CHAPTER X: MINISTRY OF STEEL

Bisra Stone Lime Company Limited

10.1 Operational and Financial Performance of Bisra Stone Lime Company Limited

10.1.1 Introduction

Bisra Stone Lime Company Limited (BSLC) was incorporated (October 1910) as a public company with the objective of mining and marketing of limestone and dolomite. It came under the administrative control of Ministry of Steel in 1980 and became a Public Sector Undertaking in March 2010 as a subsidiary of Eastern Investments Limited (EIL), which in turn is a subsidiary of Rashtriya Ispat Nigam Limited (RINL). BSLC's Board consists of three Directors including a non-executive Chairman and two nominee Directors from Government of India/ RINL. Managing Director (MD) of the Orissa Minerals Development Company Limited (OMDC) was authorised (July 2014) to exercise powers (except policy matters) of MD, BSLC. Total manpower of BSLC as on March 2018 was 699. BSLC suffered losses continuously during 2013-14 to 2017-18 and accumulated loss was ₹203.68 crore (as on 31 March 2018). BSLC operates one limestone and dolomite mine at Birmitrapur with an estimated total reserve of about 2025 lakh tonne of limestone and 1021 lakh tonne of dolomite. The current lease deed for the mines of BSLC over an area of 793.04 ha was executed in December 2015 for a period up to March 2020.

Audit reviewed records at BSLC's head office (Kolkata) and mines for five years ending March 2018. The audit objectives were to assess whether Production plan of BSLC was realistic and production was as per plan, sales activities were carried out efficiently to maximise revenue and human resources and mining assets were adequately utilised. Audit also reviewed the role of the holding company, EIL in functioning of BSLC.

10.1.2 Audit Findings

10.1.2.1 Lower than targeted production resulting in loss of contribution of ₹47.91 crore

BSLC operated limestone and dolomite mines in Odisha bearing 51 *per cent* and 68 *per cent* reserves respectively of total limestone and dolomite reserve in the State. However, BSLC produced only 0.25 *per cent* and 40 *per cent* respectively of the total limestone and dolomite production in the state during 2012-13 to 2016-17. The production of BSLC during 2013-14 to 2017-18 was as under-

Table 10.1: Target and actual Production of BSLC during 2013-14 to 2017-18

(Quantity in tonne)

Year	Allowed Production[1]	Production target	Total production	Percentage of production w.r.t. target	Shortfall w.r.t target
1	2	3	4	5	6= 3-4
2013-14	960000	847000	395909	47	451091
2014-15	960000	800000	104728	13	695272
2015-16	960000	960000	482027	50	477973
2016-17	960000	720000	476484	66	243516
2017-18[2]	5260000	768000	567122	74	200878
Total	**9100000**	**4095000**	**2026270**	**49**	**2068730**

Audit observed that despite growth in steel and cement industries (being main consumers of limestone and dolomite) during 2013-14 to 2017-18, production by BSLC ranged between 13 *per cent* to 74 *per cent* of the target during 2013-14 to 2017-18. Overall production in BSLC during this period was less than one fourth of the allowed production quantity and less than half of the targeted production. As a result, BSLC suffered loss of contribution towards fixed costs to the extent of ₹47.91 crore during 2013-14 to 2017-18. Moreover, though allowed production was increased (2017-18 onwards) from 9.6 lakh tonne to 52.60 lakh tonne, BSLC fixed production targets at 7.68 lakh tonne for 2017-18 and 2018-19.

The Management replied (December 2018) that there was an upward trend in production and that tenders for raising and feeding to departmental crushers were being floated to further increase the production.

Low production by BSLC was mainly attributable to scarcity of working capital, stoppage of mining operations due to non-payment of statutory dues and failure to de-water submerged quarries as brought out in the succeeding paragraphs:

(a) Lack of Working Capital

The requirement of working capital for BSLC was ₹376.52 crore during 2013-14 to 2017-18, as against which availability was ₹151.31 crore (being 40 *per cent* of total requirement). The requirement, availability and shortfall of working capital during 2013-14 to 2017-18 is shown in table below:

Table 10.2: requirement, availability and shortfall of working capital during 2013-14 to 2017-18

(₹ in crore)

Year	Working capital requirement	Availability of working capital	Shortfall	Shortfall in *per cent*
2013-14	66.12	27.28	38.84	58
2014-15	63.51	20.27	43.24	68
2015-16	63.69	43.17	20.52	32
2016-17	92.02	28.12	63.90	69
2017-18	91.28	32.47	58.81	64

[1] ***Maximum production allowed under Mining Plan (MP), Consent to Operate (CTO) and Environment Clearance (EC)***

[2] ***Production allowed under EC, MP and CTO was enhanced from 0.96 million tonne to 5.26 million tonne in 2017-18***

As of June 2018, BSLC had outstanding dues of ₹118.07 crore[3]. Acute shortage of working capital led to non-payment of salary and wages to employees and payments to the contractors. Salary for the month of April 2013 to June 2017 was paid with a delay of 20 days to 14 months, while salary for July 2017 onwards was yet to be paid (September 2018). Further, employees and staff of contractors frequently stopped production activities due to non-payment of salary and wages.

The Management replied (December 2018) that trade advances were taken from RINL and SAIL to tide over the critical financial condition. Non-availability of rakes in time also affected despatches and consequently availability of fund. It further stated that RINL had restricted recovery of trade advances and had also agreed not to recover taxes and duties, which would improve working capital position of BSLC.

(b) Stoppage of mining operations by various statutory authorities

Mining operations of BSLC were stopped for 446 days during 2013-14 to 2017-18 on account of non-availability of Environmental Clearance (EC) (49 days), non-renewal of mining lease (201 days) and attachment of bank account (120 days by PF authorities and 76 days by the District Court).

As per the provisions of the Employees Provident Funds & Miscellaneous Provisions Act, 1952, BSLC was required to remit the Employees Provident Fund (EPF) and other allied dues within 15th of closure of every month. BSLC, however failed to deposit the dues regularly during 2013-14 to 2017-18 due to its poor financial condition and inadequate cash inflow. EPF Authorities attached bank account of BSLC for 120 days in three spells for default in remittance of Provident Fund dues, as a result of which, mining activities were suspended for 120 days resulting in loss of production of 2.69 lakh tonne. BSLC also paid ₹2.02 crore as penal interest/ damages in December 2015 and August 2018 on account of late remittance of dues. The outstanding dues (June 2018) towards EPF were ₹13.70 crore (including penal interest of ₹8.70 crore). The Management stated (December 2018) that they were taking all possible steps to prevent recurrence of such events in future.

(c) Inaction in de-watering submerged quarries

Out of the five quarries from which mining was planned to be carried out by BSLC, four quarries namely Patpahar Dolomite, Gurpahar Limestone, Duarsini Dolomite and Duarsini Limestone quarries were submerged in 30.20 lakh cum water since 2013-14 and no mining activity could be carried out at these four quarries. Mining was continued only from main dolomite quarry.

The dewatering pumps at Duarsini and Patpahar quarries stopped working in 2013 and 2014 respectively as diesel could not be supplied due to financial crisis and water started accumulating. In 2013, two submersible pumps were arranged from RINL but had not been installed (September 2018) due to absence of substation and overhead line. As a result, huge quantity of water has now accumulated in the quarries and as per

[3] ***Wage related expenses (₹35.39 crore), Contractual payments (₹13.97 crore) and Trade advance from customers (₹36.78 crore), loan from EIL (₹20.96 crore) and other Statutory dues (₹10.97 crore)***

management's estimate, more than six months would be taken to dewater Patpahar quarry alone. Consequently, BSLC could not produce 18.23 lakh tonne of dolomite and 136.06 lakh tonne of limestone as envisaged in its mining plan and suffered loss of contribution to fixed costs to the extent of ₹337.91 crore during 2013-14 to 2017-18.

The Management stated (December 2018) that action had been initiated for mineral exploration and to explore market for limestone. It also stated that production from Duarsini Dolomite quarry was not in the scheme of mining for 2013-18 and that production from other quarries was sufficient to meet the current demand of dolomite and therefore de-watering has not affected supply of dolomite.

The Management's reply was not acceptable because production from Duarsini Dolomite quarry was included in the mining scheme for 2013-18 and loss of production has been calculated based on production proposed in the mining scheme. Further, production from other quarries was not sufficient to meet demand as BSLC could supply only 21.88 lakh tonne out of the total ordered quantity of 30.83 lakh tonne to its customers during 2013-14 to 2017-18.

10.1.2.2 Non-exploration led to surrender of 305.34 ha mining lease area

As per directions of GoI (December 2010), all mining leases with an area of more than 50 ha were to be equally demarcated for prospecting work such that the prospecting work is completed in five years from the date of imposition of the condition in ML. The Corporate Plan (February 2012) of BSLC for the period 2012-22 also emphasised for re-assessment of mineral reserves through exploration.

Audit observed that out of its mining lease area of 1099.30 ha comprising six blocks (Block-I, II, III, IV, VI & XI), BSLC was carrying out mining operation in only one block (Block XI) up to 2014. Though BSLC had committed to carry out exploration of 305.34 ha in five non-working blocks to assess the quantity of reserves of limestone/ dolomite during 2014-17, they failed to do so due to financial crisis. As a result, Government of Odisha (GoO) did not renew mining leases of these five blocks and directed (May 2015) BSLC to execute lease deed over an area of 793.043 ha covering Block XI only. Thus, BSLC lost the opportunity to mine 318.80 lakh tonne of limestone/dolomite from these five blocks.

Audit also observed that out of current lease area of 793.04 ha, BSLC had explored only 113 ha as of March 2018. The last exploration was conducted in 1995-96. Despite their commitment to conduct exploration and repeated reminders from Indian Bureau of Mines (IBM) and GoO, BSLC had not conducted any exploration work on the grounds of financial crisis and suspension of mining operation by the Statutory Authorities. Consequently, BSLC not only failed to identify reserves of different grades of dolomite, which is significant for proper mine planning and production scheduling, but also faced the risk of losing idle lease area on account of non-exploration when the lease came up for renewal in 2020.

The Management replied (December 2018) that compliance of statutory requirements besides land acquisition for mining in other blocks was time consuming and expensive and that the present demand of customers was met out of the working block XI so there

was no need to explore other blocks. The Management's reply is contradictory as BSLC could supply only 21.88 lakh tonne out of the total ordered quantity of 30.83 lakh tonne to its customers during the period 2013-18. Further, since the leases for the five blocks were not renewed, BSLC lost the opportunity to mine an additional 318.80 lakh tonne of limestone/ dolomite from these blocks.

10.1.2.3 Dumping of overburden and waste material over mineral bearing area

The Mineral Conservation and Development Rules, 1988 provide that the ground selected for dumping of overburden, waste material, the sub-grade or non-usable ores/minerals shall be away from the working pit. The dumping area shall be proved for absence or presence of underlying mineral deposits before it is brought into use for dumping. Audit observed that out of 243.38 ha of land put to use for mining by BSLC as of March 2018, BSLC Township (including staff quarters), crusher plants and overburden dumps were located on the dolomite mineral Reserve of 62.39 ha making those areas inaccessible for mining. The Management replied (December 2018) that they were concerned about the issue and would keep it in mind.

10.1.2.4 Sales performance

BSLC failed to supply ordered quantity of limestone and dolomite during 2013-14 to 2017-18 as seen in table below-

Table 10.3: Actual production and sales against the targets of production and orders.

(figures in tonne)

Year	Targeted Production/ Targeted Sales	Actual Production	Sales	
			Ordered quantity	Delivered quantity
2013-14	847000	395909	719600	467380
2014-15	800000	104728	374100	107509
2015-16	960000	482027	592800	531255
2016-17	720000	476484	549900	495021
2017-18	768000	567122	846300	586555
Total	**4095000**	**2026270**	**3082700**	**2187720**

BSLC could achieve sales of 21.87 lakh tonne as against the targeted sales of 40.95 lakh tonne whereas the management estimate for breakeven point for BSLC was sales of 9.11 lakh tonne per annum i.e. 45.55 lakh tonne during 2013-14 to 2017-18. The sales ranged between 1.07 lakh tonne and 5.87 lakh tonne per annum during 2013-18, which was lower than the breakeven level by 12 *per cent* to 64 *per cent*. Against targeted revenue of ₹280.60 crore from operations during 2013-18, BSLC achieved only ₹152.62 crore due to lower sales.

The Management replied (December 2018) that sales were affected due to suspension owing to statutory/court pronouncements, inconsistent order, lack of working capital, reduced off-take by SAIL and non-availability of rakes.

The reply of the Management regarding reduced off-take by SAIL is not acceptable as BSLC had actually failed to fulfil the demand of SAIL.

(a) Shortfall in revenue from sale of minor minerals

Some sub-grade minerals[4] are also produced during the process of production of limestone and dolomite. These sub-grade minerals can be sold as minor minerals with the permission of GoO, in terms of the Minerals Concession Rules, 1960. As of April 2013, BSLC had stock of 105 lakh tonne of sub-grade minerals. Corporate Plan (February 2012) of BSLC for 2012-22 envisaged revenue of ₹37 crore during 2013-18 from the sale of sub-grade minerals. However, during 2013-18, BSLC sold only 1.5 lakh tonne of sub grade minerals valuing ₹3.45 crore which was much below the anticipated revenue.

Audit observed that despite huge demand for sub-grade minerals by crusher plants located in and around the BSLC mines for production of road/building material, BSLC could not achieve its planned revenue from sale of minor minerals. During 2013-14 to 2017-18, BSLC invited open tender for sale of minor minerals only three times. Further, despite its commitment (December 2013) in the mining plan (2013-18) to carry out analysis of all 17 bad stone dumps to ascertain any mineral recovery and to stack such recovered minerals separately, no action in this regard was taken by BSLC.

Audit observed that IBM conducted (December 2014) a beneficiation study on sub-grade/mineral reject of limestone sample from BSLC mines and concluded that the sample was amenable to beneficiation to produce the desired concentrate for cement industry. The Management replied (December 2018) that all avenues were being explored for sale of limestone/dolomite. BSLC, however did not assess the expenditure for beneficiation of minor minerals owing to the financial crisis.

10.1.2.5 Maintenance and utilisation of land, township and human resources

(a) Improper management of land

BSLC owned 263.03 acre of freehold land as on 31 March 2018. Audit observed that: -

i. 63.06 acre of freehold land was encroached by outsiders. BSLC did not take any action to get the encroached land evicted.

ii. BSLC mortgaged (January 2005) 111.09 acre of land to Indian Overseas Bank to avail finance of ₹1.50 crore. Though the amount along with interest due was repaid in 2006-07, BSLC had not collected sale deeds from the bank.

The Management replied (December 2018) that action was initiated for appointment of Estate Officer for eviction from land/buildings and that it would take a couple of months to initiate action after appointment and to settle the issues. They are in the process of collecting the sale deeds from banks. The Management's reply was silent on non-availability of rights/ title deed of land.

[4] ***Minerals which meet the threshold criteria specified by IBM but cannot be sold in the market as graded minerals***

(b) Uninhabitable condition of staff quarters

BSLC had 1,679 quarters at Birmitrapur out of which 935, 291 and 29 quarters had been allotted to employees, ex-employees and outsiders respectively**,** 164 were locked and 260 quarters were in uninhabitable condition. Most quarters were in dilapidated condition as no repairs had been carried for many years due to paucity of fund. A committee of BSLC formed to identify unsafe quarters reported that almost all the quarters and office building were unsafe for living/stay and, in heavy rainfalls, the roofs of buildings were likely to fall. BSLC's trade unions had also brought this fact to the notice of Director General of Mines Safety.

Audit noted that the roofs of VT centre and one quarter collapsed recently. Despite the poor condition of buildings, BSLC had spent only ₹27 lakh on repair of buildings during last five years, and consequently there was threat to life of occupants as well risk of heavy compensation payable in the event of a mishap. The Management replied (December 2018) that action had been initiated to obtain estimates and then to start repair work on priority basis.

(c) Supply of free electricity to all quarter occupants

BSLC procures electricity from Western Electricity Supply Company of Odisha Limited but does not recover electricity charges from the employees/ex-employees/outsiders occupying BSLC's quarters in the Birmitrapur township. BSLC spent ₹9.55 crore[5] during 2013-18 towards supply of such free electricity. Electricity charges were not recovered on the plea that BSLC was unable to pay wages regularly to its staff and officials and thus was not in a position to recover electricity charges from salary. With respect to ex-employees, BSLC stated that terminal benefits like gratuity, PF dues etc. had not been paid to them, hence BSLC could not force them to vacate the quarters. Non-recovery of electricity from users led to extending undue benefit of ₹9.55 crore to the employees/ex-employees and outsiders occupants of quarters. Audit also observed that energy meters were not installed in the quarters. Though installation of 552 energy meters was approved (April 2013) at a cost of ₹7.73 lakh, it was yet to be implemented.

The Management replied (December 2018) that procurement and installation of meters and modality of recovery of electricity charges was under process. The Management's reply was silent on the issue of free supply of electricity to the outsiders who were quarter occupants.

(d) Management of idle assets and manpower

Around 80 *per cent* (16.22 lakh tonne out of 20.26 lakh tonne) of production during the last five years was through contractors and not through departmental means. Contractual production was resorted to due to old and worn out equipment, lack of skilled labour and absence of a centralised crushing and screening system. Mining equipment (34 Nos.) including crushers, loaders, compressors and excavators were in stock, out of which eight were in running condition, three were lying idle awaiting installation and the remaining 23 were under breakdown (March 2018).

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[5] ***Employees: ₹6.93 crore, Ex-employees: ₹2.40 crore and Outsiders: ₹0.22 crore***

BSLC had 1031 employees as on April 2013, which had reduced gradually to 696 by April 2018. In view of the fact that more than 80 *per cent* of the production was carried out through outside contractors during the last five years, many employees were rendered idle. BSLC had identified 400 employees as idle out of its 672 non-executives (March 2018), who could be given voluntary retirement at a cost of ₹53.36 crore. However, due to financial constraints, VRS could not be implemented. Due to excess manpower and low production, labour productivity [6] of BSLC was below seven tonne/man/day as against the international benchmark of 25-30 tonne/man/day.

The Management replied (December 2018) that GoI has been requested for financial assistance for revival and dealing with idle assets and manpower.

10.1.2.6 Other Issues

(a) Short-recovery of PTSC charges amounting to ₹2.18 crore from customers

BSLC supplies limestone and dolomite to its customers by rail. Its major customers are SAIL, RINL and Neelachal Ispat Nigam Limited (NINL). The railway siding of BSLC is located at a distance of about five km from Birmitrapur Railway Station. Since this siding has not been electrified, Railways deploy diesel engines for shunting. The Per Trip Siding Charges (PTSC) are fixed by Railways and subject to revision annually.

We noted that SAIL and NINL were paying PTSC charges to BSLC at a fixed rate of ₹26 per tonne as specified in the purchase orders. On the other hand, RINL was paying PTSC charges at the rate actually paid to Railways by BSLC which was higher than ₹26 per tonne during 2014-15 to 2017-18. Thus, BSLC short recovered PTSC charges from SAIL and NINL as rates specified in purchase orders were not revised in line with the annual revision of PTSC charges by Railways. Thus, while the current rate charged by Railways effective from 15 July 2018 was ₹45 per tonne, BSLC continued to be reimbursed at the rate of ₹26 per tonne by SAIL and NINL.

During 2013-14 to 2017-18, against the total payment of ₹6.17 crore to Railways on this account, BSLC could recover only ₹3.99 crore. BSLC belatedly requested (May 2018) SAIL to reimburse PTSC as per actuals, however, its demand was yet to be accepted by SAIL. Thus, short recovery of PTSC charges from SAIL resulted in non-realisation of ₹2.18 crore.

The Management replied (December 2018) that the matter was under their active consideration for dealing with PTSC charges with other companies. The reply of the Management did not justify its failure to recover the PTSC charges on actual basis.

(b) Non-reconciliation of physical stock of minerals with returns submitted to IBM/ GoO

As per the Annual Return for the year 2017-18 submitted to IBM and GoO, there was a stock of 4.11 lakh tonne of limestone and 2.65 lakh tonne of dolomite in the BSLC mines as of 31 March 2018. However, physical verification of stock conducted (April 2018) by a

[6] ***Quantity of production in tonne per man per day***

third party revealed a balance of only 0.63 lakh tonne and 0.10 lakh tonne of limestone and dolomite respectively. The Management stated (August 2018) that difference was mainly attributable to handling loss incurred in the mines which could not be reflected in the returns submitted. Audit noted that such huge difference in stock needed investigation and reconciliation by BSLC. Mining lease of BSLC is valid upto March 2020 and therefore, in the absence of reconciled data, BSLC may have to pay royalty on the differential stock at the time of renewal. The Management replied (December 2018) that reconciliation with IBM/ Deputy Director of Mines was in process.

(c) Corporate Governance Issues

i. DPE guidelines on Corporate Governance for CPSEs and Section 149 (4) of the Companies Act, 2013 prescribes that every listed public company should have at least one-third of the total number of directors as independent directors. Since, Chairman of BSLC is from its promoter side i.e. from RINL and shares of BSLC are listed at stock exchanges, the provision of SEBI (Listing Obligation and Disclosure Requirements) Regulation, 2015 (September 2015) applies to BSLC which stipulates that where the regular non-executive Chairperson is a promoter of the company or is related to any promoter, at least half of the Directors should be independent. We observed that as of March 2018, the Board of BSLC consisted of three Directors none of whom was an independent director. Further, number of nominee Directors appointed by Government/ other CPSEs should be restricted to two. However, all three Directors of BSLC as of March 2018 were nominee Directors.

ii. Rule 6 of Companies (Meetings of Board and its Powers) Rules 2014, and Regulation 18 of SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, BSLC, being a listed Company should have constituted an Audit Committee comprising minimum three directors, with independent directors forming the majority. However, BSLC had not constituted any Audit Committee so far on the plea of absence of Independent Directors.

The Management stated (December 2018) that the tenure of the Independent Directors ended in October 2013. Since no Independent Directors were in place, the Audit Committee could not be formed. BSLC has requested GoI to induct requisite number of Independent Directors.

(d) Inadequate monitoring by the Board of Directors

The main constraints of BSLC during the last five years have been lack of working capital and consequent lower production, which adversely affected its performance. Audit observed that out of 49 meetings of the Board held between March 2010 (since BSLC became a PSU) and March 2018, the performance of BSLC including sustainability plan, and proposal for revival was specifically discussed only in three meetings. Further, information relating to BSLC's performance was placed in 19 meetings in which the Board only noted the status without any specific direction.

The Management replied (December 2018) that the Board has sent a proposal for revival of BSLC to the Ministry, requesting for necessary help for budgetary support of ₹171 crore for clearing liabilities, ₹50 crore for VRS and ₹7 crore for minimum CAPEX

and working capital, aggregating to ₹228 crore for the revival of BSLC. Audit noted that the proposal was sent in November 2018 though no mining has taken place from the submerged quarries since 2013 and 2014.

(e) Role of EIL in the functioning of BSLC

BSLC is a subsidiary of EIL. Audit noted that EIL is a Shell Company with no business of its own and the major source of its income was dividend from OMDC. Only a Company Secretary and a DGM were on the roll of EIL. Further, EIL had no expertise in mining. Since it became the holding Company of BSLC, EIL had not taken any action for improving performance of BSLC except extending a loan of ₹15 crore to BSLC during June 2012 to April 2013 for payment of salary and to meet other expenses.

Out of the 46 Board meetings of EIL held during 2010-18, significant issues affecting BSLC were taken up only in three meetings; however, the Board of EIL merely noted these without any specific direction or suggestion. Further, in contravention of EIL's own subsidiary monitoring framework, the minutes of only 20 board meetings out of 49 board meetings of BSLC held during the period were placed before the board of EIL.

The Management replied (December 2018) that proposal for revival of BSLC has been passed by the Boards of EIL and RINL and sent to the Ministry.

10.1.3 Conclusion

Production by the BSLC was less than one-fourth of the allowed production quantity and less than half of the targeted production during 2013-14 to 2017-18 which led to loss of contribution of ₹47.91 crore. Lower than targeted production by BSLC was mainly attributable to scarcity of working capital, stoppage of mining operations due to non-payment of statutory dues and failure to de-water submerged quarries. Only 40 *per cent* of the total requirement of working capital was available with BSLC. Mining operations were stopped for a total of 446 days during the period 2013-14 to 2017-18 on account of non-availability of EC, non-renewal of mining lease and attachment of bank account by statutory authorities. Four out of BSLC's five quarries were submerged in water since 2013-14 which led to loss of production of 18.23 lakh tonne of dolomite and 136.06 lakh tonne of limestone as envisaged in the mining plan and consequent loss of contribution of ₹337.91 crore. Failure of BSLC to mine in five of its six blocks led to non-renewal of mining lease in these five blocks and loss of opportunity to mine 318.80 lakh tonne of limestone/dolomite from these five blocks.

BSLC could achieve only 53 *per cent* of the targeted sales of limestone and dolomite. More than 80 *per cent* of the production was carried out through outside contractors due to old and worn out equipment, lack of skilled labour and absence of a centralised crushing and screening system. As a result, many employees were rendered idle. As of March 2018, out of 672 non-executives, BSLC had identified 400 idle employees who could be given voluntary retirement. However it was not implemented due to financial constraints. The labour productivity of BSLC was below seven tonne/man/day as against the international benchmark of 25-30 tonne/man/day.

Land measuring 63.06 acre (25 *per cent* of the total freehold land) of BSLC was encroached. BSLC spent ₹9.54 crore towards purchase of electricity but did not recover electricity charges from the occupants of BSLC quarters during 2013-18.

Thus, it is evident that BSLC mined less than half of its production target during the last five years, that most of its quarries are inoperational, that it is severely hampered for working capital, that it has lost the bulk of its mining lease area and that most of its employees are idle.

10.1.4 Recommendation

BSLC is mining and operating at sub-optimal level and consequently valuable mineral reserves are lying unexplored and human resources unutilized. BSLC has been chronically sick and has continuously suffered losses during 2013-14 to 2017-18 and drained the nation's resources. As the PSU is not operating in a strategic sector and private players are also present, Ministry may consider to disinvest its stake in the PSU to prevent further loss.

The matter was referred to the Ministry in January 2019: their response was awaited (May 2019).

Orissa Minerals Development Company Limited

10.2 Operational and Financial Performance of the Orissa Minerals Development Company Limited

10.2.1 Introduction

The Orissa Minerals Development Company Limited (OMDC) was incorporated on 16 August 1918 as a public company. It came under administrative control of Ministry of Steel (MoS) in 1980 and became a PSU in March 2010. OMDC is a subsidiary of EIL which is a subsidiary of RINL. OMDC's Board consists of six Directors including a non-executive Chairman (CMD of RINL) and a Managing Director who is the chief executive of OMDC. The total manpower of OMDC as on March 2018 was 388[7].

OMDC operates six iron ore and manganese ore mining leases located in Barbil, Odisha with an estimated total reserve of about 206 million tonne (mt) of iron ore and 44 mt of manganese ore. Out of these, three leases[8] were in the name of OMDC and three[9] were operated by OMDC through a power of attorney from Bharat Process and Mechanical Engineers Limited (BPMEL). The lease rights of all six mines have expired and at present all the mines are inoperative due to non-renewal of mining leases by the GoO.

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[7] ***52 executives and 295 non-executives in mines, 23 executives and 18 non-executives at HO, Kolkata***
[8] ***Bhadrasahi, Belkundi and Bagiaburu lease***
[9] ***Thakurani, Kolha-Roida and Dalki lease***

Table 10.4: Details and status of the mining leases

Sl. No.	Name of the lease	Owner	Mineral	Area (in ha)	Total reserve in million tonne	Date of last mining operation	Reason for stoppage of mining operation	Status of Renewal of Mining lease Application	Date of rejection/ lapsing
1	Belkundi	OMDC	Iron & Manganese	1276.79	52.91	09/12/2009	Non-availability of Forest Clearance	Lapsed and rejected by GoO	13/01/2015
2	Bagiaburu	OMDC	Iron	21.52	1.871	30/09/2010	-do-	do-	29/12/2014
3	Bhadrasahi	OMDC	Iron & Manganese	998.7	66.38	30/09/2010	-do-	do-	08/01/2015
4	Dalki	BPMEL	Manganese	266.77	4.7	24/08/2006	Non-renewal of Mining Lease	Rejected by GoO	24/08/2006
5	Kolha-Roida	BPMEL	Iron & Manganese	254.952	40.36	16/11/2006	-do-	-do-	16/11/2006
6	Thakurani	BPMEL	Iron & Manganese	1546.55	84.39	09/12/2009	Non-availability of FC	Pending with GoO	NA

Audit reviewed records at OMDC's head office at Kolkata and its mines for five years ending March 2018. Audit objectives were to assess whether adequate steps were taken by the Management for renewal of mining leases and resumption of mining operations, to protect and maintain existing mining infrastructure and inventory, and to adequately utilise human resources and mining assets. Audit also reviewed whether EIL as a holding Company played an active role in the functioning of OMDC.

Table 10.5: Financial performance of OMDC during the last five years:

(₹ in crore)

Particulars	2013-14	2014-15	2015-16	2016-17	2017-18
Revenue from operations	0	0	0	0	0
Interest on Fixed Deposits	74.10	74.10	68.16	60.71	53.63
Other Income	1.26	0.57	1.85	2.47	1.59
Total Income	**75.36**	**74.67**	**70.01**	**63.18**	**55.22**
Employees benefit expenses	27.74	26.45	25.33	25.48	25.02
Other Expenses	30.52	22.38	25.29	25.33	288.37*
Total Expenditure	**58.26**	**48.83**	**50.62**	**50.81**	**313.39**
Profit before Tax	17.10	25.84	19.39	12.37	(-)258.17
Cash and Bank Balance	743.29	773.29	797.56	802.10	810.31

Includes payment/provision of ₹250.06 crore towards penalty in pursuant to the judgment of Supreme court on illegal mining

Mining operations have completely ceased since September 2010 and OMDC did not earn any operational revenue during last five years. All its expenses were being met from the interest earned on the investment of surplus fund (bank fixed deposits). Expenditure on employees accounted for around half of the total expenditure (excluding penalty amount in 2017-18) of OMDC during these years.

10.2.2 Audit Findings

10.2.2.1 Mining Operations

(a) Loss of production of 7.33 million tonne of iron ore and manganese ore and loss of revenue of ₹1319.52 crore due to lapse of mining lease[10] owned by OMDC

For operation of a mine, a lessee needs *inter-alia* a valid mining lease granted under Section 4 (1) of the Mines and Minerals (Development and Regulation) Act, 1957 (MMDR 1957), Mining Plan approved by Indian Bureau of Mines (IBM) and Forest and Environmental Clearances (FC, EC). Mining operations were stopped in all three mines owned by OMDC in December 2009 and September 2010 on account of non-availability of FC. The leases of the three mines had lapsed and had not been renewed till date. In this connection audit observed the following:

As per Section 4A (4) of the MMDR 1957 read with Rule 28 (2) and (3) of Mineral Concession Rules (MCR), 1960, once mining operations are discontinued, request for not declaring the mines as lapsed should be made within 21 months from the date of discontinuance. Audit noted that though mining operations at these mines were stopped in December 2009 and September 2010, OMDC applied to GoO for non-lapsing, after a delay of more than an year, in July 2013 i.e.. OMDC's application for non-lapsing was rejected by the GoO, being time barred.

Further, GoO may revive the lease on an application made by the lease holder within six months from the date of lapse. Audit noted that though mining leases lapsed in December 2011 and October 2012, OMDC filed the revival application only in January 2015 i.e. after a lapse of more than two years. The revival application was also rejected by GoO, being time barred.

Audit also noted that though Company applied for renewal of mining leases (RML) in August 2005 and August 2009 i.e. one year before expiry of current lease as prescribed, the renewal applications were rejected by GoO for want of FC, EC and consent order of Odisha State Pollution Control Board (OSPCB). As per Environment Impact Assessment Notification (27 January 1994), if a lessee exceeded production level of 1993-94 in any subsequent year, it is required to obtain EC immediately on exceeding the production level. Since OMDC had enhanced its production level in 1994-95 (Bhadrasahi), 1996-97 (Belkundi) and 1999-2000 (Bagiaburu) beyond the production level of 1993-94, it was required to obtain EC accordingly. However, the Management belatedly applied for EC in June 2008. During the period 2008-2014, the Management repeatedly requested GoO for issue of EC. As per the Management's reply matter was under process at GoO as of November 2018.

Non-operation of the three OMDC mines resulted in loss of production[11] of 7.11 million tonne of iron ore and 0.22 million tonne of manganese ore and total loss of revenue of ₹1319.52 crore during the period 2011-18.

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[10] ***Belkundi, Bagiaburu and Bhadrasahi***

[11] ***Considering average production of last five productive years of the respective mines***

The Management replied (Nov 2018) that OMDC took all possible steps to obtain statutory clearances. The reply may be seen in the light of the long delays on the part of the Management in applying for EC, non-lapsing of lease and revival of lease as pointed out above. The Management's reply is silent on the reasons for the late submission of these applications.

(b) Loss of production of 10.11 million tonne of iron ore and loss of revenue of ₹1825.16 crore due to lapse and non-renewal of BPMEL mining leases[12]

OMDC was operating three mining leases namely Dalki, Kolha-Roida and Thakurani of Bird & Company Limited since 1924. Subsequent to nationalisation (October 1980) of Bird & Company Limited and vesting of all its undertakings in the name of BPMEL, OMDC continue to operate the above mines on the basis of power of attorney executed (August 1983) by BPMEL in favour of OMDC.

Audit observed that OMDC formed a JV company namely East India Minerals Limited (EIML) in August 1992 with Usha Rectifier Corporation (India) Limited[13] (URCIL) to set up a Crushing and Screening Plant of 2 mtpa capacity at Barbil. EIML was substantially financed and controlled by UIL (a private party). GoO rejected (August /November 2006) the RML for Dalki and Kolha-Roida mines on the grounds that OMDC signed agreement involving financial benefits with private parties, failed to obtain EC and FC and did not take any interest in setting up mineral based industry. Consequently, the mines have been closed since August 2006 and November 2006 respectively. Though OMDC obtained a favourable order (February 2009/ May 2010) in its revision application to the GoI against the rejection orders of GoO, GoO filed a petition in the High Court of Odisha in respect of Kolha-Roida mines which is pending as of date and also did not implement the orders of the revisional authority in respect of Dalki mines. RML for Thakurani lease was applied for in September 2003 and was pending with GoO in the absence of FC; the mine has been closed since December 2009.

Audit noted that BIFR had recommended liquidation of BPMEL in 1996 and finally all assets of BPMEL were taken over by the official liquidator (OL) by February 2006. Despite lapse of so many years, mining leases held by BPMEL were never transferred to OMDC. In July 2016, a mining plan submitted by OMDC in respect of Kolha-Roida mine was rejected by IBM on the grounds that lease was not in the name of OMDC.

As a result, mining operations at three BPMEL leases have been closed since nine to twelve years and OMDC could not produce[14] 10.11 mt of iron ore valuing ₹1825.16 crore during 2011-12 to 2017-18.

The Management stated (November 2018) that OMDC obtained EC for Kolha-Roida & Dalki mines and is pursuing for obtaining FC. The Management's reply was silent on the audit observations.

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[12] ***Dalki, Kolha-Roida and Thakurani***
[13] ***Later named as Usha (India) Limited (UIL)***
[14] ***Considering average production of last five productive years of the respective mines***

(c) Expenditure of ₹12.54 crore on dead rent and avoidable expenditure of interest ₹2.35 crore

As per clause 9A of MMDR 1957, a leaseholder has to pay dead rent for inoperative mines. Since production at all the mines of OMDC had been stopped for want of required statutory clearances and non-renewal of mining leases, OMDC paid ₹12.54 crore towards dead rent (DR)/surface rent (SR) for the period from 2011-12 to 2017-18.

Further dead rent/surface rent was payable in advance on half yearly basis on 1 January and 1 July of a year. Rule 64 A of MCR, 1960, stipulates payment of interest at the rate of 24 *per cent* per annum on unpaid dead rent/surface rent from the sixtieth day of the expiry of the date fixed by the Government for payment of such amount. Audit observed that in spite of being a cash surplus company, OMDC did not pay dead rent/surface rent due in respect of six mines within the stipulated time on the plea that there was no clarity on the applications for renewal of mining leases by GoO and that the leases may not be granted in favour of OMDC. Due to delayed payment of statutory dues, OMDC paid ₹1.42 crore penal interest till date and is liable to pay ₹0.93 crore as on 30 September 2018.

The Management stated that payments were made only after obtaining legal advice. The Management's reply was silent on the audit point that Dead rent/ Surface rent had to be paid for inoperative mines and also about the reasons for the delayed payment.

(d) Non-adherence to mining statutes leading to penalty and penal interest

In pursuance of judgment (August 2017) of Hon'ble Supreme Court of India regarding recovery of compensation from the lessees towards production of minerals without lawful authority, GoO demanded (September/October 2017) penalty of ₹1482.94 crore from OMDC on account of excess/ illegal mining. Based on its own calculation, OMDC deposited (28 December 2017) ₹39.95 crore. It subsequently paid ₹132.98 crore (November 2018) including penal interest of ₹20.75 crore. GoO has also initiated (June 2018) action against OMDC under Odisha Public Debt Recovery Act, 1962. Further GoO also demanded ₹80.81 crore[15] as penalty towards production of excess minerals beyond the approved limits prescribed in the Mining Plan and/ or CTO against which OMDC has not deposited any amount.

The Management stated that there was no interest for penalty towards violation of Mining Plan /CTO and as per Hon'ble Supreme Court Order (2 August 2017), penalty is not for violation of Mining Plan /CTO. The Management's reply is not specific since audit has not pointed out any interest on penalty of ₹80.81 crore towards production of excess minerals beyond that prescribed in the Mining Plan / CTO. However, OMDC had to pay ₹20.75 crore as penal interest on the penalty of ₹1482.94 crore imposed by GoO in pursuance of Supreme Court order for excess production i.e. production without lawful authority.

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[15] ***Thakurani : ₹9.73 crore, Kolha-Roida : ₹6.15 crore, Dalki : ₹6.01 crore, Bhadrasahi: ₹51.98 crore, Belkundi: ₹6.86 crore and Bagiaburu: ₹0.72 crore***

i. Failure to discharge liability of ₹145.19 crore due to non-handing over of undisposed stock to GoO

Central Empowered Committee (CEC) of the Supreme Court of India, considering representations of the lessees regarding demand in respect of undisposed iron ore lying at site, decided (December 2017) that compensation was not payable by the lessees on the undisposed quantity of stock out of the unlawfully collected ore. Accordingly, GoO revised the demand considering 21.77 lakh tonne undisposed stock worth ₹145.19 crore with a stipulation to hand over the undisposed stock to GoO by 28 February 2018. OMDC however did not deliver the undisposed stock to GoO within the scheduled time and belatedly expressed (March 2018) its inability to stack on the ground of non-availability of statutory clearances. GoO demanded (April 2018) the unpaid amount of ₹1442.99 crore with reference to its original demand. Audit observed that OMDC's stand was not justified because GoO, which would have been aware of the status of OMDC's statutory clearances had revised its demand keeping in view OMDC's undisposed stock. Thus, OMDC failed to avail an opportunity to reduce its liability by ₹145.19 crore.

The Management stated that the matter was sub-judice. The Management's reply needs to be viewed in light of fact that OMDC requested (24 April 2018) GoO to exclude ₹130.94 crore being the value of about 7 lakh tonne of undisposed iron ore stock. Thus, it could have handed over the undisposed stock earlier to reduce the penalty amount. The reply is also silent on the reasons for the inaction of OMDC for handing over the undisposed iron ore.

ii. Penalty of ₹298.14 crore not claimed from EIML

Demand of GoO included ₹298.14 crore for production of mineral by OMDC's JV partner, EIML. Clause 1.13 & 1.23 of the JV agreement with EIML stipulated that EIML shall comply with the provisions of all relevant laws/regulations/orders in force and shall keep OMDC indemnified against any non-observation of the said Acts and further, OMDC was entitled to recover all such costs and losses from them. In line with the terms of JV agreement, EIML should indemnify OMDC by paying ₹298.14 crore. However, OMDC had not claimed such amount from EIML so far.

The Management replied that the matter was sub-judice. The Management's reply is not acceptable because no legal case regarding recovery of ₹298.14 crore from EIML was pending at any forum.

10.2.2.2 Maintenance and Utilisation of Mining Infrastructure/Inventory

The mining infrastructure of OMDC includes a Sponge Iron Plant (SIP), crusher plants, mining equipment, railway sidings and stock of 5.285 lakh tonne iron ore and 0.358 lakh tonne of manganese ore. Stoppage of mining operations for a long period had a significant impact on these assets. Deficiencies noted in the maintenance and utilisation of these infrastructure are discussed in the subsequent paragraphs.

(a) Idle Sponge Iron Plant

OMDC installed a Sponge Iron[16] Plant (SIP) in June 2004 at Barbil at a cost of ₹13.60 crore. The SIP suffered a cumulative loss of ₹30.18 crore up to 2010-11 and production was stopped from June 2010 due to halting of mining operations (as described in para 10.2.2.1(i) and 10.2.2.1(ii) and consequent non-availability of iron ore. OMDC decided to close the plant and explore the possibility of using the SIP area for beneficiation purpose.

Audit noted that Shri Jagannath Steel and Power Limited approached (June 2017) the MoS expressing its intention to utilise the idle SIP on rental basis for two years. The Management informed (June 2017) MoS that the SIP cannot be rented out because they were working on a business plan to revive it. Audit, however, found nothing on record to suggest that any revival plan had been formulated for the SIP. As a result, the plant established at a cost of ₹13.60 crore has remained idle since the last eight years and is in a dilapidated condition.

The Management replied that as all six mines of OMDC & BPMEL were not in operation since 2010, running SIP was not viable. After resumption of mining operations, OMDC may plan to expand by installing another 100 TPD Kiln. The Management's reply corroborates the audit observation since, in view of the uncertainty in starting of mining operations, OMDC should have availed the opportunity to earn rental income from the idle SIP. Further, resumption of production from the SIP in the future will likely need further investment because of its dilapidated condition and assets lying idle since 2010.

(b) Idle plant and machinery

In view of stoppage of the mining operation of OMDC since September 2010, Plant & Machinery (Gross block ₹30.87 crore as on 31 March 2018) at the mines was idle. OMDC incurred ₹4.31 crore on the repair and maintenance of these equipment during 2011-12 to 2017-18. Audit noted that:

i. two explosive vans and two loaders were purchased by OMDC in 2012 and 2013 at a cost of ₹0.90 crore without any indication of resumption of mining operations.

ii. two loaders and one explosive van were subsequently transferred (September 2013/ May 2015) to another company (BSLC) and are lying idle there.

iii. Out of the four crusher plants installed at Thakurani mines which were operative at the time of closure of mines, two were beyond economic repair and the rest were lying idle.

iv. Three crushers were proposed (November 2015) for disposal but the Management did not take any disposal action.

v. Out of other 24 heavy machineries including loader, dozer, grader, locomotive, dumper, lorry etc, three ambulances were working, eight equipments were under

[16] ***Sponge Iron is a raw material for steel making and is generally supplied to the secondary steel producers.***

breakdown condition and the remaining 13 equipment were lying idle. Out of the 13 idle equipments, OMDC identified (February 2018) six which can be hired out with minor repair but was yet to take any action.

The Management stated that several attempts were made to utilise idle plant & machinery in other PSUs without much success and that some equipments were sent to BSLC. Audit noted that machinery not in use was transferred to BSLC but to no other PSU. The three machineries transferred to BSLC were lying idle at BSLC. Further, the Management reply was silent on non-disposal of break down equipment and purchase of equipment in 2012/2013 without any indication of resumption of mining operations.

(c)(i) Loss of iron ore worth ₹34.46 crore

Mining was stopped 8-9 years back and there was no subsequent despatch of ore. The stock of iron ore and manganese ore lying in the mining area was vulnerable to erosion and degradation in quality on account of rain and wind as well as unauthorised access and pilferage. The mining plan emphasised construction of retaining wall, garland drains and settling tanks of appropriate size to arrest sliding down of excavated material due to rain. Audit noted that in the absence of such facilities, iron ore stacked at OMDC mines was washed out from the yards to different inaccessible places like nalas, drains, ponds and inside forest growth, and had slid down the hills etc. This caused a loss of 0.653 mt of iron ore worth ₹34.46 crore[17].

(c)(ii) Loss of manganese ore worth ₹3.03 crore

Audit noted that manganese ore was lying in the open and was, therefore, vulnerable to erosion and pilferage over the years. The stock of manganese ore as of March 2011 and March 2018, their value and variation of stock and value is summarised in the table below-

Table 10.6: value and variation of stock of Manganese ore

Grade of manganese ore	2010-11 (Qty in tonne)	2017-18 (Qty in tonne)	Variation in quantity (in tonne)	Price as per IBM for March 2018 (in ₹ per tonne)	Value of material (2010-11) (₹in lakh)	Value of material (2017-18) (₹ in lakh)	Variation in value (₹ in lakh)
1	2	3	4=(3-2)	5	6=(2x5)	7=(3x5)	8= (7-6)
Below 25 %	23245.769	24678.901	1433.132	1886	438.42	465.44	27.02
25 % - 35 %	10122.892	9159.728	-963.164	8219	832.00	752.84	(-) 79.16
35 % - 45 %	2786.653	1497.993	-1288.66	16655	464.12	249.49	(-) 214.63
46 % +	622.719	473.836	-148.883	24436	152.17	115.79	(-) 36.38
Total	**36778.033**	**35810.458**	**-967.575**		**1886.70**	**1583.56**	**(-) 303.14**

Audit noted that there was overall shortage of 967.58 tonne of manganese ore worth ₹3.03 crore[18] over the period between 2010-11 and 2017-18. The overall quality of

[17] ***Considering average price of iron ore fines of below 55% Fe grade in Odisha as published by IBM for the month of March 2018 at □528/tonne.***

[18] ***Considering grade-wise price of Mn ore published by the Indian Bureau of Mines for March 2018***

manganese ore had also deteriorated as is evident from the fact that manganese ore graded below 25 *per cent* had increased by 1433 tonne.

The Management stated (November 2018) that sufficient precautions were taken to protect ores from natural erosion. The reply is not acceptable because the Management had earlier stated that in the absence of statutory clearances, construction of retaining wall, garland drains and settling tanks was not done and hence natural erosion due to wind and rain was not completely avoidable. This was also clear in the pictures taken during audit.

10.2.2.3 Maintenance and utilisation of land, township and human resources

(a) Improper management of land

Out of 263.507 acre of land owned by OMDC as on 31 March 2018, 196.539 acre land belonged to BPMEL and the remaining 66.968 acre to OMDC. Audit observed that:

i. Out of 263.507 acre of land, lease deeds/title deeds in respect of only 195.959 acre are physically available with OMDC.

ii. No demarcation of land was made by OMDC. Land measuring 41.766 acre was encroached by outsiders.

Audit observed that liquidation of BPMEL was recommended by BIFR in 1996 and all assets of BPMEL were taken over by Official Liquidator by February 2006. Further, the PoA executed by BPMEL in favour of OMDC had lapsed. Since the properties of BPMEL had never been transferred to OMDC and had been now taken over by the Official Liquidator, the ownership of the 196.539 acre of land belonging to BPMEL was doubtful.

Audit also observed that OMDC had engaged security agencies for maintenance and security services for its mines. The work assigned included preventing encroachment or unauthorised construction on OMDC premises. However, despite spending ₹22.47 crore on security during 2011-12 to 2017-18, OMDC could not protect its land from getting encroached.

The Management stated that legal cases have been initiated in some cases against encroachers. The reply is silent on the non-availability of title deeds and the inability to prevent encroachment of land and building despite huge expenditure on security.

(b) Unauthorised occupation of quarters

Thakurani mines of OMDC had 981 quarters out of which 335 quarters were allotted to its employees and 215 quarters (including 162 hutments) were either vacant or uninhabitable. 174 contractual employees were allowed to stay in OMDC's quarters on the basis of their application but without any formal allotment letter. Nominal rent of ₹225 per quarter was being recovered for these contractual employees. Further, 257 quarters were under unauthorised occupation. OMDC did not take any action to evict such encroachers.

(c) Supply of free electricity to all quarter occupants

OMDC procures electricity from North Eastern Electricity Supply Company (NESCO) of Orissa but does not recover electricity charges from the employees/contract labour/outsiders occupying OMDC's quarters in the Thakurani mines township. OMDC spent ₹5.61 crore towards supply of such free electricity during 2013-18. Electricity charges were not recovered on the plea that pay scale of officers and staff had not been revised for the last 21 years and all of them are very poorly paid.

Audit observed that energy meters were not installed in the quarters, though installation of energy meters at all consumer points was approved (February 2017) by the Board of Directors at a cost of ₹10 lakh. Moreover, though the number of employees had decreased by 41 *per cent* over the last four years, the electricity consumption decreased by only 16 *per cent* during the same period. OMDC had never conducted energy audit. Non-recovery of electricity charges from the users led to extending undue benefit of ₹5.61 crore[19] to the employees, contract labour and unauthorised occupants of the quarters.

The Management replied that the employees are poorly paid and working on 1997 pay scales. In-spite of best efforts, energy meters could not be successfully installed and value against energy consumption could not be realised from them. Efforts are being initiated to reduce energy consumption and to conduct energy audit.

(d) Management of idle manpower

OMDC had 585 employees in 2013-14 which reduced gradually to 347 employees in 2017-18. In view of the stoppage of mining operations since September 2010, many operations-related employees were rendered idle and employee related expenses were met from interest earned from investment of surplus funds (bank fixed deposits). OMDC identified (July 2016) 121 highly skilled/skilled non-executives who could be spared no action was taken for their redeployment or separation.

Audit further noted that OMDC deployed contractors to provide security services at its mines and to carry out general maintenance activities in the township and mines. During the period 2011-12 to 2017-18, on an average, 120 and 105 contractual employees were deployed to provide such services on which ₹22 crore and ₹10.26 crore respectively were spent. The above services were outsourced despite the fact that out of 295 non-executive employees at the mines as of March 2018, 98 non-executives belonged to category I-VI comprising mainly of Majdoor, Sweeper, Office boy, Security guard, Dak Peon etc. who could have been deployed in place of semi-skilled security guards without gun and in general maintenance works. Had OMDC taken action to redeploy the idle manpower (121+98), it could have saved ₹32.26 crore.

The Management replied that the non-executives were not suitable for the stated job. The Management's reply is not acceptable because the audit observation did not pertain to all the non-executives engaged in OMDC mines but only to 219 non-executives either belonging to category I-VI who could have been deployed in place of semi-skilled

[19] ***Employees (₹2.45 crore), Contract employees (₹1.14 crore), Unauthorised occupants/others (₹2.01 crore)***

security guards or highly skilled/ skilled employees identified by OMDC itself for separation.

10.2.2.4 Other Issues

(a) Non-recovery of usage charges amounting to ₹2.34 crore from a private party

Government of Orissa allowed (March 2014) M/s Kaypee Enterprises (KPE) to use the haul road and non-forest land within the Thakurani mines for transportation of mineral. In May 2015, KPE found an alternate road inside the OMDC lease area which was 14 km shorter than the existing road being used by KPE. However, no formal agreement was finalised in this regard and KPE did not pay rent to OMDC for use of the road. OMDC did not take any action till February 2018, when the Management demanded road usage charge from KPE. KPE agreed (June 2018) to pay ₹0.78 crore annually towards usage charges. However, agreement was yet to be signed between the parties. Thus, KPE utilised the road for three years between June 2015 and June 2018 without paying any charge. As a result of non-recovery of charges, OMDC extended undue favour of ₹2.34 crore to KPE.

The Management stated that recovery of land usage charges from M/s KPE has been started from July 2018. The Management's reply was only partly acceptable since Audit has pointed out undue benefit extended during the period June 2015 to June 2018.

(b) Inadequate monitoring of legal cases

As on 31 May 2018, a total of 110 cases pertaining to the period between 1995 and 2018 were pending before different courts. OMDC spent ₹8.96 crore on legal cases during the period 2010-18. Audit observed that:

- There was no policy for selection/empanelment/evaluation of advocates and the advocates were engaged on nomination basis.

- Legal cases remained unattended for significant periods. OMDC belatedly (May 2018) identified 47 cases where there had been consistent failure on the part of the legal professional to attend hearings file counter affidavits. In 17 cases, the performance of legal professional was bad with visible acts to cause outright loss to OMDC with an intent to benefit the opponent and in 11 cases, the legal professional had simply allowed the matter to roll with no effort to deliver.

- In 10 cases, OMDC remained unrepresented and in 15 cases, the legal professional lacked competence to deal with the matter.

- In 26 cases, name of the legal professional representing OMDC was not on record.

The Management stated that a retainer has been appointed to attend all the legal cases and this will eliminate all above mentioned drawbacks in dealing with legal cases efficiently.

(c) Corporate Governance Issues

As per DPE guidelines and Companies Act, 2013, every listed public company shall have at least one third of the total number of directors as independent directors. As of March 2018, the Board of OMDC consisted of six directors of whom none was an independent director. Further, number of nominee Directors appointed by Government/other CPSEs should be restricted to two. Audit observed that the OMDC Board consisted of three nominee Directors as of March 2018.

The Management stated that independent directors were in place on the OMDC Board till 2016. Subsequently OMDC took adequate steps for appointment of independent directors.

(d) Inadequate monitoring by the Board of Directors

The major issue encountered by OMDC has been non-renewal of mining leases leading to stoppage of mining. Audit observed that out of 50 Board meetings held between March 2010 and March 2018, information relating to renewal of mining leases was placed before the Board in 29 meetings. The Board, however merely noted the status in 21 of these 29 meetings. In the remaining eight meetings, the matter was discussed but no specific decisions were taken or directions given to revive OMDC's operations.

The Management, in its reply, narrated the chronological events of renewal of mining leases and statutory clearances. Since the major issue facing OMDC was stoppage of mining, Board should have been seized of all associated matters such as non-renewal of mining leases and obtaining statutory clearances. Further, Board did not issue any directions to expedite pending clearances or revive OMDC operations.

(e) Role of EIL in the functioning of OMDC

OMDC is a subsidiary of EIL. Audit noted that EIL is a shell Company with no business of its own and the major source of its income was dividend from OMDC. Only a Company Secretary and a DGM were on the roll of EIL. Further, EIL had no expertise in mining. Out of the 46 Board meetings of EIL held during 2010-18, the constraints faced by OMDC in its operations were discussed only in two meetings, in which the EIL Board noted the impact of the judgment (August 2017) of the Supreme Court of India related to illegal mining without issuing any specific direction or suggestion. Further, in contradiction to its subsidiary monitoring framework, the minutes of only 20 board meetings out of 50 board meetings of OMDC held during the period were placed before the board of EIL.

The Management stated that all important matters regarding OMDC are discussed in the Board meetings of RINL who is the holding company of EIL. Specific directions, suggestions and advices are given from time to time in the functioning of OMDC. We found nothing on record to show that any directions had been received from RINL or any action taken on RINL's behest to improve the operational efficiency of OMDC.

10.2.3 Conclusion

Mining operations in all the six mining leases of OMDC have been stopped since the last 8 to 12 years in the absence of statutory clearances and non-transfer of three mining leases

to OMDC. This led to loss of production of 17.22 million tonne of iron ore and 0.22 million tonne of manganese ore during the period 2011-18. Non-operation of the mines led to payment of ₹12.54 crore towards dead rent/ surface rent during 2011-18. Delay in payment of the dead/surface rent led to avoidable extra expenditure of ₹2.35 crore as penal interest.

Non-adherence to mining statutes led to imposition of penalty of ₹1482.94 crore on account of excess/ illegal mining in pursuance of judgement of Supreme Court of India. Out of this, ₹172.93 crore including ₹20.75 crore of penal interest was deposited by OMDC till November 2018. OMDC did not capitalise on the opportunity to discharge liability of ₹145.19 crore owing to its failure to hand over undisposed mineral stock to GoO. It also failed to claim ₹298.14 crore from its JV partner.

In the absence of retaining barriers, iron ore stacked at the OMDC mines valuing ₹34.46 crore was washed out and 967.58 tonne of Manganese ore worth ₹3.03 crore was found short during the period 2010-11 and 2017-18. The Sponge Iron Plant established at a cost of ₹13.60 crore remained idle since the last eight years and is in a dilapidated condition.

Many operations-related employees were rendered idle and employee related expenses were met from interest earned from investment of surplus funds (bank fixed deposits). 41.766 acre of land was encroached whereas 174 quarters were occupied by OMDC's contractual employees/others by paying nominal rent. 257 quarters were under unauthorised occupation. OMDC did not take any action for eviction or recovery of rent. OMDC spent ₹5.61 crore towards purchase of electricity but did not recover electricity charges from the occupants of company quarters during 2013-18.

Thus, it is evident that the very purpose for which OMDC was incorporated has not been fulfilled for the last several years**.**

10.2.4 Recommendations

OMDC has stopped mining operations since last eight years and consequently nation has suffered huge loss of production of valuable minerals. Further, loss has been incurred due to payment of dead rent, interest, penalties, besides loss due to deterioration in idle equipment. As OMDC is not operating in a strategic sector and private players are also present, in the light of its failure to fulfill its mandate for the last several years, Government may consider to disinvest its stake in the PSU.

The matter was referred to the Ministry in January 2019; their response was awaited (May 2019).

Rashtriya Ispat Nigam Limited

10.3 Avoidable expenditure on procurement and processing of limestone

Rashtriya Ispat Nigam Limited had to incur avoidable expenditure of ₹18.52 crore on procurement and processing of limestone due to failure in finalising the tenders for lime briquetting work in time and not ensuring minimum briquettes production as per the contracts for lime briquetting work.

Rashtriya Ispat Nigam Limited (RINL) set up (July 1990 to April 1995) Calcining and Refractory Material Plant (CRMP) to meet the requirement of calcined limestone (lime) and calcined dolomite at its Steel Melting Shop (SMS). Lime/ calcined dolomite flux was required for refining hot metal into liquid steel and flux size of 10 millimeters or more (+10 mm) was directly charged into SMS. During the processing of lime and calcined dolomite and transferring flux to SMS, lime/dolomite fines having size of less than 10 millimeters (-10 mm size) were generated which could not be fed into SMS directly. Since such fines had usage value, RINL decided to convert these fines into briquettes for direct charging into SMS so as to avoid expenditure on import of additional SMS grade limestone.

Accordingly, RINL entered into (December 1992/January 1993) contracts with two agencies[20] for conversion of lime fines into briquettes of requisite sizes. The contracts were renewed (May 2005) for six years at a conversion rate of ₹595 per tonne with escalation and ceiling upto 1.05 times (₹625 per tonne). As per these contracts, both the contractors together were to supply a minimum quantity of 1800 tonnes[21] of briquettes per month. The contracts were extended periodically upto July 2015. The tenders for new contracts issued during November 2013, June 2014 and February 2015 were cancelled on technical grounds/ higher quotes. However, against fourth tender floated in April 2016, new work orders were issued (October 2016) to the same agencies for a period of 60 months, based on the approved conversion rate of ₹933 per tonne.

Earlier, due to repeated requests of the contracting agencies for increase in price and revision in price variation formula, Visakhapatnam Steel Plant (VSP) of RINL constituted (December 2011) a Committee to consider, *inter alia,* the issues involved to arrive at equitable and rational price variation formula and submit its recommendations on price variation clause to be incorporated in the Invitation to Tender (ITT) for future contracts. The Committee made (May 2012) the following recommendations with respect to price variation formula:

a) The base price should remain the same i.e. ₹595 per tonne.

b) Since the Reserve Bank of India (RBI) indices of 1994 were no longer valid, new RBI Indices as available with 2004 base needed to be applied in the formula. Also, any further changes in RBI indices should be taken care of in future.

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[20] ***M/s Nagachandra Lime Briquetting (P) Ltd, Visakhapatnam and M/s Avani Lime Tech (P) Ltd, Visakhapatnam***

[21] ***The contracts stipulated for supply of 30 tonnes of briquettes per day by each agency.***

c) The price ceiling of 1.05 times of base price may be considered for deletion, as the fluctuations in the prices of commodities and labour were taken care of by the respective RBI indices and labour rate as per Central Government wages. Accordingly, the revised rate of conversion of lime fines to briquettes was worked out at ₹874.20 per tonne for January 2012.

Audit observed that RINL failed to finalise tenders for new contracts by July 2015 (i.e. before expiry of the validity of existing contracts) taking cognisance of the above recommendations of the Committee in order to ensure uninterrupted supply of briquettes from August 2015. Consequently, there was no briquetting work during the period from August 2015 (i.e. after the expiry of existing contracts) to September 2016 (i.e. before the award of new contracts) resulting in shortfall in supply of 25,200 tonnes of briquettes (i.e. 1,800 tonnes per month x 14 months). The shortfall was met by processing imported limestone into lime at a total cost of ₹19.02 crore (₹7,549 per tonne x 25,200 tonnes). Had RINL approved of the recommendations of the Committee and finalised the tenders for conversion of -10 mm fines into briquettes at the rate of ₹933 per tonne, i.e. the rate at which the contract was finally awarded in October 2016 as per the recommendations of the Committee, the total cost of the 25,200 tonnes of briquettes would have been ₹9.56 crore [22] . This resulted in avoidable additional expenditure of ₹9.46 crore (₹19.02 crore - ₹9.56 crore) as detailed in **Annexure-VIII**.

Further, clause 6.2.4 of the contracts with the agencies engaged for lime briquetting work stipulated, *inter alia*, that the agencies must meet their obligations under the terms of the contract. In the event of any failure on part of the agencies, without justification and sufficient reasons for a continuous period of 30 days, RINL would have the right to impose suitable penalty or take over the management of the agency's plant for operating the said plant either by itself or through any other agency at the risk and cost of the agency.

Audit observed that during the years 2013-14, 2014-15 and 2015-16 (upto July 2015), there was shortfall in production/ supply of briquettes by the agencies vis-à-vis the contracted quantity to the extent of 21,519 tonnes. However, instead of ensuring supply of minimum 30 tonnes per day of briquettes by each agency as per terms of the contracts, RINL procured limestone and processed the same to produce SMS grade lime thereby incurring avoidable additional expenditure of ₹9.06 crore as detailed in (**Annexure-IX)**.

The Management stated (December 2017) that the conversion price would have been increasing continuously had the recommendations of the Committee been implemented. Lime fines generated during tendering and finalisation of contract were not wasted. Lime fines were utilised by Sinter plant and excess which could not be consumed by Sinter plant were sold off by Marketing.

The reply is not acceptable as audit has commented not on the wastage of lime fines but on the failure of RINL in finalizing the lime briquetting contracts in time. RINL could finalise the lime briquetting contract against the fourth tender issued in April 2016, only after revision of the base price estimate from ₹625 per tonne to ₹892.85 per tonne. Due to

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[22] ***25,200 tonnes * ₹3,796 per tonne (i.e. ₹2,863 per tonne being the material cost of -10 mm fines + ₹933 per tonne being the conversion cost of fines to briquettes)***

non-finalisation of contracts prior to their expiry in July 2015, RINL lost the opportunity to generate 25,200 tonnes of briquettes during the period August 2015 to September 2016.

The Ministry stated (September 2018) that (a) though the agencies repeatedly requested for hike in conversion rate, they continued to supply at ₹625 per tonne during the extended period i.e. till July 2015 and hence in the best interests of RINL, the estimated price for the new contract of briquetting was considered as ₹625 per tonne; and (b) shortfall in production was mainly due to fulfilment of procedural requirements like renewal of gate/safety passes, etc. (June and August 2013), HUDHUD cyclone in October 2014 (which affected the briquetting work for 45 days) and intermittent stoppages due to technical reasons which were scrutinised by Engineer-in-charge and found to be justifiable.

The reply of the Ministry is not acceptable in view of the following:

(a) The existing conversion rate was limited to ₹625 per tonne due to the ceiling of 1.05 times of the base price which was later recommended (May 2012) by the Committee for deletion in order to align the conversion rate with the RBI indices. However, RINL did not revise the estimated price accordingly before issuing (February 2015) tenders for lime briquetting work, even though the Management was aware that the extended period of contracts would expire by July 2015. This led to cancellation of tender due to high price quoted by bidders.

(b) Considering the impact on briquettes production due to HUDHUD cyclone, audit has excluded the months of October 2014 and November 2014 while working out the shortfall in production/ supply of briquettes.

(c) During 2013-14 and 2014-15, the production of briquettes by the agencies was 'Nil' during 10 months and below minimum quantity in the remaining months (except five months). However, the reasons for shortfall in production were sought by RINL only on one occasion (January 2015) from one agency.

Thus, failure of RINL to finalise the tenders in conformity with the recommendations of the Committee coupled with the failure to enforce the minimum briquettes production commitment as per the contracts for lime briquetting work resulted in avoidable additional expenditure of ₹18.52 crore.

Steel Authority of India Limited

10.4 IT systems in Steel Authority of India Limited

10.4.1 Introduction

SAIL, a Maharatna Public Sector Undertaking under the Ministry of Steel, is the largest steel manufacturing company of India catering to core sectors of the Indian economy like the Railways, Defence and Power besides Automobile, Agriculture, and Construction etc. Computerisation in SAIL plants/units started in 1960s when each unit had its own IT setup and utilised application specific softwares *viz*. Human Resource Information System-HRIS for Human Resource Management, Material Management Information System-

MMIS for Material Management, Hospital Management System - HMS for Hospital Management etc.

Enterprise Resource Planning - Systems Applications and Products (ERP-SAP) was implemented in phases in four Integrated Steel Plants (ISPs)[23] of SAIL and at Central Marketing Organisation, Kolkata (CMO) between April 2009 and April 2012 at a total cost of around ₹204.74 crore. ERP-SAP is yet to be implemented in IISCO Steel Plant (ISP) Burnpur (Letter of Acceptance issued to M/s TCS in April 2018) and SAIL Corporate office New Delhi (PO issued to M/s. WIPRO in December 2015 with targeted GO Live in April 2019). ERP-SAP has also not been implemented in three special steel plants[24], Ferro Alloy Plant at Chandrapur, Raw Materials Division, Kolkata (RMD), SAIL Refractory Unit, Bokaro (SRU) and SAIL's offices at Ranchi {Research & Development Centre for Iron & Steel, Ranchi (RDCIS), Centre for Engineering & Technology, Ranchi (CET), Management Training Institute, Ranchi (MTI) and SAIL Safety Organisation, Ranchi (SSO)}.

10.4.2 Audit Objective and Scope

The audit objectives were to assess whether:

- controls in the IT system including physical/logical access, input/output and internal controls ensured reliability and integrity of data;
- business and managerial requirements of SAIL were adequately mapped in ERP-SAP and legacy systems and reports/ returns generated were accurate; and
- management of risks relating to IT systems and preparedness for contingencies was adequate to safeguard SAIL's interest.

The documents/records relating to ERP-SAP and legacy systems were examined in five ISPs, three special steel plants, Ferro Alloy Plant (Chandrapur), SRU (Bokaro), CMO and RMD (Kolkata), RDCIS, CET, MTI and SSO (Ranchi) and CO (New Delhi) for the period April 2009-10 to 2017-18 (upto October 2018).

10.4.3 Audit Findings

10.4.3.1 Adequacy of controls in IT Systems

(a) Input Controls

Integrity of data can be maintained through effective input controls and validation checks to ensure that data received for processing are genuine, complete, accurate, authorised and valid. Test check of IT system revealed that data captured in various units as cited below was not complete and accurate:

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[23] ***(Bokaro Steel Plant (BSL), Bhilai Steel Plant (BSP), Rourkela Steel Plant (RSP) and Durgapur Steel Plant (DSP)***

[24] ***Alloy Steels Plant (ASP) Durgapur, Salem Steel Plant (SSP), Salem, Visveswaraya Iron and Steel Plant (VISP), Bhadravati***

1. Instances were noticed where the vendor database (at BSP, DSP, CMO, RSP and BSL) did not contain critical details like PAN number, GSTN, bank account number, postal code and address (**Annexure-X**).

2. Reports generated through Sales and Distribution (S&D), Financial Accounting and Controlling (FICO) and Material Management (MM) modules of CMO included blank data in various fields due to lack of input controls (**Annexure-XI**).

3. At BSL, three instances were noticed where payments were released to vendors without adjusting amounts due from them, despite recovery advices amounting to ₹0.50 crore being pending. Further, in three other cases, recovery could not be effected as the recovery advice amounting to ₹0.25 crore, did not mention vendor number and name.

The Ministry stated (October 2018) that at BSP, further validations with respect to vendor data will be incorporated and at DSP the details of vendors are checked and updated regularly. It further stated that at CMO necessary checks were introduced for GSTIN no, PAN and Pin code etc. The Ministry also stated that checks were incorporated for ensuring recovery at the time of passing of bills.

The reply of the Ministry was silent regarding blank data in various fields in reports generated through S&D, FICO, MM modules. It also did not mention about the efforts for input controls in RSP. Moreover, it was noted that had maintenance of vendor database been efficient, such high occurrence of instances of blank entries (1892, 269, 9, 1790 and 15 respectively in GSTIN nos., address, postal code, account numbers and email id fields) would not have been noticed. With respect to payment to vendors without adjustment for due amounts, the Ministry accepted the fact that possibility of recovery was remote in the instances pointed out in audit, as payments were made in advance for future deliveries by SAIL to ensure timely delivery of materials. Besides, even after lapse of more than six years since implementation of ERP-SAP, the necessary controls were not in place and Management must prescribe timelines for compliance.

(b) Logical access control

The Information Technology Security Policy of SAIL is effective since December 2006 and was not updated since then. Further, it stipulated creation of strong passwords with at least eight characters, by including upper and lower-case alphabets, digits, punctuations and passwords were to be changed after every six months. Further, compliance to the IT Policy was to be monitored through information security audits conducted by authorised internal security audit groups or third parties.

Audit noted that weak passwords of less than eight characters were in use in SAIL. Besides, IT Security Audit had not been conducted regularly.

The Ministry stated (October 2018) that password policy has been implemented in legacy system of CMO and that for email, web, desktop computer and system is being planned for implementation in six months. They also assured that password policy for ERP-SAP at BSP would be reviewed and suitable action will be taken. The Ministry further stated that the process of hiring an IT Consultant for IT Strategy, ERP and for review of major IT

policies and guidance for a cost effective solution, was initiated. The Management should lay down timelines for compliance.

(c) Physical Access Control

Data security is of paramount importance in an automated environment. As data is stored in servers, security of servers has to be ensured through physical controls besides the logical access controls.

Audit noted that access to the server room was restricted with CCTV cameras and biometric checks in CMO, BSL, DSP and RSP but in the other units of SAIL (SSP, VISP, CET, ASP and SAIL Corporate office) such controls were not exercised. In RDCIS & MTI, CCTV cameras were installed but access was not restricted with biometrics checks. Automatic fire detection/smoke detection and alarm systems were installed in network room at all units except in BSP and CFP.

The Ministry stated (October 2018) that automatic fire detection/smoke detection and alarm systems at network rooms of BSP and CFP are under consideration. The reply was silent about the other issues raised by audit. Further, the Management must prescribe time lines for ensuring sufficient physical access controls are put in place at each site.

10.4.3.2 Non-implementation of systems and non-usage/under-usage of functions available in ERP-SAP

(a) Non-integration/replacement of legacy applications with ERP-SAP

The ERP Feasibility Report of BSP, DSP, RSP and BSL recommended integration/ replacement of existing legacy systems with ERP-SAP to ensure single point data entry and data sanctity. Audit noted that in BSP, BSL and RSP, several existing legacy systems[25] were not integrated with ERP-SAP. In DSP, legacy systems were integrated with ERP-SAP as envisaged in the feasibility report.

The Ministry stated (October 2018) that applications involving direct data capturing were not planned to be integrated with SAP-ERP. It further stated that as precise requirements of SAIL was not being met by standard SAP functionality, SAP was working on a pilot project to address this issue. Regarding CCIS & IRIS, further action would be decided after the results of the pilot project of SAP were evaluated.

The reply is not acceptable as all the legacy applications pointed out by audit were planned to be integrated/ replaced as per the feasibility report of ERP-SAP of BSL, BSP & RSP. Further, no timelines for integration/replacement of legacy systems with ERP-SAP was fixed by the Management even after more than six years since implementation of SAP.

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[25] ***Cost Control Information System (CCIS) and PPC-Statistical, Coke Oven Production Control and Blast Furnace-5 Process Computer and Integrated Refractory Information System (IRIS) not integrated in BSP and Energy Management system, Sintering Plant Information System, Coke Oven Production System, Integrated Refractory Information System (IRIS), Tandem Mill System etc. were not integrated in BSL. In RSP the legacy systems of Product Costing System, Field Machinery Maintenance System and Engineering Shops were not replaced.***

(b) Underutilisation of FICO module and non-upgradation to comply with IndAS

i) The Financial Accounting module in ERP-SAP was being used for the preparation of Trial Balance (TB) at unit level. Subsequently, these TBs were processed in a legacy application (SAIL Accounts Preparation System-SAIL APS) for generation of Financial Statements of SAIL. Thus, there was no integration between ERP-SAP systems in SAIL units and the legacy system through which financial statements were generated. Audit noted that in RSP, value of inventory in ERP-SAP Report did not match with financial statements of 2016-17 and there was a variation of ₹462.95 crore (₹856.46 crore as per accounts and ₹393.51 crore as per SAP ERP) for the year 2017-18.

The Ministry stated (October 2018) that an ERP-SAP module *viz*. Strategic Enterprise Module (SEM) is being implemented for financial consolidation of information at company level. The Ministry's reply was however silent on the issue of mismatch in inventory value which continues to persist.

ii) The Controlling module (CO) (a part of FICO module of ERP-SAP) is meant for determination of overhead cost, cost controlling and planning to be used by the Management for decision making. Audit observed that Controlling module was not being fully utilised and cost sheets were not prepared in SAP.

The Ministry stated (October 2018) that further action would be decided by the management after the results of pilot project of SAP. The Ministry's reply is not acceptable as ERP-SAP was implemented by April 2012 and despite lapse of more than six years, SAIL could not utilise the Controlling module. The Management should lay down timelines for full utilisation of the module.

iii) SAP provides two methods of payment - one through Purchase Order (PO) route and the other through parking route. Parking route of payment essentially addresses the situations where Purchase/ Work Order is not available in SAP and payments are not to be made on a regular basis. Documents can be parked until authorisation/approval is received after which the transaction is posted. Unlike PO mode, the vendor code and amount can be changed by the user department in parking mode and therefore use of parking mode in payments is more prone to risk.

Scrutiny revealed that payments amounting to ₹1222 crore were made (April 2017 to October 2018) in BSL and CMO, through parking mode. In other test checked units (RSP, DSP and BSP), no payments were found to be made in this mode.

The Ministry accepted (October 2018) that once a document is parked by the user, Finance and Accounts had no option but to process it and release the payment. It further stated that the issue had been taken up with departments who exercise this option of payment.

iv) In DSP, accounting adjustments towards recovery of security deposit (SD) and linking of bank guarantee (BG) were carried out manually after finalisation of bills. This left scope for discretion and possible revenue loss to SAIL.

The Ministry stated (October 2018) that SD and BG program have been developed and will be implemented and that there had not been any case of non-encashment of SD/ BG. The reply is not acceptable as despite lapse of more than six years since implementation of SAP, the Management has not implemented the SD and BG program and it should ensure time bound compliance of the same.

v) SAIL had not upgraded Financial Accounting module of ERP-SAP to address compliance with Companies Act 2013/ Ind AS. As a result, TBs generated in ERP-SAP were not compliant with Companies Act 2013/ IndAS and required manual adjustments.

Audit noted that SAIL revised its significant accounting policy relating to capitalisation of spares and major expenditures according to IndAS 16 in FY 2016-17 and carried out adjustments manually which resulted in double capitalisation of ₹12.23 crore. This could have been avoided had IndAS requirement been mapped in ERP-SAP. However, at the instance of audit, the double capitalisation of spares was rectified.

The Ministry stated (October 2018) contract has been entered into with SAP Max Attention to make ERP-SAP system IndAS compliant and that it was in final stage of implementation. The Management must prescribe timelines for compliance.

(c) Non-implementation of Manufacturing Execution System (MES)

The production planning function of standard ERP solutions is not capable of meeting needs of integrated steel plants and therefore Manufacturing Execution System (MES), is utilised in the steel industry for production planning, scheduling and controlling which is integrated with the ERP solution. The ERP Feasibility Report (June 2005) at BSP recommended implementation of MES to avail the benefits of improving operational efficiency and cost reduction/control. SAIL Board approved (July 2006) the implementation of MES in three shops of BSP i.e. Steel Melting Shop II (SMS II), Plate mill, and Rail & Structural Mill at the cost of ₹40.51 crore. It was also decided by the Board that after successful implementation of MES in these shops, it would be extended to other shops.

Manufacturing Execution System was implemented (December 2012) at a cost of ₹29.31 crore in these three shops and consequently the performance improved steadily from defect rate in steel plates from 1.01 *per cent* in 2013-14 to 0.75 *per cent* in 2017-18 after implementation of MES.

Audit observed that despite performance improvement after implementation of MES in three shops, no action was taken for implementation of MES in other shops except Universal Rail Mill. In other ERP-SAP enabled units/plants (RSP, DSP & BSL), MES was not implemented.

The Ministry stated (October 2018) that requirements of MES for the remaining areas would be reviewed. Although benefits of implementation of MES were highlighted in Annual Reports of SAIL, the Management did not fix timeline for its implementation in all ERP-SAP enabled plants.

10.4.3.3 Deficiencies in legacy software in SAIL

(a) Human Resource Information System (HRIS)

Validation controls in Human Resource Information System (HRIS) were weak and data was not found captured for critical fields such as father's name, PAN number, date of birth etc. **(Annexure-XII)**. The system did not validate salaries with corresponding posts and accepted pay scale of executives for a non-executive post. Hence, reliability and authenticity of data could not be vouchsafed in audit.

The Ministry stated (October 2018) that issue has been complied with at SAIL headquarters. Further, Personnel Department has now identified parameters for review and incorporation in the system. The Management should lay down timelines for incorporating necessary controls in HRIS.

(b) Material Management Information System (MMIS)

Material Management Information System of RDCIS did not map significant details such as comparative statement of bids, technical & commercial evaluation, details of user department and computation of LD etc. Vendor database of ISP, CFP, ASP and RMD, did not capture details such as PAN, GSTN, email id, contact number etc. **(Annexure XIII)**. The system had provision for fixing inventory levels (Minimum, maximum and re-order). However, inventory levels were fixed in respect of only four out of 65532 items.

The Ministry stated (October 2018) that RDCIS is in the process of implementation of e-procurement system and all issues would be included in the scope of work. Regarding ISP and CFP the matter was being looked into. Regarding inventory management, the Ministry stated that inventory levels were maintained only for identified critical items. The reply was not acceptable as inventory levels were an inbuilt feature of MMIS and can be used for efficient inventory management of all items. The Management should lay down timelines for implementation of e-procurement system.

(c) Hospital Management System (HMS)

General Hospitals established by SAIL provide health services to employees of plants as well as patients from other Government/ private organisations like DVC, ONGC, HSCL etc. and private patients. SAIL's Medical Rules extend the eligibility for Medical facility to fully dependent son (upto 25 years of age for referral case and beyond 25 years for OPD), daughter (upto marriage or job whichever earlier), parents, wholly dependent brother and sisters (upto 21 years of age if father not alive) and parents-in-law (in case of female employees appointed on compassionate ground) are eligible for medical facility of SAIL. Audit observed that lack of validation controls in HMS had allowed entry of ineligible beneficiaries in the Medical Beneficiaries database of DSP, RSP and BSP (**Annexure-XIV**).

The Ministry stated (October 2018) that at BSP, the matter has been taken up with the Director Incharge and further validation as required will be incorporated in the system. The Management should lay down timelines for incorporation of necessary validations in the system. The Ministry was silent with respect to DSP and RSP.

(d) Absence of system of capturing logs and audit trail in legacy applications

In eight units/plants[26], audit noted that audit trails were not available in legacy systems except at VISP, where logs up to 15 days were stored. The Ministry stated (October 2018) that audit observation had been complied with at SAIL Corporate Office. Further, the User-Id for transactions is captured in legacy system of BSP. Development of audit trail for legacy system of CMO is not cost effective. However, log is being maintained to record major changes in the database which can be tracked.

(e) Duplicate processing of bills and excess payment in Chandrapur Ferro Alloy Plant (CFP)

The data dump of the bills passed by the Finance Department of Chandrapur Ferro Alloy Plant (CFP) during 2014-15 to 2016-17 revealed that invoices amounting to ₹13.57 lakh were processed twice and bills were passed on different dates. Audit observed that the duplicate bills were passed based on the Xerox copies of bills of the vendors/ tax invoices and GRN (Goods Receipt Notes) resulting in excess payment of ₹8.34 lakh (₹5.23 lakh though passed but not paid) against which ₹0.59 lakh is to be recovered). This could happen because there was no check in the system to ensure that only a single payment could be made against any GRN or that the total payment is limited to the PO value.

The Management accepted (December 2017) that existing systems in CFP were old and periodic updation had not taken place. Efforts were being made to implement SAP at CFP. The Management should lay down timelines for implementation of SAP-ERP in CFP. Ministry was silent on the issue.

10.4.3.4 Management of Risks relating to IT systems and Business Continuity

(a) Preparedness for contingencies like cyber-attack and hacking

Audit noted deficiencies in the preparedness for contingencies as under:-

I. Audit noted that out of 4,078 desktops/ laptops (as on October 2018) in nine SAIL units[27], 1,559 (38.3 *per cent*) operated on the outdated Windows XP operating system despite discontinuation of security patches by Microsoft since April 2014. This rendered these systems more vulnerable to risks.

II. Ransomware attacks had occurred in six computers at BSL and three computers at VISP and all these computers had to be formatted. There were Ransomware attacks in 10 SAP-ERP clients in CMO and RMD. In RMD, the attack was blocked by the gateway level solution, whereas at CMO, the gateway level solution failed to block the attack.

III. An intruder accessed (October 2016) a proxy server installed in VISP to tap user passwords.

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[26] ***SAIL/CO, ISP, CFP, RDCIS, CET, ASP, SSP & VISP***

[27] ***SAIL Corporate Office, ASP, SSP, VISP, CMO & RMD, CET, RDCIS & MTI***

The Ministry stated (October 2018) that systems running on Windows XP were being replaced in a phased manner and that where these machines were used, their access to internet was restricted. It further stated that licensed anti-virus software was not installed in six of the computers which were subject to Ransomware attack and that the software was subsequently installed.

(b) Disaster Recovery Centre (DRC)

Disaster Recovery Centre is a secondary site at a remote place, far away from the primary site which is set up so that in the event of any eventuality at the primary site, there is no business disruption and applications, data, hardware and other IT infrastructure resume operations immediately. It is essential for business continuity. Audit observed that in all the plants/units of SAIL except CMO, DRC was in close proximity of the respective plants/units, which increased the vulnerability in the event of disasters.

The Ministry stated (October 2018) that location of DRC Bhilai would be reviewed. Further, SAIL Corporate office is in the process of appointing an IT consultant for formulating IT strategy for SAIL. The scope of consultant includes the feasibility and strategy for common DRC in SAIL. The Management should lay down timeline for formulating the IT strategy.

10.4.3.5 General issues

(a) Non-adherence to E-Waste Management Policy

As per GoI's "E-waste (Management & Handling) Rules, 2011", e-waste may be stored for a period not exceeding 180 days. Audit noted that 903 idle IT assets were lying undisposed (October 2018) since more than eight years at SAIL Corporate Office, CET, ISP and RDCIS .

The Ministry stated (October 2018) that E-Waste policy for Corporate Office, in line with E-Waste Management Rules, 2016 is being formulated for which a committee has been constituted. SAIL Corporate Office planned to hire a consultant to formulate an IT strategy. Further, at BSL, identification, writing off and subsequent disposal of computers and peripherals is a continuous process.

The reply of the Ministry is not acceptable as identification, writing off and disposal of computers and peripherals was not done at BSL for last three years. Further, reply of the Ministry was silent regarding the IT assets lying undisposed for more than eight years in SAIL Corporate office, CET, ISP and RDCIS.

(b) Non-compliance with C&AG para 17.7 (Report No.3 of 2011-12) regarding (IT audit of Material Management Module of ERP-SAP Bhilai Steel Plant)

i) BSP did not develop a Complaint Monitoring System despite assurance given in November 2010 and complaints continued to be monitored manually (Para no. 17.7.5.2). Ministry stated (October 2018) that application development is in progress at BSP.

ii) BSP did not implement online approval system for delivery period extension. The Management stated (September 2017) that the process needed customisation and was being planned with support from consultant and in-house expertise (17.7.6.1). The Ministry offered no further comments (October 2018) on the issue.

iii) Audit noted that LD recoverable from the suppliers continued to be calculated manually and subsequently entered in the system for effecting recoveries despite being raised in Audit (Para no. 17.7.5.4). Ministry stated (October 2018) that application development has been taken up with M/s SAP.

SAIL thus, could not fix time schedule for application development even after lapse of seven years since being pointed by audit.

10.4.4 Conclusion

SAIL started implementing ERP-SAP in its plants/units since 2009 to cover the entire spectrum of business operations but legacy applications continue to exist without being integrated with ERP-SAP. Deficiencies were noticed in controls in IT systems. It was seen that data captured was not complete/accurate and instances were noticed in BSP, DSP, CMO, RMD, RSP, BSL and ISP, where critical details were missing in database and reports generated by modules. The IT policy of SAIL was not updated since December 2006 and password policy stipulated therein was not complied to. Physical access was not adequately restricted, to ensure security of servers in SSP, VISP, CET, ASP and SAIL Corporate office.

Due to non-mapping of business logic, several ERP-SAP modules such as FICO were not utilised or underutilised. The FICO module was used for preparation of Trial Balance at unit level and the TBs were subsequently processed in a legacy application SAIL-APS for generation of financial statements of SAIL. Further at BSL and CMO, payments amounting to ₹1222 crore (April 2017 to October 2018) were paid through parking mode in ERP and was prone to risks. SAIL had not upgraded FICO module to address compliance with Companies Act 2013/IndAS and consequently manual adjustments were carried out resulting in double capitalisation of ₹12.23 crore. Legacy systems like HRIS, MMIS and HMS lacked validation controls due to which some essential data was not captured or the data captured was invalid. Thirty eight *per cent* of SAIL's PCs were running the outdated Windows XP Operating System which made them vulnerable to risks. DRCs were located in close proximity of the plants thus defeating the purpose of setting them up.

10.4.5 Recommendation

- SAIL may ensure reliability and integrity of its IT systems by putting in place necessary validation controls, physical and logical access controls in a time bound manner.

- SAIL should ensure that the functions available in ERP-SAP are customised and fully put to use. The Legacy systems should be integrated/ replaced as per the original intention of the Management, in a time bound manner.

- SAIL should work on its preparedness to address risks and contingencies to its IT systems. Periodic review of IT policy and conduct of IT security audits may be ensured.

10.5 Implementation of Addition, Modification and Replacement Projects

10.5.1 Introduction

SAIL, the largest steel manufacturing company in India, produced 15 million tonne (mt) of crude steel during 2017-18. It has five integrated steel plants[28], three special steel plants[29], one Ferro alloy plant, SAIL Refractory unit and captive mines for iron ore, limestone, dolomite and coal. A Modernisation and Expansion Plan (MEP) was undertaken by SAIL in its five integrated steel plants and Salem Steel Plant to enhance the installed production capacity. Apart from MEP projects, SAIL executes Addition, Modification and Replacement (AMR) projects/schemes to improve/revamp the existing facilities for cost reduction, energy consumption services, safety and pollution control and balancing/ debottlenecking [30] of production processes. AMR projects/ schemes are approved in two stages i.e. Stage-I and Stage-II. Stage I is in-principle approval for taking up the project and stage II approval is accorded based on firmed-up cost estimate arrived at after competitive bidding. Project valuing less than ₹20 crore is approved, executed and monitored at the plant level whereas project valuing more than ₹20 crore is approved and monitored by SAIL's corporate office.

10.5.2 Audit Objective, Scope and Methodology

The objectives of the audit were to assess whether (i) the contracts were awarded in a transparent, competitive and fair manner, (ii) the projects were executed efficiently, economically and effectively and (iii) the objectives of the projects were achieved.

This study covered all decisions, management processes and activities relating to AMR projects during the period of five years from 2013-14 to 2017-18. SAIL awarded and completed 1742 and 1199 contracts valuing ₹12489 crore and ₹3119 crore, respectively during the above period while 584 contracts valuing ₹9858 crore were on-going as on March 2018. Of the 1783[31] on-going or completed projects valuing ₹12977 crore, 385 projects (92 exceeding ₹10 crore and 293 from the remaining 1691 projects) valuing ₹11515 crore and representing 89 *per cent* of the total project cost were selected and reviewed in Audit. These projects were examined with reference to SAIL's purchase/contract procedure, tendering guidelines, project execution files, board decisions and guidelines issued by various statutory authorities.

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[28] ***Bokaro Steel Plant (BSL), Bhilai Steel Plant (BSP), Durgapur Steel Plant (DSP), IISCO Steel Plant (ISP) and Rourkela Steel Plant (RSP)***

[29] ***Salem Steel Plant (SSP), Alloy Steel Plant (ASP) and Visveswaraya Iron and Steel Plant (VISP)***

[30] ***A process to increase the production capacity at an existing plant by making modifications to the equipment configuration or workflow. This is accomplished by eliminating bottlenecks that limit the throughput.***

[31] ***Including 41 contracts that were awarded prior to 2013-14 and were ongoing as on April 1, 2013.***

10.5.3 Audit Findings

10.5.3.1 Correctness of estimate, tendering process and award of project

Audit reviewed activities from in-principle approval to award of contract in 385 AMR projects and noted variance between cost estimate and awarded cost, delays in tender finalisation and inadequacies in contract award process as discussed in the subsequent paragraphs.

(a) Inadequacies in estimate preparation

As per para 2.4.1 of the Purchase and Contract Procedure - 2014 of SAIL, it is the prime responsibility of the indentor to prepare judicious estimate of the current value of the indent. The indentor shall take the help of engineering services and other centralized agencies, if so required, for the preparation of judicious estimate using scientific/technical methods.

Therefore, the estimate should take into consideration all relevant factors based on prevailing contract price of various inputs such as labour, materials, equipment etc. Each SAIL plant has a policy for deviations over estimates for finalisation of contract price which varies from 5 *per cent* to (-)35 *per cent*.

Audit noted that out of the 80 projects awarded during 2013-18 and valuing more than ₹10 crores, awarded price was more than the highest approved deviation by 5.73 *per cent* to 69.35 *per cent* in the case of 13 projects while in another 14 projects, the awarded price was less than the lowest approved deviation by 30.01 *per cent* to 69.51 *per cent* as detailed below.

Table 10.7: Statement showing deviation in approved cost of project with respect to estimate

Units	Approved deviation		No. of Projects	Projects beyond upper deviation limit		Projects below lower deviation limit	
	Upper	Lower		Number	Range (*per cent*)	Number	Range (*per cent*)
BSL	+2	-35	28	03	5.73 to 13.81	06	36.22 to 69.51
BSP	+2	-30	16	02	11.24 to 36.78	-	-
DSP	+5	-25	15	05	6.42 to 69.35	01	37.93
RSP	+2	-30	15	02	6.90 to 8.54	07	30.01 to 64.12
ISP	+5	-20	02	01	34.41	-	-
Total			**76**[32]	**13**		**14**	

Some of the important cases of inaccurate rate estimation are narrated in table below:

Table 10.8: Significant instances of inaccurate rate estimation

(₹ in crore)

Sl. No.	Name of work/Plant	Estimated price	Award price	Deviation (*per cent*)	Remarks
i.	150 tonne per day (TPD) sulphuric	40.06	14.90	(-)62.80	Cost estimate was prepared based on budgetary quotation obtained from a single agency. The Management replied (January 2019) that final prices discovered through Reverse Auction (RA)

[32] ***Excluding 4 projects wherein deviation was not noticed.***

	acid plant at BSL				have come down considerably due to intense competitive bidding. However, audit noted that RA is used to bring price closest to market price and cannot be used to justify inaccurate estimates. Audit further noted that the L-1 bidder was the same vendor who had provided the budgetary quotation (BQ) of ₹39.50 crore. This shows that market assessment was not done while preparing cost estimate and the BQ submitted by vendors was not reliable.
ii.	Replacement of six vertical axial-flow pumps installed in cooling pond 1 of BSL	27.24	10.92	(-) 59.92	The estimate was prepared on the basis of cost of imported pumps only. The Management stated that as the installed pumps were of Russian make, they believed foreign bidders would be in a position to replace these pumps. Audit however noted that NIT did not specify installation of imported pumps. Moreover, Centre for Engineering and Technology (CET) of SAIL was aware that Indian manufactured pumps were also available as Indian manufacturers were included in the list of probable pump suppliers. Despite this, the estimate was prepared on the basis of foreign pumps only.
iii.	Replacement of existing convertors, simadyn regulation system and PLC of CCAL in CRM, BSL	19.88	6.38	(-)64.32	CET prepared the cost estimate based on budgetary quotation (BQ) obtained from two bidders (M/s. ABB Ltd. and M/s. Danieli). The Management stated that the estimate was prepared on the basis of the lowest of the BQ of two parties but bid price was reduced due to intense competition during RA. Audit however noted that the Management relied on BQs from two companies and no independent market research was conducted. M/s Danieli who submitted BQ higher than ₹19.88 crore bid at ₹6.38 crore. This indicated that vendors were submitting unrealistic and unreliable BQs.
iv.	Conversion of fluid coupling to Variable frequency drive in ID fans of RSP	10.08	4.55	(-) 54.86	CET did not provide any justification for the wide variation. SAIL attributed (January 2019) the price variation to the mode of price discovery, no. of bidders and their respective order position, keenness to grab the job, market scenario etc. Thus, the estimate prepared by CET was not as per the prevailing market price.
v.	Laying of new steam pipelines from PBS 2 to old plant in ISP.	12.40	16.67	(+)34.41	After finalisation of L1 bid, CET revised the estimate to ₹15.30 crore due to inclusion of additional foundations and support structures which were not considered earlier. The Management accepted (January 2019) that underground hindrances were not envisaged in the beginning and further stated that to eliminate such situations in future, pre-tendering survey of the project site was being proposed in the feasibility reports of CET as a matter of practice.
vi.	Up gradation of ESPs of Boiler no 1,	15.41	5.45	(-) 64.64	CET had prepared the estimate on the basis of a single budgetary quotation. The Management stated that among other factors,

	2 and 5 in Power & Blowing Station, BSP				like respective order position of the bidders, market scenario etc., the price variation of the L-1 price w.r.t the estimate could be due to competitive bidding through RA. Audit however noted that reduction in price through RA process cannot be used to justify unrealistic estimate because CET relied on a single BQ without analysing the current market trend.

From the above, audit noted that the wide variation between cost estimate and awarded price was due to either inaccurate assessment of items or preparation of estimate on the budgetary quotations obtained from a few vendors without applying any scientific/ technical methods such as market research/ analysis. As brought out in the table above, the same vendor submitted a higher price in the BQ and a far lower price in the bid. Further, as per clause 2.4.1(e) of PCP 2014, initial estimate prepared by CET should be examined and approved by the Tender approving authority. Audit found nothing on record to show that the CET estimates had been examined by the Tender approving authority despite multiple cases of substantial deviations from estimated rates. Independent External Monitor (IEM), SAIL also advised (September 2014) CET to make suitable changes in preparation of cost estimate by updating data base on cost as the process for arriving at cost estimate did not inspire confidence. In the absence of accurately estimated rates, SAIL would not be in a position to assess whether prices obtained were competitive and quality of work was in conformity with the tender's quality requirement. SAIL may end up with an L-1 price much higher than the market price since the starting price of the RA bids was not being correctly estimated.

The Management stated that major deviation of prices w.r.t estimates has been observed in tenders where price discovery has been done through RA and preparation of cost estimates has been further strengthened. Reply of the Management supports the audit contention that estimates were not close to the market rate.

(b) Delay in award of project

In order to avoid time and cost overrun, it is necessary that the contracts are finalized within reasonable time. To this end, a definite time schedule needs to be followed for completion of different stages of contracts.

Audit observed that company-wide timelines for each stage of contract finalisation were not prescribed. SAIL had fixed (July 2009) 39 weeks (9 months) for finalisation of tender i.e. from in-principle approval to order placement for open/global tenders. However, no timeline was defined for limited and single tender mode tenders. The applicability of 39 weeks' timeline to plant level projects was not explicitly defined. The plants themselves had not evolved any uniform timeline for plant-level projects. Therefore, all the 80 projects of ₹10 crore and above (representing 84 *per cent* of the total sample) awarded during 2013-14 to 2017-18 were reviewed against the timeline of 39 weeks[33]. Audit noticed that 57 projects were awarded after delay as shown in table below.

[33] ***Projects valuing more than ₹20 crore were reviewed considering 9 months or 39 weeks.***
Projects valuing between ₹10 crore and ₹20 crore were reviewed considering 8 months (after subtracting 4 weeks Board processes as Board is not involved in finalisation of projects below ₹20 crore).

Table 10.9: Status of award of contract for projects valuing more than ₹10 crore

Plants/ Units	Projects audited	Delay in award of projects (in months)				
		Total	0-12	13-24	25-36	> 36
BSL	28	23	12	5	3	3
BSP	16	11	9	2	-	-
RSP	15	11	9	2	-	-
DSP	15	7	6	-	1	-
ISP	2	1	1	-	-	-
Other units	4	4	3	-	1	-
Total	**80**	**57**	**40**	**9**	**5**	**3**

Audit observed that award of contracts was delayed up to 12 months in 40 projects, 13-24 months in nine projects, 25-36 months in five projects and 37-50 months in three projects. The major reasons for the delay were deficiencies in preparation of scope of work, delay in decision making, repeated negotiations with L-1 tenderer, re-tendering and delay in obtaining of stage-II approval.

Audit further observed that out of the 57 delayed projects, there was delay of 2-96 weeks in issue of NIT (14 projects), 1-78 weeks in opening of technical bids (34 projects), 1-51 weeks in opening of price bid (41 projects), 2-61 weeks in award (50 projects) and 1-66 weeks in placement of order (34 projects). Break up of activity wise delays in award of the projects is given below:

Table 10.10: Break up of activity wise delays in award of the projects

Unit	No. of Projects delayed	Issue of NIT		Opening of technical bid		Opening of price bid		Delay in award		Delay in LOA	
		No.of projects	Delay in weeks	No. of projects	Delay in weeks	No. of projects	Delay in weeks	No. of projects	Delay in weeks	No. of projects	Delay in weeks
Norm (in weeks)			13		8		12		1 or 5		1
BSL	23	7	4-59	13	1-13	22	1-43	22	4-55	14	1-66
BSP	11	1	4	6	6-78	1	14	9	5-61	8	3-62
DSP	11	1	96	1	7	6	3-33	7	10-46	0	0
RSP	7	4	2-16	10	1-40	9	4-51	10	2-26	9	1-16
ISP	1	-	-	1	1	-	-	1	3	1	12
CFAP[34]	3	-	-	2	2-3	2	9-12	-	-	2	4
RMD[35]	1	1	14	1	11	1	3	1	7	-	-
Total	**57**	**14**	**2-96**	**34**	**1-78**	**41**	**1-51**	**50**	**2-61**	**34**	**1-66**

The Management replied that delays were mainly due to retendering, revision of price estimate, extension of bid date, fund availability, technical and commercial discussion with the bidders. In respect of RSP, it stated that most of the AMR projects were technology intensive where vendors were limited and the projects were to be executed in brownfield areas. The Management's reply may be seen in the light of the fact that the bottlenecks mentioned in the reply are part of tendering procedure and the timelines prepared for contract finalisation take into account all these factors. Further, AMR

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[34] ***Chandrapur Ferro Alloy Plant***
[35] ***Raw Material Division***

projects are generally undertaken in brownfield areas where site conditions are known and activities can be planned in advance.

Some of the important audit findings with respect to delay in award of contracts are narrated below:

(i) Replacement of Naphthalene Press-II at BSL

Naphthalene present in coke oven gas is separated and processed with the help of hydraulic presses in order to sell it in the open market. BSL decided (August 2015) to replace one naphthalene press-II burnt in June 2012 at an estimated cost of ₹19.13 crore and the total investment was estimated to be recovered in 272 days. Tendering process was initiated in September 2015 and management took 24 months (including 7 months to open price bid, 4 months on price negotiation and 6 months in placement of order) in place of eight months to award the contract. Audit noted that as a result of the price negotiation, BSL could save only ₹3.69 crore whereas it had foregone ₹12.57 crore [36] due to delay in finalisation of tender.

The Management stated that primary reason for delay in award was several extensions to the tender opening date due to lack of interest shown by the prospective bidders and post procedural approvals as there was only a single techno-commercially acceptable bid. It further stated that these reasons were beyond the control of the Management.

Audit, however noted that besides the delay of seven months in opening of tender due to insufficient bids, the Management took 10 months to complete the technical and commercial evaluation and five months to issue Letter of Acceptance. Further, though the price was firmed up in March 2017, final clearance from Corporate Office for release of Letter of Acceptance was received only on 27 July 2017. Thus, 100 weeks were taken, in place of the stipulated 35 weeks, from date of in principle approval to placement of order.

(ii) Installation of new steam pipeline from PBS-2 to Coke Oven Battery (COB)-8 and COB-10 in ISP

Power and Blowing station (PBS) supplies power and processed steam to plants. PBS-1 became old which resulted in lower efficiency, higher cost of production, unsafe operation, and non-fulfilment of environment norms. A committee had recommended (August 2014) closure of PBS-1 after arrangement of essential power and processed steam from PBS-2 by laying new steam pipeline. Audit noted that the work was not awarded and the Management again constituted committees in January 2015 and 2016. Both committees recommended closure of PBS-1. The work for laying of the new steam pipe line from PBS-2 to COB-8 and COB-10 was awarded for ₹16.67 crore to a consortium led by M/s. GR Enterprises in August 2017, after a lapse of three years from the date when closure of PBS-I was first recommended. The work is yet to be completed and ISP continued to produce steam from PBS-1 at higher cost which resulted in extra expenditure of ₹94.42 crore during 2016-17 to 2017-18.

[36] ***₹6.87 lakh x (455-272) days***

The Management replied that during detail design stage, they found that the existing trestles were not taking load at various places which resulted in rerouting and redesign of extensive stretches leading to time over run. Reply of the Management was not acceptable as such operational constraints should have been taken care of during finalisation of the technical specifications. The reply was silent on the reasons for delay in finalizing and awarding the contract from the date when the closure of PBS-I was first recommended.

(c) Deficiencies in tendering

(i) Deficient tendering resulted in cost and time overrun in Sinter Plant II of BSL

BSL envisaged production of 5.77 mtpa of hot metal after completion of MEP which would require 7mtpa of gross sinter. There was one existing sinter plant (SP) in BSL having production of 4.6 mtpa in 2011. SAIL Board accorded (March 2011) in principle approval for installation of new SP in BSL at an indicative cost of ₹830.85 crore to meet the additional sinter requirement. BSL initially divided the project into two packages i.e. main package (package I) and 450 TPD Lime Shaft Kiln (package II) for tendering.

Audit noted lapses on the part of management in the technical evaluation of tender documents of package I resulting in cancellation of the tender twice by the Independent External Monitors (IEM) of SAIL. CET in its tender evaluation report (February 2012) found that M/s NHI who was initially awarded the tender was not eligible as the documents submitted by them did not establish their experience in building sinter plants. BSL, however, obtained further documents from M/s. NHI and declared the party eligible. IEM cancelled the tender (January 2013) observing that BSL should not have called for documents from an ineligible party. The package was retendered and CET declared (February 2013) POSCO & consortium as technically eligible subject to submission of notarized copy of experience certificate. BSL Management, instead of seeking these documents from POSCO, declared the party ineligible. IEM again cancelled the tender (March 2014) and advised BSL to fix accountability on persons responsible for the lapses. Audit, however, did not come across any document to establish that accountability was fixed by BSL. Subsequently, the entire project was split into four packages and awarded to different parties between May 2015 and April 2016 at a cost of ₹945.43 crore. Thus, due to lapses in the tendering process, SAIL took 36 months to award the work which resulted in increase in the contract cost by ₹114.58 crore and loss of envisaged benefit of ₹118.11 crore.

The Management stated that the tender was finalized in multiple packages to get maximum advantage in terms of cost and quality. Reply of the Management is silent on the lacunae in tendering process which resulted in intervention by the IEMs, twice. Further, the Management's assertion about cost advantage was contradictory to facts as the cost increased by ₹114 crore over the initial estimate. The work is yet to be completed.

(ii) Award of change orders due to oversight in preparation of Technical Specifications (TS)

Change orders are issued mainly to execute work not covered under the original scope of the project. Audit, however, noted that change orders were issued by BSL and RSP in projects detailed below due to oversight at the time of preparation of TS. Audit also noted

that change orders were initiated almost immediately after the placement of the original work order.

- Package 4, related to supply of power to new sinter plant at BSL, was awarded (May 2015) to M/s MECON at ₹58.37 crore. After award of the contract, the Management initiated the process to award change order (November 2015) and issued the change order (November 2016) of ₹6.08 crore for underground cabling of 750 meters. Audit noted that this was necessitated due to presence of high conveyor, 132 KV line and gas pipe line in the area which was not taken into account at the time of finalisation of TS.

  The Management replied that the obstructions were noticed during route survey after the NIT and assured that CET was making efforts to conduct area survey prior to the preparation of the TS/ issuance of NIT to present the actual site condition to all the bidders.

- Slab Caster package for modernisation of SMS-I of BSL was awarded (July 2015) to M/s L&T for ₹475.73 crore. Audit observed that after award of work, BSL Management initiated the process (December 2015) to issue two change orders. One order was for installation of four girder crane in place of the initially proposed two girder crane in view of operational limitations and space constraint. The other order was for revamping of additional 1.5 km railway track which would help in smooth operation of crude steel production. The Management placed two change orders of ₹36.65 crore and ₹13.75 crore to L&T.

  The Management replied that four girder cranes and revamping of existing railway track was proposed subsequently during engineering meetings for better flexibility to meet emergency lifting requirements. The reply of the Management indicates lack of planning and oversight in preparation of the TS.

- RSP awarded (July 2014) work for up-gradation of Blast furnace (BF-1) to M/s Danieli Corus B. V. and consortium for ₹615.56 crore. RSP decided to award change order for dismantling of BF-2, replacement of Cold blast lines and modification/replacement of BF-1 as these were technically essential for up-gradation of BF-1 and were not included in the original TS. RSP awarded (March 2015 and December 2016) the two change orders valuing ₹32.53 crore to the same party who was awarded the original contract.

  The Management replied that it was considered appropriate to take up the additional jobs along with the BF-1 up-gradation work so as to improve overall O&M flexibility. The Management's reply was not acceptable because dismantling of BF-2, replacement of Cold blast lines and modification/replacement of BF-1 were essential for the upgradation of BF-1 and these should have been included in the initial TS. Dismantling of BF-2 could have been awarded as a separate, synchronized contract.

Thus, the change orders described above were related to basic design/ technological requirements and should have been addressed in the initial TS. Non-inclusion of these in the initial TS resulted in award of work valuing ₹89.01 crore (out of the total cost of these projects of ₹1150 crore) through change orders without any competition. Frequent issue of

change orders highlighted lapses in project planning and could also lead to time and cost overrun.

(iii) Award of project to ineligible party at Kiriburu-Meghahatuburu mines

RMD accorded (July 2014) stage I approval for installation of sewage treatment plant (STP) for the colony and effluent treatment plant (ETP) for workshop at a cost of ₹9.44 crore. The project was split in two packages. Package-II tendered in June 2016 was cancelled (February 2017) as two bids were received and the performance of the bidders was found not satisfactory in other mines of RMD. The package was retendered (June 2017) and seven techno-commercially eligible bids were received. Audit noted that M/s Hanuman Enterprise who was declared ineligible in the first tender was awarded the contract in the retender at ₹2.71 crore, with the Management stating that there was no adverse report against this bidder. Thus, undue favour was extended by RMD to the party.

The Management stated that both the bidders were considered ineligible due to non-submission of documents as per NIT and not on the basis of any adverse report. The Management's reply is factually incorrect as the fact that the performance of both bidders in Package II was unsatisfactory in other mines of RMD was recorded by the Management. This fact was ignored and the work was awarded to the ineligible party.

10.5.3.2 Project execution

(a) Delay in execution of projects

Audit reviewed 92 ongoing or completed projects exceeding ₹10 crore and observed that out of these, 74 projects were delayed beyond the scheduled completion date. The results of audit assessment are summarized in table below:

Table 10.11: Statement showing delay in status of projects executed

Plants/ Units	Projects audited	Delay in execution of projects (in months)				
		Total	0-12	13-24	25-36	> 36
BSL	31	26	11	8	4	3
BSP	16	14	8	2	1	3
RSP	15	11	6	1	3	1
DSP	24	18	12	3	2	1
ISP	2	1	0	1	0	0
Other units	4	4	1	1	1	1
Total	**92**	**74**	**38**	**16**	**11**	**9**

Out of the 92 projects, 38 projects were delayed by up to 12 months, 16 projects by 13 months to 24 months, 11 projects by 25 months to 36 months and 9 projects by 37 months to 131 months. Audit noted that, this was mainly due to excess time taken in decision making, poor deployment of resources, delay in submission of drawings and supply of equipment, delay in civil work and insufficient monitoring.

The Management stated that delay in execution of projects was mainly due to delay in finalisation of Design & Engineering, supply of plant and equipment and erection. It further stated that, in RSP, most of the AMR projects were in brownfield. In respect of

DSP, delay was caused by the contractor and factors beyond control. Due care would be taken in future cases by ISP. Audit noted that the reasons given by the Management were routine operational issues which should have been addressed as part of good project management.

(i) Selection of inexperienced consortium and deficient SBD clause resulted in poor progress of SP II in BSL

BSL awarded (June 2015) the contract of main package of SP II to a consortium of M/s UKG, M/s BEC Bhilai, M/s Uralmash JSC and M/s Trafalgar International at a cost of ₹653.85 crore with scheduled completion by 10 November 2017. As per the NIT, the bidder was required to have experience of erection of sinter plant. Further, in case the bidder was a consortium, the experience of the concerned member should be commensurate with the responsibility matrix.

As per the responsibility matrix submitted by the consortium, M/s UKG was the consortium leader being the technology supplier for sinter plant and had a share of ₹20.47 crore (3.13 *per cent*). M/s BEC was responsible for detailed engineering, supply of equipment, civil works, project management, erection, commissioning and PG test and had a share of ₹479.23 crore (73 *per cent*) of the total contract cost. Audit noted that SAIL declared the consortium as technically eligible, considering UKG's expertise but ignored the experience certificate of BEC which was for construction of Coke Oven Battery (COB) and not sinter plant. Though UKG provided all the basic drawings by January 2017, BEC could submit only 768 detailed engineering drawings out of the required 2127 drawings and completed only 4.26 *per cent* of its share of work valuing ₹18.61 crore as of July 2018 (excluding milestone payment). Delay on the part of BEC also resulted in delay in execution of the other three associated packages of the project and a claim of ₹28 crore by a party in an associated package. Thus, selection of an inexperienced consortium member resulted in delay in project execution and annual loss of ₹208.79 crore on account of gross margin.

The Management stated that as per their experience documents, M/s BEC had successfully executed COB job; M/s UKG was responsible for almost all the basic engineering which was the most important engineering requirement; and reasons for the delay were slow submission of drawings, poor supply of materials and poor site progress. The Management's reply was not acceptable because M/s BEC had experience in COB works and not sinter plant (which was the requirement of the present contract) and the reasons for delay were attributable to M/s BEC.

(ii) Loss of production due to absence of Islanding & Load Shedding facility in ISP

Provision of islanding and load shedding is essential in captive power plants to protect mills and units of steel plants in the event of grid failure/ frequency disturbance and prevent loss of production. ISP has two power plants- PBS 1and PBS 2 and it also imports power from DVC. ISP decided (2014) to install islanding and load shedding panels in the new power plant (PBS-2) to handle emergency situation in case of DVC power failure. The project was awarded in May 2017 for ₹1.07 crore with scheduled completion by March 2018. However, the work has not yet been completed.

Audit noted that though the project was vital, ISP took three years from the time it decided to install this facility to actually award the work. Further, there were at least six reported instances of power failure between May 2015 and March 2018. Since islanding and load shedding facility had not been installed, these instances resulted in loss of hot metal production of 16071 tonne.

The Management replied that delay was caused by the extensive time taken by the consultant, MECON in finalizing the contract. The reply of the Management is not acceptable as MECON had submitted the technical specifications in two months.

(iii) Delay in up-gradation of BF-4 stoves in BSP due to late handing over of sites

SAIL accorded stage I approval (November 2011) to upgrade three stoves of BF-4 of BSP to increase Hot Blast Temperature (HBT) from 924^0C to 1100^0C which would result in annual saving of ₹20.75 crore because of lower consumption of coke. The project was split into seven packages and stage-II approval was accorded (March 2013) at ₹70.65 crore with completion scheduled by November 2014. The project was yet to be completed.

Audit noted that the site for the first stove was handed over in October 2014 and for the other two stoves in January 2018, though the scheduled completion date was November 2014. This was mainly due to the fact that the Management, after award of contract, decided (February 2014) to upgrade stoves 10, 11 and 12 instead of 11, 12 and 13. Further, supply in three out of the four supply packages valuing ₹7.70 crore was already complete by July 2015 and the guarantee period has also lapsed. Thus, the Management's failure to hand over the site in time resulted in delay in the project by 44 months as on July 2018 and loss of intended savings of ₹76.08 crore. Audit further noted that the arbitrator has awarded ₹6.17 crore in favour of one contractor on account of price escalation, loss of interest and extension charges of bank and overhead expenditure which added cost to SAIL.

The Management stated that the first stove (No. 11) was handed over in September 2014 due to technological revision after award of contract. Balance two stoves (No. 10 & 12) along with associated pipelines etc. were handed over (9 January 2018) after shutdown of BF-4 on (8 January 2018) for capital repair. This delay was due to operational requirement.

While handing over of stove no. 11 was delayed due to technological revision after award of the contract, the Management's reply regarding delay in handing over of the other two stoves (10 and 12) on account of capital repair of BF-4 is not acceptable because it indicates poor planning and project synchronisation. Further, technology to be used has to be finalised before award of the contract.

(b) Non recovery of risk & cost amount from defaulting party in BSL

BSL awarded the work of main package of "One new Turbo-Blower in Turbo Blower Station" to M/s. JSC Nevsky Zavod, Russia (NZD) on 18 December 2007. Meanwhile, M/s. Roselectroprom Holding (REP) took over NZD and entered into an agreement (11 April 2008) with BSL for the project. REP subsequently refused to start the work. BSL initiated (August 2009) risk purchase action (RPN) for ₹20.69 crore and appointed an

arbitrator (25 October 2010). Audit noted that BSL did not take any further action to recover the risk purchase amount. BSL, in its reply (05 April 2018) stated that company has not been able to establish contact with the party or verify its existence and that arbitration option was not pursued because it involves time and money.

The Management replied that attempts were made to verify and establish relation between the two firms but nothing substantial could be gathered. The reply was not acceptable because address and contact number of both the parties were the same and NZD was a subsidiary of REP on record. Further, BSL had issued three purchase orders to NZD valuing ₹6.86 crore during the period 2012-18 for which payment was also made. The Management has assured to review the matter in view of the audit query.

(c) Non synchronisation of projects

All upstream and downstream facilities of the project need to be synchronised for production to start. Audit noted several instances where upstream and downstream projects were not executed in a synchronised manner as discussed in the succeeding paragraphs.

(i) Upgradation of BF- I of BSL

BSL undertook capital repair of BF-1 from May 2012 to August 2014 (28 months). BSL decided (April 2012) to also upgrade its BF stove during the capital repair of BF-1 so as to increase productivity and reduce coke rate which would have resulted in annual benefit of ₹30.12 crore.

The contract for the BF stove was awarded (October 2016) for ₹112.13 crore with scheduled completion in January 2018. Audit noted that the Management took 53 months (May 2012 to October 2016) to finalize the award due to delays in finalisation of technology, indecision on transfer of technology and price negotiation with L1 bidder. This resulted in non-synchronisation with other projects valuing ₹102.69 crore related to the BF-1 capital repair. Three projects i.e. cast house 1 and 2, hydraulic mudgun cum drill machine and skip winch drive were already completed in November 2015, June 2016 and June 2017 respectively. As BF I could not operate without the upgraded stove, these projects also could not be commissioned. Delay in completion of BF-1 stove resulted in foregoing of annual benefit of ₹30.12 crore. Further, since BF-1 has yet to become operational due to the long delay, capital repair of BF-4 which has already outlived its life cannot commence. The Management attributed (January 2019) the delay to retendering of work, delay in approval of the drawings, delay in supply of equipment, rerouting and execution of refractory lining.

(ii) Commissioning of Coke Oven Battery 7 and 8 in BSL

BSL has eight COBs to produce coke required in BF for hot metal production. COB-7 and COB-8 are twin batteries and share common facilities like Coal tower quenching car, wharf, upstream and downstream facilities. The revamping of common facilities can be done only during common shut down period of COB-7 and COB-8 as otherwise production will be affected. Accordingly, SAIL decided (October 2012) to revamp/ replace the common facilities along with the rebuilding of COB-8 during the period of last

one year (April 2015 to June 2016) of rebuilding of COB-7. The work of main package of COB-7 was awarded (December 2013) to M/s Mecon for ₹122.68 crore with scheduled completion in May 2016.

As per the rebuilding plan, COB-8 was to be closed down for dismantling from April 2015 so that rebuilding of COB-8 along with revamping of common facilities could start from July 2015. BSL close down COB-8 from July 2015. Audit observed that the work on COB-8 and the common facilities could have been taken up from July 2015 onwards when both COB-7 and COB-8 were out of operation. However, the proposal for Stage-II approval for COB-8 (including revamping of common facilities) was sent to the Corporate Office only in September 2015 and accorded approval in November 2016 i.e. after a lapse of 14 months. Though COB-7 was ready for commissioning in September 2016, it remained idle till the completion (December 2017) of common facilities. Thus, due to poor planning and delay in approval of rebuilding COB-8 and common facilities, the investment of ₹162.93 crore in COB-7 remained idle for 15 months (September 2016 to November 2017) and gross margin of ₹52.11 crore (₹41.69 crore/annum x 1 year 3 months) could not be earned.

The Management stated that while tendering for COB-7, it had not been decided whether COB-6 or COB-8 shall be rebuilt next, therefore, common facilities were not considered in the scope of work of rebuilding COB-7. The reply is not acceptable because it is on record that COB-8 with common facilities was to be re-built after re-building of COB-7. The idling of COB-7 was a fall out of delay in approval of COB-8 and common facilities, a fact which has been identified by the Management in its delay analysis report.

(d) Non-achievement of envisaged benefits in completed projects

During 2013-14 to 2017-18, 44 projects were completed out of which Performance Guarantee (PG) Test was required in 36 projects. Audit noted that in 27 projects, PG test was conducted and envisaged parameters were achieved as detailed below.

Table 10.12: Status of project completed in which PG test was conducted

Unit	Projects completed	Projects in which PG			
		Required	Completed	Successful	Pending
BSP	7	3	2	2	1
BSL	9	8	6	6	2
DSP	19	16	13	13	3
RSP	7	7	6	6	1
CFAP	2	2	2	2	0
Total	**44**	**36**	**29**	**29**	**7**

In 7 cases, PG test was still to be completed and envisaged benefits had not been achieved. Some of these projects where the envisaged benefits are yet to be achieved are discussed below.

(i) Non-achievement of targeted CDI rates

Coal dust is used in the production of hot metal by injecting it into the BF. Coal dust injection (CDI) is a cheaper replacement of metallurgical coal and helps reduce production

cost and increase productivity of BF. SAIL installed CDI system in BF-4 of RSP (June 2015) and in BF-3 and BF-4 of DSP (December 2014). Audit noted that the CDI system installed in RSP and DSP did not achieve the required injection rate of 100 Kg/THM[37]. The CDI rate ranged between 7 and 70 in RSP, 51 to 63 in DSP BF-3 and 21 to 53 in DSP BF-4. Since the performance guarantee (PG) tests were yet to be completed, RSP and DSP were unable to determine the reasons for the low rate. Non-achievement of targeted CDI rate resulted in extra expenditure of ₹329.95 crore.

The Management stated that CDI rate in RSP could not be achieved due to inferior quality and shortage of coke (two months in 2015), stoppage of furnace in December 2015 and non-operation of CDI during stabilisation period of the furnace in October 2016 and November 2016. However, 70 Kg/THM of CDI rate was achieved in 2017-18. Audit noted that the reasons put forward by the Management were for stray periods whereas over the longer duration, the CDI rate was consistently lower than the envisaged rate. In case of DSP, the Management stated that facility of CDI was dependent on furnace parameters. The reply was not acceptable because the guaranteed parameters were derived after considering all operational parameters.

(ii) Under-performance of new Sulphuric Acid Plant in BSL

The work for rebuilding of 150 TPD[38] sulphuric acid plant in BSL was commissioned in July 2017. Audit noted that after commissioning, the plant has not been able to achieve its rated capacity and could produce only 21791 tonne during August 2017 to July 2018 against production capacity of 47600 tonne[39]. PG test could not be done even after lapse of defect liability period (February 2018). This resulted in non-achievement of envisaged benefit of ₹3.06 crore[40].

The Management stated that due to shortage of sulphur and absence of explosive licenses, the Plant could not be utilised to its full capacity. PG Test could not be undertaken as operation of the Plant has not yet stabilised. Management's reply was not acceptable as explosive licence and sulphur should have been in place before start of production from the new plant. As per the terms of contract, PG Test was to be conducted within six months from the date of commissioning of the project but in this case PG test has not been done though the plant was commissioned in July 2017.

(iii) Under-utilisation of Special Plate Plant of RSP

Special plate is used in armoured vehicles, mine protected vehicles, navy and earth moving and other infrastructure. Considering projected demand and expected competition from other steel manufacturers, Central Marketing Office (CMO) of SAIL proposed (March 2009) increasing the capacity of special plate plant in RSP by 9000-10000 tonne to meet market requirement over the next 5 to 7 years. In principle approval for additional heat treatment line at Special Plate Plant of RSP of annual capacity 12000 tonne (in addition to the existing capacity of 3000 tonnes) was accorded (March 2011) at an

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[37] ***Tonne per Hot Metal***
[38] ***Tonne per day***
[39] ***47600 tonne = 136x350 days***
[40] ***₹3.06 crore=₹1185/tonne x (47600-21791) tonne***

indicative cost of ₹161.77 crore with envisaged annual gross margin of ₹63.41 crore. The line was commissioned in December 2016. SAIL did not enter into any MoU to supply the materials before taking up the project. After commissioning, the plant produced only 1629 tonne in 15 months against the annual capacity of 15000 tonne, due to lack of orders and thus remained underutilised.

Audit noted that the demand projection was based on the market survey done by SAIL in 2009 and the enhanced capacity was to meet market requirement over the next five to seven years i.e. till 2014. However, SAIL took two years to obtain in-principle approval after the market assessment and another two years to award the project. The project was finally commissioned only in December 2016.

The Management replied that the order availability from Defence was insufficient and RSP had ventured into developing non-defence grades. Presently the order balance for the non-defence grades up to December 2018 was 2000 tonne. There was also an indication that about 16000 tonne of order were in pipeline from Defence. The Management's reply is not acceptable because the market assessment of demand for defence grade plates was not based on any MoU or firm commitment from the buyers. The total capacity of the old and new heat treatment plants was 15000 tonne whereas the present order balance was only 2000 tonne. The Management's contention of indication of about 16000 tonne order from Defence was not supported by any document. Further, the project was finally commissioned only in December 2016 i.e. after the lapse of seven years from the time when the demand was assessed and it is likely that the low sales were caused by changes in market conditions and competition in the interim period.

(e) Idle Investment

(i) Non-installation of Coal Wagon Pusher car at BSL

BSL awarded (November 2006) the work of augmentation of storage facility of coking coal in coke oven (pkg-3) to M/s Heavy Engineering Corporation Ltd. Ranchi (HEC) for ₹15.59 crore and the work was to completed by May 2008. The project was envisaged to reduce average demurrage payment by ₹0.67 crore (August 2013) on account of holding of PCI coal. Audit noted that even after 16 extensions up to June 8, 2016 and payment of ₹12.12 crore, the work could not be completed. The work has been suspended since December 2014 as the Management failed to provide intermittent shut down required for alignment of the trolley line. Further, the corporate guarantee and insurance of HEC has expired and no request was submitted for extension. Non-completion of work even after lapse of 12 years has not only resulted in idle investment of ₹12.12 crore but also resulted in reported theft of parts valuing ₹90 lakh.

The Management replied that HEC failed to come out with an execution plan of pending works including shutdown period and that HEC has sought extension (November 29, 2018) to restart the pending work. The Management's reply is not acceptable because HEC had requested BSL for shutdown in 2012 and 2017. Further, BSL has been unable to get the work completed even after the lapse of 12 years from the award of work and neither has it resorted to arbitration/ risk purchase action.

(ii) Rerouting of coke oven gas line in BSL

BSL awarded (2 August 2008) the work for rerouting of coke oven gas line in zone affected by phenolic vapour in coke oven area to M/s H N Singh Construction for ₹2.76 crore. The work was to be completed by 2 August 2009. The project was necessary as a portion of the pipe line was badly affected by the highly corrosive phenolic vapour. Audit noted that though the project was completed in May 2010 and PAC issued in January 2011, it could not be commissioned due to non-availability of shutdown of pipeline for end connection. As the Management was not able to provide the necessary shutdown, the contractor went in for arbitration (19 June 2014). Arbitration proceeding is pending in court. Thus, even after eight years the project could not be commissioned resulting in idle investment of ₹2.49 crore.

The Management replied that the case was under arbitration and next course of action would be decided based on outcomes of the arbitration. The Management's reply is not acceptable as the project was completed in January 2011 but was not commissioned because of SAIL's failure to provide shutdown of pipeline for end connection. The arbitration was a direct fall out of the failure to provide shutdown. Since eight years have elapsed since installation of the pipes, usability of the pipes seems doubtful. Further, the old pipeline affected by corrosive vapour continues to function and is a safety hazard.

10.5.3.3 Environment issues

SAIL, in its corporate environment policy, has committed towards contributing clean and sustainable environment and conducting their operations in an environmentally responsible manner to comply with applicable legal and other requirements related to its environmental aspects. Though SAIL has taken various steps towards it, audit came across cases where there was abnormal delay in execution of environment projects or environment norms were overlooked as discussed in the subsequent paragraphs.

(a) Installation of Sulphuric Acid Plant without obtaining environmental clearance

SAIL awarded the work of installation of a new 125 tpd Sulphuric Acid Plant in RSP (May 2013) to replace the existing plant. The plant was commissioned (September 2015) and production from the old plant stopped. As per sections 2 and 7 of EIA notification, 2006, RSP was required to obtain prior Environmental Clearance (EC) before undertaking construction of the new acid plant.

Audit noted that RSP applied for EC in August 2016, well after the plant was commissioned. MoEF directed (January 2017) RSP to stop operation of the plant as RSP had started commercial production without obtaining prior consent. As a result, production from the plant was stopped (June 2017) and investment of ₹21.09 crore has remained idle since then. The Management stated (January 2019) that grant of EC was under process.

(b) Non- installation of Effluent Treatment Plant at RSP

RSP discharges waste water of Ispat General Hospital (IGH) in Koel river. Orissa State Pollution Control Board (OSPCB) ordered (July 2014) all health care establishments in

Odisha to seek consent from the Board to discharge waste water. RSP submitted (September 2014) consent to operate (CTO) application for IGH for five years but was granted permission for two years only (up to March 2016) which was further renewed up to March 2017. Grant and renewal of CTO was subject to RSP installing Effluent Treatment Plant (ETP) by 31 March 2017 to recycle and treat the waste water for further use in IGH.

Audit noted that RSP failed to establish ETP within the stipulated time and, as a result, its CTO was not renewed from April 2017 onwards. The project is yet to be completed and RSP has continued to discharge waste water of IGH into the Koel river.

The Management stated that RSP already had efficient effluent treatment in place with continuous waste water treatment in oxidation ponds to maintain the effluent parameter within SPCB norms. In November 2016, when SPCB had been requested to issue the consent for renewal in favour of IGH, the conditions for installing a new ETP were communicated. Reply of the Management was not acceptable as, SPCB noted January 2017, that the waste water generated from the IGH was directly flowing into the Koel River without any treatment.

(c) Slow progress in installation of ESPs in Sinter Plant II of BSP

In order to control air pollution, Chhattisgarh Environment Conservation Board (CECB) instructed (July 2012) BSP to bring down stack emission level to 50 mg/nm^3. Accordingly, BSP (July 2013) proposed to install modern electrostatic precipitators (ESPs) by replacing the existing four battery cyclones of SP-2. The work was awarded (October 2016) at a price of ₹43.91 crore with completion scheduled by August 2018. Audit noted that in order to conform to the CECB norms, the Management undertook (January 2013 to June 2014) a short term project of ₹2.25 crore to repair the existing cyclones which brought down the stack emission level to within permissible norms. However, this work was only of a temporary nature and in the long term, installation of ESPs was necessary for controlling stack emission levels. Had the Management completed the ESP project in time, expenditure of ₹2.25 crore could have been avoided. Further, as on date, work valuing ₹1.97 crore only was completed on the ESP project.

The Management stated that ₹ 2.25 crore was incurred to comply with environment norms and the project was under progress. The reply was not acceptable because ₹2.25 crore could have been avoided had BSP/CET taken timely action to implement the project.

10.5.3.4 Project monitoring

(a) Non preparation of Post Completion Report

Post completion report (PCR) is aimed at assessing the effectiveness of a capital investment decision and its implementation for use in future projects. As per SAIL's guideline for preparation of PCR, for all capital schemes valuing ₹5 crore and above, PCR should be prepared within one year of its commissioning.

Audit noted that SAIL completed and commissioned 94 projects valuing ₹2370.63 crore during 2013-18 with a contract price of more than ₹5 crore but PCR of only four projects in DSP was prepared.

The Management replied that PCRs for other cases were in process of finalisation in DSP. In view of the audit query the process of preparation of PCR at BSL will be reviewed. Necessary care will be taken in all future cases pertaining to ISP. The reply was silent on cases relating to BSP, RSP and CFAP

10.5.4 Conclusion

There were wide variations between cost estimate and awarded price due to incorrect assessment of items or preparation of estimate on budgetary quotation obtained from a few vendors without any independent market research. SAIL had not evolved any company wide timeline for each stage of contract finalisation. Out of 80 projects valuing more than ₹10 crore, there were delays in award of contract in 57 projects. Due to excess time taken in decision making, poor deployment of resources, delay in submission of drawings and supply of equipment, delay in civil work and insufficient monitoring, out of the 92 ongoing or completed projects exceeding ₹10 crore, 74 projects were delayed by 1 to 131 months.

Lapses in the tendering and execution in construction of new Sinter plant at BSL resulted in increase in contract cost by ₹114.58 crore and loss of envisaged benefits of ₹327 crore. Change orders issued by BSL and RSP in three projects within six to eight months of award of the contract due to oversight at the time of preparation of TS resulted in award of contract valuing ₹89.01 crore to the existing contractor without any competition.

Audit noted instances where upstream and downstream projects were not executed in a synchronised manner. Coal dust injection system installed in BF-4 of RSP (June 2015) and in BF-3 and BF-4 of DSP (December 2014) did not achieve the required injection rate of 100 Kg/THM resulting in extra expenditure of ₹330 crore. Special Plate Plant of RSP valuing ₹161.33 crore remained underutilised due to lack of demand for defence grade plates.

10.5.5 Recommendations

- SAIL should conduct detailed assessment of all considerations including pre-tendering survey of project site to strengthen the preparation of cost estimates.
- SAIL should conduct detailed assessment of site conditions, design and engineering and other critical aspects before stipulating a definite time schedule for different stages of contract.
- SAIL should adhere to its corporate environment policy and ensure its commitment to clean and sustainable environment during execution of its projects.

The matter was referred to the Ministry in January 2019; their response was awaited (May 2019).

10.6 Follow up audit of Modernisation and Expansion Plan including contract closure

10.6.1 Introduction

Steel Authority of India Limited (SAIL), being the market leader with 25 *per cent* share in saleable steel in 2004, decided to take advantage of the emerging opportunity and in July 2004 prepared a Corporate Plan (CP-2012) for its four integrated steel plants located at Bhilai (BSP), Rourkela (RSP), Bokaro (BSL), Durgapur (DSP). Subsequently expansion of IISCO Steel Plant at Burnpur (ISP) and a Special Steel Plant at Salem (SSP) was added in 2006. SAIL undertook Modernisation and Expansion plan (MEP) in 2006-2007 in above six steel plants to enhance its existing installed Hot Metal[41](HM) making capacity from 13.83 million tonne per annum (mtpa) to 23.46 mtpa by the year 2010. Subsequently MEP for captive mines of SAIL was also approved. Initial estimated cost was ₹43,142 crore which increased gradually to ₹66,852 crore. SAIL incurred ₹62,835 crore on MEP till 31 March 2018. The plant wise status of MEP as on March 2018 is given in Table below:

Table 10.13: Plant-wise status of MEP as on March 2018

(₹ in crore)

Name of Plant	Approved cost (Gross)	Approved cost (Net of CENVAT)	Expenditure till March 2018 (On gross basis)	Month of in-principle approval	Final approval (progressively by)	Approved completion schedule	Likely/Actual completion schedule
BSP	18,847	17,266	18,550	04/2007	08/2010	03/2013	12/2018
ISP	17,961	16,408	18,684	07/2006	06/2008	12/2011	12/2014
RSP	12922	11,812	12,633	05/2007	08/2010	03/2013	12/2014
BSL	6,951	6,325	5,977	12/2006	05/2010	12/2011	09/2015
DSP	3,164	2,875	3,134	07/2007	08/2010	12/2012	06/2015
SSP	2,138	1,902	2,373	06/2006	01/2008	03/2010	09/2010
Captive Mines	10,264	10,264	1,484	06/2009	02/2014	12/2009 to 09/2017	Under progress
Total	**72,247**	**66,852**	**62,835**	**-**	**-**	**-**	

Note: MEP has not yet been completed in BSP and Captive Mines

Earlier Audit Report (PA on MEP in SAIL)

Performance Audit (PA) covering management processes and activities including project procurement and project management activities relating to implementation of MEP projects in five integrated steel plants, SSP and captive mines, was included in C&AG Audit Report no. 23 of 2015. Pending financial closure of MEP projects as of March 2014, some areas of contract administration like realization of liquidated damages (LD), CENVAT and VAT credit realization and other adjustments/claims against the contractors for MEP projects were not included in the scope of audit.

10.6.2 Audit Objectives, Criteria and Scope and Methodology

The main objectives of this thematic audit were to assess whether SAIL acted upon the recommendations made in the PA on MEP in SAIL and has taken remedial measures to

[41] ***Hot metal is the primary input for production of steel in an integrated steel plant***

remove deficiencies and such measures were adequate and implemented efficiently; newly created facilities were running as per their rated capacity and the benefits envisaged out of these facilities were achieved; Delay analysis and contract closure has been conducted timely and judiciously as per terms of the contract and safeguarding the interest of SAIL; and realization of guaranteed CENVAT credit and recovery of LD was done as per the terms of contract.

The audit criteria were derived from C&AG's Audit Report No. 23 of 2015 (Performance Audit on MEP in SAIL); Corporate Plan of SAIL-2006; Agenda and minutes of SAIL Board and Board Sub-Committee meetings; Contract documents and agreements with vendors/contractors; Project Completion reports, Delay Analysis Report, Management Information System reports on projects, Cost Benefit Analysis, Monitoring reports of Board etc.

The thematic audit covered follow up audit of previous PA, contract administration and closure of MEP projects as well as assessment of achievement of objectives of MEP during 2015-16 to 2016-17. All the 177 contracts valuing ₹50 crore and more and with a total value of ₹46,639 crore in respect of the five integrated steel plants, SSP and RMD were selected for audit. The status of audit observations and figures contained in the TDP has been updated up to March 2018. The audit findings were issued to SAIL Management (December 2017) and Ministry of Steel (April 2018) and replies furnished by SAIL (March 2018) and Ministry (December 2018) have been suitably incorporated in the TDP.

10.6.3 Audit Findings

10.6.3.1 Follow up of Audit Recommendations

The earlier PA Report on MEP in SAIL was tabled in the Parliament on 12 August 2015. Audit had recommended that SAIL may review its policy for appointment of consultants through nominations and selection of consultants through open tender would provide opportunity to conduct structured assessment of their project management capacity as well as to obtain fair market price; lessons learnt from the ongoing implementation of modernization and expansion plan may be adequately documented; SAIL may revisit the existing policies, procedures and practices with regard to project management and contract procurement and execution and strengthen them to adequately mitigate the risks of time and cost overrun in future ventures; and SAIL may strengthen their project monitoring system at all levels.

Based on the above recommendations, SAIL submitted (January 2016) an action plan comprising of 44 action points to Ministry of Steel and all its plants for implementation. The action plan, *inter alia*, included appointment of consultants through open tender, strengthening of in house consultant i.e. Centre for Engineering and Technology (CET), documentation of lessons learnt from the ongoing MEP, constitution of multi-disciplinary core group responsible from concept to handing-over, formation of separate teams for various activities like prioritisation and staggering of future projects, review of Standard Bidding Documents (SBD) and other project related matters. Besides, action plans included fixation of timelines based on assigned work, execution of contract through turnkey mode, conducting bidders' meet/conference, timely handing over of sites

including monitoring of high value projects by SAIL Board through Board Sub Committee (BSC).

Audit noted that one of the 44 actions points regarding documentation of lessons learnt from the ongoing MEP will be implemented in SAIL's future projects. Out of the remaining 43, five were to be implemented by the CO of SAIL and 38 by the steel plants or jointly by the CO and plants. Audit observed that though the five CO level action points were complied with, the plant level points were complied with only partially as shown below:

Table 10.14: Status of compliance of Action Plan by steel Plants of SAIL

Action plans	BSP	RSP	DSP	ISP	BSL	SSP
Implemented	25	31	20	21	17	0
Not yet implemented	10	2	5	1	21	0
To be implemented in future projects	3	5	13	16	0	38

The important action implemented in the plants *inter alia* included appointment of consultants through open tender, amendment of SBD and comprehensive survey and soil investigation before preparation of technical specifications. However, actions such as setting up team for prioritisation and staggering of future projects and decision regarding placement of one *per cent* to two *per cent* of sanctioned project cost at the discretion of Executive Director (Projects) to meet project exigencies/management risks had not been resolved pending decision from Corporate Office.

SAIL stated (March 2018) that since SAIL is passing through difficult times, enhancement of Delegation of Powers at ED (Projects) level would be taken up for consideration later. Ministry stated (December 2018) that appropriate actions have been taken at Corporate Office on the action points recommended by audit. Out of 34 action points related to the plants, 15 have either been implemented or were under practice while 12 would be implemented in future projects. Ministry's reply was silent on the balance 7 points to be implemented by the plants and did not link the implemented points with the action points. There was also a discrepancy between the number of action points in SAILs action plan and those in the Ministry's reply.

10.6.3.2 Achievement of objectives of MEP in SAIL

(a) Non-achievement of Hot Metal production capacity as per MEP

The MEP envisaged that the Hot Metal (HM) production capacity would be enhanced to 23.46 mtpa by the year 2010. Audit observed that against this, the actual capacity of HM created as on March 2018 was 19.46 mt (83 *per cent* of the targeted capacity) only. The main reason for the shortfall (four million tonne) was non-completion of MEP in BSP. Audit further observed that SAIL could produce 15.98 mt of HM during 2017-18 which was 86.6 *per cent* of capacity created as on March 2017. The main reason for the shortfall was lower production in BSL, BSP and ISP. Plant wise details of capacity created against capacity targeted and actual HM production are given in the table below.

Table 10.15: Hot Metal production capacity vis a vis actual production of SAIL plants

(Qty in million tonne)

Name of plant	Actual completion of MEP	HM Capacity before MEP	HM capacity targeted after MEP	HM capacity as on 31 March 2017	Annual Production Plan for 2017-18	Actual Production of HM in 2017-18	HM Production in 2017-18 as % of HM capacity as on 31 March 2017
1	2	3	4	5	6	7	8=7/5%
BSP	Not yet completed	4.08	7.50	4.70	6.450	4.280	91
ISP	Dec-2014	0.85	2.91	2.70	2.400	2.055	76
RSP	Dec-2014	2.00	4.50	3.50	3.850	3.319	95
BSL	Sept-2015	4.59	5.77	5.25	4.250	4.046	77
DSP	Jun-2015	2.09	2.45	2.09	2.275	2.282	109
VISL	-	0.22	0.33	0.22	0.082	0	-
Total	**-**	**13.83**	**23.46**	**18.46**	**19.307**	**15.982**	**86.6**

Note: HM is not produced in Salem Steel Plant

Thus, despite spending more than ₹ 60000 crore on MEP and after lapse of more than eight years from the date of scheduled completion, there was marginal increase of 1.38 mt in HM production from the production level in 2006-07 (14.606 mt).

Regarding delay in completion of MEP at BSP, the Management stated (March 2018) that MEP was of an unprecedented scale involving huge brown-field construction. This created major limitations in terms of vendor/contractor availability and their capacity to work simultaneously. The progress of critical linked packages at BSP was adversely affected primarily due to poor performance of PSU contractors. Regarding low production at ISP and BSL, the Management stated that capacity utilization of the new/ operationalised facilities is dependent on regulation of production in line with the Annual Business Plan of SAIL as well as market requirement, condition of upstream/ downstream facilities, availability of requisite raw materials etc. In addition, there were operational problems in Blast Furnaces (BF) during 2015, 2016 and 2017.

Replies of the Management indicate poor planning and implementation of MEP as already pointed out by audit in the Report no. 23 of 2015. The operational problems in the BFs indicate poor maintenance and other critical facilities. Since the nature and scale of MEP as well as vendor limitations were known in advance, better planning and monitoring would have mitigated the delays. The Management's statement that production is regulated as per the APP, market requirement and raw material availability is also not acceptable because SAIL could produce only 87 *per cent* and 83 *per cent* of the planned (as per APP) production. There was nothing on record to show that there was any slump in demand or shortage of raw materials which would warrant cutback in production. In fact, SAIL's market share of saleable steel decreased from 25 *per cent* in 2004-05 to 14.6 *per cent* in 2017-18 while market share of private steel producers increased during the same period.

The Ministry stated (December 2018) that HM production during the last ten years has increased from 14.4 mt to 15.98 mt. Modernisation and expansion at RSP, ISP, DSP, BSL and SSP have been completed and BFs were under operation. It generally takes two to three years for ramping up the production from new facilities, hence, SAIL would also progressively enhance its production of hot metal, crude steel and saleable steel.

The Ministry's reply may be seen in the light of the fact that SAIL had HM production capacity of 13.83 mtpa before MEP and it produced 14.73 mtpa of HM on an average during 2006-11 i.e. in the pre-MEP period. Production of HM between 2014-15 and 2017-18 i.e. Post-MEP was between 15 and 16 mtpa. Thus, after the lapse of three to eight years of completion of MEP in the plants, production from the new facilities could not be ramped up to the envisaged capacity.

In response to an Audit query about estimated timelines for achieving HM production capacity target, the Management informed (April 2019) that based on the projects undertaken, the final HM capacity post MEP would be only 22.37 mtpa which would be installed by 2021-2022. A committee of experts was being appointed by the Management to freeze the installed capacity by October 2019.

(b) Non-achievement of envisaged technical parameters after completion of MEP

It was envisaged that after completion of MEP, coke rate[42] would decrease in all the SAIL plants. Audit observed that though coke rate had decreased in all plants as compared to the pre-MEP rate, the coke rate targeted in MEP was not achieved in any of the plants during 2015-16 to 2017-18. Audit did not estimate the coke rate and excess expenditure in BSP because MEP is yet to be completed in BSP. Higher coke rate resulted in excess consumption of coke (17.84 lakh tonne) over targeted consumption worth ₹ 3107.05 crore. Plant wise details of targeted and actual coke rate are given in the Table below.

Table 10.16: Coke rate and extra expenditure of excess coke

Name of Plant	Year	Coke Rate (Kg/Tonne of Hot Metal)				Hot metal production (Tonne)	Excess coke consumption (Tonne)	Cost of coke/ ton (₹)	Cost of Excess coke consumed (₹ in crore)
		Before MEP	Envisaged after MEP	Actual	Difference				
1	2	3	4	5	6=5-4	7	8=7x6/1000	9	10=9x8
ISP	2015-16	786	410	484	74	1429757	105802	16260	172.03
	2016-17			446	36	1810000	65160	20523	133.73
	2017-18			442	32	2055041	65761	25582	168.23
RSP	2015-16	577	392	464	72	3042000	219024	14031	307.31
	2016-17			418	26	3094000	80444	19800	159.28
	2017-18			410	18	3319398	59749	24677	147.44
BSL	2015-16	524	386	496	110	3700004	407000	12892	524.70
	2016-17			480	94	3409936	320533	17083	547.56
	2017-18			470	84	4045681	339837	21559	732.65
DSP	2015-16	525	465	492	27	2170498	58603	13753	80.60
	2016-17			483	18	2318006	41724	19955	83.26
	2017-18			474	9	2282000	20538	24474	50.26
	Total						**1784175**		**3107.05**

Note: Coke rate and extra expenditure has not been estimated for BSP because MEP has not yet been completed in BSP.

It was also envisaged that post-MEP, BF productivity[43] would increase in all SAIL plants. Audit observed that BF productivity improved in RSP, DSP and ISP as compared to the pre-MEP rate. However, none of the plants achieved the targeted BF productivity during

[42] ***Consumption of coke in kg for production of one tonne of hot metal***
[43] ***Production of hot metal in tonne per day per cubic meter of blast furnace capacity (in volume)***

2015-16 to 2017-18. BF productivity in BSL during 2015-16 to 2017-18 was even lower than its pre-MEP productivity. Further, targeted Specific Energy Consumption[44] (SEC) levels were achieved in DSP during 2015-16 to 2017-18. However, in the other plants, the SEC levels were less than even the pre-MEP rate. The plant wise BF productivity and SEC are given below:

Table 10.17: Plant wise Blast Furnace productivity and Specific Energy consumption

Name of plant	BF Productivity (t/m3/d)					Specific Energy Consumption (Gcal/tcs)				
	2005-06 (base)	MEP Target	2015-16	2016-17	2017-18	2005-06 (Base)	MEP Target	2015-16	2016-17	2017-18
ISP	0.86	2.24	1.147	1.427	1.620	8.19	5.46	7.606	7.295	6.486
RSP	1.37	2.14	1.56	2.07	1.881	7.98	5.80	6.50	6.43	6.333
BSL	1.89	2.16	1.65	1.67	1.697	7.09	5.50	6.69	6.68	6.681
DSP	1.555	1.770	1.684	1.715	1.758	7.07	7.06	6.42	6.36	6.19

Note: BF Productivity and SEC have not been estimated for BSP because MEP has not yet been completed

The Management stated (March 2018) that with stabilization & ramp up of all the MEP projects, the techno-economic parameters (TEP) would improve progressively. Regarding DSP, Management attributed non-achievement of targeted TEP to lesser CDI, fluctuation in availability and quality of raw materials, poor off-take of HM at SMS and replacement of equipment in BF-2. Regarding BSL, Ministry stated (December 2018) that these parameters for the blast furnaces are not relevant with the present regime of operations because coke rate and HM productivity was envisaged in the expansion Plan of BSL for 7 mt of crude steel which was not adopted due to deferment of expansion plan. As regards ISP, parameters also could not be achieved to desired level because HM production was 76 *per cent* of the target. Regarding SEC, the Ministry stated that all the plants were under stabilization and the parameters were showing an improving trend.

The replies of the Management/Ministry bring out operational issues which were well within their control and could have been addressed during the production process. TEP including coke rate is dependent mostly on operational efficiencies and quality of raw materials used and audit observed that raw materials are being procured by SAIL from the same sources over the years (requirement of iron ore is met through captive mines while coal is procured from CIL /imports). Moreover, quality aspects of raw materials are taken care of in the agreements with suppliers. It may also be noted that RSP could achieve lower coke rate than BSL despite lower production of HM.

(c) Non-achievement of envisaged benefit due to delay in completion of URM in BSP

The existing Rail and Structural Mill (RSM) (capacity 7.5 lakh tonne) in BSP caters to the Indian Railways' (IR) requirement of rail tracks. In view of lack of modern facilities in RSM, SAIL decided (April 2007) to install one new Universal Rail Mill (URM) in BSP under MEP to produce 12 lakh tonne of rail products per year, not only for IR but also for exports. The contract for URM was scheduled to be completed by June 2013. However, URM was handed over for production on 11 March 2017.

[44] ***Consumption of energy in Gcal for production of one tonne of crude steel***

Audit observed that there was a delay of 45 months in completion of the URM. The working site was to be handed over to the main contractor in October 2012. However, it was handed over in November 2016 because of delays in completion of associated works for the package.

SAIL signed (September 2014) an agreement with the State Trading Corporation of India Limited (STC) for export of one lakh tonne of UIC 60 rails to Iran. The first shipment was scheduled to start from July 2015. To execute the order, BSP was required to augment its existing facilities in RSM with installation of hot stamping and Non- Destructive Test (NDT) machines. These machines were received at BSP in November 2015.

Audit observed that these machines had been lying idle since procurement. Installation and commissioning of this equipment required complete shutdown of RSM for 12 days. Since URM was not ready for commercial production and complete shutdown of RSM would hinder the daily production of rails to meet the demand of IR, BSP decided not to schedule the required shutdown period and the order for Iran rails was kept in abeyance. This led to loss towards contribution of ₹ 276.67 crore.

Due to delay in completion of new URM, against the indented quantity of 24.75 lakh tonne by IR (2014-17), BSP was able to dispatch only 17.62 lakh tonne (71.19 *per cent*) resulting in loss of contribution of ₹ 1,372.10 crore. Further, BSP could supply only 8.46 lakh tonne of rail out of the indented 11.45 lakh tonne by the IR in 2017-18 because the URM was ramping up its production and had reached only 50 *per cent* of its rated capacity in FY 2018-19.

The Management stated (March 2018) that associated works were awarded to different agencies at different points of time and were not in the scope of the main URM package. Further, the supply of specialized items such as cranes was also delayed. Being a brown field project, one of the major reasons for delay was the time required for making the site encumbrance free to commence the work. Regarding the export order to IRAN, the Management stated that it was not prudent to fulfil the order at the cost of lesser supplies to IR. Ministry re-iterated the reply of the Management.

It is evident from the replies that BSP failed to synchronize various pre-requisite works to ensure timely completion of URM. As a result, BSP failed to fulfil the requirement of IR during 2014-2018. The export order to Iran could also not be fulfilled due to delay in completion of the URM. Had the URM been completed by the scheduled date or even with delay of two years (i.e. by 2015), the required shutdown of RSM could have been achieved and the Iran order could have been honoured.

(d) Mismatch of capacity and loss of contribution of ₹226.89 crore in RSP

Hot Metal is the input material for producing crude steel (CS) which in turn is the input material for producing saleable steel (SS). It was envisaged in the MEP of RSP to enhance production capacity to 4.5 mtpa of HM, 4.2 mtpa of CS and 3.99 mtpa of SS.

Audit observed that after upgradation of BF-1 at RSP, sufficient HM would be available to meet the enhanced targets. However, since the MEP of RSP envisaged (May 2007) setting up of only one additional caster (which process HM to produce CS) in addition to

the existing three, post-MEP casting capacity was insufficient to meet the enhanced CS target and it was necessary to install another caster. Since RSP neither augmented the existing caster machines nor installed new machines, the capacity to produce CS remained at 3.7 mtpa and was not upgraded to the required level of 4.2 mtpa.

Further, the Hot Strip Mill (HSM) and the Plate Mills in RSP had a capacity of only 3.03 mtpa of SS against the envisaged capacity of 3.99 mtpa. Audit observed that a project for modification of the old HSM was included in the MEP but was subsequently deferred (June 2008). Thus, the targeted production of 3.99 mtpa of SS could not be achieved in RSP. This resulted in the sale of slab which is a semi-finished product and having lower contribution margin instead of plate (finished product) having higher contribution margin, leading to loss of contribution of ₹226.89 crore during 2013-14 to 2017-18.

The Management/ Ministry stated that installation of a new caster machine is being considered. Regarding SS, a new HSM of 3 mtpa is under installation and also excess slabs are utilized through inter plant transfer/conversion through third parties. Audit noted that mismatch of capacity in various steel making facilities could have been avoided at planning stage by upgradation/ installation of caster and HSM in the MEP in the first place. Further, action was yet to be taken to procure a new caster at RSP. Installation of a new Caster would take around three years while installation of HSM would take a minimum of one year. Thus, mismatch of capacity in various steel making facilities resulted in non-achievement of targeted production of CS and SS and consequent loss of contribution at RSP.

(e) Excess consumption of graphite electrode in Electric Arc Furnace resulting in loss of ₹6.92 crore in SSP

Electric Arc Furnace (EAF) in SSP was commissioned in February 2011. As per the contract, the guaranteed value for Graphite Electrode consumption was 2.4 kg/tonne of liquid steel while the acceptable limit was 2.7 kg/tonne. Audit observed that despite repeated PG tests, the EAF could not achieve the envisaged Graphite Electrode rate. As per the contract, in the event of failure to achieve the guaranteed parameters, LD would be levied for each deviation of 0.05 kg/tonne at 0.4 *per cent* of contract price excluding taxes and duties. However, SSP had never levied or recovered LD from the contractor for non-fulfilling of the PG parameters till date (March 2018). As a result, the plant continued to run the facility at higher input cost due to excess consumption of electrodes which was recurring in nature. The actual consumption of graphite electrode ranged between 3.17 kg/tonne to 3.60 kg/tonne during 2015-16, between 3.72 kg/tonne to 3.92 kg/tonne during 2016-17 and 3.69 Kg/tonne to 3.78 Kg/tonne during 2017-18 resulting in extra expenditure of ₹6.92 crore which had to be absorbed by SSP.

SAIL accepted (March 2018) that the actual electrode consumption achieved during the repeat PG tests was beyond the acceptable limit specified in the contract. It stated that payment against PG test has not been made and the process of commercial settlement has been initiated. Ministry added (December 2018) that payment against PG test, FAC and ₹0.89 crore against FAC for LF package supplied by the same party was also withheld. Audit noted that Standing Deviation Committee of SSP has recommended (August 2018) recovery of ₹160.50 crore from the contractor for non-achievement of PG parameter i.e. Specific Electrode Consumption in the EAF for life of the equipment (25 years).

10.6.3.3 Closure of Contracts

(a) Delay in conducting delay analysis and contract closure of completed projects

After the commissioning of the projects (contracts), the process of contract closure starts with delay analysis which determines the quantum and reasons for delay on the part of the Management, consultant and the contractor. After completion of delay analysis, LD and price variation or extra claims, if any, are finalized and settled.

As per the circular issued by Project Directorate, CO, SAIL (September 2016), delay analysis for the projects under MEP was to be completed within 90 days from the date of commissioning and the price variation was to be settled within 60 days of finalization of delay analysis. Further, Clause 15.2 of Manual for Project Contract Management System of SAIL (December 2000) stipulates that the contract should be closed within three months of issue of FAC.

Out of the 177 contracts selected in audit, 92 projects were commissioned. Out of these 92, delay analysis had been conducted in respect of only 63 contracts till March 2018. Further, FAC had been issued in respect of 34 out of 92 commissioned contracts but contract closure has been done in only 18 cases even after the lapse of 3 months or more from issue of FAC.

Table 10.18: Delay in conducting delay analysis and contract closure

Description	No. of contracts	Delay in days				
		No delay	1-100	101-500	501-1000	1001 and more
Delay analysis	63	16	4	27	15	1
Contract closure	18	9	2	5	1	1

Thus, there was deviation from corporate guide lines in a significant number of cases. Audit noted that out of 63 contracts where delay analysis has been completed, as of March 2018, in 14 cases, liquidated damages amounting to ₹143.94 crore was realised from the contractors. Audit also observed that the issues regarding early settlement of claims and timely closure of contracts were never discussed in the SAIL Board and Board Sub-Committee (BSC).

The Management stated that these activities are getting delayed primarily due to non-completion of interlinked packages, late submission of delay analysis by contractors, non-receipt of delay analysis report from the consultant and non- availability of proper documents. Ministry added (December 2018) that delay analysis is a time consuming process and efforts were being made to settle the delay analysis at the earliest.

Reply of the Management/Ministry is not acceptable because delay analysis is required to be carried out within three months from the commissioning of the project. The delay analysis pointed out by audit is on account of individual projects/packages, hence the Management's contention of activities being delayed due to non-completion of interlinked packages is not relevant. Further, it is the Management's responsibility to prepare the delay analysis report and not that of the contractor or consultant.

(b) Non-segregation of delays attributable to the consultant in BSP

BSP had entered into an agreement with MECON in December 2011 to provide consultancy for MEP in BSP at a cost of ₹452.91 crore. As per article 9.1 of the agreement, in the event of delay in commissioning of the units attributable to the consultant, BSP shall recover LD by deducting 0.5 *per cent* of the total agreed fee per week of delay limited to five *per cent* of the unit wise apportioned fee payable to the consultant.

Audit observed that in case of Coke Oven Battery and Coke Dry Cooling Plant contracts, there was delay of 214 days and 276 days respectively on account of redesigning of civil, structural and equipment's drawings and these delays were attributed by the Delay Analysis Committee to "BSP/MECON". Similarly, in case of Compressed Air Station -4 (Phase-I), there was a delay of 126 days due to delay in approval of general layout plan which was attributed by the Committee to "BSP/MECON". However, the Committee did not segregate such delays between BSP and MECON separately in order to impose LD on MECON in line with the contractual provisions.

The Management stated (March 2018) that once the entire MEP of BSP is completed, LD shall be levied as per the contract. The reply was not acceptable as LD cannot be levied after completion of MEP unless the delays and consequent recoverable amounts are segregated in the first place. Audit also observed that in RSP, delays were being segregated between the contractor MECON and RSP.

The Ministry assured (December 2018) that segregation of delay between the employer and consultant shall be done based on the responsibility of the consultant for its scope of work stipulated in the contract. Ministry did not indicate any timelines to segregate the delays between the employer and consultant.

(c) Payment of ₹552.54 crore on account of price variation claims

Out of the 63 MEP contracts in SAIL where delay analysis has been completed, the contractors were paid price variation claims for 28 contracts amounting to ₹552.54 crore on account of delay attributable to SAIL. Main reasons for delay were delay in handing over of sites to the contractors, delay in completion of civil activities, delay in designing & drawing, variation/revision of work in quantity and scope beyond estimate, non-completion of interrelated packages etc.

SAIL stated (March 2018) that several issues like retrofitting new technology, logistic problem, unforeseen soil conditions in ISP and BSP, brown field expansion in operational plants, poor performance by the consultant (MECON) etc. were responsible for the delay and resultant price variation claims. In view of the above, it may not be prudent to attribute these delays to SAIL's Management. Ministry re-iterated the views of the Management.

Reply is not acceptable since MEP projects were to be set up on brownfield basis at their existing sites and the Management could have planned in advance to address issues such as space availability, soil conditions, clearance of sites and relocation of existing structures. The Management's assertion that the delay should not be attributable to SAIL

is contradictory to their actions as they agreed to pay the claims worth ₹552.54 crore in all the above cases.

(d) Extra expenditure of ₹168.88 crore towards supervision charges

As per clause 7.9.1 of GCC, the contractor shall depute foreign experts for supervision of design and manufacture of plant and equipment and for supervision of erection, commissioning and performance guarantee tests. Clause 7.9.3 of GCC provides that in case the number of man days for foreign experts actually utilized exceeds the number specified in the contract, the contractor shall depute such additional man days without extra payment unless the extra mandays are required for reasons attributable to the employer.

Audit observed that in 10 MEP contracts at BSP (3), ISP (5) and BSL (2), 27903 additional mandays for supervision were allowed to the contractors due to delays attributable to SAIL resulting in extra expenditure of ₹168.88 crore. Details are shown in the table below:-

Table 10.19: Details of payment made on additional supervision mandays

Sl. No.	Name of Plants	Name of contract	Man days envisaged in the contract agreement for supervision	Additional supervision man days	Extra payment (₹in crore)
1	2	3	4	5	6
1	BSP	Bar Rod Mill	2910	9632	13.13
2		Universal rail Mill	3035	2800	31.71
3		Blast Furnace-8	3800	2800	30.01
4	ISP	BOF shop	9750	4368	34.58
5		Continuous Casting Plant	5325	2051	11.81
6		Universal Section Mill	3050	1300	13.27
7		Wire Rod & Bar Mill	4238	3432	17.71
8		Reheating furnace for WRM, BM & USM	642	450	2.54
9	BSL	PLTCM	2700	785	7.85
10		Bell Annealing Furnace	500	285	6.27
Total			**35950**	**27903**	**168.88**

SAIL stated (March 2018) that additional mandays of foreign experts was required due to unforeseen site conditions, multiple contractors, non-availability of sites, re-location of existing facilities, pressure to complete the projects and delay in completion of various auxiliary/ inter-dependent facilities etc.

The Ministry stated (Dec 2018) that additional mandays were required at ISP, BSL and BSP due to delay in completion of dependent packages, modification/addition in projects and undertaking of erection & commissioning jobs only in phases instead of simultaneously as was originally planned.

Audit noted that the issues brought out by the Management/ Ministry could have been taken care of at the programme planning stage itself. Further, the additional expenditure was mostly due to reasons well within the control of the Management such as delay in handing over civil fronts to contractors, non-conduct of soil tests, delay in installation of

supporting facilities and delay in statutory clearances like VISA. Delay in visa may cause delays in contract execution but it is not understood how they can lead to additional man days.

(e) Delay in completion of works resulting in extension/renewal of Bank Guarantee and insurance policy at a cost of ₹14.01 crore in ISP

As per contract agreement, the contractor shall provide a Performance Bank Guarantee (PBG) of five *per cent* of the contract price. The contractor shall also take out an Insurance Policy which shall cover the total erected value of the facilities. The contractor has to bear the expenses of keeping the BG and insurance policy alive in case of extension of contract after the scheduled completion period. In case the contract is extended on account of delays not attributable to the contractor, the expenses shall be reimbursed by the employer to the contractor at actual.

Audit observed that ₹10.52 crore in 14 cases and ₹3.49 crore in 11 cases were reimbursed by ISP towards insurance renewal and BG extension charges respectively for the extended period of the contract as the delay was attributable to ISP's failure to hand over sites and complete associated works.

SAIL stated (March 2018) that the major reasons for delay were adverse soil conditions, delay in power supply by DVC, delay in according clearances by Railways, delays on the part of the consultant and resistance to shifting of the village deity by villagers. Ministry re-iterated the views of the Management. The reply is not acceptable because management of third parties is an intrinsic part of good project management.

(f) Non-recovery of guaranteed CENVAT as per the contract

As per Clause 14.5.6 of SBD, for award of MEP contracts, bidders were asked to indicate minimum guaranteed CENVAT credit to be passed on to SAIL against material supplies for subject work. Bids were evaluated net of CENVAT and orders placed on L1. The clause also stated that in case of any shortfall in CENVAT credit from that guaranteed by the contractor, the shortfall shall be paid to the employer by the contractor. However, in case the actual CENVAT benefit is more than the quoted amount then 50 *per cent* of the additional benefit will be passed on to the contractor.

Audit observed that out of the 177 contracts selected in audit, there was shortfall in minimum guaranteed CENVAT in 98 contracts. Out of these 98, clause 14.5.6 had not been incorporated at all in 29 contracts. Hence, SAIL was not in a position to recover the shortfall of MGC amounting to ₹192.48 crore**.** In 69 contracts, though the clause 14.5.6 was incorporated, the shortfall amount of ₹367.73 crore was not recovered from the contractors.

The Management stated (March 2018) that the amount of minimum guaranteed CENVAT to be deducted/adjusted from the party can only be finalised after completion of all the supply and erection bills. The Management also stated that MECON was advised (May 16) to examine the issues encountered at SAIL which is yet to be submit its report.

The reply is not acceptable since the recovery of guaranteed CENVAT was related to supplies and supply has been completed in 2012-15. However, SAIL could not recover the shortfall amount till date. It is also not clear what issues MECON is examining since in at least 72 contracts, clause 14.5.6 clearly asked bidders to indicate minimum guaranteed

CENVAT to be passed on to SAIL and bids were evaluated net of CENVAT. The Management's reply is silent regarding non-inclusion of clause 14.5.6 in 29 cases.

The Ministry stated (December 2018) that balance Cenvat amount in respect of DSP and BSL shall be adjusted/ recovered from the balance amount payable to the contractors. At ISP, recovery of guaranteed CENVAT was under process and will be recovered as per the terms of the Contract. In SSP, clause for recovery of shortfall in minimum guaranteed CENVAT had not been incorporated in the contract. Ministry did not indicate any timelines to recover the balance Cenvat amount from the contractors. Further, reply of the Ministry was silent about BSP and RSP.

(g) Non-preparation of Post Completion Report (PCR) for the projects under MEP

PCR contains detailed analysis of the accomplishment of project objectives (technical & commercial), time and cost overrun, if any, difficulties faced in the execution of the project, lesson learnt from the projects etc. PCR should be prepared within one year of commissioning for all capital schemes with sanctioned cost of ₹5 crore and above and should be submitted to the sanctioning authority.

Audit scrutiny revealed that 92 projects were commissioned during March 2010 to March 2018, of which PCR was required to be completed for 80 projects as on March 2018. However, PCR was prepared for only two projects (DSP). Delay in preparation of PCR in respect of remaining 78 contracts is given in table below:

Table 10.20: Delay in preparation of Post Completion Report

No. of contracts	Delay in days upto 31 March 2018			
	1-100	101-500	501-1000	1001 and more
78	4	19	30	25

The Management stated that several projects under MEP have only got operationalised and for the purpose of PCRs, cannot be called completed unless linked activities such as issue of PAC, CC and FAC, levy of LD, contract closure and interlinked packages are first completed.

The Ministry stated (December 2018) that in respect of BSL, DSP and SSP, preparation of PCR for some packages that are at various stages of completion can be initiated only after completion/ stabilization of all packages under these projects. At ISP, MECON (the Consultant) is working on the PCR.

The replies of the Management/Ministry are not acceptable since as per the guidelines, PCR for all the capital schemes is to be prepared within one year from the commissioning of a project. Further, the fact that PCR has not been prepared for 55 projects out of 78 projects even after the lapse of more than two and a half years since commissioning indicates SAIL's inability to complete all project related activities within the scheduled time frames.

10.6.4 Conclusion

Audit noted that the 44 actions planned by SAIL on the basis of recommendations made in the C&AG Audit Report No. 23 of 2015 were not entirely implemented. MEP is yet to be

completed at BSP which is SAIL's largest plant. SAIL could create HM capacity of only 19.46 mtpa (83 *per cent*) as on March 2018 against the targeted capacity of 23.46 mtpa by 2010. Further, based on the Management's latest estimation, post MEP HM capacity would be only 22.37 mtpa. Despite spending more than ₹60000 crore on MEP and after the lapse of more than eight years from the date of scheduled completion, there was marginal increase of 1.38 mt in HM production from the production level in 2006-07. Envisaged technical parameters *viz.* Coke rate, BF productivity and Specific Energy Consumption could not be achieved after the completion of MEP. Higher coke rate resulted in excess consumption of 1.786 mt of coke worth ₹3107.05 crore.

Due to delay in the completion of Universal Rail Mill, BSP could dispatch 71 *per cent* only of the contracted quantity to the Indian Railways during 2014-17 resulting in loss of contribution of ₹1,372 crore. Mismatch of capacity to produce HM, CS and SS at RSP led to loss of contribution of ₹226.89 crore.

Contractors were paid price variation claims amounting to ₹552.54 crore on account of delays attributable to SAIL. In 10 MEP contracts, extra supervision charges of ₹168.88 crore were allowed to the contractors due to delays attributable to SAIL. The Management could not recover ₹560.21 crore on account of guaranteed CENVAT from the contractors.

10.6.5 Recommendations

- SAIL should ensure that the post MEP Hot Metal capacity is achieved at the earliest.
- SAIL should take steps to ensure that the envisaged technical parameters post MEP are achieved.
- After commissioning of projects, SAIL should initiate steps for timely closure of contracts.

10.7 Idle investment

Failure to start production from TMT Bar Mill, Crash Barrier Plant and GC Sheet Mill at Jagdishpur Steel Processing Unit led to idle investment of ₹366 crore on plant and machinery and land & buildings. Industrial land measuring 739.65 acre was lying idle.

SAIL acquired (February 2009) the assets of erstwhile M/s Malvika Steel Limited (MSL) consisting of 739.65 acre land, two 350 M^3 blast furnaces (BF), two pig casting machines and associated facilities for ₹226.67 crore[45]. SAIL decided (October 2009) to set up a new Steel Processing unit (SPU) at Jagdishpur Industrial Area (JIA) for production of TMT bars, Galvanised Corrugated (GC) Sheets and Crash Barriers at a total cost of ₹99.95 crore. Initially, the existing plant and machinery of MSL were planned to be revived to produce the input materials for the SPU.

[45] ***Comprising cost of Land (₹118.34 crore), Stamp duty (₹10.45 crore), Charge for lease transfer (₹7.22 crore), Building (₹32.25 crore), Township (₹14.06 crore) and Plant & Machinery (₹44.35 crore)***

i) Audit observed that out of the total amount of ₹226.67 crore paid for MSL, ₹44.35 crore was paid for acquisition of plant and machinery. Since MSL plant was closed since 1998, the existing BF of MSL was damaged/ outdated and its output could not be used in the TMT Bar Mill. As a result, it was decided that the inputs for the SPU would be procured from other sources and the MSL assets acquired at a cost of ₹44.35 crore became idle.

A committee constituted to recommend the utilisation/ disposal of these idle assets found (November 2015) that most of the items were lying idle since 1998 (approximately 17 years) and were scrap in nature and not fit for revival for any of the units. The condition of the materials was deteriorating with the passage of time and there was a dense growth of bushes all around. Further, there may have been loss of material due to theft. The Committee further recommended that the items may be put up to the Apex committee for declaring them idle assets. The assets however could not be disposed off even after 10 years of acquisition and lay as scrap.

ii) Audit noted that the TMT bar mill was completed (October 2014) after a delay of 40 months. The GC sheet Mill was completed (January 2011) on time while the Crash Barrier plant was completed (September 2015) after a delay of 4 years. All the three completed mills have been idle since their completion.

SAIL decided to restart the TMT bar mill and a change order was issued (June 2017) at ₹3.31 crore. Further, SAIL incurred additional expenditure (October 2017) of ₹1.31 crore for delay in commissioning. The reheating furnace of the TMT bar mill was lighted up (April 2018) to conduct hot trial run. However, the hot trial run is yet to be completed due to malfunctioning of flying shear machine. There was no change in the status of the GC mill and Crash Barrier Plant (March 2019). Thus, all three completed mills have been idle since inception despite incurring project cost of ₹93.75 crore.

The Management replied (January 2019) that the TMT Bar Mill could not be started due to change in steel industry scenario, non-conducive local environment, complication in transfer of land, non-restoration of power connection by State Electricity Board, delay in getting various required clearances and significant drop in net sales realisation of the final product. The Management also stated that steps are being taken to commission the new mills in February 2019.

The Management's reply is to be seen in the light of the fact that even though the TMT bar mill had been completed in October 2014, funds, raw materials and equipment required to start production were not provided. Meltdown in the steel industry had not affected the net sales realisation of TMT bar significantly enough to warrant non-operation of a completed mill. In fact, Durgapur Steel Plant of SAIL had earned positive contribution ranging between ₹7,054/ tonne and ₹15,879/ tonne from the sale of TMT bar during 2013-14 to 2017-18. Audit also noted that there was no local agitation/ unrest, and 33KV power supply had been supplied by the SEB with effect from December 2013. Further, the Management took no steps to operationalise the Crash Barrier mill and GC mill.

iii) Industrial land measuring 739.65 acre acquired from MSL was idle with no economic/industrial activity. No land use plan for this idle land was found on record. Further, the lease for the land was not transferred to SAIL.

The Management stated that plan to sub-lease land to other PSUs could not fructify due to issues related to the title of the land. Audit noted that SAIL paid stamp duty ₹10.45 crore (March 2010) to State Government of UP for registration of sale certificate. SAIL also paid ₹7.22 crore (25 *per cent* of the demand for transfer levy and lease rent) to Uttar Pradesh State Industrial Development Corporation (UPSIDC) for transfer of the lease in the name of SAIL. However, on account of ambiguity over the applicability of stamp duty and transfer levy charges to SAIL, it did not pay the balance and filed a petition in the Allahabad High Court (August 2015) seeking refund of stamp duty and transfer levy already paid. The matter is pending in the Allahabad High Court (March 2019).

iv) Since the acquisition of MSL (2009), SAIL has spent ₹45.09 crore (as of June 2018) (₹30.42 crore towards security expenses, ₹8.79 crore towards employee expenses and ₹5.88 crore towards other expenses). The Management replied that CISF was engaged for the security of the infrastructure while employee expenses were incurred for installation and upkeep of the newly erected units. Thus, expenditure was being incurred on the SPU despite zero production.

Thus, failure to start production from the SPU even after lapse of three to eight years from their installation led to idle investment of ₹366 crore {plant and machinery ₹44.35 crore, SPU ₹93.75 crore and idle land and building (739.65 acre) ₹182.32 crore}, apart from expenditure of ₹45 crore on security and staff. The idle investment of ₹366 crore also resulted in annual interest cost of ₹27 crore (₹264 crore up to December 2018).

The matter was referred to the Ministry in January 2019; their response was awaited (May 2019).

10.8 Avoidable expenditure by Durgapur Steel Plant of SAIL

Failure of DSP to avail concessional rate of Electricity Duty despite being eligible for it led to avoidable expenditure of ₹20.69 crore between April 2013 and September 2018 which will increase with the passage of time till installation of the new metering system.

Power requirement of Durgapur Steel Plant (DSP) of SAIL is met from its own captive power plant, supply from NTPC-SAIL Power Company Limited (NSPCL) and supply from Damodar Valley Corporation (DVC). Power to ladle furnaces (a type of electric furnace) of DSP is supplied exclusively by DVC.

As per West Bengal Duty On Inter State River Valley Authority Electricity Act, 1973 (the Act), where energy is consumed for electrolysis or heating in electric furnaces by any undertaking and separate meters are installed to indicate the quantity of energy so consumed, Electricity Duty (ED) is to be charged @5 *per cent* of net charge of energy consumed. Concessional rate of 5 *per cent* ED was not admissible unless the following criteria were satisfied:

i) Cost of energy consumed for electrolysis or heating in electric furnace was 20 *per cent* or more of total cost of manufacture by electrolysis or heating in electric furnace and

ii) Separate books of accounts are maintained showing separately cost of energy consumed and total cost of manufacture by electrolysis or heating in electric furnaces.

Govt. of West Bengal advised (June 2009) DSP that in case criteria at (i) above was satisfied, DSP would need to inform DVC in writing along with initial and final meter readings in which case ED would be charged @ 5 *per cent* of net charge for energy consumed for heating electric furnaces while the rest of the consumption would be charged @ 15 *per cent* of net charge for energy consumed.

Audit observed that till 2012-13, DSP did not maintain separate books of accounts to segregate the cost of energy consumed for heating in its ladle furnaces. DSP started maintaining separate books of accounts only from 2013-14 onwards showing details of energy consumed for heating purposes. Thus, even though concessional ED was available from June 2009 onwards, DSP was not in a position to utilise it till 2013-14 as it did not maintain separate books of accounts. Further, during the period 2013-14 to 2018-19 (up to September 2018), 1432.898 million KWH of power supplied by DVC was consumed by DSP, out of which 422.410 million KWH was exclusively consumed by ladle furnaces. Cost of power consumed by ladle furnaces during this period ranged between 37 *per cent* and 66 *per cent* of the total cost of heating i.e. above the threshold of twenty *per cent* required to avail concessional ED @ 5 *per cent*. However, despite being eligible for concessional ED, DSP failed to avail concessional duty and continued to pay ED at the non-concessional rate of 15 *per cent*. Audit also noted that Alloy Steels Plant (ASP), another steel plant of SAIL at Durgapur, drew power from DVC and availed the benefit of concessional rate of ED from 2010-11 onwards. Failure of DSP to avail concessional rate of Electricity Duty despite being eligible for it led to avoidable expenditure of ₹20.69 crore between April 2013 and September 2018.

The Management replied (December 2018) that in order to avail the concessional duty, DSP would need to alter the entire metering set up including conversion of existing meters and replacement of transformers which involves downtime of at least five to six days for each ladle furnace and would result in loss of contribution up to ₹32 crore. The Management further stated that appropriate action was being taken for availing concessional duty benefit at the earliest.

The Management's reply is not acceptable because (a) ASP, which draws power through the same Main Receiving Station as DSP and is billed on a common bill with DSP has been availing concessional duty since 2010-11 without modifying their existing network merely by submitting the certificate of energy consumption based on the Auditor's Report. (b) One-time cost of replacing equipment was bound to be incurred irrespective of when the replacement was done. Had the Management initiated timely action, it could have saved ₹20.69 crore between April 2013 and September 2018 as pointed out by audit. These savings would be of a recurring nature and DSP would save ₹5 crore every year on account of lower electricity duty. (c) Management's estimation of contribution loss of

₹32 crore is not backed by any data and is merely an estimate. Moreover, initial contribution loss would be offset by recurring savings in subsequent years.

Further, after the issue of audit query (December 2017), DSP Management initiated (June 2018) action to purchase required equipment to replace existing meters and transformers. Purchase requisition was raised (November 2018), and was under scrutiny after which RFQ would be floated. DSP would continue to pay ED at higher rate till process of replacement was complete.

Thus, failure of DSP to avail concessional rate of ED despite being eligible for it, led to avoidable expenditure of ₹20.69 crore between April 2013 and September 2018 which will increase with the passage of time till installation of the new metering system.

The matter was referred to the Ministry in January 2019; their response was awaited (May 2019).