) only were used since December 2017 against all three purchase orders (July 2014, June 2015 and November 2016).

Ministry replied (November 2021) that Audit concern for gainful utilisation of inventory of silica bricks and appropriate accounting of consumption will be addressed during the upcoming cold repair of Coke Oven Battery-5.

1.3.7.3 Fire clay bricks of different specifications (64421, 74053 and 67881) valuing ₹3.34 crore were procured by Bokaro Steel Plant during 2013-14. Audit noted that material worth ₹2.11 crore was not consumed till October 2020 which indicated procurement in excess of the requirement.

Management replied (May 2021) that Coke Oven Batteries 1, 2 and 7 were upgraded to modern designed doors with better performance where the above conventional shapes were no more required. However, the left out stock would be consumed progressively in Coke Oven Batteries 3, 4 and 5. Ministry added (November 2021) that 88.65 tonnes (₹0.09 crore) of door bricks had been consumed during November 2020 to June 2021.

The reply of the Management/ Ministry is not tenable as upgradation of Coke Oven Batteries 1 and 2 were completed in June 2011 and February 2012 respectively, while the procurement was done in 2013-14. Therefore, Management was aware of the upgradation before procurement of fire clay bricks. The reply also highlights the fact that due to incorrect assessment of requirement, materials procured during 2013-14 were not consumed fully. The Company has blocked its funds in such inventory items and also continues to incur avoidable carrying cost on this account, besides blockage of space.

1.3.7.4 Government of China launched clampdown on mining industries from April 2017, which resulted in scarcity of fused magnesia, a major raw material used to manufacture steel ladle and convertor lining refractories. Durgapur Steel Plant decided (13 November 2017) for emergency procurement of 20 steel ladle sets through limited tender enquiry, due to likely stock out situation. In the meanwhile, Durgapur Steel Plant issued (17 November 2017) purchase order to M/s Kosmokraft for 60 sets at ₹43.64 lakh per set. Notwithstanding this, the Steel Plant also placed (9 December 2017) the emergency procurement order for 20 sets on M/s TRL Krosaki Refractories Limited at ₹55 lakh per set.

Audit observed that though the Steel Plant was aware of the scarcity of sets in the market, it failed to assess the requirement correctly while entering into agreement with M/s Kosmokraft and made subsequent emergency procurement at extra expenditure of ₹2.27 crore.

Management/ Ministry replied (May 2021/ November 2021) that emergency procurement action for 20 sets was done as it was expecting stock out situation for 15-20 sets in second fortnight of December 2017 and to avoid any loss of production.

Audit noted that procurement from M/s Kosmokraft was initiated in August 2017 and scheduled delivery was from 2 January 2018 whereas delivery schedule of emergency purchase from M/s TRL Krosaki Refractories Limited was for 10 sets on 21 December 2017 and 10 sets on 6 January 2018. Thus, if Management had assessed the requirement considering the criticality of the material and planned for delivery schedule, the emergency procurement could have been avoided.

Bokaro Steel Plant purchased 1,25,010 pieces of checker silica bricks in September 2010 for ₹2.57 crore from M/s TRL Krosaki Refractories Limited. Two more orders were issued (August 2011 and May 2014) for 10,000 pieces and 14,540 pieces to SAIL Refractory Unit and M/s TRL Krosaki Refractories Limited for ₹0.35 crore and ₹0.31 crore respectively. Audit noted that at the time of issuance of second and third purchase orders, stock of 1,21,902 and 46,677 pieces of checker silica bricks respectively were available and the placement of subsequent orders lacked justification.

Figure 1.2: Checker Silica Bricks

Management/ Ministry replied (May 2021/ November 2021) that purchase order placed in 2011 was meant for procurement of bricks by Project Division for anticipated emergency capital repair of stoves and the procurement during 2014 was done for emergency repair of Blast Furnace Stove by Works Division. Remaining bricks would be utilized in future repair of stoves.

The reply of Management/ Ministry highlights the lack of coordination among two departments which led to avoidable purchase. The material procured in 2010-11 could not be consumed even after 10 years. There was accumulation of 46,077 pieces worth ₹1.05 crore till October 2020.

1.3.7.5 Rourkela Steel Plant received (March 2016 and November 2017) fireclay bricks for ₹0.87 crore and ₹0.16 crore for capital repair of Coke Oven Batteries 1 to 5 and relining of Coke Dry Cooling Plant of Coke Oven Battery-6 respectively. Audit noted that out of the quantity of 1,66,000 pieces procured for Coke Oven Batteries 1 to 5, 1,19,981 pieces valuing ₹0.66 crore were not used. In case of Coke Oven Battery-6, material was not issued and lying in stores.

Figure 1.3: Fireclay Bricks

Management/ Ministry replied (May 2021/ November 2021) that the fireclay bricks were procured for capital repairs of old batteries of Coke Oven Batteries 1 to 5. During rebuilding of batteries, the design was changed and bricks had become non-moving. It further stated that capital repair in Coke Oven Battery-6 would be taken up in future, wherein all bricks would be consumed.

Thus, Management has accepted the fact that there was excess procurement beyond actual requirement for fire clay bricks that had become obsolete. Besides, procurement of fireclay bricks in respect of Coke Oven Battery-6 was made in September 2017, which also lay unutilized. The Company has blocked its funds in such inventory items and also continues to incur avoidable carrying cost on such inventory, besides blockage of space.

Recommendation No. 4: Efforts may be made by Management to keep inventory as per the norms stipulated by the Company and procurement should be made after considering existing inventory holding and assessment of requirement based on technical upgradation/ modernisation plans.

1.3.8 Procurement of Refractories

Non-development of vendors

Para 19 of Purchase and Contract Procedure 2014 of SAIL, *inter alia,* stipulated that it shall be the continuous endeavor of Plants to find out and/ or develop substitutes/ sources of supply with a view to reduce cost of input materials/ services.

Audit noted the following in respect of vendor development by Management:

1.3.8.1 Trial Procedure of Rourkela Steel Plant stipulated that after successful completion of first trial, the firm would be considered for second trial and after two successful trials, vendors would be considered for normal tender. In case of two failed trials, the vendor would not be considered for further trial.

Audit observed that Rourkela Steel Plant decided in 2013 to procure 90 *per cent* of tundish refractory from M/s Vesuvius, the Original Equipment Manufacturer and 10 *per cent* from trial vendors. Rourkela Steel Plant issued purchase order (October 2014) to M/s IFGL on trial basis which was successfully conducted from April to December 2016. Rourkela Steel Plant again issued (June 2017) purchase order for supply of material to M/s IFGL on trial basis. The second trial conducted from September to November 2017 was not satisfactory. Thereafter, no trial order was placed on M/s IFGL. Instead, trial order was placed (February 2017) on another party M/s TRL Krosaki Refractories Limited with whom first and second trial was successfully conducted in a span of two years between July 2018 and October 2020. Hence, only one vendor could be developed in eight years from whom procurement was yet to be made.

Moreover, Rourkela Steel Plant did not follow its own trial procedure of not conducting further trials only if two trials failed. M/s IFGL was not considered for further trials even after it achieved one successful trial. In absence of adequate vendor base, Rourkela Steel

Plant procured tundish refractories from M/s Vesuvius through single tender for ₹113.39 crore during 2013-14 to 2019-20.

Management replied (May 2021) that after second trial of M/s IFGL, vendor trials of M/s TRL Krosaki Refractories Limited was conducted and as it was going on, trials with M/s IFGL could not be accommodated. Ministry added (November 2021) that two proven vendors were available for Caster III Total Tundish Management. It was expected that one more vendor trial would be started soon.

Reply of Management is not acceptable in view of the fact that although second trial of M/s IFGL was completed in November 2017, Management did not continue further trial, rather engaged other party for trial. This led to delay in completion of trial process. M/s IFGL is yet to be considered for the next trial. Audit noted that Rourkela Steel Plant could finalize just one party as a proven vendor for tundish refractory between 2013-14 to 2020-21 as only one more vendor was identified in May 2021.

1.3.8.2 In Bokaro Steel Plant, no efforts were made for development of vendors for New GTC 2085 Refractory set. New GTC 2085 Refractory set was procured (2014) from M/s Vesuvius and thereafter, Bokaro Steel Plant continued procurement worth ₹90.28 crore from the same supplier during 2015-20 on proprietary basis on the grounds that the same was patented by the supplier for three years. Audit noted that though Refractory Task Force of Bokaro Steel Plant decided (January 2016) to de-proprietarize the item from 2018-19, however, the same was not done.

Management replied (May 2021) that possibility of registering potential vendors from sister units was explored in 2019 as well as in 2020. Process of de-proprietarization has been delayed due to unavailability of vendors. Ministry added (November 2021) that the matter was again taken up with the vendors in June 2021.

Reply of Management/ Ministry may be seen in light of the fact that it was yet to deproprietarize the item being procured since 2014.

Recommendation No. 5: Management may make efforts to broaden the vendor base regularly for refractory items to avoid dependence on one or limited suppliers.

1.3.9 Delays in procurement process

1.3.9.1 Durgapur Steel Plant invited (January 2017) tender for procurement of three converter lining sets. Tender Committee recommended (14 March 2017) for placement of purchase order to the L1 bidder, M/s Yingkou Heping Samwha Minerals Company Limited for two sets and the L2 bidder, M/s Puyang Refractories Group Company Limited for one set at ₹1.97 crore per set. However, during finalization of tender, the price validity expired (15 April 2017). L1 bidder extended its price validity whereas L2 bidder did not extend the same. Durgapur Steel Plant placed purchase order (June 2017) for three sets to the L1 bidder who failed to supply the third set within schedule period of December 2017 and supplied the same by May 2019. Durgapur Steel Plant procured (February 2018) one

set on emergency basis at ₹4.51 crore per set from M/s Kosmokraft. Failure of Durgapur Steel Plant to complete the tendering process within the price validity period resulted in extra expenditure of ₹2.54 crore.

Management/ Ministry replied (May 2021/ November 2021) that delay in execution of order was primarily because of the extraordinary situation due to reported clampdown by Chinese authorities on mining of magnesia.

The reply of Management/ Ministry is not acceptable as it could not place the purchase order within the price validity period and thereafter situation became critical due to Government of China clamp down since April 2017. Therefore, the fact remains that Management could not complete the tendering process within the price validity period.

1.3.9.2 For procurement of 80 ladle management sets for Rourkela Steel Plant, reverse auction was launched amongst three firms on 14 September 2017. The start bid price was ₹13.88 lakh per set. Since bids were not received in the two attempts of reverse auction, Management decided (September 2017) to process the case through non-reverse auction route wherein physical sealed bids were opened after getting sealed quoted price decrements from the parties.

Audit observed that one of the parties, M/s Sarvesh Refractories did not submit price decrement bid stating (22 September 2017) that their price was no longer valid. M/s Sino Global submitted letter with nil reduction and M/s Kosmokraft did not submit it. Rourkela Steel Plant decided to open the original bids wherein the L-1 bid (M/s Sarvesh Refractories) was of ₹21.49 lakh per set, L-2, M/s Kosmokraft, was of ₹26.47 lakh per set and L-3, M/s Sino Global was of ₹31.78 lakh per set. Tender Committee asked (17 October 2017) the L1 bidder to reduce the rate which was not agreed by him as the price validity had expired and also due to sharp increase in base raw material at China. However, L1 bidder, as a goodwill gesture, accepted the order only for 15 sets at ₹21.49 lakh per set. On retendering rate was finalized at ₹42.87 lakh per set, for 40 sets in 1st phase of retendering and at ₹34.17 lakh per set in 2nd phase for 40 sets.

Audit observed that tendering process was not completed within the price validity date. Management took 50 days from 11 July 2017 (tender opening date) to 30 August 2017 for techno-commercial evaluation, though the item was a regular requirement at Rourkela Steel Plant and the vendors were old and proven. The price negotiation meeting was organized on 17 October 2017. By that time, the price validity had expired and due to sharp increase in base raw material at China, all the three parties regretted to accept the order. Moreover, there was inordinate delay in processing the case, though purchase request was raised on 16 March 2017. Even though the order was to be finalized through reverse auction mode, reverse auction was held on 14 September 2017 after six months. Rourkela Steel Plant was aware that market was upward driven due to unprecedented price rise of base raw material at China. The online L-1 price bid[11] itself was ₹35 lakh per

[11] ***Before going for Reverse Auction, online bid was obtained to determine the base rate.***

set which was 152 *per cent* higher than the last purchase price. Under these circumstances, Management should have understood the market conditions and finalized the tender quickly while the quoted bid price was valid. Inordinate delay in finalization allowed the bidder to take the plea that their quoted price was no longer valid.

Thus, delay in completion of tendering process, leading to expiry of price validity period led to retendering and there was extra expenditure of ₹10.53 crore[12].

Management/ Ministry replied (May 2021/ November 2021) that delay was attributable to retender and non-submission of sufficient offer despite extended tender opening date. The fact remains that tendering process was not completed within the price validity date which led to extra expenditure.

Recommendation No. 6: The procurement processes may be completed within prescribed time as delays result in expiry of bid price validity leading to additional costs, detrimental to the financial interest of the Company.

1.3.10 Procurement without cost benefit analysis

Audit noted instances of procurement of refractories by the Company from outside sources even when the variable cost of SAIL Refractory Unit was lower than that of cost of procurement from outside sources. Some such instances are discussed below:

1.3.10.1 Silica Bricks

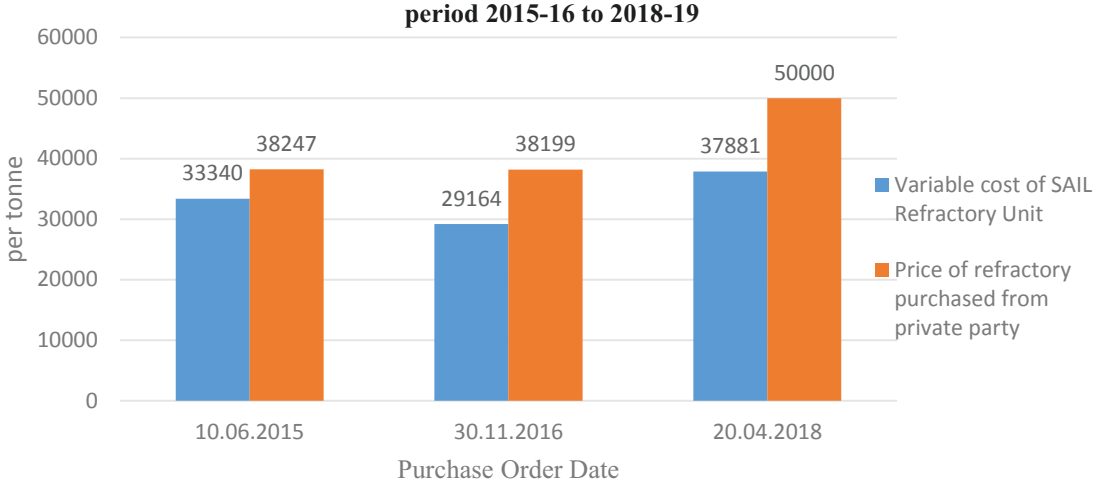
i) In Bokaro Steel Plant, Refractory Task Force recommended (2015-18) for procurement of silica bricks from two vendors (M/s OCL India Limited and M/s TRL Krosaki Refractories Limited) through limited tender considering these suppliers as only proven vendors. Three purchase orders for ₹7.73 crore were issued on M/s TRL Krosaki Refractories Limited during 2015-20. Audit noted that SAIL Refractory Unit was producing silica bricks and supplying the same to other SAIL plants. However, Bokaro Steel Plant did not give adequate and timely intimation about the requirement of silica bricks to SAIL Refractory Unit and made procurement at higher price from private parties. The Plant requested (31 March 2014) SAIL Refractory Unit to supply 3,427 tonnes of silica bricks and 420 tonnes of silica mortar within two months from 6 April

Figure 1.4: Silica bricks

[12] ***Total tendered quantity was 80 sets. L1 party supplied 15 sets. Thus 65 sets remained to be supplied. Retender was done for 80 sets in two phases (40 sets in each phase). Since L1 party (M/s Sarvesh Refractories) had quoted for 56 sets but supplied only 15 sets, difference between retender price and L1 price was compared for 41 (56 -15) sets (₹8.68 crore). Differential of retender price and L2 price was compared for remaining 24 sets (₹1.85 crore).***

2014. SAIL Refractory Unit expressed (1 April 2014) its inability as they were manufacturing silica bricks for Bhilai Steel Plant, which would be continued till August/ September 2014. Audit noted that variable cost of SAIL Refractory Unit for the silica bricks for the year 2015-16, 2016-17 and 2018-19 was less than[13] the cost of material purchased from private party as seen in chart below. Thus, Bokaro Steel Plant could have saved ₹1.34 crore by getting silica bricks from SAIL Refractory Unit.

Chart No. 1.1: Comparision of variable cost of SAIL Refractory Unit for Silica bricks with the price of purchase of silica bricks from private party during the period 2015-16 to 2018-19



Management/ Ministry replied (May 2021/ November 2021) that SAIL Refractory Unit expressed its inability to adhere to the delivery schedule and to supply all the shapes and sizes as required by Bokaro Steel Plant due to their prior commitment to other SAIL Units. Ministry further added that it was thought prudent not to consider SAIL Refractory Unit as a prospective vendor since it could have delayed the procurement of required silica bricks.

Reply of Management/ Ministry is not acceptable as Bokaro Steel Plant was aware that shapes and sizes of each coke oven battery were different and therefore decision of repair and maintenance required proper planning. SAIL Refractory Unit should have been intimated in a timely manner. Moreover, the fact that SAIL Refractory Unit refused once could not form the basis for conclusion that it would refuse repeatedly as Bokaro Steel Plant continued to procure silica bricks from private parties at higher price on multiple occasions during 2015-16 to 2018-19. Also, while processing the procurement cases, the fact that SAIL Refractory Unit had refused to supply was not mentioned and rather only the availability of two proven vendors (M/s TRL Krosaki Refractories Limited and M/s OCL India Limited) was mentioned in the procurement case.

[13] ***Variable cost of SAIL Refractory Unit for Silica bricks for the year 2015-16, 2016-17 and 2018-19 was ₹33,340, ₹29,164 and ₹37,881 per tonne respectively. Price of material purchased from private parties was ₹38,247, ₹38,199 and ₹50,000 per tonne for purchase orders dated June 2015, November 2016 and April 2018 respectively .***

ii) Durgapur Steel Plant did not consider SAIL Refractory Unit for supply of silica bricks for Cold repair of Coke Oven Battery-3 scheduled in 2017 on the plea that SAIL Refractory Unit was not eligible, and issued (May 2018) purchase order to M/s. TRL Krosaki Refractories Limited for ₹19.31 crore. As SAIL Refractory Unit was supplying silica bricks to SAIL plants regularly, the contention of Durgapur Steel Plant was incorrect. Durgapur Steel Plant could have saved ₹4.87 crore[14] by placing orders on SAIL Refractory Unit since variable cost of production at SAIL Refractory Unit was less than the cost of procurement.

Management replied (May 2021) that SAIL Refractory Unit expressed their inability to supply the silica bricks as per schedule given by Durgapur Steel Plant.

The reply of Management is not acceptable as Audit noted that Durgapur Steel Plant had asked (March 2017) SAIL Refractory Unit to supply silica bricks from December 2017 onwards and SAIL Refractory Unit refused to supply the material during 2017 on the plea of pre-booking. Durgapur Steel Plant placed purchase order for the same to a private party in May 2018 with a delivery schedule from July 2018. Thus, SAIL Refractory Unit was not given intimation about the rescheduling of delivery period.

1.3.10.2 Steel Ladle Refractories Sets

i) Bokaro Steel Plant procured refractories for steel ladle both from SAIL Refractory Unit and outside sources during 2015-20. Audit noted that variable cost of production of steel ladle refractory sets at SAIL Refractory Unit was ₹54.61 lakh per set which was lower than the procurement cost from outside sources of ₹88.31 lakh during 2018-19. Had the Refractory Task Force analysed the variable cost of SAIL Refractory Unit with the procurement cost from external sources and placed the order on SAIL Refractory Unit, Bokaro Steel Plant could have saved ₹20.07 crore during 2018-19.

Figure 1.5: Steel Ladle Refractory

Management/ Ministry replied (May 2021/ November 2021) that average life of SAIL Refractory Unit ladle refractory set (approximately 80 heats) is much lower than that of private suppliers (approximately 110 heats) and for similar life, cost of ladle refractory set of SAIL Refractory Unit is more than the cost of private supplier.

The reply of the Management/ Ministry is not acceptable as Audit noted that the average life of SAIL Refractory Unit ladle refractory set was 101 heats whereas average life of the ladle refractory set supplied by the private parties was 105 heats. Management had also acknowledged the fact that the difference in heats was only marginal. Variable cost of

[14] ***4,950 tonne *{₹39,000 (procurement cost)- ₹29,164 (variable cost of SRU)} = ₹4.87 crore.***

SAIL Refractory Unit ladle refractory set even after considering the marginally lower heat performance, was cheaper than the procurement cost from outside.

ii) Durgapur Steel Plant procured 180 steel ladle refractory sets from private parties in May 2018 at ₹45.22 lakh per set but did not place orders on SAIL Refractory Unit. Audit noted that Indian Iron and Steel Company Steel Plant, a nearby plant, procured 130 steel ladle refractory sets from SAIL Refractory Unit in April 2018 at the rate of ₹38.97 lakh per set. Non-procurement of 180 steel ladle refractory sets from SAIL Refractory Unit has resulted in extra expenditure of ₹8.55 crore.

Management/ Ministry replied (May 2021/ November 2021) that SAIL Refractory Unit was approached for supply of ladle refractory sets during its annual business plan 2018-19, but SAIL Refractory Unit did not agree to supply as per the requirement. It further stated that SAIL Refractory Unit did not give any heat guarantee for its supply to Indian Iron and Steel Company Steel Plant and application of refractory was also arranged by the Plant separately. While the private vendors in Durgapur Steel Plant supplied ladle refractory sets with heat guarantee and operation of ladles was also under their scope of work. Therefore, cost of ladle refractory sets procured by Indian Iron and Steel Company Steel Plant from SAIL Refractory Unit could not be compared to that of Durgapur Steel Plant's procurement from outside vendor.

Management's/ Ministry's reply is not tenable because Durgapur Steel Plant initiated the purchase procedure for 180 steel ladle refractory sets in January 2018, while it had also approached SAIL Refractory Unit only for 60 sets in the same month. Further, Audit has also considered the charges for application of refractory as would be payable to the private agency and even after factoring in of the same, it was noted that cost of SAIL Refractory Unit was cheaper. The reply of Management/ Ministry may also be seen in the light of the fact that other steel plants of SAIL were placing orders on SAIL Refractory Unit during this period.

1.3.10.3 Trough and runner castable set

Bokaro Steel Plant issued (September 2019) purchase order to M/s Calderys India Refractories Limited for purchase of Trough and runner castable set for installation and repair of Blast Furnace-5 for ₹20.16 crore. Audit noted that before opening the tender document, SAIL Refractory Unit expressed (February 2019) willingness to execute the work. Besides, Bokaro Steel Plant had earlier awarded (February 2019) the work of installation, application and repair of two sets of refractory castable and runner set in Blast Furnace 1 with Pre-Cast Pre-Fired blocks to SAIL Refractory Unit and it was catering to the requirement of both Cast Houses of

Figure 1.6: Castable

Blast Furnaces 3 and 4. However, Bokaro Steel Plant did not accept (March 2019) the proposal on the ground that it had no experience with SAIL Refractory Unit on repair and maintenance of trough of cast houses where Pre-Cast Pre-Fired block had been applied.

Management/ Ministry replied (May 2021/ November 2021) that Bokaro Steel Plant had no experience of the performance of SAIL Refractory Unit castable and it was felt prudent to go for outside suppliers.

The reply is not acceptable in view of the fact that SAIL Refractory Unit had categorically stated (February 2019) that it had been catering to the requirement of blast furnace trough castable on supply cum application basis of Bokaro Steel Plant, Bhilai Steel Plant, Durgapur Steel Plant and Rourkela Steel Plant since long. Also it had spare capacity to cater to the demand of both the cast houses of Blast Furnace 5 and assured to supply the Pre-Cast Pre-Fired blocks as done for Blast Furnace 1. SAIL Refractory Unit had been posting service crew in Blast Furnace area to take care of application job. Despite this assurance and availability of material from in-house sources, Bokaro Steel Plant rejected the offer without any valid ground and awarded the work to a private party.

Therefore, the Company incurred extra expenditure due to procurement from outside sources at higher cost, when idle capacity was available in-house.

Recommendation No. 7: The production planning may be synchronized between the steel plants and the refractory units to ensure that the in-house facilities are utilized to the fullest and external purchases are minimized.

1.3.10.4 Procurement by non-availing in-house facilities by Rourkela Steel Plant

Rourkela Steel Plant decided (August 2016) for hot repair of Coke Oven Battery-5A and requested SAIL Refractory Unit to supply silica bricks by March 2017. SAIL Refractory Unit intimated (September 2016) that the material could be supplied between September 2017 and December 2017 due to large number and complicated shapes which they had not made in recent past. However, considering the urgency of requirement, Rourkela Steel Plant procured (September 2017) the material (₹0.92 crore) with a delivery schedule of 25 September 2017 to 31 March 2018. Similarly, for hot flue lining of Coke Oven Battery-5B, Rourkela Steel Plant requested (July 2018) SAIL Refractory Unit for supply of silica bricks. However, SAIL Refractory Unit (August 2018) cited the same ground as earlier. Rourkela Steel Plant placed purchase order (August 2019) for ₹5.73 crore on M/s Dalmia Cement (Bharat) Limited after one year with scheduled delivery period by March 2020.

Audit observed that for Coke Oven Battery-5A, Rourkela Steel Plant placed order with supply period by March 2018 though SAIL Refractory Unit was ready to supply the same by December 2017. The repair plan was not communicated to SAIL Refractory Unit in its Annual Business Plan earlier. Thus, SAIL Refractory Unit was not able to plan for their production and the Company had to procure from outside suppliers.

Management replied (May 2021) that SAIL Refractory Unit had technological constraints in supplying the bricks to Rourkela Steel Plant and they needed more than a year to modify their process. Ministry added (November 2021) that supply from vendors was expected to be completed much before December 2017 and that the delay was in the tendering process and not in the delivery schedule.

The reply is not tenable in view of the fact that Rourkela Steel Plant procured the refractories (for Coke Oven Battery-5A) from outside sources with scheduled delivery by March 2018 whereas SAIL Refractory Unit was ready to supply the same by December 2017. As there was delay in tendering process, the Management should have consulted SAIL Refractory Unit for supply of the same within the scheduled period. Further, SAIL Refractory Unit could have prepared the shapes moulds for Coke Oven Battery-5B also, both being similar in size and technology.

1.3.11 Utilisation of Refractories

1.3.11.1 Delay in implementation of Total Ladle Management in Bhilai Steel Plant

Bhilai Steel Plant procures refractory for ladle, slide gate, porous plugs and other required refractories from different agencies and due to difference in quality/ mismatch of refractories, full potential of performance was not expected. It therefore proposed (January 2015) for Total Ladle Management consisting of (i) ladle lining refractory, (ii) purging refractory and (iii) slide gate refractory including mechanism with advantages of (a) assurance of quality of refractory by enacting suitable guarantee clause, (b) improvement in ladle availability by reducing mid-campaign repair and (c) higher ladle life. Bhilai Steel Plant envisaged (February 2017) that after total ladle management, heat per set would increase to 65 from existing 54.41 and there would be cost saving of ₹17,832.73 per heat[15].

Audit noted that proposal for total ladle management initiated in January 2015 was approved in September 2016. Trial purchase orders were placed in December 2018 and February 2019. Thus, Management took up to two and half years from the approval for issue of purchase order.

Audit noted that heats achieved in both trial purchase orders was between 65 and 115 against envisaged heat of 65. Thus, trial performance showed that total ladle management was beneficial to Bhilai Steel Plant. Para 13.5 of Purchase/Contract Procedure, 2014 prescribed that the time for award of contract/ purchase order by the Competent Authority, should not exceed one month from the date of submission of recommendations. Bhilai Steel Plant however took 26 months (September 2016 to December 2018) in award of purchase order. Had Bhilai Steel Plant awarded the order within stipulated time, the

[15] ***Management has computed that ₹58,746.06 was the estimated cost per heat under Total Ladle Management and ₹76,578.79 was the cost per heat as per existing situation.***

Company could have saved ₹19.47 crore[16] for 24 months (January 2017 to December 2018). Further, though Bhilai Steel Plant initiated trial which confirmed the envisaged benefits, Bokaro Steel Plant, Rourkela Steel Plant, and Alloy Steels Plant have not made any attempt for the trial of total ladle management in their respective plants.

Management/ Ministry replied (May 2021/ November 2021) that in Bhilai Steel Plant the delay was on account of late submission of bill of materials by the vendors. Audit suggestions shall be considered by Bokaro Steel Plant. Rourkela Steel Plant had system of Ladle Refractory Management and Ladle Operational Refractory Management. Total ladle management combining the two systems could be disadvantageous as vendor base was different for both and very few common vendors were available. Ladle management is prevalent in Alloy Steels Plant.

Management/ Ministry reply may be seen in the light of the fact that there was delay in placement of purchase orders by Bhilai Steel Plant. Though total ladle management was found beneficial by Management, it has not implemented the same at Rourkela Steel Plant and Alloy Steels Plant.

Recommendation No. 8: As total ladle management was found beneficial by Management, Rourkela Steel Plant and Alloy Steels Plant may evaluate the feasibility of implementation of the same.

1.3.11.2 Extra expenditure due to partial implementation of new generation slide gate system in Bhilai Steel Plant

The ladle slide gate refractory system is a critical piece of flow control equipment in liquid steel casting. The basic function of ladle slide gate system is to control the flow of liquid steel from ladle to the tundish[17]. Till 2009, Steel Melting Shop-2 of Bhilai Steel Plant had been using conventional type of slide gate system i.e., FLOCON 6300. A new generation slide gate system was introduced in 2009 with the advantages of multiple heats, reliability and substantial cost reduction per heat over the conventional system. In view of the

Figure 1.7: New Generation Slide Gate System

[16] ***₹19.47 crore= ₹17,832.73 *2,730 heats * 4 (as 2,730 heats are for six months' period and loss is being computed for two years). ₹17,832.73 per heat has been worked out as difference between cost per heat in existing situation: ₹76,578.79 and the estimated cost per heat under Total Ladle Management: ₹58,746.06. Management has estimated that 2,730 heats under Total Ladle Management would cover a six month period in respect of the proposed trial order.***

[17] ***A broad metal container with one or more hole in the bottom is used to feed molten metal into an ingot mould so as to avoid splashing and give a smoother flow.***

advantages, Bhilai Steel Plant proposed (December 2013) for 100 *per cent* usage of new generation slide gate system from 2014-15.

Audit noted that Bhilai Steel Plant had not implemented the same fully. The value of procurement made for new generation slide gate system during 2015-20 was 60 *per cent* of the value of total procurement of Slide gate refractory. This was only marginally higher than procurement of new generation slide gate system during 2009-15, which was 57 *per cent.* It was also noted that the cost per heat in new system ranged between ₹4,370 and ₹6,187 as against ₹5,864 and ₹6,507 per heat in old system during 2015-20. Thus, inability to achieve 100 *per cent* usage of the new generation slide gate system resulted in additional expenditure of ₹3.41 crore[18] during 2015-20.

Management/ Ministry replied (May 2021/ November 2021) that since slide gate refractories are production linked critical consumable, it was not prudent to depend entirely on private vendors. Procurement from SAIL Refractory Unit was kept strategically to the tune of 30 *per cent* to 40 *per cent* as a risk insurance against private suppliers. However, Bhilai Steel Plant was now going for procurement of ladle refractories on total ladle management basis.

The reply of Management/ Ministry is not acceptable. SAIL Refractory Unit was to augment the production capacity so that entire requirement of new generation slide gate system of Bhilai Steel Plant could be catered by SAIL Refractory Unit. However, no initiative had been taken by the SAIL Refractory Unit till date except an Expression of Interest floated in 2017, which did not yield any result. The contention of Management that it would not be prudent to depend entirely on outside vendors for such critical item may be viewed in the light of the fact that under total ladle management, the new generation slide gate systems are being procured entirely from private parties.

1.3.12 Other issues

1.3.12.1 Non-recovery of ₹17.41 crore from supplier against risk purchase at Durgapur Steel Plant

Durgapur Steel Plant issued (November 2016) purchase order for steel ladle set lining refractories on M/s Orind Special Refractories for 144 sets at ₹19.12 lakh per set with delivery period of October 2017. M/s Orind Special Refractories did not supply 65 sets till the scheduled delivery date. Durgapur Steel Plant procured (February 2018) 60 sets from M/s TRL Krosaki Refractories Limited at the rate of ₹50 lakh per set. However, Durgapur Steel Plant issued (September 2018) risk purchase notice after one year based on the purchase orders for another 47 sets only which were issued at ₹21.50 lakh per set to M/s TRL Krosaki Refractories Limited and M/s Sarvesh Refractories and recovered ₹1.12

[18] ***Difference between cost per heat of New Slide Gate Refractory system and cost per heat of Conventional slide gate Refractory system multiplied with actual consumption of Conventional slide gate Refractory System.***

crore[19] from M/s Orind Special Refractories. Audit observed that Durgapur Steel Plant could have calculated recovery amount against risk purchase based on purchases made in February 2018 at the rate of ₹50 lakh per set. Thus, due to wrong imposition of risk purchase amount, there was short recovery of ₹17.41 crore.

Management replied (May 2021) that due to continuous failure of M/s Orind Special Refractories, risk purchase action for balance 47 sets was taken and as per procedure, the difference amount of ₹1.12 crore was recovered from the vendor. Ministry added (November 2021) that any risk purchase action against all such vendors would have affected supplies of such a critical production linked item to other SAIL Plants too apart from Durgapur Steel Plant.

The reply is not acceptable because after failure of supplier to supply within the scheduled delivery period (October 2017), the Company should have taken risk purchase action as the Company had to procure steel ladle set lining refractories at higher cost. The risk purchase action was however taken when the rate was lower which was favorable to the vendor and disadvantageous to the Company.

1.3.12.2 Non-disposal of scrapped bricks valuing ₹36.51 crore by Bokaro Steel Plant and Bhilai Steel Plant

SAIL procures different types of refractory bricks for relining works inside the Plant. After achieving certain guaranteed parameters and reduction in size and changes in the physical and chemical properties, the bricks become unsuitable for further use. These bricks are then declared as scrap and transferred to main stores for creation of lots and hand over the same to Marketing wing for disposal. SAIL also has its own refractory plant where these scrapped bricks are used as raw material to reduce the manufacturing cost. Audit observed that there was stock of scrapped bricks of 57,839 tonnes in Bokaro Steel Plant worth ₹26.61 crore, and 7,761 tonnes in Bhilai Steel Plant valuing ₹9.90 crore. In case of Rourkela Steel Plant and Durgapur Steel Plant, used bricks were regularly sold.

Management replied (May 2021) that in Bokaro Steel Plant, the quantity appearing as stock in Systems Applications and Products (SAP) data may not be available physically. Used/ rejected/ broken bricks were regularly offered for sale in Bhilai Steel Plant. Ministry replied (November 2021) that there was stock of scrapped bricks of 52,750 tonnes in Bokaro Steel Plant.

The reply of the Management/ Ministry itself highlights gaps in the management of stock of scrapped bricks. As the scrap has economic value, the likelihood of loss due to missing items cannot be ruled out. In case of Bokaro Steel Plant and Bhilai Steel Plant, Management should ensure proper accounting of such scrap and speed up disposal of these used refractory on priority to maximise the revenue.

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[19] ***₹1.12 crore was recovered from M/s Orind Special Refractories as 18 more sets were supplied by it up to February 2020 and only 47 sets remained undelivered.***

1.4 Conclusion

SAIL did not take adequate steps to upgrade and modernize its production capacity for refractories, despite the critical role of refractories in steel making process. The Company also failed to constitute the Refractory Task Force, envisaged to assess annual requirement of refractory, at Durgapur Steel Plant, Alloy Steels Plant and Indian Iron & Steel Company Steel Plant. Its inability to assess its requirements led to excess inventory holding worth ₹257.15 crore (31 March 2020) and inventory of refractories lay blocked for 15 to 20 years. SAIL also failed to make optimum utilisation of idle capacity available in-house and incurred extra expenditure due to delay in placement and procurement from outside sources at higher cost. The Company also incurred avoidable expenditure on account of delays in implementation of Total Ladle Management System and partial implementation of new generation slide gate system. As such, the refractory management system in SAIL requires improvement so that in-house facilities are optimally utilised and costs for procurement of refractories are reduced.

CHAPTER II: Financial Management

2.1 Introduction

Steel Authority of India Limited (Company or SAIL) is the largest steel making company in India. It produces iron and steel at five integrated steel plants located at Bhilai, Bokaro, Rourkela, Durgapur and Burnpur, three special steel plants at Durgapur, Salem and Bhadravati and a Ferro Alloy Plant at Chandrapur. Financial Management is done by Corporate Office of the Company while marketing of products is mainly carried out by Central Marketing Organisation of the Company which also co-ordinates and oversees domestic sales and export of steel products. Government of India (GoI) holds 75 *per cent* equity shares of SAIL[1].

2.2 Audit objectives and Scope

Financial Management involves planning, allocation and controlling the financial activities. It involves (a) financing decisions (b) investment decisions, and (c) dividend decisions. Audit of 'Financial Management in SAIL' was conducted with the objectives to examine whether:

i) requirement of funds was assessed efficiently and sound capital structure was maintained;

ii) funds were available and utilized optimally;

iii) funds were invested in a prudent manner to ensure optimum return and dividend was declared/ paid as per the laid down policy; and

iv) receivables' management was effective.

Records at all the steel plants, Central Marketing Organisation and Corporate office of SAIL for the years 2015-16 to 2019-20 were examined.

[1] ***Share of Government of India was reduced to 65 per cent of paid up equity share capital of SAIL with effect from 13 January 2021.***

2.3 Financial Performance

Financial performance of SAIL during the last five years is given below:

Table 2.1: Financial performance of SAIL during last five years

(Amount: ₹ in crore)

Year	Production of hot metal (in million tonnes)	Total Income	Total Expense	Profit Before Tax	Net worth[2]	Contingent Liability
2015-16	15.721	39,667	46,850	(-)7,198	39,196	32,583
2016-17	15.726	50,303	54,937	(-)4,851	36,009	36,905
2017-18	15.982	59,447	60,232	(-)759	35,714	26,867
2018-19	17.513	67,500	63,773	3,338	38,152	28,278
2019-20	17.438	62,646	58,703	3,171	39,777	35,297

SAIL incurred losses during 2015-16 to 2017-18 and thereafter earned profit in 2018-19 and 2019-20. The production of hot metal increased by 11 *per cent* from 2015-16 to 2019-20, whereas total income increased by 58 *per cent* during the same period. Performance of SAIL improved during 2018-19 mainly on account of higher production of saleable steel, increase in sales realization, lower voluntary retirement compensation and lower coke rate etc. The profit for 2019-20 was mainly on account of valuation of sub-grade iron ore fines, embedded iron and steel scrap and valuation of slime containing the iron ore fines and had not generated any corresponding cash. Further, as on 31 March 2020, contingent liability (being possible expense) stood at ₹35,297 crore, which was 88 *per cent* of the net worth of the Company (being ₹39,777 crore) and was more than half of the income (being ₹62,646 crore). Out of total contingent liability, claims against the Company that were pending for appellate or judicial decisions amounted to ₹29,844 crore. Audit observed that the judicial decisions could go against the Company and, therefore, there was risk of material cash outflow in future.

2.4 Audit Findings

2.4.1 Assessment of requirement of funds and capital structure

Fund management is dealt by the Corporate Office of the Company. In the beginning of each financial year, the month-wise fund requirement is obtained from the plants/ units based on the Annual Business Plan for the financial year. The month-wise fund requirement is then broken down to arrive at daily requirement. SAIL gets its funds from its sales proceeds or from the borrowings.

[2] ***Net worth= Total Assets – Total Liabilities***

2.4.1.1 Deviations in budget estimates and actuals

SAIL's Corporate guidelines for operational budget[3] emphasized that the budget should be realistic and achievable. Audit noted that there were significant deviations in the budget provision and actual utilization for the years 2015-16 to 2019-20 as detailed below:

Table 2.2: Deviation in budgeted and actual Income and Expenditure

(Amount: ₹ in crore)

Particulars	Income	Expenditure				
	Gross Sales - Domestic	Raw material (excl. Coal/Coke)	Stores and Spares	Repairs/ Maintenance	Railway freight	Interest
Budget 2019-20	74781	10010	4253	1888	3500	3162
Actual 2019-20	57282	6133	3436	1563	2211	3487
Deviation %	***23***	***39***	***19***	***17***	***37***	***-10***
Budget 2018-19	70074	10236	3813	2032	3074	2886
Actual 2018-19	63292	6218	2977	1474	2611	3155
Deviation %	***10***	***39***	***22***	***27***	***15***	***-9***
Budget 2017-18	60844	7627	2877	1379	1653	2763
Actual 2017-18	55971	5202	2406	1244	2242	2823
Deviation %	***8***	***32***	***16***	***10***	***-36***	***-2***
Budget 2016-17	58974	6746	3599	1428	1808	2290
Actual 2016-17	47376	4857	2303	1139	1162	2528
Deviation %	***20***	***28***	***36***	***20***	***36***	***-10***
Budget 2015-16	64217	7925	3574	1448	1375	1954
Actual 2015-16	42727	4992	2321	1068	1131	2300
Deviation %	***33***	***37***	***35***	***26***	***18***	***-18***

Production of hot metal, crude steel and saleable steel was consistently lower (12 to 21 *per cent*) than the budgeted production due to inconsistent operation of blast furnaces at Bhilai and problem in stabilization of production from new facilities at Rourkela, Durgapur and Burnpur. Wide variations in budgeted and actuals were also noted for sales (8 to 33 *per cent* less), raw materials (28 to 39 *per cent* less), stores and spares (16 to 36 *per cent* less), repairs and maintenance (10 to 27 *per cent* less), railway freight (36 *per cent* more to 37 *per cent less*), interest and finance charges (2 to 18 *per cent* more).

Management replied (May 2021) that unforeseen break down in the shops, problems faced during ramp up of production from the new facilities and delays in commissioning of new facilities resulted in the shortfall against the set targets.

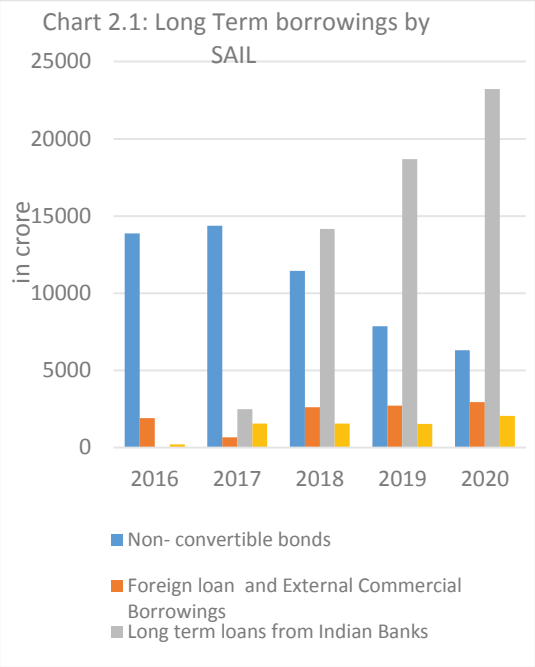
Management reply is not acceptable because factors like ramp up of production and commissioning of new projects should have been considered during preparation of budget. Audit Committee of SAIL had also observed (2019) that the target could have been set more realistically.

Recommendation No. 1: Management may consider all factors that are likely to affect the budget estimates so that the budget prepared is realistic and achievable.

[3] ***Budget estimate is approved by SAIL board for each financial year as 'Operation Budget Estimates (OBE)'. The operation budget includes Budgeted Annual Profit and Loss account, Income and Expenditure, profitability ratio, budgeted monthly targets.***

2.4.1.2 Borrowing of Funds

SAIL borrows long term loans (Term loans, Bonds, External Commercial Borrowings[4]) and short term loans (loans from Banks, Commercial Paper[5], Buyers' Credit[6]) for capital expenditure, operational expenditure and repayment obligations. Details of borrowings by SAIL during 2015-16 to 2019-20 are given in the charts and table below:



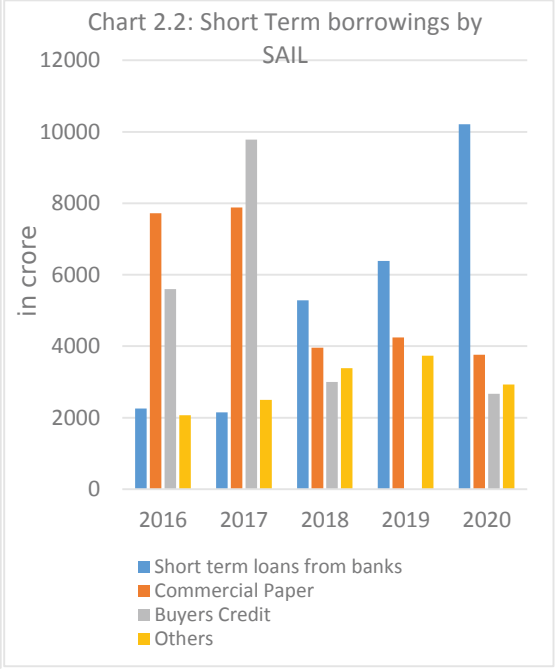


Table 2.3: Details of borrowings by SAIL during 2015-16 to 2019-20

(Amount: ₹ in crore)

As on 31 March	Long term borrowings					Short term borrowings					Total borrowings (A+B)	Ratio of long term and short term loans
	Non-convertible bonds	Foreign loan and External Commercial Borrowings	Long term loans from Indian Banks	Other Loans	Total (A)	Short term loans from Banks	Commercial Paper	Buyers' Credit	Others	Total (B)		
2016	13878	1899	0	204*	17496	2256	7721	5598	2070	17645	35,141	50:50
2017	14364	664	2500	1559	19087	2152	7884	9777	2496	22309	41,396	46:54
2018	11443	2621	14156	1557	29777	5284	3962	2998	3388	15632	45,409	66:34
2019	7860	2727	18681	1535	30803	6390	4241	0	3736	14367	45,170	68:32
2020	6304	2956	23236	2064	34560	10212	3757	2672	2926	19567	54,127	64:36

*(Loan from Steel Development Fund: ₹204 crore)

[4] ***External Commercial Borrowings are the financial instrument used to borrow money in foreign currency from foreign sources.***

[5] ***Commercial Paper is an unsecured money market instrument issued in the form of promissory note with tenure of 7 to 365 days.***

[6] ***Buyers' Credit is a short-term loan facility extended to importers by an overseas lender for purchase of goods.***

Audit noted that SAIL had borrowings of ₹16,320 crore in 2011-12 which doubled as on 31 March 2016 (₹35,141 crore) and further increased to ₹54,127 crore as on 31 March 2020. Increase in the borrowings was mainly on account of raising of funds to finance the Modernisation and Expansion Plan implemented by the Company. Audit observed that:

(i) SAIL Board desired (March 2017) that long term and short term borrowings should be in the ratio of 70:30. In view of difficult financial position of the Company, it further decided (December 2017) to keep long term to short term borrowings in the ratio of 80:20. Board also emphasized that in view of the current steel industry scenario and precarious financial condition of SAIL, the short term loans needed to be replaced by long term loans. However, as of March 2016, the ratio of long term and short term loans in SAIL was around 50:50 and the same was 64:36 as of 31 March 2020.

Audit noted that SAIL availed long term loan of ₹39,776 crore during 2015-16 to 2019-20, out of which ₹18,220 crore (46 *per cent*) only was spent on capital expenditure and remaining amount was spent on working capital requirements. It was further noted that, normally long term loans are borrowed for capital expenditure whereas short term loans are for working capital requirements. The Company however, has neither framed any policy nor earmarked activities for which the long term and short term loans would be utilized. Thus, the Company was unable to meet the working capital requirements from the short term loans and its internal revenue generation and relied on long term borrowed funds for it.

(ii) Out of total borrowings as on 31 March 2020, Non-Convertible Bonds raised for a tenor of 4-7 years constituted 12 *per cent* and Term Loans constituted 51 *per cent*. The Company is likely to face bunching of repayments on account of these two in the next 10 years (2020-30) wherein 63 *per cent* of the total amount outstanding on account of Bonds and Term loans becomes due for redemption/ repayment. This is in addition to repayment of short term loans (36 *per cent* of total borrowings) and interest payments.

Management replied (May 2021) that there was an impending threat of downward revision of credit rating of the Company. Substitution of short term loans by long term loans was done to avoid any default situation in the repayments during financial years 2017-18 and 2018-19 when SAIL was in cash deficit and was faced with liquidity issues. It further stated that with the improvement in financial performance of SAIL, debt servicing would not be a concern. It also stated that specific loans from SBI only were earmarked for capex and the rest were for general corporate purposes, which could be used for capex or elsewhere.

The reply of Management, may be seen in the light of the fact that though the Company has improved the ratio of long term to short term loans since 2015-16 to 2019-20, but it was yet to achieve the ratio of 80:20 as desired by the Board. Further, excessive short term borrowings adversely impact the liquidity position as it carries huge roll over risk and SAIL might have to take another short term loan to repay the previous one. Also, SAIL

was unable to meet its working capital requirement through short term loans or from cash flow from operations and had to rely on long term loans.

2.4.1.3 Decline in financial Credit Rating

Credit Rating is the quantified assessment of the credit worthiness of a borrower in general terms or with respect to a particular debt or financial obligation. Credit Rating agencies take into account financial history of borrowing or lending and arrive at the credit worthiness of the entity. SAIL's borrowings are rated by RBI approved rating agencies i.e., CARE Ratings, India Ratings and Brickwork Ratings. The agencies use rating symbols such as AAA, AA, A+, A-, A1 etc. Rating outlook is also provided by the rating agencies such as Positive, Negative and Stable. The rating outlook indicates expected upgrade, downgrade or stability of the Credit Rating respectively. Credit Rating of instruments of SAIL during 2015-16 to 2019-20 is shown in the table below:

Table 2.4: Credit Rating of instruments of SAIL during 2016-17 to 2019-20

Name of instruments	Type	Credit Rating of SAIL by Care Ratings				
		2015-16	2016-17	2017-18	2018-19	2019-20
Bonds	Long Term	AA+	AA (Negative)	AA- (Negative)	AA- (Stable)	AA- (Stable)
Commercial Paper	Short Term	A1+	A1+	A1+	A1+	A1+
Fund based long term loans	Long Term	Not applicable	AA (Negative)	AA- (Negative)	AA- (Stable)	AA- (Stable)

The Credit Rating of long term borrowings (Bonds and Term Loans) of SAIL was AA+ in March 2016, which reduced to AA with negative outlook in March 2017 and further declined to AA- (negative) in March 2018. The Credit Rating was AA- (Stable) in 2018-19 and 2019-20. Audit further noted that the outlook for the rating declined to Negative in 2020-21. Credit Rating for Short term loan was A1+ (positive) during 2015-16 to 2019-20.

Audit observed that Credit Rating of SAIL during last five years has either declined or remained stable. This was attributable to its weak operational performance, elevated debt levels and increase in interest cost. Declining operating cash flows and repayment obligations could result in further downward revision of Credit Rating, which is also indicated in the rating outlook being negative in respect of funds and long term loans. Such downward revision in ratings would lead to increase in borrowing cost and further difficulty in raising funds in the future.

Management replied (May 2021) that rating of all the steel players in India were downgraded due to depressed domestic Indian Steel Industry. SAIL could mobilize large amount of funds despite adverse steel market and low rating in the long term. Average rate of interest for SAIL has been on decline.

Management reply may be seen in view of the fact that Credit Rating of a similar private sector steel company for long term loans was stable during 2016-17 to 2019-20. Therefore, the contention of Management that Credit Ratings of all Steel players were

downgraded is not correct. Further, Management has accepted in its reply to para 2.4.1.2(ii) that there was an impending threat of downward revision of Credit Rating of the Company.

2.4.2 Ratio Analysis

Financial ratios are used to assess financial performance of the entity. Audit analysed Debt Equity Ratio[7], Interest Coverage Ratio[8], Net Debt[9] to Earnings before interest, taxes, depreciation and amortization [10] of SAIL. Details are given below:

Table 2.5: Financial ratios of SAIL

Year	Debt Equity Ratio	Interest Coverage Ratio	Net Debt to Earnings before interest, taxes, depreciation, and amortization
Optimum Level	**1 times or less**	**2 times or more**	**2.5 to 3 times or less**
2015-16	0.9:1	-1.9	-15.94
2016-17	1.1:1	-0.7	61.60
2017-18	1.3:1	0.6	8.76
2018-19	1.2:1	1.8	4.39
2019-20	1.4:1	1.8	4.83

Debt Equity Ratio: It evaluates Company's financial leverage[11]. Debt equity ratio of SAIL increased during the period 2015-16 to 2019-20 and ranged between 0.9:1 and 1.4:1. Audit noted that the debt equity ratio in SAIL was adverse in comparison to optimum level of 1:1. Adverse debt equity ratio indicates that the Company has more liabilities than assets and is also a sign of financial instability.

Interest Coverage Ratio: The ratio indicates extent of cover available with an entity to pay the interest on borrowings. The higher the ratio the greater is the Company's ability to cover the interest payment. The interest coverage ratio of SAIL was (-)1.9 to 1.8. During 2017-18 to 2019-20, the interest coverage ratio of SAIL was less than the optimum level whereas during 2015-16 and 2016-17, the same was negative. Adverse interest coverage ratio indicates difficulty in payment of interest.

Net Debt to Earnings before interest, taxes, depreciation, and amortization: This ratio measures financial leverage and a Company's ability to pay off its debt. As per Credit Rating Agencies, this ratio should be 2.5 to 3 times. Audit noted that the Net Debt to

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[7] ***Debt Equity Ratio: Debt/Equity; where Debt refers to Long Term and Short Term Loan and Equity refers to Shareholder's equity.***

[8] ***Interest Coverage Ratio: Earnings before interest and tax/ Interest Expenses.***

[9] ***Net Debt: Long Term Loans + Short Term Loans – Cash and Cash equivalents.***

[10] ***Net Debt to Earnings before interest, taxes, depreciation, and amortization: Net Debt/ Earnings before interest, taxes, depreciation, and amortization.***

[11] ***Leverage is an investment strategy of using borrowed money specifically, the use of various financial instruments or borrowed capital to increase the potential return of an investment. Leverage can also refer to the amount of debt a firm uses to finance assets.***

Earnings before interest, taxes, depreciation, and amortization ratio of SAIL was between 4.39 and 61.60 times during 2016-17 to 2019-20. During 2015-16, as SAIL incurred Net Loss the ratio was (-)15.94 times while there was a steep jump in the ratio to 61.60 times in 2016-17 as the Earnings before interest, taxes, depreciation, and amortization became positive and there was increase in the Net Debt.

Thus, the ratio for SAIL was adverse when compared to the desired optimum level. Net Debt to Earnings before interest, taxes, depreciation, and amortization ratio of more than 3 indicates that Company's operation is not at the optimum level to pay off its debt which may result in more borrowings.

Audit observed that increase in Debt Equity ratio, Net Debt to Earnings before interest, taxes, depreciation, and amortization ratio and decrease in Interest Coverage ratio indicated worsening credit profile of the Company.

Management replied (May 2021) that during 2015-16 to 2019-20, volume of production could not be achieved to the desired levels. Sluggish steel market conditions, lower net sales realisation, increase in debtors and inventory levels have contributed to increase in borrowings. As a result, key financial ratios were little off from the norms. It is expected that all the key financial ratios will be much better in the financial year 2020-21.

The fact however remains that during the period of audit, the ratio for SAIL was adverse when compared to desired optimum level.

2.4.3 Operation of Centralized Cash Credit Account

Corporate office of SAIL maintains a Centralized Cash Credit Account in State Bank of India to operate day to day transactions with the steel plants and units and their clients. Corporate office receives funds from sale proceeds from Central Marketing Organisation and loan from Banks/ Financial Institutions. The funds received are then disbursed to the respective plants/units as per their requirement and also utilized for repayment of loans.

Plants/ units transfer the unspent balances to the SBI Centralized Cash Credit account and at the end of the business day, SBI Centralized Cash Credit account shows debit/ credit balance. Zero balance indicates full utilization of funds whereas debit balance show that the funds were utilized more than available. Credit balance indicates surplus fund that was not utilized during the business day. Audit analysed 1,016 balance positions for the period between April 2016 and March 2020 and noted that there was debit balance of more than ₹500 crore in 139 cases (13.68 *per cent* cases) out of which in 48 cases (4.72 *per cent* cases), it was more than ₹1,000 crore. In 43 cases (4.23 *per cent* cases), debit balance was more than ₹2,000 crore. Credit balance in 104 cases were noted out of which in 14 cases (13.46 *per cent* cases out of total credit balance) it was more than ₹100 crore. Audit noted that SAIL incurred avoidable expenditure of ₹14.55 crore[12] (approximately)

[12] ***Amount calculated on the basis of difference between Cash Credit Rate and average rate of interest of Commercial Paper raised by SAIL during 2016-17 to 2019-20.***

during 2016-17 to 2019-20, on account of payment of higher rate of interest on such debit balances.

Audit observed that the Company was not able to assess the fund requirement accurately in many cases and was not able to minimize the debit balance as less as possible to avoid paying more interest and to minimize credit balance lying in SBI Centralized Cash Credit account because the Company did not get any interest on credit balance for one day.

Management replied (May 2021) that SAIL had been meticulously planning its expenditure/ cash out flows. Sometimes there were debit/ credit balances in the SBI Centralized Cash Credit account when the desired transfers were not received or in case of receipt of good amounts after the Banking hours.

The reply of Management is not acceptable as Audit had noted that during 2014-15 and 2015-16 only two instances of credit balance was noted which shows that if conscious effort was put in this direction, Management could have controlled the numerous instances involving significant amount of debit/ credit balances during 2016-17 to 2019-20. This was particularly critical because Management was incurring avoidable expenditure on this account as the debit balance involved payment of interest whereas Company did not earn interest on the credit balance for one day.

Recommendation No. 2: In order to avoid paying interest on debit balances in SBI Centralised Cash Credit account, the Company may ensure accurate estimation of its fund requirement and may also assess the impact of payment of avoidable interest on such debit balances.

2.4.4 Hedging of loans

Hedging is a risk reduction technique whereby an entity uses a derivative or similar instrument to offset future changes in the fair value or cash flows of an asset or liability. Hedging of loans involves two elements-hedging of principal amount of loan and hedging of interest thereon i.e., LIBOR. Hedging of the principal is required to mitigate the risk of foreign exchange fluctuation. Hedging of interest is required to mitigate risk of changes in the rate of interest (LIBOR).

2.4.4.1 Avoidable expenditure of ₹194 crore due to non-hedging of External Commercial Borrowings

SAIL borrowed long term loans from foreign banks to meet expenditure on capital scheme during March 2011 to December 2012. The details of borrowings are given in the table below:

Table 2.6: Details of External Commercial borrowings of SAIL

Sl.No.	Name of the Bank	Hedging of Foreign currency	Hedging of interest (based on LIBOR)	Date of Drawdown	Principal Amount (in million $)	Rate of exchange as on date of Drawdown	Amount (₹ in crore)
1	Bank of Tokyo-Mitsubishi UFJ Limited	No	Yes	11.03.2011	200	45.07	901.38
2	Bank of Tokyo-Mitsubishi UFJ Limited	No	No	11.08.2011	200	45.34	906.71
3	Sumitomo Mutsui Banking Corporation	Yes	Yes	16.11.2011	300	50.92	1527.60
4	Mizuho Corporation Bank	Yes	Yes	21.12.2012	150	55.13	827.85

It was seen that two External Commercial Borrowings from Bank of Tokyo-Mitsubishi UFJ Limited valuing 200 million USD each were taken during 2011 and repayable in three tranches starting from 2015 to 2017. External Commercial Borrowings taken in March 2011 and August 2011 were repaid in March 2017 and August 2017 respectively. These two borrowings were not hedged for foreign exchange fluctuation. Further, two borrowings from Sumitomo Mutsui Banking Corporation (300 million USD in November 2011) and Mizuho Corporation Bank (150 million USD in December 2012) were fully hedged in terms of foreign exchange fluctuation and LIBOR.

Audit noted that US Dollar to Indian Rupee parity was stable till July 2011 but the exchange parity went against Rupee significantly in August 2011. Dollar exchange rate was on increasing trend from September 2011, therefore both the above borrowings (at Sl. No. 1 and 2 in table above) should have been hedged during November 2011 along with other External Commercial Borrowing taken in November 2011 to mitigate the risk in terms of foreign exchange fluctuation. Apart from non-hedging of foreign currency, the Company also did not hedge interest (LIBOR) for External borrowings valuing ₹906.71 crore taken in August 2011.

Audit observed that two borrowings in March 2011 and August 2011 were not hedged for foreign exchange fluctuation when the exchange rate was around ₹45 per dollar. Loan taken from Sumitomo Mutsui Banking Corporation in November 2011 was fully hedged (Principal and Interest) on the grounds of market risk and prevailing exchange rate of ₹50.92 per dollar. Due to non-hedging of loans of 400 million USD (Sl. No. 1 and 2 of Table 2.6) in terms of foreign exchange fluctuation led to avoidable expenditure of ₹194 crore.

Management replied (May 2021) that a conscious decision was taken not to hedge the loans as the hedging cost was very high and US Dollar to Indian Rupee parity had already moved up. The Company hedged the External Commercial Borrowings of USD 300 million drawn in November, 2011 in view of the then prevailing volatility in the foreign exchange market and arbitrage in interest rate.

Management reply highlights the lack of consistency in Company's decision regarding hedging of loans and interest. SAIL could also have hedged the two External Commercial Borrowings taken in March and August 2011 as it was done after few months for External Commercial Borrowing taken in November 2011. Management was aware that by not hedging, they had to bear the additional cost towards foreign exchange fluctuation for more than five years. Also, Management's reply is silent on non-hedging of interest (LIBOR) for External Commercial Borrowing valuing ₹906.71 crore taken in August 2011, whereas they had hedged the interest (LIBOR) in March 2011.

2.4.4.2 Non-hedging of interest (LIBOR) on Buyers' Credit[13]

The Company avails Buyers' Credit for import of coal which bears the cheapest rate of interest in comparison to the interest rate of other sources of borrowings. Apart from exchange rate, SAIL is exposed to interest rate risk in respect of foreign currency loan carrying interest (LIBOR). As per the SAIL's Foreign Exchange Risk Management Policy (February 2013), the Company was required to hedge the exchange rate/ currency risk for short term loans to ensure that there is no risk from fluctuation in foreign exchange rate. Forex Risk Management Committee viewed that since LIBOR is likely to remain volatile in short term, it may consider hedging the interest risk for the short term foreign currency loan as well.

Audit noted that SAIL hedged the principal amount of Buyer's Credit in terms of foreign exchange fluctuation but did not hedge the interest on Buyer's Credit (LIBOR) except in few cases during March 2017 to December 2017. Details of Buyer's Credit availed and LIBOR range during 2015-20 is given below:

Table 2.7: Buyer's Credit availed and LIBOR Range

Year	Import of Coal (₹ in crore)	No of Credits availed during the year	Credit availed (₹ in crore)	LIBOR Range (minimum to maximum)	LIBOR Range (at start and end of year)	Average LIBOR during the year
2015-16	10789	153	6564	0.27 to 0.7125	0.27 to 0.6286	0.4017
2016-17	14250	173	10872	0.6261 to 1.15622	0.6266 to 1.15622	0.8649
2017-18	18000	39	2959	1.3035 to 1.64203	1.3035 to 1.57352	1.38283
2018-19*	-	0	0	0	0	0
2019-20	-	47	3646	0.7405 to 2.58113	2.58113 to 1.21563	1.90325

** **SAIL did not avail Buyers' Credit in 2018-19 as the practice of issuance of Letter of Undertaking/ Letter of Comfort for Buyer's Credits for imports into India was discontinued by RBI in March 2018. RBI again allowed such practice since 13 March 2019.***

It was seen that there was steep hike in the LIBOR (10 times) between 2015-16 and 2019-20. SAIL Board decided (8 December 2015) to continue to hedge the Buyer's Credit (only principal) for the entire tenor. Audit observed that Management decided not to hedge interest (LIBOR) on Buyers' Credit despite highly volatile market showing

[13] ***Buyers' Credit is a short-term loan facility extended to importers by an overseas lender for purchase of goods.***

increasing trend during the above period. Therefore, the Company could not offset the future increase of LIBOR.

Management replied (May 2021) that principal amount was hedged at the time of availing of Buyer's Credit as per the decision of the Forex Risk Management Committee whereas interest (LIBOR) was not hedged as it was not volatile for a considerable time and was likely to remain static in near future.

Management reply is not tenable. LIBOR consistently increased during 2015-16 to 2019-20 from 0.27 *per cent* to 2.58 *per cent.* Average hedging cost for interest (LIBOR) during this period was around 0.25 *per cent* and average increase in LIBOR per year was 0.50 *per cent*. Since, there was steep hike in the LIBOR during 2015-20, Management should have hedged interest (LIBOR) for the Buyer's Credit. The decision of the Company was also contrary to the views expressed by the Forex Risk Management Committee in February 2013.

Recommendation No. 3: The Company may follow consistent practice for hedging of loans for Foreign Exchange fluctuations and interest to secure the financial interest of the Company.

2.4.5 Investment of Funds

Total investment of SAIL in Joint Venture Companies, Subsidiaries, Associates and quoted and unquoted equity was ₹1,611 crore as on 31 March 2020 (₹1,300 crore on 31 March 2016). SAIL had 21 Joint Venture Companies and 4 subsidiaries in March 2020. Out of above eight[14] Joint Ventures were operational, three under project/ feasibility stage[15] and 10 were inactive or under closure[16]. Only five Joint Venture Companies were earning profit. Audit observed that the Company had not framed any policy or guidelines for investment of funds in the Joint Ventures/ others. Audit noted cases of unfruitful investment in the Joint Ventures by SAIL which are discussed below.

2.4.5.1 Bhilai Jaypee Cement Limited

i) SAIL and Jaiprakash Associates Limited formed (11 April 2007) a Joint Venture Company named Bhilai Jaypee Cement Limited. SAIL invested ₹52.51 crore in the Joint Venture Company and holds 26 *per cent* shares and Jaiprakash Associates Limited held the remaining 74 *per cent*. As per the Long Term Slag Sale and Water Supply Agreement

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[14] ***NTPC-SAIL Power Company Limited, Bokaro Power Supply Company Private Limited, MJunction Services Limited, Bhilai Jaypee Cement Limited, International Coal Ventures Private Limited, SAIL RITES Bengal Wagon Industry Private Limited, Prime Gold -SAIL JVC Limited and SAIL- Bansal Service Centre Limited.***

[15] ***VSL-SAIL JVC Limited, GEDCOL SAIL Power Corporation Limited, and Bastar Railway Private Limited.***

[16] ***SAIL-SCI Shipping Private Limited, SAIL-SCL Kerala Limited, SAIL MOIL Ferro Alloys Private Limited, SAIL-Bengal Alloy Castings Private Limited, SAL-SAIL JVC Limited, TMT SAL SAIL JVC Limited, Abhinav SAIL JVC Limited, NMDC SAIL Limited, S&T Mining Company Private Limited and SAIL Kobe Iron India Limited.***

between Bhilai Jaypee Cement Limited and SAIL, the Joint Venture Company was to lift 10 lakh tonnes of slag in a financial year. From 2016-17 to 2019-20, Bhilai Jaypee Cement Limited lifted only 2 to 3 *per cent* of the committed quantity as per agreement. Bhilai Steel Plant levied penalty for short-lifting, interest for late payment and other charges. It issued notice (November 2018) to the Joint Venture Company for total outstanding amount of ₹53.89 crore as on 30 September 2018. Bhilai Jaypee Cement Limited requested (December 2018) for dispute resolution as per the agreement. Total dues till March 2020 was ₹82.02 crore comprised of penalty of ₹68.36 crore for short-lifting, interest for late payment (₹1.08 crore), and other charges (₹12.58 crore). Law Department of Bhilai Steel Plant advised (May 2017) for administrative action against the Joint Venture Company as per the terms of the agreement.

ii) In November 2015, Jaiprakash Cement Corporation Limited, a wholly owned subsidiary of Jaiprakash Associates Limited, availed a bridge loan of ₹465 crores from Yes Bank Limited. Bhilai Jaypee Cement Limited's share held by Jaiprakash Associates Limited (74 *per cent*) was pledged by Jaiprakash Associates Limited to Yes Bank Limited as security in terms of the loan. Jaiprakash Associates Limited and Jaiprakash Cement Corporation Limited defaulted in repayment of the loan. Thereafter, Yes Bank Limited assigned the loan including security, to Assets Care and Reconstruction Enterprise Limited who in turn invoked the pledge giving notice of such invocation due to default in payment by Jaiprakash Associates Limited/ Jaiprakash Cement Corporation Limited in October 2018. Jaiprakash Associates Limited informed SAIL about these developments in January 2019.

Audit noted that Termination Clause 19.1 of the shareholder agreement between SAIL and Jaiprakash Associates Limited stipulates that 'on the date the shareholding of Jaiprakash Associates Limited falls below 50 *per cent* of the paid up equity share capital of the Joint Venture Company, SAIL may terminate the Agreement by giving notice to Jaiprakash Associates Limited'. Further, Clause 19.2.6 stipulates that the Agreement may be terminated if either party makes an unauthorised transfer of shares. Thus, there was material breach of shareholder agreement by Jaiprakash Associates Limited by pledging its shares held in Bhilai Jaypee Cement Limited.

Audit observed that SAIL was not aware of above matter for more than three years (November 2015 to January 2019) though three nominee Directors of SAIL were present on the Board of Bhilai Jaypee Cement Limited. A committee constituted in SAIL to recommend action against SAIL Nominee Directors on the Board of Bhilai Jaypee Cement Limited, concluded that there was no negligence on the part of any Nominee Director as none of them had any information about the pledge of shares by Jaiprakash Associates Limited or subsequent developments before January 2019. The Board Sub Committee of SAIL observed (August 2019) that nominee Directors of SAIL should have been more diligent and brought these issues to the notice of SAIL Board much earlier. Displeasure was also expressed by Minister of Steel on the Bhilai Jaypee Cement Limited issue (July 2019).

Bhilai Jaypee Cement Limited was in continuous losses (2013-14 to 2019-20), and its Net worth was negative on 31 March 2020. Accumulated loss of Bhilai Jaypee Cement Limited was ₹457.87 crore in 2019-20. Thus, in view of liquidity position, SAIL could not get the benefits of investment of ₹52.51 crore in the Joint Venture Company even after 13 years of its formation. Further, recovery of ₹82 crore on account of penalty/ other charges was also uncertain.

Management replied (May 2021) that Bhilai Steel Plant has pursued regularly with Bhilai Jaypee Cement Limited for payment of outstanding penalty/ dues. SAIL had filed a petition in National Company Law Tribunal to initiate investigation by Serious Fraud Investigation Office into actions by Jaiprakash Associates Limited and injunction against Assets Care and Reconstruction Enterprise Limited to stop any further transfer of shares to any third party.

Audit noted that SAIL Board approved for legal proceedings against Jaiprakash Associates Limited on 6 November 2020 after a delay of about two years (January 2019 to November 2020). The legal action was initiated after three months (22 February 2021) of Board decision.

2.4.5.2 SAIL-SCL Kerala Limited

Government of Kerala approached (May 2007) SAIL through Ministry of Steel to extend financial/ technical support to Steel Complex Limited[17] to make it financially self-sustainable. SAIL signed (May 2008) a Memorandum of Understanding with Government of Kerala to work together as co-promoters of Steel Complex Limited on equal share holding pattern, with SAIL having management control. SAIL signed (December 2008) a 'Business Collaboration and Shareholders Agreement (Joint Venture Agreement)' with Government of Kerala and acquired 43.80 *per cent*[18] shares in Steel Complex Limited (December 2010) for ₹8.38 crore. It further contributed ₹9.71 crore as equity contribution for new Rolling Mill Project. Joint Venture Company between SAIL and Government of Kerala was formed effective from 31 December 2010. Name of Company was changed from Steel Complex Limited to SAIL- SCL Kerala Limited with effect from 24 April 2014.

- Audit noted that performance of the Company was not satisfactory due to non-availability of working capital, high cost of production, old and outdated equipment. Billet production was discontinued in 2014. Subsequently, a Thermo-Mechanically Treated bar rolling mill of 65,000 tonnes per annum was installed in June 2015 at a cost of ₹51.21 crore. However, due to high cost of production and non-availability of billets, the Thermo-Mechanically Treated bar rolling mill stopped functioning since December 2016.

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[17] ***A Company with an annual installed capacity of 55,000 tonne of billets promoted by Kerala State IDC Development Corporation.***

[18] ***Out of 70 lakh shares of ₹10 each, Government of Kerala and Undertakings held 87.60 per cent shares and rest held by FIs/ others.***

SAIL appointed (October 2015) SAIL-SCL Kerala Limited as Conversion Agent[19] to convert billets into Thermo-Mechanically Treated bars. Conversion activities were suspended as it was financially unviable and supply of billets for conversion was stopped since February 2017. During physical verification, Management found billets/ Thermo-Mechanically Treated bars worth ₹2.49 crore short.

- As of March 2020, SAIL had invested ₹18.75 crore as equity investment in SAIL-SCL Kerala Limited. SAIL had also extended financial support of ₹21.18 crore[20]. Government of Kerala provided financial assistance of ₹10.12 crore to SAIL-SCL Kerala Limited as working capital loan bearing interest rate of 13.50 *per cent* per annum. SAIL on the other hand provided interest free advances without safeguarding its financial interests.

- SAIL-SCL Kerala Limited was facing liquidity crisis due to stoppage of production and lack of working capital. Notice was served by the Debt Recovery Tribunal in pursuance of an application by Canara Bank for recovery of ₹82.70 crore for default in payment to Canara Bank. In view of the above, the scope of recovery of dues from SAIL-SCL Kerala Limited seems remote.

Audit observed that decision to form Joint Venture with an ailing partner was not prudent as Steel Complex Limited had been incurring losses since 16 years (1992 to 2008). Further, extending interest free trade advances without considering the debt-servicing capacity of SAIL-SCL Kerala Limited resulted in idle investment of ₹39.93 crore. Net worth of the Joint Venture Company as on 31 March 2020 was (-)₹92.33 crore. There is remote chance of recovery of advances of ₹21.18 crore coupled with extension of undue benefit to SAIL-SCL Kerala Limited towards interest free trade advance.

Management replied (May 2021) that inordinate delay by Government of Kerala both in clean slating[21] the balance sheet of Steel Complex Limited and committing equity for new rolling mill resulted in delayed operation of Joint Venture Agreement and installation of Rolling Mill respectively thereby affecting the financial health of the Joint Venture Company.

The fact remains that the investment of ₹39.93 crore in the Joint Venture Company formed 13 years back was yet to yield any benefit to SAIL.

2.4.5.3 SAIL and MOIL Ferro Alloys Private Limited

SAIL and Manganese Ore India Limited formed a 50:50 Joint Venture Company namely SAIL and MOIL Ferro Alloys Private Limited in July 2008 to produce High Carbon Ferro

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[19] ***An agent of SAIL to carry out conversion of re-rollables /semis /billets into finished products.***

[20] ***Trade Advance (Dec 2007 and July 2011) ₹8 crore + Advance against equity (Feb 2015): ₹3.52 crore + Receivable against supply of scrap/billet (June 2015): ₹4.20 crore + Advance against conversion: ₹2.97 crore + Shortage of billets: ₹2.49 crore.***

[21] ***Clean slating of Balance Sheet generally means that an entity has little or no debt.***

Manganese (HC FeMn) and Silico-Manganese (SiMn). The initial paid up capital was ₹0.20 crore.

Audit noted that after 12 years of formation of the Joint Venture Company, no progress was made. There were frequent changes in the requirement of ferro alloys by SAIL. The project proposed by the Joint Venture Company was not found viable at the prevailing prices of power in the region. In view of above, SAIL Board decided (June 2017) for winding up of the Joint Venture Company. The Joint Venture Company did not pay the cost of the land lease premium of ₹12 crore to SAIL. SAIL paid Capital Gains Tax of ₹4.54 crore against the lease premium amount accounted for as receivable in 2009-10.

Audit observed that SAIL could not get the benefits expected from the Joint Venture Company[22]. Joint Venture Company had suffered losses regularly since inception which accumulated to ₹14.16 crore as on March 2020. Possibility of getting ₹12 crore from the Joint Venture Company was remote. Further, ₹4.54 crore paid towards Capital Gains Tax also became infructuous.

Management replied (May 2021) that SAIL Board approved (30 December 2020) the modalities for exit of SAIL from the Joint Venture Company and application for closure of the Joint Venture Company had been filed with Registrar of Companies on 22 March 2021. SAIL plans to take up the issue of refund of Capital Gains Tax with the Authorities.

Audit noted that the Joint Venture Company was yet to be closed (May 2021) even after four years from the decision of SAIL Board. Further, refund of Capital Gains Tax paid 10 years back was a remote possibility.

2.4.5.4 S&T Mining Company Private Limited

SAIL formed a Joint Venture Company with Tata Steel Limited namely S&T Mining Company Private Limited in September 2008 with 50:50 equity participation. Contribution of SAIL was ₹12.94 crore. Objective of the Joint Venture Company was Exploration and Development of coal mines. Audit noted that efforts of the Joint Venture Company for mining coking coal from its closed colliery at Bhutgoria mines and to set up a coking coal washery project at Bhelatand did not materialize.

Audit observed that the Joint Venture Company was in losses since inception and could not meet the objectives for which it was formed[23]. SAIL Board decided (June 2017) for closure of the Joint Venture Company. Tata Steel Limited agreed (January 2018) with the winding up/ closure proposal and the proposal of voluntary liquidation was submitted by S&T Mining Company to SAIL in December 2018. SAIL Board approved Voluntary Liquidation of the Joint Venture Company in March 2019. Both SAIL and Tata Steel Limited contributed ₹5.20 crore each as equity to cover up the expenses towards closure of the Joint Venture Company in June 2019. The subscribed and paid up equity Capital thus, increased to ₹36.28 crore. Contribution of SAIL increased to ₹18.14 crore. Further,

[22] ***Issue was highlighted in C&AG's Report No. 21 of 2015.***
[23] ***Issue was highlighted in C&AG's Report No. 21 of 2015.***

SAIL decided (September 2020) to sell its 50 *per cent* stake in S&T Mining Company having face value of ₹18.14 crore to Tata Steel Limited at ₹1. Thus, investment of ₹18.14 crore would become infructuous.

Management replied (May 2021) that the projects could not be operationalised because Bhutgoria mines were not found viable and due to absence of linkage for raw coal for Bhelatand Washery. The reply of Management, however, was silent on the issue relating to sale of its 50 *per cent* stake in the Joint Venture Company to Tata Steel Limited at ₹1. Investment of ₹18.14 crore of SAIL in the Joint Venture Company could not accrue any benefit to the Company.

Recommendation No. 4: Policy for investment of funds in joint ventures/ others may be framed and funds should be invested in a prudent manner to ensure optimum return.

2.4.6 Non-compliance of Department of Investment and Public Asset Management guidelines on dividend

Department of Investment and Public Asset Management, Ministry of Finance issued guidelines on 27 May 2016 on Capital Restructuring of Central Public Sector Enterprises. The guidelines for dividend were applicable from financial year ending on or after 31 March 2016. Para 5 of the guidelines states that every CPSE would pay minimum dividend of 30 *per cent* of Profit After Tax or five *per cent* of the net worth, whichever is higher subject to the maximum dividend permitted under the extant legal provisions. The details of Profit after tax, net worth and dividend paid and payable by SAIL is given in the table below:

Table 2.8: Details of Profit After Tax, Net worth, Dividend payable and paid by SAIL

(Amount: ₹ in crore)

Year	Profit (Loss) after tax	Net worth	Dividend payable	Dividend Paid	Status of Exemption from Department of Investment and Public Asset Management
2015-16	(-) 4021	39196	1960	0	Exempted
2016-17	(-) 2833	36009	1800	0	Exempted
2017-18	(-) 482	35714	1786	0	Exempted
2018-19	2179	38152	1908	206.53	Exemption sought by SAIL
2019-20	2022	39777	1989	0	Exemption sought by SAIL
Total			**9443**	**206.53**	

Audit noted that Government of India had 75 *per cent*[24] (as on 31 March 2020) shareholding in SAIL's equity. SAIL had earlier applied to Department of Investment and Public Asset Management through Ministry of Steel seeking exemption from complying with the guidelines on payment of dividend for the financial years 2015-16, 2016-17 and 2017-18. The Committee on Management of Government Investment in CPSEs exempted SAIL from payment of dividend for the above period. SAIL requested Department of

[24] ***Government of India - 75 per cent, Insurance Companies - 10.02 per cent, Public - 5.82 per cent, Mutual Funds - 3.60 per cent, FIIs - 2.91 per cent, Banks, Body Corporate and Others - 2.65 per cent.***

Investment and Public Asset Management through Ministry of Steel for exemption of dividend at a lower rate of 5 *per cent* of Paid up Share Capital for financial year 2018-19. For 2019-20, SAIL requested the Ministry (August 2020) to take up the matter with Department of Investment and Public Asset Management for exemption. The exemptions for the years 2018-19 and 2019-20 were yet to be received.

Audit noted that dividend amounting to ₹9,443 crore was payable by SAIL during 2015-20. SAIL received exemption in respect of ₹5,546 crore for the years 2015-18. The Company declared nominal dividend (₹206.53 crore being 5 *per cent* of the Paid up Share Capital) during 2018-19 and no dividend during 2019-20 despite being in profit. Thus, SAIL has not paid dividend amounting to ₹3,690 crore (₹3,897 crore - ₹207 crore) to its shareholders (including GoI) for the years 2018-19 and 2019-20 in violation of guidelines of Department of Investment and Public Asset Management.

Management replied (May 2021) that SAIL had requested for exemption from payment of dividend for financial year 2019-20. With improvement in the financial situation, SAIL paid interim dividend for financial year 2020-21.

Management reply is silent on the issue of exemption of dividend for the year 2018-19. Further, by obtaining or seeking waiver from payment of dividend, shareholders were denied return on their investment. Besides dividend, Government was also deprived of the dividend tax applicable on dividend paid to the stakeholders.

2.4.7 Delay in disinvestment of Salem Steel Plant, Visvesvaraya Iron and Steel Plant and Alloy Steels Plant

Cabinet Committee on Economic Affairs, Government of India had accorded 'in-principle' approval for strategic disinvestment of three units of SAIL viz., Salem Steel Plant, Visvesvaraya Iron and Steel Plant and Alloy Steel Plant on 27 October 2016. The three plants (Salem Steel Plant, Visvesvaraya Iron and Steel Plant and Alloy Steel Plant) were loss making units of SAIL since 2011-12 and SAIL had incurred a cumulative loss of ₹1,262 crore in these three units during 2017-20 alone. The entire process of disinvestment was required to be carried out in a time bound manner. Audit however, noted that the disinvestment of the steel plants was at nascent stage despite lapse of four years of the disinvestment decision. Audit observed that:

i. Management took more than three months in approval of Board for strategic disinvestment from the date of Cabinet Committee on Economic Affairs' approval on 27 October 2016.

ii. As per the Guidance Note (May 2018) issued by DIPAM, first step was to appoint the Advisors followed by inviting Preliminary Information Memorandum/ Expression of Interest. SAIL took nearly eight months from Cabinet Committee on Economic Affairs' approval, in issue of Letter of Appointment to Transaction Advisor, Legal Advisor and Asset Valuer and ten months for appointment of Tax-cum-Accounting Consultant. It took more than 24 months in issue of Preliminary Information Memorandum/ Expression of

Interest for Salem Steel Plant and Visvesvaraya Iron and Steel Plant from the date of appointment of the transaction advisor. The Preliminary Information Memorandum/ Expression of Interest for Alloy Steel Plant issued on 14 February 2018 and on 4 July 2019 did not fetch any Expression of Interest.

iii. Management shared Confidential Information Memorandum related information with the transaction advisor in July 2020 whereas the Preliminary Information Memorandum/ Expression of Interest were issued in July 2019. Thus, there was delay of one year in providing desired information to the transaction advisor for preparation of Confidential Information Memorandum.

Audit observed that there were delays in the disinvestment process. During review of status of disinvestment of CPSEs, Principal Secretary to the Prime Minister observed undue delays at the level of Ministry and SAIL in the disinvestment process in case of Alloy Steel Plant and Visvesvaraya Iron and Steel Plant.

Management replied (May 2021) that the disinvestment process was underway in these three units of SAIL with the guidance of Inter-Ministerial Group. SAIL has followed all the procedures step by step and there had been no delay in the disinvestment process.

The reply may be seen in view of the fact that DIPAM had prepared a timeline of 202 days (i.e., 15 June 2017) from the date of constitution of the Inter-Ministerial Group for opening of the financial bids and making recommendations to Inter-Ministerial Group for approval of the Strategic Partner. The Inter-Ministerial Group was constituted on 25 November 2016. As of May 2021, disinvestment of these units had not been completed even after a lapse of more than four years.

2.4.8 Management of Receivables

Sale through Central Marketing Organization constitutes around 85-90 *per cent* of total sales of SAIL. Steel materials are also sold on credit (both secured and unsecured). Credit Policy of Central Marketing Organization lays down guidelines to decide suitability of a customer for extending credit, minimize the risk involved and methodology for sanction and monitoring credit. The extant Credit Policy of SAIL issued in 2009 was amended in 2014. Audit observed that, though a committee was constituted (November 2018) on the directions of Director (Commercial) to review the existing Credit Policy, and it submitted its report in January 2019, the Credit Policy was yet to be modified.

Management replied (May 2021) that a new committee was being constituted to review the suggestions and submit their report by 30 September 2021.

2.4.8.1 Delays in realization of dues from customers

Debtors or Receivables represent amounts owed to the firm by customers from sale of goods or services in the ordinary course of business. Details of trade receivables,

provision for doubtful debts and debtors turnover ratio[25] in SAIL during last five years is given in table below:

Table 2.9: Trade receivables, provision for doubtful debts and Debtors Turnover Ratio in SAIL during last five years

(Amount: ₹ in crore)

Year	Total Sales	Trade Receivable as on 31 March	Provision for doubtful debts	Debtors turnover ratio (in no of days*) or Average collection period
2015-16	43342	3297	153	51
2016-17	49114	3098	176	57
2017-18	58215	4060	190	48
2018-19	66165	4693	198	51
2019-20	60902	9020	208	61

**** 365/ Debtors turnover ratio. This is also referred to as Average collection period.***

It was seen that debtors had increased from ₹3,297 crore (2015-16) to ₹9,020 crore (2019-20). More than 82 *per cent* of the debtors pertained to Government agencies like Defence, Public Sector Undertakings and Railways. The Company had made provision of ₹208 crore in the accounts for 2019-20 for doubtful realization of which ₹134 crore (64 *per cent*) pertained to Government Agencies. The average collection period from Debtors in SAIL was between 48 to 61 days. Higher collection period was attributable to delay[26] in realisation from Government departments and Public Sector Undertakings, not charging interest on Government/ Defence/ Public Sector Undertakings customers towards delayed payment and absence of Standard Operating Procedure for submission of bill to major customers. Higher collection period had resulted in blocking up of funds and more borrowing cost. Since delay in realisation from above customers was not compensated by payment of interest, the cost to the Company on account of above overdue payment delayed by more than three months would be ₹262 crore per annum, as extrapolated from the analysis (January 2019) made by the Debtors Review Committee of Central Marketing Organisation.

Audit observed that in 1,922 invoices amounting to ₹242.38 crore, more than 80 *per cent* of the value of each invoice (amounting to ₹241.66 crore) remained unrealized for period ranging between 101 and 1,959 days. Further, such invoices were not readily available with the Management which indicates lack of effective control over debtors.

[25] ***Debtors turnover ratio: Net Credit sales/Average Trade Receivables.***

[26] ***60 to 90 days in case of Railways, 90-120 days in case of Project customers like BHEL, NTPC, L&T etc., 90-180 days in case of Defence.***

Table 2.10: Issues involved with some of the major customers leading to higher collection period and long overdue payments

Name of Customer	Materials supplied by SAIL	Debtors as on 31 March 2020	Average Collection Period	Reasons for delay in realisation
Indian Railways	Rails, Wheels and Axels and other Long and Flat products	₹6,208 crore	72 days (2016-17) to 168 days (2019-20)	Budget constraints with Railways (₹5,803.85 crore), non-receipt of Receipt notes/ deficiencies in Receipt notes (₹60.46 crore), absence of consignee confirmation, non-receipt of inspection certificate/ railway receipts, non-issue of covering purchase orders by Zonal Railway authorities against the allocation by Railway Board (₹143.31 crore).
NTPC Limited	Flat products	₹77.31 crore	36 days (2016-17) to 107 days (2019-20)	Price charged from NTPC was decided on quarterly basis and the same was to be communicated by 15th of the first month of the quarter. There was delay of 10 to 124 days in communication of quarterly prices by SAIL. This resulted in avoidable expenditure of ₹8.15 crore (on account of borrowing cost to meet the revenue gap for supplies made) during July 2017 to September 2020.
BHEL	Plate, Sheets, Structurals, Thermo Mechanically treated Bars	₹308.14 crore	12 days (2018-19) to 57 days (2019-20)	Memorandum of Understanding with BHEL provides for payment after 60 days (revised to 120 days from October 2018) of receipt of consignment, invoice and other documents free from all errors. Audit observed that time taken for realisation against supplies to BHEL was more than the period agreed in the Memorandum of Understanding and ranged up to 1,164 days.

Management replied (May 2021) that collection period of 50-60 days appears to be reasonable. As on 31 March 2021, total Railway Debtors were around ₹3,900 crore. In case of NTPC (₹109.41 crore was outstanding as on 31 March 2021), the delay even went up to 120 days in certain cases and in some instances delays took place at Company Management's end in obtaining administrative approvals. In case of BHEL, ₹16.50 crore was outstanding as of May 2021.

The reply of Management may be seen in the light of the fact that collection period from Railways alone accounted for more than 5 months in 2019-20 and 2020-21 and also the fact that the average collection period from debtors in SAIL between 48 to 61 days was considerably high. Management had admitted delay in administrative approvals. Besides, in the absence of any system to track the date of actual submission of bills to BHEL, delay in submission could not be quantified in Audit. Management had assured to put in place a system for capturing the actual date of bill submission.

Recommendation No. 5: The Company may make efforts to finalise and communicate quarterly prices timely and persuade NTPC to make payment on the basis of provisional price.

2.4.8.2 Deficient administration of interest on credit sales

Credit Policy of Central Marketing Organization stipulated that interest, normal or penal as applicable plus GST at 18 *per cent*, shall be charged on credit facility extended, at the rates declared from time to time. Audit noted following deficiencies in administration of interest on credit sales.

(i) Delay in charging interest

As per the prevailing mechanism in System Applications and Products system, interest bills cannot be generated unless the total outstanding against a purchase order (consisting of multiple invoices) is realized in full, even if very nominal amount was pending against the supply order/ invoice.

Audit observed that in absence of any specific timeline for raising interest bills on customers, there were delays ranging up to 1,648 days[27] beyond the date of last payment against an invoice. This resulted in extension of undue benefit to the customers as interest is charged up to the date of last payment of principal (invoice value) and interest is not charged on the interest amount that remains unpaid. Thus, the credit limit was unduly extended due to not charging interest on time. Since delay in generation of interest bills resulted in consequent delay in realization, SAIL had to incur finance cost of ₹7.78 crore on borrowed funds during the period 2015-16 to 2019-20.

Audit also noted that during 2015-16 to 2019-20, interest amounting to ₹18 crore till date was not charged in 165 invoices for a period up to 1,250 days pending recovery of principal amount which was less than 5 *per cent* of the invoice value. Similarly, in case of 78 invoices amounting to ₹8.93 crore, interest was not charged up to 865 days.

Management replied (May 2021) that interest bill generation module was revisited during August 2020. The new interest bill generation program as modified from August 2020 is based on the generation of interest bill on realisation of invoice value and hence the interest bill could be generated immediately.

Reply of the Management may be seen in the light of the fact that SAIL suffered avoidable loss during 2015-16 to 2018-19 on account of delays in charging interest and corrective action was taken by Management only in August 2020.

[27] ***Up to 7 days: 35 per cent, 8-30 days: 21 per cent, 31-60 days: 15 per cent, 61-180 days: 19 per cent and more than 180 days: 10 per cent.***

(ii) Delay in recovery of interest

As per the Credit Policy, amount recovered against credit sales shall be first adjusted against principal i.e., material value first followed by interest. Full interest will be adjusted before commencing recovery of the material value for the next transaction.

Interest charged on credit sales during 2015-16 to 2019-20 amounted to ₹593.01 crores. In this regard, Audit observed that interest charged was not recovered in full before adjustment of principal amount of subsequent invoices resulting in delays ranging up to 1,460 days[28] in realisation of interest (more than 60 days in 39 *per cent* cases) with consequential burden amounting ₹7.96 crore[29] towards cost of financing.

Management replied (May 2021) that there had been delay in realization of interest, but it was mainly limited to Larsen and Toubro. Special drive was undertaken in 2020-21 and interest receivables till 2018-19 were adjusted. Management reply is however silent on violation of Credit Policy on non-recovery of interest in full before adjustment of principal amount of subsequent invoices.

(iii) Non recovery of interest on delayed realisation

Audit noted that SAIL pays Liquidated Damages for delay in supply of materials to BHEL, Defence, NTPC etc. However, the Company does not charge interest for delay in realisation of dues beyond credit period extended to these customers, due to absence of any enabling clause in this regard. During 2015-16 to 2019-20, these customers deducted ₹89.91 crore as liquidated damages due to delay in supply of materials. On the other hand, interest amounting to ₹170.89 crore (considering minimum applicable interest on overdue amounts during each year) was chargeable from these customers on account of delay in realisation of dues beyond the interest free credit days. The Central Marketing Organisation, however could not adjust liquidated damages against the interest chargeable.

Management stated (May 2021) that these customers were considered to be of strategic importance and interest was waived off as per the Credit Policy. It however, accepted the fact of absence of enabling clause to charge interest in case of delay in payments by such customers. Management further stated that once Public Sector Undertakings and Government organizations opt for procurement through GeM, the payments were expected to be streamlined.

The reply of Management may be seen in the light of the fact that while SAIL had waived the interest, it had ended up paying considerable amount as liquidated damages to the same customers.

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[28] Up to 30 days: 57392 cases, 31-60 days: 16,630 cases, 61-180 days: 27,370 cases, >180 days: 19,292 cases.

[29] Considering the minimum rate of cost of finance applicable during 2015-20 i.e. 7.51 per cent.

Recommendation No. 6: The Company may make effort to incorporate a clause for levy of interest in case of realization of dues beyond due dates to safeguard its financial interest.

2.4.8.3 Delay in raising debit notes for price variation

Debit/ credit notes are issued to the customers based on price circulars issued by Central Marketing Organization with retrospective effect and approval/ disapproval of rebates extended by Branch Sales Offices of Central Marketing Organization. In this regard, Audit noted that in 66 *per cent* of cases[30], price variations during a month were regularized by issue of debit notes in the subsequent month. However, in absence of any specific timeline for raising debit notes, Audit considered 30 days as a reasonable period and observed delays ranging up to 1,800 days in raising debit notes worth ₹228.52 crore during 2015-16 to 2019-20 resulting in additional finance cost of ₹2.43 crore during 2015-20.

Management replied (May 2021) that regular follow up has been done from second quarter of 2020-21 to ensure timely issuance of debit/ credit notes. The reply of the Management highlights the inaction on its part during 2015-16 to 2019-20 and that corrective action has been initiated only since second quarter of 2020-21.

2.4.8.4 Delay in submission of relevant information for costing of rails

A Memorandum of Understanding (MoU) was entered into (2003) between SAIL and Indian Railways for supply of long rails from Bhilai Steel Plant. As per the provisions of the MoU, rail pricing was to be carried out by the Joint Pricing Committee of Indian Railways and SAIL in which decision of Chairman, Railway Board would be final and binding on both the parties. Price of rails supplied during 2012-13 to 2018-19 was finalised during 2015-20 after 9 to 46 months from approval of Company accounts. Delay in finalisation of price was attributable to delay in submission of relevant information by Bhilai Steel Plant to Chief Advisor, Cost, Ministry of Finance. Bhilai Steel Plant submitted relevant cost data for the above period with a delay of 1 to 16 months from the date of approval of audited accounts by the Board. Chief Advisor, Cost in its report dated 29 May 2015 had observed that Bhilai Steel Plant did not have structured and robust cost accounting and information system so as to provide real time cost data. It was recommended that SAIL should develop well-defined cost accounting system for making available product-wise and process-wise consumption/ input-output details and cost data on regular basis.

Audit observed that, despite similar recommendation in subsequent reports (latest in January 2020) there was no development in this regard. Last information relating to 2017-18 and 2018-19 was sent on 31 May 2019 and 1 Nov 2019 respectively. Delay in

[30] ***66 per cent of the cases cited exclude Indian Railways as price for rails is finalized as per Memorandum of Understanding with Railways and took a longer time and was not within the control of SAIL.***

submission of relevant cost data to Chief Advisor, Cost resulted in delays in finalisation of price of rails by the Joint Pricing Committee. Consequently, SAIL could claim ₹1,959.46 crore towards price escalation for rails supplied during 2012-13 to 2018-19 only after 9 to 46 months from the date of approval of accounts for the respective years. This resulted in extra expenditure of ₹51.49 crore towards cost of financing.

Management explained in its reply (May 2021) the details of the procedures involved in finalization of price. It further stated that all information and explanations were submitted by SAIL/ Bhilai Steel Plant complying with the requirement of Chief Advisor, Cost.

The reply of the Management is not relevant as Audit had considered only the delay on the part of SAIL in submission of first information on cost to Chief Advisor, Cost after the audited accounts was adopted by the Board of Directors. Management reply was also silent on the reasons for delay in submission of cost data to the Chief Advisor, Cost, Ministry of Finance after adoption of audited accounts.

Recommendation No. 7: The Company may develop a structured and robust cost accounting and information system in order to provide product-wise and process-wise consumption/ input-output details and cost data on real time basis to the Chief Advisor, Cost, Ministry of Finance so that claims from vendors (Railways) are not delayed and extra expenditure on cost of financing is not incurred.

2.4.8.5 Non-recovery of Excise duty

As per the MoU between SAIL and Indian Railways (2003), Chairman, Railway Board would decide the final price of rails on the recommendation of the Joint Pricing Committee of Indian Railways and SAIL. Till finalisation of final price, rail is supplied at provisional price on which Excise Duty/ GST at the prevailing rate was also paid. Audit noted that the price of rails supplied during January 2008 to March 2012 was finalized by the Railway Board in October 2013. There was downward revision in the price for the period from January 2008 to June 2010 and upward revision for the period from July 2010 to March 2012. For de-escalation, SAIL issued credit notes to Indian Railways and similarly for escalation in prices, Indian Railways paid differential amount along with applicable excise duty to SAIL. However, Indian Railways deducted ₹34.12 crore on account of differential excise duty on de-escalated prices. SAIL is yet to get the refund of the amount.

Audit observed that the Company failed to safeguard its financial interest by not inserting suitable clause in the MoU for mutual adjustment of Excise Duty in case of escalation/ de-escalation in final price. In absence of any clause in the MoU on recovery of Excise Duty, SAIL suffered loss of ₹34.12 crore.

Management replied (May 2021) that matter is being continuously followed up with Railways for refund of excise duty. It further stated that necessary provision has been made in the accounts. The fact that Management has created a provision against the dues in its financial statements, denotes that the likelihood of recovery is remote.

2.4.9 Non-compliance of Foreign Exchange Risk Management Policy

SAIL approved Foreign Exchange Risk Management Policy in February 2013 to identify the foreign exchange risks the Company was exposed to. A Forex Risk Management Committee was constituted (April 2013) to review the forex exposure and was required to meet once in a month. Audit noted that meeting of Forex Risk Management Committee was conducted regularly till August 2014 and thereafter, only one meeting was held (in August 2018) till March 2020. Further, the foreign currency exposure of SAIL was ₹31,912 crore during 2015-16 to 2019-20 and LIBOR was on increasing trend ranging from 0.2708 percent (April 2015) to 2.58 *per cent* (April 2019). Audit observed that Forex Risk Management Committee meeting was not conducted regularly after August 2014 to achieve the envisaged objective of Foreign Exchange Risk Management policy.

Management replied (May 2021) that formal meeting of the Forex Risk Management Committee on a regular basis is not required because at the time of Interest rate swap execution, the Forex Risk Management Committee members are consulted. Approval for the Interest rate swap is accorded by Director (Finance). A close watch is kept on the LIBOR movement.

The reply is not tenable, as nothing on record was produced to show consultation at the time of execution with the members of Forex Risk Management Committee. As per the Foreign Exchange Risk Management policy, Forex Risk Management Committee was required to meet once in a month. Further, Forex Risk Management Committee had members from different departments (Commercial, Project, Coal Import etc) and their views are important before going for foreign currency exposure.

2.4.10 Utilisation of Funds

SAIL utilizes its funds to procure various resources and services essential for steel making. Resources include gases, electric power, water etc. Railway services also are critical to steel making. These resources and services are either sourced from captive generation or through purchases from outside parties.

2.4.10.1 Gases and Power

Oxygen is required for production of hot metal in blast furnaces of steel plants. SAIL incurred extra expenditure due to non-drawal of minimum guaranteed gases as discussed in paras below:

(i) Bokaro Steel Plant entered (June 2006) into an agreement with INOX Air Products Limited to meet its requirement of Oxygen, Nitrogen and Argon gases. The agreement stipulated building of a plant by INOX on Built Own and Operate basis, to be completed by December 2008. The agreement, envisaged a minimum guaranteed off take of gases from the plant by Bokaro Steel plant, failing which the steel plant was liable to pay a penalty. Audit observed that the hot metal production of Bokaro could not be increased to the desired level and consequently the minimum guaranteed off take of gases could not be

done continuously. Drawal of Oxygen was in excess of the minimum guaranteed quantity as per the agreement. However, in case of Nitrogen and Argon there was a short fall. Bokaro Steel Plant paid ₹7.27 crore during 2015-16 to 2019-20 as penalty for failure to achieve minimum off take of gases as per agreement.

(ii) M/s Prax Air installed an Oxygen Plant on Build Own and Operate basis at Bhilai Steel Plant. As per the agreement, in case of lower demand, the steel plant would pay the price for shortfall in the minimum off-take of gases. Bhilai Steel Plant procured/ consumed less quantity of gas during 2015-16 to 2019-20 and paid ₹27.99 crore extra to the supplier for failure in achieving minimum off-take. Audit observed that production of Hot Metal and Crude Steel reduced during 2015-16 to 2019-20. Thus, due to inconsistent operation, Bhilai Steel Plant had to incur extra expenditure of ₹27.99 crore.

(iii) Rourkela Steel Plant entered into a gas supply agreement with M/s Linde India Limited in January 2009 to set up an Oxygen plant on Build Own and Operate basis. As per clause 15.3 of the agreement in case of lower demand, buyer should continue to pay monthly fixed facility charge and the price of gas supplied on actual consumption basis subject to minimum off take of 75 *per cent* of the capacity on hourly basis of one Air Separation Unit for Oxygen, Nitrogen and Argon.

Audit observed that Rourkela Steel Plant availed lesser quantity of oxygen than the envisaged minimum off take of the capacity of oxygen (30,750 normal cubic meter per hour) during 2015-16 to 2019-20. The lower demand of oxygen gas was on account of shutdown/ breakdown in blast furnaces, less oxygen enrichment, less blow in steel melting shop etc. As a result, Rourkela Steel Plant had to incur extra payment of ₹8.93 crore for 22767.075 thousand normal cubic meter of oxygen not utilized by it.

Management replied (May 2021) that due to technological constraints, Bokaro Steel Plant was compelled to honour the Minimum Take Off Point clause. Production of Hot Metal/ Crude Steel was inconsistent during 2015-16 to 2019-20 in Bhilai and hence the consumption of oxygen was below the agreed minimum quantity. At Rourkela, whenever possible one unit of the plant built by M/s Linde was put under shutdown to avoid payment under Minimum Take Off Point on account of low oxygen consumption.

The reply of the Management further corroborates the Audit observation that the plants were unable to draw minimum guaranteed gases which led to payment of penalty. Management did not take initiative to revise the minimum off take quantity downwards based on actual consumption pattern of previous years to avoid such penalty.

Recommendation No. 8: Management may take initiative to revise minimum offtake quantity downwards considering actual consumption pattern of gases in previous years to avoid such penalty.

(iv) Apart from getting power from captive power plant, Rourkela Steel Plant purchases power from Western Electricity Supply Company of Orissa Limited. Energy charges was at industrial tariff (₹5.20/unit) except 10 *per cent* of total power drawn treated

as colony consumption charged at ₹4.60/unit. Rourkela Steel Plant decided (June 2014) for a separate power supply contract for its township which would lead to average saving in energy bill of ₹15 crore per annum in view of the power tariff structure prescribed by Odisha Electricity Regulatory Commission.

Rourkela Steel Plant approached (June 2014) Western Electricity Supply Company of Orissa Limited for a separate contract for power. It was only after lapse of one year that Rourkela Steel Plant requested (June 2015) Western Electricity Supply Company of Orissa Limited for permission of separate power supply agreement for its township with a contract demand of 40 MVA at 33 kV from the existing network. Rourkela Steel Plant did not pursue the matter for four and half years till it approached Western Electricity Supply Company of Orissa Limited in March 2020. The Electricity Company replied (June 2020) that separate billing for colony could not be permitted as supply from two different sources could not be fed into the same premises. Audit observed that due to delay in submission of application and lack of persuasion by Rourkela Steel Plant to obtain a separate power supply contract at bulk domestic tariff for its township, it could not get the benefit of lower rate of power which resulted in incurring extra expenditure of ₹61.06 crore during July 2015 to March 2020.

Management replied (May 2021) that the issue was taken up with Western Electricity Supply Company of Orissa Limited in September 2020 and that if it did not agree, Management may consider filing an appeal before Odisha Electricity Regulatory Commission.

Reply of the Management may be seen in the light of the fact that till August 2021, it had been unable to obtain separate power connection for its township despite lapse of seven years since raising its request with the Electricity Supply Company.

2.4.10.2 Undue benefit to employees

(i) Less recovery of fixed charges and electricity duty of ₹7.89 crore by Rourkela Steel Plant

Rourkela Steel Plant obtains electricity from captive power plants or purchases it from external sources. Part of the power is consumed in the township. The steel plant recovers electric charges from consumers. As per Clause 3 of the Electricity Duty Act 1961, Electricity Duty shall be levied on energy consumption by any consumer, or on any person (not being a licensee or Board) who generates such energy for his own use or consumption, at rates notified by the State Government from time to time. As per the Electricity Tariff Circular of Rourkela Steel Plant, Electricity Duty as levied by Government of Odisha under the Electricity Duty Act, 1961 and any other statutory levy imposed under any law would be charged over and above the tariff payable by the consumers.

Audit observed that Rourkela Steel Plant did not recover the fixed charges corresponding to the load and Electricity Duty on energy charges from the consumers of Steel township. Under recovery of these charges from consumers led to loss of revenue of ₹7.89 crore during the period from 2015-16 to 2019-20.

Management replied (May 2021) that majority of the consumers were employees and Electricity Duty was not levied as goodwill and welfare measure to them.

The reply is not acceptable because non-recovery of Electricity Duty from consumers was not in line with the Electricity Tariff Circular of Rourkela Steel Plant as well as was non-compliance of the Electricity Duty Act 1961 and notifications of Government of Odisha. Moreover, any goodwill or welfare measure for employees should be on the basis of any approved incentive scheme or policy.

(ii) Extra expenditure of ₹45.22 crore on water by Bhilai Steel Plant

Annual requirement of water for Bhilai Steel Plant is 110 million cubic meter, which includes drinking water for plant and township (60 *per cent*) and Industrial Make-up Water (40 *per cent*). Bhilai Steel Plant entered into an agreement with Government of Chhattisgarh in April 2006 for 30 years commencing from 1 January 2005 for drawal of 113 million cubic meter (4 thousand million cubic meter) of water from the reservoirs of Chhattisgarh Water Resource Department for its use. The water was for industrial use in the Plant and for domestic use in the Colony. Chhattisgarh Water Resource Department communicated (August 2008) that supply of water was mainly for industrial purpose. Its use for domestic purpose was restricted to 50 *per cent* only and Bhilai Steel Plant was required to pay at the industrial rate for the water consumed in excess of 50 *per cent*.

Audit observed that consumption of water for domestic purpose was around 61.65 *per cent* of the agreed quantity which was more than the permitted quantity of 50 *per cent* and led to extra payment of ₹58.33 crore by Bhilai Steel Plant. However, the steel plant recovered ₹13.11 crore only from the users. This resulted in extra expenditure of ₹45.22 crore during 2015-16 to 2019-20.

Management replied (May 2021) that in compliance with the Audit observation, the matter of pricing and billing based on actual consumption of drinking water is being pursued with the Water Resources Department officials.

The Management may also pursue the matter with the employees to recover additional cost of water.

2.4.10.3 Railway Freight

Raw materials, finished goods and equipment/ machineries are transported through Railways. SAIL incurred ₹9,015.58 crore on account of Railway freight during 2015-16 to 2019-20. Audit observed that SAIL incurred avoidable expenditure on demurrage charges, Engine hire charges, penalty on overloading etc., during 2015-16 to 2019-20 as discussed in paras below:

(i) Avoidable expenditure of ₹152.84 crore on account of demurrage charges

Railways provide free time for loading and unloading of materials. In case the time taken for loading/ unloading exceeds the free time limit, demurrage charges are levied. Audit noted that steel plants paid ₹152.84 crore[31] as demurrage charge during 2015-20 due to inability to load/ unload the material within free time allowed by the Railways.

Management replied (May 2021) that detention hours of wagons has been reduced considerably in 2020-21 at Bhilai Steel Plant, Indian Iron and Steel Company Steel Plant (located at Burnpur) and Bokaro Steel Plant. It further stated that necessary action has been taken to minimise demurrage at Durgapur and that Railways have been requested by Rourkela Steel Plant to waive the demurrage amount (attributable to Railways according to Management) for the year 2019-20.

The reply of Management highlights the fact that by taking preventive and proactive steps, it could reduce the detention hours and demurrage charges. Therefore, had such action been taken earlier, the demurrage charges paid during 2015-16 to 2019-20 could have been minimized.

(ii) Avoidable expenditure of ₹41.09 crore towards Engine Hire Charges by Indian Iron and Steel Company Steel Plant (located at Burnpur)

Railway Board implemented the Engine on load Scheme for all sidings coming after 1 April 2006. Under the Scheme, if a siding holder requires to utilize the train engine during loading or unloading of the rake, within the prescribed free time, the same will be allowed without levying any additional charges. Engine Hire charges shall be charged beyond the free time. Rail Transport Clearance was granted by the Railway Board in November 2008 for movement of traffic with the condition to develop facilities for loading and unloading on Engine on load concept and design yard layouts to facilitate the above. Indian Iron and Steel Company Steel Plant entered into an agreement with the Railways in January 2014 for Engine on load operation. Indian Iron and Steel Company Steel Plant developed a new raw materials handling yard under Engine on load concept in December 2015. Free time of five hours was allowed by Railways to unload the open rakes. Audit noted that ₹41.09 crore was paid during 2015-20 due to detention of engine beyond free time allowed.

Audit observed that in about 70 *per cent* cases, unloading time was more than five hours mainly due to the reasons like Route stop, Shift change, Placement delay and Hopper jam, which were within the control of the Management. Thus, inability of the Management to unload the materials within stipulated time resulted in avoidable expenditure of ₹41.09 crore.

[31] ***Bhilai Steel Plant- ₹35.90 crore, Rourkela Steel Plant-₹38.01 crore, Durgapur Steel Plant- ₹16.08 crore, Bokaro Steel Plant-₹20.09 crore and Indian Iron and Steel Company Steel Plant (located at Burnpur)- ₹33.76 crore.***

Management replied (May 2021) that reasons for delay in unloading are not always within their control. Due to preventive and proactive action taken, the delay had been substantially reduced resulting in reduction of Engine hire charges.

Reply of the Management validates the fact that by taking preventive and proactive action, the Engine hire charges could be contained.

(iii) Payment of idle freight and penalty for overloading charges

Railways charge freight for the carrying capacity of a wagon. If the wagon is underloaded, the customer has to bear extra expenditure of the freight for the materials not actually transported. In case of overloading of wagons the penal freight/ overloading charges is to be paid by the user agency. Audit noted that five steel plants of SAIL paid idle freight of ₹397.90 crore[32] during 2015-20. Further ₹7.66 crore[33] was paid by Steel Plants at Bhilai, Rourkela and Durgapur as penalty for overloading of wagons during the same period.

Management replied (May 2021) that steps had been taken to ensure optimum loading/ freight at Bhilai Steel Plant mines siding. There was adequate internal control system to avoid underloading/ overloading of wagons at Durgapur. Optimization through various means was being done to minimize idle freight at Bokaro. It further stated that it was practically very difficult to load with zero tolerance. Management further stated (October 2021) that it was not possible to fix any tolerance limit for idle freight with respect to the product mix in view of supply of different types of wagons by the Indian Railways having a different carrying capacity.

Reply of the Management may be seen in the light of the fact that if loading with zero tolerance was not practicable, it should have atleast set lowest limits of tolerance. Management should take effective steps to load the wagons accurately and minimize expenditure on account of idle freight and penalty for overloading, as the Company is incurring significant expenditure on this account.

Recommendation No. 9: The Company may (a) set target for reduction in demurrage charges (b) take necessary measures to arrest the controllable delays in loading/ unloading materials within the stipulated time allowed under the scheme to reduce Engine hire charges (c) set tolerance limits for idle freight with reference to the type, size and carrying capacity of wagons to minimize avoidable expenditure on account of idle freight.

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[32] ***Bhilai Steel Plant: ₹116.25 crore, Bokaro Steel Plant: ₹41.03 crore, Rourkela Steel Plant: ₹33.74 crore, Durgapur Steel Plant: ₹53.84 crore and Indian Iron and Steel Company Steel Plant (located at Burnpur): ₹153.04 crore.***

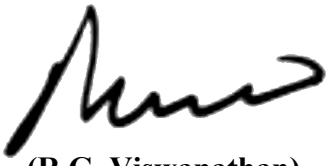
[33] ***Rourkela Steel Plant: ₹5.57 crore, Bhilai Steel Plant: ₹1.84 crore and Durgapur Steel Plant: ₹0.25 crore.***

2.5 Conclusion

SAIL incurred losses during 2015-16 to 2017-18 and subsequently earned profits during 2018-19 and 2019-20 mainly on account of valuation of sub-grade fines, scrap etc. The Company was faced with declining / stable Credit Rating over the last five years, which was attributable to weak operational performance, debt levels and interest cost. Borrowings by SAIL had increased from ₹16,320 crore in 2011-12 to ₹54,127 crore as on 31 March 2020. The Company was not able to maintain the ratio of Long term loans and Short term loans as devised by the Board of Directors. Decision to hedge loan and interest by the Company was not consistent. Non-hedging of loans of 400 million USD in terms of foreign exchange fluctuation led to avoidable expenditure of ₹194 crore. The Company did not hedge the interest on Buyers' Credit (LIBOR) except in few cases during March 2017 to December 2017.

Out of 21 Joint Venture Companies of SAIL, eight were operational, three under project/ feasibility stage and ten were inactive or under closure. Company had not framed any policy or guidelines for investment of funds in the Joint Venture Companies. Audit noted cases of unfruitful investment in the Joint Venture Companies by SAIL. The Company did not comply with the guidelines of Department of Investment and Public Asset Management regarding payment of dividend. The Company declared nominal dividend (₹206.53 crore) during 2018-19 and no dividend during 2019-20 despite being in profit. Debtors had increased from ₹3,297 crore (2015-16) to ₹9,020 crore (2019-20). There was delay in submission of claim of ₹1,959.46 crore towards price escalation for rails due to delay in submission of relevant cost data and consequent delay in finalisation of price of rails. Extra expenditure was incurred due to non-drawal of minimum guaranteed gases by the steel plants. There was avoidable expenditure of ₹41.09 crore towards Engine Hire Charges by Indian Iron and Steel Company Steel Plant (located at Burnpur) due to detention of engine beyond free time allowed by the Railways. SAIL paid idle freight of ₹397.90 crore due to underloading of wagons and ₹7.66 crore as penalty for overloading of wagons. Consumption of excess water than the permitted quantity led to extra expenditure of ₹58.33 crore by Bhilai Steel Plant.

Management itself accepted the impending threat of downward revision of its Credit Rating. Such downward revision would lead to increase in borrowing cost and difficulty in raising funds in future. The critical ratios depicting its financial position like Debt Equity ratio, Interest Coverage Ratio and Net Debt to Earnings before interest, taxes, depreciation and amortization also indicated financial instability and worsening credit profile of the Company.



New Delhi **(R.G. Viswanathan)**
Dated: 31.03.2022 **Deputy Comptroller and Auditor General**
(Commercial) and Chairman, Audit Board

Countersigned

New Delhi **(Girish Chandra Murmu)**
Dated: 31.03.2022 **Comptroller and Auditor General of India**