



Report of the Comptroller and Auditor General of India

for the year ended March 2018



लोकहितार्थ सत्यनिष्ठा
Dedicated to Truth in Public Interest

Union Government (Commercial)
No. 13 of 2019
(Compliance Audit Observations)

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Comptroller and Auditor General of India**

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PREFACE

1. The accounts of Government Companies set up under the provisions of the Companies Act (including Companies deemed to be Government Companies as per the provisions of the Companies Act) are audited by the Comptroller and Auditor General of India (CAG) under the provisions of Section 143(6) of Companies Act, 2013. The accounts certified by the Statutory Auditors (Chartered Accountants) appointed by the CAG under the Companies Act are subject to the supplementary audit by CAG whose comments supplement the reports of the Statutory Auditors. In addition, these companies are also subject to test audit by CAG.
2. The statutes governing some Corporations and Authorities require their accounts to be audited by CAG. In respect of five such Corporations viz. Airports Authority of India, National Highways Authority of India, Inland Waterways Authority of India, Food Corporation of India and Damodar Valley Corporation, the relevant statutes designate CAG as their sole auditor. In respect of one Corporation viz. Central Warehousing Corporation, CAG has the right to conduct supplementary and test audit after audit has been conducted by the Chartered Accountants appointed under the statute governing the Corporation.
3. Reports in relation to the accounts of a Government Company or Corporation are submitted to the Government by CAG under the provisions of Section 19-A of the Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, as amended in 1984.
4. The Audit Report for the year 31 March 2018 contains 54 individual audit observations relating to 37 CPSEs under control of 11 Ministries/Departments. Instances mentioned in this Report are among those which came to notice in the course of audit during 2017-18 as well as those which came to notice in earlier years. Results of audit of transactions subsequent to March 2018 in a few cases have also been mentioned.
5. All references to 'Companies/Corporations or CPSEs' in this Report may be construed to refer to 'Central Government Companies/Corporations' unless the context suggests otherwise.
6. The audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

EXECUTIVE SUMMARY

I Introduction

1. This Report includes important audit findings noticed as a result of test check of accounts and records of Central Government Companies and Corporations conducted by the officers of the Comptroller and Auditor General of India under Section 143 (6) of the Companies Act, 2013 or the statutes governing the particular Corporations.

2. The Report contains 54 individual observations relating to 37 Central Public Sector Enterprises (CPSEs) under 11 Ministries/Departments. The draft observations were forwarded to the Secretaries of the concerned Ministries/Departments under whose administrative control the CPSEs are working to give them an opportunity to furnish their replies/comments in each case within a period of six weeks. Replies to 26 observations were not received even as this Report was being finalised as indicated in para 3 below. Earlier, the draft observations were sent to the Managements of the CPSEs concerned, whose replies have been suitably incorporated in the report.

3. The paragraphs included in this Report relate to the CPSEs under the administrative control of the following Ministries/Departments of the Government of India:

Ministry/Department (CPSEs involved)		Number of paragraphs	Number of paragraphs in respect of which Ministry/ Department's reply was awaited
1.	Civil Aviation (AAI, AIATSL, AIL and Pawan Hans Limited)	9	8
2.	Coal (Coal India Limited and its Subsidiaries and NLC India Ltd.)	3	2
3.	Finance (National Insurance Company Limited, New India Assurance Company Limited, OICL and SPMCIL)	4	2
4.	Heavy Industries and Public Enterprises (BHEL)	1	0
5.	Housing and Urban Affairs (Chennai Metro Rail Limited, HUDCO)	2	1
6.	Petroleum and Natural Gas (BPCL, GAIL (India), HPCL, IOCL, Mangalore Refinery and Petrochemicals Limited,	12	1

	Numaligarh Refinery Limited, ONGC, ONGC Petro additions Ltd. And OIL)		
7.	Power (Damodar Valley Corporation, NTPC Limited, NTPC-SAIL Power Co. Pvt. Ltd., PGCIL, PFC Limited, REC Limited and THDC India Limited)	9	3
8.	Road Transport and Highways (NHAI)	3	3
9.	Shipping (Cochin Shipyard Limited and The Shipping Corporation of India Limited)	2	0
10	Steel (BSLC, OMDC, RINL and SAIL)	8	5
11	Textile (NTC Limited)	1	1
Total		54	26

4. Total financial implication of individual audit observations is ₹2507.66 crore.
5. Individual Audit observations in this Report are broadly of the following nature:
 - ❖ Non-compliance with rules, directives, procedure, terms and conditions of the contract etc. involving ₹1012.14 crore in 24 audit paragraphs.
 - ❖ Non-safeguarding of financial interest of organisations involving ₹95.01 crore in 12 audit paragraphs.
 - ❖ Defective/deficient planning involving ₹596.15 crore in 12 audit paragraphs.
 - ❖ Inadequate/deficient monitoring involving ₹804.36 crore in 6 audit paragraphs.
6. The Report contains a Chapter on “Recoveries & corrections/rectifications” by CPSEs at the instance of audit. The Chapter contains two paragraphs viz.
 - (a) recoveries of ₹19.80 crore made by 11 CPSEs at the instance of Audit, and
 - (b) corrections/rectifications carried out by 4 CPSEs at the instance of Audit.

II Highlights of some significant paragraphs included in the Report are given below:

Appsdaily Solutions Private Limited (Insured) offered free insurance cover for new mobile handsets, provided the customer buys their applications within 15 days of purchase of mobile handsets. New India Assurance Company Limited (NIACL) issued a Master Package Policy to the insured to cover the risk undertaken at the time of sale of mobile handsets with coverage of fire, allied perils, theft, burglary and accidental damages. NIACL neither ensured the existence of insurable interest nor got the actuarial valuation done before issuing the

policy. Further, NIACL issued and renewed the policy without getting the approvals of the competent authorities. Thus, imprudent underwriting and lack of proper risk assessment, led to a loss of ₹91.32 crore on account of the settlement claims.

(Para 3.2)

Damodar Valley Corporation (DVC) decided to set up Phase-II of Raghunathpur Thermal Power Station (RTPS-II) consisting of two units of 660 MW each in Purulia district of West Bengal. The cost of RTPS-II project was estimated at ₹9,088.99 crore. The financing pattern of such project cost was considered as debt and equity proportion of 70:30. DVC arranged term loan of ₹6,362.29 crore from Rural Electrification Corporation Limited (REC) for financing the debt portion of the project. Though financial assistance from Government of India (GoI) in the form of capital/ equity contribution and recovery of dues from major consumers were the pre-requisites for implementation of RTPS-II, DVC decided to go ahead with the project without ensuring the same and drew ₹401 crore from REC. Finally, DVC abandoned the project due to inability to arrange equity fund from own sources. This led to infructuous expenditure of ₹138.92 crore towards interest and prepayment charges on above loan.

(Para 7.2)

Indian Oil Corporation Limited (IOCL) used to bring High Speed Diesel Oil (HSD) and Motor Spirit (MS) from its Barauni Refinery/Terminal to Patna Terminal through pipeline and therefrom these products were sold to the retailers/direct customers and also to OMCs. IOCL, however, did not pay the entry tax on such transfer of products which was not in conformity with the Bihar Entry Tax Rules 2006. The revenue department of Government of Bihar (GoB) raised the demand for payment of entry tax on the above transfer w.e.f. 2008-09. IOCL challenged the demand of GoB in the courts of law. The Supreme Court of India held that as per the provisions of Bihar Entry Tax Act 1993 and Bihar Value Added Tax Act, 2005, IOCL was liable to pay entry tax on the quantum of products transferred from Barauni to Patna and sold to the Oil Marketing Companies (OMCs). IOCL paid entry tax to the extent ₹528.01 crore for the period from 2008-09 to June 2014. The above entry tax could not be set off as no VAT was payable on the part of IOCL for the products sold to other OMCs. IOCL, however, decided that the above un-adjustable entry tax of ₹528.01 crore was to be recovered by the OMCs from the consumers in the state of Bihar as Additional State Specific Cost (ASSC) by including the same in the Retail Selling Price (RSP) of MS and HSD and recovered ₹187.25 crore in the form of ASSC during the period from February 2018 to September 2018 and it was expected that the entire amount of entry tax would be recovered by December 2019. Thus, the action of IOCL towards shifting the burden of avoidable expenditure of entry tax amounting to ₹528.01 crore on the consumers of Bihar was imprudent, unjustified and inequitable.

(Para 6.5)

Bongaigaon Refinery (Refinery) of IOCL commissioned a Helitower type Heat Exchanger (HE) in January 2009 at a total cost of ₹5.98 crore for revamping the capacity of its Catalytic Reformer Unit (CRU) with a view to maximise the production of Motor Spirit (MS). Since commissioning HE failed on many occasions due to chronic problem of repeated bellow failure and with replacement of the bellow did not improve the position. IOCL, however, did not take a final decision to resolve the problem with permanent solution and the operations of defective HE were allowed to continue though the equipment failed on subsequent occasions even after been pointed out by Engineers India Limited in May 2012 and by the Management. IOCL, finally, procured a new exchanger in August 2018 at ₹5.56 crore with scheduled commissioning by November 2018. Thus, running of defective HE had resulted in interruptions of sustainable operations of revamped CRU which ultimately led to lower generation of high value distillate product (MS) by the refinery with consequential loss of revenue of ₹324.90 crore.

(Para 6.6)

Coal India Limited and its Subsidiaries made irregular payment of ₹371.19 crore towards the employer's share of provident fund contribution on leave encashment with Coal Mines Provident Fund Organisation during the period from 2012-13 to 2017-18 (September 2017) in violation of the extant law.

(Para 2.1)

SAIL acquired (February 2009) the assets of erstwhile M/s Malvika Steel Limited (MSL) (closed since 1998) consisting of 739.65 acre land and plant & machineries for ₹226.67 crore. Audit observed that plant and machinery acquired for ₹44.35 crore became idle and scrap. The Management installed a TMT bar mill, Crash Barrier mill and GC mill but failed to start production from the Steel Processing unit (SPU) even after lapse of three to eight years from their installation. The TMT bar mill though completed in October 2014 was not operationalised because funds, raw materials and equipment required to start production were not provided. The Management took no steps to operationalise the Crash Barrier mill and GC mill. 739.65 acre industrial land acquired from MSL was idling with no economic/industrial activity. 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, land ₹182.32 crore, SPU ₹93.75 crore and 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).

(Para 10.7)

As per the DPE guidelines (July 2012), earned leave and half-pay leave (HPL) could be considered for encashment on retirement subject to over all limit of 300 days. The cash equivalent payable for HPL would be equal to leave salary as admissible for HPL plus dearness allowance (DA). Audit observed that NTPC Limited and NTPC-SAIL Power Company Ltd (NSPCL) allowed DA at the admissible rate on full basic pay instead of half

basic pay, while calculating HPL amount payable on superannuation/separation. Adoption of incorrect method for computation of HPL has resulted in excess payment of ₹74.89 crore to the employees of NTPC Limited and NSPCL.

(Para 7.5)

Bharat Petroleum Corporation Limited (BPCL) and Indian Oil Corporation Limited (IOCL) discontinued the policy of distributing gold coins to employees on completion of 15/20/25 years of service as per Ministry's direction since it was inconsistent with DPE guidelines. BPCL/ IOCL formulated a new policy in replacement of the old scheme of issue of gold coins where pre-loaded card/voucher or an item/memento/emblem (other than gold/ silver) were distributed to the employees. The new scheme which was also in contravention of DPE/ Ministry guidelines resulted in an irregular expenditure of ₹107.63 crore during January 2015 to August 2018 (BPCL) and February 2015 to August 2018 (IOCL).

(Para 6.1)

Damodar Valley Corporation entered into (October 2013) a Power Purchase Agreement (PPA) with West Bengal State Electricity Distribution Company Limited (WBSEDCL) for supply of 200 MW of power from Koderma Thermal Power Station (KTPS) for 25 years. As per the PPA, DVC was required to supply uninterrupted power to WBSEDCL from April 2014. However, sustainable operation of Unit-I was not achieved due to inadequacy of wet ash disposal area in the temporary ash ponds which were filled up with ash slurry disposed during commissioning of Unit-I and its subsequent operations. Further, the declaration of Commercial Operation Date (COD) of Unit-II was not in line with the regulation of Central Electricity Regulatory Commission (CERC) which stipulated that COD of generating unit should commence through successful trial run after seven days notice by the generating company to the beneficiaries. This condition was also incorporated in the PPA. DVC did not take timely action for evacuation of ash from the temporary ash ponds and Unit-I could not be operated for supply of power to WBSEDCL continuously during the period of three months from April 2014, resulting in default of the terms of PPA on the part of DVC. Moreover, the declaration of COD of Unit-II by DVC was not in line with the CERC guidelines and the terms of PPA. All these resulted in termination of PPA by WBSEDCL which ultimately led to avoidable loss of ₹71.25 crore to DVC due to non-recovery of fixed charges of Unit-I & II of KTPS.

(Para 7.3)

National Highway Authority of India suffered loss of ₹93.78 crore due to grant of bonus for early completion of work to the concessionaire of Jammu-Udhampur Project. Not only did, the Authority wrongfully fix the Appointed date (date of commencement of concession period as well as when the concessionaire got right to commence construction work of National Highway) after the date of Financial Close but even though the concessionaire commenced the construction work in March 2011, the appointed date was fixed after the same. This is in violation of the terms of Concession Agreement and has extended undue benefit to concessionaire.

(Para 8.1)

Undue favour to contractor and poor project management by NHAI in the construction of second office building for NHAI, right from the stage of project conception till its execution resulted in time overrun, cost overrun, blocking of funds amounting to ₹43.60 crore and avoidable payment of rent of ₹11.79 crore (April 2015 to October 2018). Though more than five years have lapsed from the scheduled date of completion and over a decade from the date of release of land, the envisaged benefits of the proposed building were yet to be reaped as the building construction work was still in progress.

(Para 8.2)

Audit reviewed revenue generation and realisation activities in Airports Authority of India (AAI) over a period from 2013-14 to 2017-18 and the following was observed:

- Audit noticed deficiencies in internal control mechanism in revenue management, viz., non-compliance of credit policy and provisions of Finance Manual, which resulted in short collection of Security Deposit of ₹152.37 crore, non-charging of interest from defaulting parties of ₹78.24 crore and non-realisation of dues of ₹11.95 crore from airlines ceased operations.
- Passenger Service Fee (Security Component) {PSF(SC)} recovery had not kept pace with the mounting expenditure as a result AAI had deficit of ₹702.88 crore for the period 2013-14 to 2017-18 which was met by AAI from its own sources of revenue. Also there was delay in recovery of PSF (SC) and User Development Fee, which collected by airlines on behalf of AAI. Non-existence of mechanism for claiming interest from defaulting airlines has resulted in loss of interest of ₹5.44 crore in case of one airline.
- Non-recovery of dues of ₹2411.73 crore from Air India Group and non-claiming of interest of ₹624.87 crore as agreed in the Memorandum of Understanding.
- Loss of revenue of ₹201.06 crore due to non-claiming of royalty bills from Air India, Air Transport Services Limited for third party ground handling, loss due to non-removal of non-entitled ground handling agencies from airports, loss on account of surrender of space for Duty Free Shop, reduction in Minimum Annual Guarantee for tender of Duty Free Shop without proper assessment and lack of control mechanism over the reporting of Gross Turnover figures.

(Para 1.1)

Audit reviewed adequacy and availability of mandatory/ recommended security infrastructure/ equipment/technology, efficiency in its utilisation and availability of trained security personnel to ensure effectiveness of security at the airports operated by Airports Authority of India (AAI). Audit examination revealed that:

- Deficiency at airside area of airport, revealed that there were shortage of watch tower at Airport-3, perimeter wall and perimeter road at Airport-5. Despite directions given by BCAS and decided by AAI, Perimeter Intrusion Detection System could not be installed

at any of the selected airport. AAI also failed to install electronically/mechanically operated bird scaring devices at Airport-4 and Airport-5.

- Deficiency at landside area of airport revealed that AAI could not install Electro-Hydraulic Bollard System, Tyre Killer and Road Blocker at airports and also Biometric access control system could not be operationalised (April 2019). There were shortages of pre-embarkation security equipment (XBIS, DFMD and ETD) at airports.
- Non-availability of recording for prescribed period of 20 days, non-capturing of photographs of the driver and registration number of vehicles, shortages of cameras and non-coverage of vital installation, i.e., perimeter area, fuel installation, isolation bay, ATC at airports.
- Delay in procurement of Bomb Disposal and Detection Equipment (BDDE) and out of required 28 equipment, AAI could provide 26 equipment.
- There was short deployment of manpower and also manpower deployed was not adequately trained and screeners were not certified as per requirement of BCAS.

(Para 1.2)

Four Modules of SAP ERP, viz. Finance, Human Resources (HR), Material Management and Project System, were implemented in AAI in 2012-13 at the cost of ₹16.07 crore. Audit observed that there was inadequate market assessment and planning while implementation of SAP ERP resulting into bearing an extra cost of ₹2.58 crore and penalty waive of. Accounting policies were mapped inadequately resulting into creation of excess provision of debtors and capitalisation of assets below value of ₹5000. HR Rules were not mapped adequately, due to which application was calculating incorrect sum of leave encashments, rate of interest in case of loans and advances was fed manually for each type of loan, payment of gratuity was not made from HR module, tour advance/travelling advance could not be applied through application, performance appraisal of below executive employees was not through application. Conditions of civil projects were not mapped leading to calculation of Earnest Money deposits, Security deposits and other deductions manually. SAP ERP did not have adequate data input controls and validation checks due to which master data of employees, vendors/customers and inventory was incomplete and erroneous. Modules of SAP ERP were not utilised completely. The difference between the legacy data and the data uploaded in ERP was not reconciled. Monitoring of cost and scheduling of the project was not being done through ERP. Data Centre was not maintained as per specific Data Centre requirements and non-existence of Disaster Recovery Site poses potential threat to the DATA in AAI. AAI is largely dependent on SAP consultants for resolution of issue and in-house expertise is lacking. Thus, inadequate controls and under-utilisation of SAP ERP undermined its effectiveness.

(Para 1.3)

The Bisra Stone Lime Company Limited (BSLC) is engaged in mining and marketing of Limestone and Dolomite. It operates limestone and dolomite mine at Birmitrapur. The

company suffered losses continuously since 2013-14 and the accumulated loss as on 31 March 2018 was ₹203.68 crore.

- Audit observed that due to scarcity of working capital, stoppage of mining operations and failure to de-water submerged quarries, the company produced 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. Mining operations were stopped for a total of 446 days during the period 2013-14 to 2017-18 on account of non-availability of Environmental Clearance, non-renewal of mining lease and attachment of bank account by statutory authorities. Four out of the 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. The company produced more than 80 *per cent* of the production through 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. The company identified 400 idle employees who could be given Voluntary Retirement Scheme but the Voluntary Retirement was not implemented due to financial constraints. The labour productivity of BSLC was below 7 tonne/man/day as against the international benchmark of 25-30 tonne/man/day. 63.06 acre (25 *per cent* of the total freehold land) of the company land was encroached. BSLC spent ₹9.54 crore towards purchase of electricity but did not recover electricity charges from the occupants of the company quarters during 2013-18.

(Para 10.1)

Orissa Mineral Development Corporation (OMDC) operates six iron ore and manganese ore mining leases located in Barbil, Odisha with an estimated total reserve of about 206 mt of iron ore and 44 mt of manganese ore. Audit observed that in the absence of statutory clearances and non-transfer of three mining leases to OMDC, mining operations in all the six mining leases of OMDC were stopped since the last 8 to 12 years. This led to loss of production of 17.22 million tonne of iron ore and 0.22 million tonne of manganese ore valuing ₹3144.68 crore 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 Government of Odisha. 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. The company 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 OMDC quarters during 2013-18.

(Para 10.2)

SAIL executes Addition, Modification and Replacement (AMR) projects to improve existing facilities for cost reduction, safety and pollution control and debottlenecking of production processes. Of the 1783 on-going or completed AMR projects during the period from 2013-14 to 2017-18, Audit reviewed 385 projects valuing ₹11,515 crore representing 89 per cent of the total project cost.

Out of the 80 projects awarded during 2013-18 and valuing more than ₹10 crore, there was large deviation between the estimate and awarded price in 27 projects due to either inaccurate assessment of items or preparation of estimates without market analysis. 57 out of 80 projects were awarded after delay of up to 12 months to 50 months. Installation of new steam pipe line from Power and Blowing station (PBS)-2 to Coke Oven Battery (COB)-8 & COB-10 of IISCO Steel Plant (ISP) was yet to be completed despite lapse of three years from the recommendation to close PBS-1. Hence, ISP continue to use PBS-1 resulting in extra expenditure of ₹94.42 crore during 2016-18.

Lapses in the tendering process in Sinter Plant-2 in Bokaro Steel Plant (BSL) resulted in repeated cancellation of tender, increase in the contract cost by ₹114.58 crore and loss of envisaged benefit of ₹118.11 crore. Out of the 92 ongoing or completed projects, 38 were delayed by up to 12 months, 16 by 13 to 24 months, 11 by 25 to 36 months and 9 by 37 to 131 months.

The work of Sinter Plant-2 of BSL was awarded to a consortium even though the main consortium member, M/s BEC Bhilai responsible for bulk of the work had no experience in construction of Sinter Plant. As a result the project was yet to be completed and there was annual loss of gross margin of ₹208.79 crore. Due to delay in handing over of site to the contractor, work of up-gradation of Blast Furnace -4 stoves at Bhilai Steel Plant (BSP) was delayed by 42 months which led to loss of intended savings of ₹70.89 crore.

Non-synchronisation of projects led to delay in completion of BF-1 stove of BSL resulting in foregoing of annual benefit of ₹30.12 crore and idling of investment of ₹162.93 crore in COB-7 project, BSL for 15 months leading to loss of gross margin of ₹52.11 crore. Coal Dust Injection system installed in Rourkela Steel Plant (RSP) and Durgapur Steel Plant did not achieve the required injection rate of 100 Kg/THM which led to extra expenditure of ₹330 crore.

(Para 10.5)

SAIL undertook Modernisation and Expansion Plan (MEP) in 2006-07 to enhance Hot Metal (HM) capacity from 13.83 million tonne per annum (mtpa) to 23.46 mtpa by 2010. ₹62,835 crore were spent till March 2018. PA covering implementation of MEP projects in SAIL was conducted in 2013-14 and the PA report was tabled in the parliament on 12 August 2015. Based on the PA recommendations, SAIL submitted (Jan 2016) an action plan to Ministry of Steel. Important actions implemented include appointment of consultants through open tender and comprehensive site and soil survey before preparation of technical specifications.

Audit observed that against targeted HM capacity of 23.46 mtpa by 2010, capacity created (March 2018) was 19.46 mtpa. HM production during 2017-18 was 15.98 mt compared to 14.6 mt in 2006-07. SAIL informed (April 2019) that the final HM capacity post MEP would be 22.37 mtpa which would be installed by 2021-2022.

The targeted coke rate in MEP was not achieved. High coke rate resulted in excess consumption of 17.84 lakh tonne Coke valuing ₹3100 crore. No plant could achieve the targeted BF productivity. Universal Rail Mill at BSP was completed in 2017 after delay of four years. In 2014-17, BSP could supply only 71 *per cent* of the indented quantity to Railways resulting in loss of contribution of ₹1,372 crore. Failure to enhance capacity of downstream facilities in RSP resulted in non-achievement of targeted production of crude steel and saleable steel. As a result, RSP sold slabs instead of plates leading to contribution loss of ₹226.89 crore during 2013-18.

Contractors were paid price variation claims for 28 contracts amounting to ₹552.54 crore on account of delay attributable to SAIL. In 10 MEP contracts, 27903 additional mandays for supervision were allowed due to delays attributable to SAIL resulting in extra expenditure of ₹168.88 crore. Guaranteed cenvat credit of ₹560 crore could not be recovered in 98 contracts.

(Para 10.6)

ERP-SAP was implemented (cost ₹204.74 crores) in four integrated steel plants and at Central Marketing Organisation (CMO) of SAIL between 2009 and 2012. Audit observed that data captured in vendor database was not complete/accurate and several generated reports included blank data in various fields. Financial Accounting and Controlling (FICO) module was not upgraded to comply with the Companies Act 2013/Ind AS. Payments amounting to ₹1222 crore (April 2017 to Oct 2018) were paid through parking mode in ERP in BSL and CMO which was prone to risks. Manufacturing Execution System (MES) was implemented in

BSP at a price of ₹29.31 crore but was not extended to all the shops as envisaged in feasibility report thereby depriving them of improvements in operational efficiency and cost control.

Thirty eight *per cent* of the SAIL's PCs were running Windows XP OS which made them vulnerable to risks. Ransomware attacks had occurred in 16 PCs at BSL, Bokaro, CMO and Raw Materials Division. Centralised anti-virus software was subsequently installed in the systems and internet access is being regulated. DRCs were located in close proximity of the plants thus defeating the purpose of setting them up except in CMO. There were deficiencies in legacy software in SAIL like Validation controls in Human Resource Information System (HRIS), Material Management Information System(MMIS) and Hospital Management System (HMS) were weak and data not found captured in critical fields. HRIS did not validate salaries with corresponding posts. MMIS did not fix inventory levels for all items. Lack of validation controls in HMS allowed ineligible beneficiaries.

(Para 10.4)

Damodar Valley Corporation was set up in 1948 and earned revenue mainly through generation and sale of power. DVC was not able to sell its entire installed capacity through bilateral tie-ups with power distribution utilities of various states and firm sale in the valley area resulting in surplus power during the period 2013-14 to 2017-18. The marketing team formed for dealing with the surplus power could not succeed considerably to market the surplus power of DVC due to absence of road map with specific targets and lack of extensive field visits. The three avenues available to DVC for sale of power were (a) bilateral Power Purchase Agreement (PPA) for medium/ long term period; (b) firm sale in the valley area; and (c) short term sale of power through (i) power traders and (ii) power exchanges. During the reference period, DVC did not have a marketing policy for sale of power. It also did not maintain database regarding details of tenders floated by prospective power purchasers. This adversely affected its sale of power through bilateral PPA. DVC neither prepared strategy to identify the prospective firm consumers nor publicised its sale of power in the valley area to draw attention of prospective firm consumers in the valley area. It also did not approach the overdrawing firm consumers to enhance their contract demand to ensure uninterrupted power supply. Short term sale of power enabled DVC to recover its fixed cost partially through sale of surplus power. However DVC did not fully utilised this mode due to restricting its capacity for bidding on the exchange market and lack of analysis of unsuccessful short term bids. DVC incurred additional cost due to procurement of thermal power instead of generating the same at its own stations. Its power purchase cost increased due to non-availment of rebate on power bills. DVC did not collect security from all the bilateral parties as per agreement and from all the firm consumers as per regulations of respective electricity commissions. As a result DVC had huge outstanding dues from the unsecured debtors as compared to the secured ones indicating that debt securing was beneficial for DVC.

(Para 7.1)

CHAPTER I: MINISTRY OF CIVIL AVIATION

Airports Authority of India

1.1 Review of revenue generation and its realisation

Airports Authority of India (AAI) was constituted under an Act of Parliament and came into existence on 1 April 1995 by merging the erstwhile National Airports Authority and the International Airports Authority of India, with the responsibility of creating, upgrading, maintaining and managing civil aviation infrastructure both on the ground and in the air space in the country. AAI operates 137 airports, including international, customs, domestic, civil enclaves at defence airfields and six airports operated through joint ventures¹ formed by AAI with private airport operators.

Audit was carried out to ascertain effectiveness of the approved credit policy/ finance manual, efficiency in revenue handling and timely realisation of dues at the airports operated by AAI.

Revenue of AAI consists of aeronautical revenue and non-aeronautical revenue. Audit reviewed revenue generation and realisation activities (aeronautical and non-aeronautical) of AAI over the period from 2013-14 to 2017-18, at four airports operated by AAI in its Northern Region, viz., Amritsar, Jaipur, Lucknow and Varanasi. Relevant activities at three Directorates of Corporate Headquarters of AAI viz. Revenue, Commercial and Operations and also at Northern Regional Headquarters, were also reviewed.

Audit findings are given in the succeeding paragraphs.

1.1.1 Deficiencies in internal control mechanism in revenue management

Aeronautical revenue is the major source of revenue for AAI and comprises revenue from Route Navigation Facilities Charges (RNFC²), Terminal Navigation Landing Charges (TNLC³), Landing, Parking & Housing charges, Passenger Service Fee (PSF⁴), and User Development Fee (UDF⁵). Corporate Headquarters of AAI monitors timely realisation of aeronautical revenue which contributed approximately 50 per cent of the total revenue of AAI.

Non-aeronautical activities are the other source of revenue, which mainly comprise ground handling, duty free shops, advertisements, car parking, retail shops etc. In this regard, the following deficiencies were noticed in audit.

¹ (i) DIAL – Delhi International Airport Ltd., (ii) MIAL – Mumbai International Airport Ltd, (iii) BIAL – Bangalore International Airport Ltd., (iv) GHIAL – Hyderabad International Airport Ltd., (v) CIAL – Cochin International Airport Ltd. and (vi) MIL – MIHAN India Pvt. Ltd.

² RNFC – Charges for navigating the aircraft to its destination from the departed airport.

³ TNLC – Charges for guiding the aircraft up to the point of touch down.

⁴ PSF – Charges for facilities provided in the terminal as well as for security arrangements at the airport.

⁵ UDF – Charges to cover any deficit in revenue so as to ensure fair return on investment.

1.1.1.1 Non-availability of optimum security deposits and non-recovery of penal interest

As per AAI's credit policy for aeronautical dues (June 2007), schedule/non-schedule operators, willing to avail the credit facility, are required to furnish a security deposit (SD) in the form of cash or bank guarantee, equal to average billing of two months. Further, as per Chapter V of the finance manual of AAI, in case of an increase in the operations of an airline, the SD is required to be enhanced proportionally.

On the basis of their schedule of operation, credit facility is granted by AAI to regional, national and international airlines (schedule operators). In the case of non-scheduled operators, credit facility is approved, based on their past operations.

Audit reviewed the SD⁶ available with Corporate Headquarters, as on March 2018, alongwith outstanding dues and billing details of 67 airlines/parties (excluding Air India). It was seen that in 11 cases⁷, the available SD was short by ₹122.46 crore and the shortfall ranged between ₹0.25 crore (two *per cent*, Air Arabia) and ₹78.07 crore (Jet Airways, 53 *per cent*) from the required amount of SD.

Similarly, in case of non-aeronautical activities, the finance manual stipulated⁸ that dues should not exceed the SD at any point of time. In addition, concerned directorates were advised to raise claims for interest as per agreement/existing policy in case the dues were not settled in time. Audit reviewed non-traffic dues outstanding as on 31 March 2018 at Amritsar, Jaipur, Lucknow and Varanasi airports and noticed that out of total dues of ₹42.55 crore outstanding from 281 parties, dues of ₹29.91 crore outstanding against 176 parties (excluding Government parties) were higher than the available SD.

Audit further observed that instead of claiming penal interest on delayed payments by raising bills on regular basis, AAI had been recovering interest for delayed payment only when the concerned parties approached AAI to obtain 'No Dues' certificate. Due to non-compliance with the conditions stipulated in the finance manual, not only did AAI not recover penal interest on delayed payments as and when due, it also increased the risk of non-recovery from the parties who had stopped operations at airports.

As a result, due to lack of monitoring and timely review by the Management, SDs available with AAI remained short to the extent of ₹152.37 crore (March 2018).

The Management in its reply on aeronautical dues (July 2017) stated that dues of most of the airlines were within SD. The Management also stated that the position of dues changed every minute and so did the requirement of SD. Further, the position has improved considerably and is still improving. AAI has taken various initiatives for technological upgradation to further improve the efficiency; the result of which will be visible in forthcoming years.

⁶ As per details provided by Finance Department at Corporate Headquarters of AAI

⁷ (i) Aeroflot Russian Airlines, (ii) Air Arabia, (iii) Interglobe Aviation Ltd., (iv) Jet Airways, (v) Jet Lite, (vi) KLM Royal Dutch Airlines, (vii) Oman Air, (viii) PHL, (ix) Qatar Air, (x) TURBO Megha Airways Pvt. Ltd., and (xi) Turkmenistan Airlines.

⁸ Item II (iv) of Chapter V

In respect of non-aeronautical activities, the Management replied that out of total outstanding dues at these airports, major portion pertained to M/s Air India, which is not paying its dues regularly. The Management further stated that SAP software of AAI crashed in the year 2014 affecting the process of raising of financial bills. Due to this reason, license fee was not deposited on time resulting in delay. The Management further assured that these airports would continue to take necessary action in this matter. Since Corporate Headquarters was continuously monitoring and reviewing the matter, it had been reiterated to Airport Directors to follow provisions of finance manual with regard to collection of optimal SDs and suspend temporarily the licenses of defaulting parties whose outstanding dues were more than three months' license fees.

In our view, the Management reply is general in nature, the fact remains that the Management failed to assess and obtain the adequate amount of SD in a timely manner and could not comply with its own credit policy and provisions of Finance manual. Instances have been given in subsequent para no. 1.1.1.2, where parties closed operations without settling dues and the dues remained unrealised even after adjusting the available SDs.

1.1.1.2 Delay in settlement of aeronautical dues from private airlines

As per AAI credit policy for aeronautical revenues, bills were to be raised on a fortnightly basis and payment was to be received within 15 days. In case of airlines not availing the credit facility, payment for aeronautical services was to be done immediately before take-off, failing which the aircraft might not be allowed to take off. Aeronautical dues also arose in the case of foreign airlines flying over Indian airspace, where route navigation was provided and overflying charges were levied based on weight of the aircraft and distance flown. The data for raising Route Navigation Facilities Charges (RNFC) and overflying charges in such cases was to be provided by each regional office of AAI to IATA⁹. The credit policy for aeronautical revenues was also applicable for such bills raised on foreign airlines.

Review of outstanding aeronautical dues for the period 2015-16 to 2017-18 revealed that significant amounts were outstanding beyond the allowed credit period of 15 days as detailed below:

Table 1.1: Statement showing details of outstanding aeronautical dues

(₹ in crore)			
Year	Total aeronautical dues ¹⁰	Total aeronautical dues beyond 15 days	Interest on dues outstanding beyond 15 days
2015-16	407.80	232.33	69.41
2016-17	455.77	240.90	75.06
2017-18	513.09	288.74	78.24

Detailed scrutiny of above dues revealed the following deficiencies:

- (i) AAI failed to realise more than half of the dues within the allowed credit period of 15 days.

⁹ *International Air Transport Association*

¹⁰ *Schedule Domestic Airlines, Foreign Airlines and Foreign Airlines-Overflying Charges*

- (ii) With reference to an amount of ₹213.04 crore outstanding against 61 parties as on 31 March 2018, in 54 per cent¹¹ of the cases, dues of ₹60.60 crore were unsecured.
- (iii) Though credit policy of AAI stipulated that delay in payment would attract penal interest at the rate of 12 per cent, AAI did not raise bills for interest on delayed payments by the airlines and lost the opportunity of earning interest amounting to ₹78.24 crore as on 31 March 2018. Further, despite implementation (June 2012) of SAP-ERP, there was no system available for calculating the penal interest on dues outstanding beyond credit period.
- (iv) AAI allowed (October 2005) credit facility to M/s Paramount Airways (the party). Operations of the party were suspended by DGCA on 3 August 2010 and despite lapse of considerable time, traffic dues to the extent of ₹1.59 crore remained unpaid (March 2018). Further, despite being aware that the operations of the airlines were suspended in August 2010, party was allowed to occupy space at various airports¹² even after suspension of its operations, and dues to the tune of ₹0.77 crore (March 2018) remained unpaid for commercial space. Reasons for non-eviction of airline from commercial space even after suspension of operations were not available on record.
- (v) Review of outstanding dues of foreign airlines as on 31 March 2018 towards traffic and overflying charges revealed that eight parties¹³ had ceased/suspended their operations between the period March 2007 and March 2016. Against total dues of ₹10.42 crore outstanding against these parties, SD of ₹0.83 crore only was available with AAI. Thus, although the parties were in default, AAI could not adjust the available SD (March 2018). This resulted in blockade of funds of AAI to the extent of ₹9.59 crore (after adjusting available SD), chances of realisation of which were remote.
- (vi) Similar instances of default in payment of dues amounting to ₹172.69 crore by M/s Kingfisher Airlines were commented on by Audit in Para 2.3 of C&AG's Report No 21 of 2015, where also AAI had failed to obtain adequate SD as mandated by its credit policy.

The Management stated (July 2017) that during the credit period sometimes operations of the airlines increase and SD falls short. However, SD was reviewed from time to time and wherever there was shortfall, airlines were asked to enhance SD accordingly. Further, most of the foreign airlines were paying through IATA and were regular in making payment. Some airlines were operating since the period when credit policy was not in vogue. Those airlines have been approached to provide sufficient SD. In case of overflying charges, in some remote cases, where address of the airline was not available, AAI approached through their embassies and trade consulates for obtaining their addresses to pursue recovery. However, defaulting operators were charged interest on delayed payment as per the credit policy.

¹¹ 33 cases

¹² Madurai– November 2012, Kolkata–May 2013 and Coimbatore & Chennai – November 2013 - on the basis of non-traffic bill details available in AIMS/SAP for relevant profit centre code

¹³ Alitalia Airlines, North West Airlines, Kyrgyzstan Airlines, Krasnoyarsk Airlines DBA K, RAK Airways, Aerosvit Airlines, United Airways Bangladesh and Business Air Thailand

The Management reply is silent on the reasons as to why it was unable to recover majority of its dues within the credit period. Further, SD obtained is for two months billing, i.e., billing equivalent to four fortnightly cycle while dues are to be settled within one fortnightly period. Therefore, there was adequate scope for timely review of SD amount and AAI should have taken adequate steps to ensure that dues did not accumulate beyond available SD. Further, while comparing the operational efficiency of Delhi Airport International Limited and AAI as on 31 March 2018, it was noticed that DIAL was being managed well in regard to realisation of its dues as it had only 14.78 per cent of trade receivables to total operational income in comparison to 46.27 per cent in case of AAI. Also, due to non-compliance with the credit policy and Manual provisions, in the last five years, and in the cases pointed out by Audit, there were instances of default in payment of dues by airlines amounting to almost ₹185 crores¹⁴ on account of the fact that dues accumulated beyond the available SDs. Finally, though the Management did not furnish the details of interest charged and recovered from defaulting airlines, Audit worked out an amount of ₹69.41 crore, ₹75.06 crore and ₹78.24 crore for the years ended on 31 March 2016, 31 March 2017 and 31 March 2018, respectively, which was recoverable from the defaulting airlines. Audit further observed from the SAP data of AAI, that against the amount worked out by Audit, AAI had charged an amount of ₹0.19 crore, ₹1.06 crore and ₹0.75 crore only towards penal interest during the same period, respectively. A system for auto calculation of penal interest, for dues outstanding beyond credit period, needs to be developed at the earliest, so that the claim for penal interest can be raised and recovered from the parties making default.

1.1.1.3 Delay in recovery of Passenger Service Fee (Security Component) and User Development Fee (UDF)

In terms of Rule 88 of the Aircraft Rules, 1937, the licensee of an airport is entitled to collect Passenger Service Fees (PSF), Security Component (SC) from embarking passengers at the rate specified¹⁵. As per the Standard Operating Procedure for PSF, AAI was to be considered as a single licensee in respect of all its airports for this purpose with the liberty to pool the PSF (SC) collections from such airports and use the same for meeting the security related expenses. It was noticed that the rate of PSF (SC) of ₹130 per passenger had remained unchanged since its last revision in April 2001. The year wise details of PSF (SC) collection *vis-a-vis* expenditure are given in the table below:

Table 1.2: Statement showing total PSF (SC) revenue and expenditure there-against

Particular	(₹ in crore)				
	2013-14	2014-15	2015-16	2016-17	2017-18
PSF (SC) recovery	480.69	520.54	610.10	736.54	866.89
PSF (SC) Expenditure	592.72	665.41	766.22	882.28	1011.01
Shortfall (-)/Excess	-112.03	-144.87	-156.12	-145.74	-144.12
Shortfall %	23	28	26	-20	-17

Source: Annual Report of AAI

¹⁴ ₹184.64 crore = ₹172.69 crore + ₹9.59 crore + ₹0.77 crore + ₹1.59 crore

¹⁵ Initially the amount of PSF was to be decided by Ministry of Civil Aviation (MoCA) in terms of order dated 20 June 2007. After Airports Economic Regulatory Authority (AERA) became functional in January 2009, PSF was to be fixed by AERA.

Since PSF (SC) recovery had not kept pace with the mounting expenditure to be met out of the same, deficit to the tune of ₹702.88 crore had accumulated during the period 2013-14 to 2017-18. Deficit in collection of PSF (SC) was being met by AAI from its own sources of revenue, thereby placing huge burden on financial resources of AAI.

Similarly, User Development Fee (UDF) is levied under Rule 89 of the Aircraft Rules 1937. Airports Economic Regulatory Authority (AERA) determines the amount of UDF in respect of major airports¹⁶. In respect of non-major airports, UDF is determined by the Ministry of Civil Aviation (MoCA). As on 31 March 2017, AAI was collecting UDF at 13 airports, which increased to 17 airports¹⁷ as on March 2018.

Status of recovery of PSF (SC) and UDF during the period 2013-14 to 2016-17 was as under:

Table 1.3: Statement showing total PSF (SC)/UDF billed and recovered within the credit period

(₹ in crore)

	2013-14		2014-15		2015-16		2016-17	
	Total amount billed/ booked	Collected within credit period (% of recovery)	Total amount billed/ booked	Collected within credit period (% of recovery)	Total amount billed/ booked	Collected within credit period (% of recovery)	Total amount billed/ booked	Collected within credit period (% of recovery)
PS (SC)	480.69	118.80 (25%)	520.54	200.80 (39%)	610.10	264.00 (43%)	736.54	412.40 (56%)
UDF	525.43	156.46 (30%)	766.57	375.47 (49%)	943.15	564.04 (60%)	1134.73	761.22 (67%)

Source: Data of amount billed extracted from SAP and timely collection calculated based on collection charges data

On review of the recovery mechanism of PSF (SC) and UDF, the following deficiencies were noticed:

- (i) AAI was to collect PSF (SC) in a fiduciary capacity on behalf of Government of India. MoCA issued instructions (October 2009) on 'Administration of PSF' stating that the airport operators were bound to maintain separate accounts in respect of PSF charges collected and expenditure therefrom. Ministry's instructions also stated that the PSF collection cannot be equated with 'Other revenues' of the operators as it was the property of the Central Government. Despite instructions to maintain separate account for PSF (SC), AAI did not maintain any separate account for PSF (SC). As a result, audit could not assess the effectiveness of timely recovery of dues.

¹⁶ Major airports mean any airport which has, or is designated to have, annual passenger traffic in excess of 1.5 million or any other airport as the Central Government may by notification specify for this purpose.

¹⁷ (i) Chennai (ii) Kolkata (iii) Trivandrum (iv) Ahmadabad (v) Jaipur (vi) Lucknow (vii) Guwahati (viii) Amrītsar (ix) Udaipur (x) Trichy (xi) Vishakhapatnam (xii) Mangalore, (xiii) Varanasi, (xiv) Calicut, (xv) Goa Civil Enclave, (xvi) Srinagar Civil Enclave, and (xvii)Pune Civil Enclave.

- (ii) Passenger Service Fees and User Development Fee are collected by airlines from passengers and on receipt of bills from AAI, airlines were to remit the same within credit period of 15 days. Though there was improvement in timely collection of PSF (SC) and UDF over four years up to 31 March 2017 as shown in the table above, actual collection was not satisfactorily managed, having ranged between 25 per cent (2013-14) and 67 per cent (2016-17) of total dues of PSF (SC) and UDF respectively.
- (iii) It was further observed that the invoice in respect of PSF and UDF are raised based on the passenger details (number) provided by the airlines. However, AAI did not have any IT based mechanism to verify the correctness of the figures provided by the airlines for the number of passengers who finally boarded on the aircraft. Thus, AAI could not ensure the correctness of revenue earned on account of PSF (SC) and UDF.
- (iv) As per the credit policy, receipt of payment beyond credit period of 15 days would attract interest at the rate of 12 per cent from defaulters. Review of records revealed that there was no organised system in place for claiming interest for delay in remittance of PSF (SC) and UDF along with other dues as highlighted in para 1.1.1.2. Audit further noticed that in limited cases, AAI started raising interest bills for delay in receipt of total traffic dues. Test check of bills pertaining to interest charged from Go Air, as on 31 March 2016, revealed that there was delay of 16 to 1,271 days in remittance of PSF amounting to ₹63.14 crore and 16 to 951 days in remittance of UDF amounting to ₹21.63 crore during the period 2013-14 to 2015-16, which resulted in loss of interest of ₹5.44 crore¹⁸ to AAI. However, the recovery of the same is yet to be made.
- (v) Audit sought (November 2017 and October 2018) details regarding actual delay in realisation of PSF (SC) and UDF dues and interest levied on airlines for delayed remittances. However, AAI did not provide the details. In absence of details, Audit was unable to work out the amount of interest recoverable from airlines on delayed payments of PSF (SC) and UDF for the year 2017-18.

Thus, non-existence of an effective control mechanism for timely realisation of dues along with failure of AAI in penalising the delay by airlines, resulted in financial burden and loss of revenue by not claiming interest from defaulting airlines. The objective of these levies was to meet legitimate security expenditure (PSF) and to ensure fair rate of return on investment made in creation of infrastructure at the airports (UDF) which was also not being fully achieved.

The Management stated (July 2017) that bills for PSF/UDF were raised on airlines along with the other airport charges. Payment by the airlines was also made with other bills. Presently, some incentive has been offered as collection charges to the airlines to encourage them to make payment of PSF/UDF on priority. The Management also stated that the main defaulters were Air India Group (National Carrier).

¹⁸ PSF - ₹4.50 crore and UDF - ₹0.94 crore

The Management reply was, however, silent on the issue of gaps in AAI's processes, as a result of which it failed in timely recovery of PSF/UDF and raising of bills for interest from defaulting airlines. The Management needs to develop a system-based generation of penal interest, for dues relating to PSF and UDF outstanding beyond credit period, at the earliest, so that the claim for penal interest can be raised and recovered from the parties making default.

1.1.1.4 Non-recovery of dues from M/s Air India Group

AAI provides aeronautical and non-aeronautical services to companies under the Air India Group¹⁹ (National Carriers) but due to significant outstanding dues from the National Carriers, a Memorandum of Understanding (MoU) was signed (August 2013) between Air India Limited (AIL) and AAI, on the advice of MoCA, to reconcile the dues payable upto 31 March 2012.

Review of outstanding dues of M/s AIL as on 31 March 2018 revealed the following:

- (i) As per the credit policy, National Carriers were required to deposit two months billing as SD but contrary to this, against the requisite SD of ₹182.76 crore, AIL had deposited SD of only ₹1.95 crore with AAI (March 2018).
- (ii) Review of total dues recoverable (traffic and non-traffic) from AIL for the period 2013-14 to 2017-18 revealed that recovery of dues was very slow even after settlement had been done for the period upto March 2012 (as per MoU). Total dues of AIL which were ₹1,460.15 crore in March 2013 had increased to ₹2,678.57 crore as on March 2017. The position improved in 2017-18 and dues reduced to ₹2,411.13 crore but fact remains that AAI did not recover dues from AIL, on annual basis, due to which outstanding dues continuously increased from ₹1,460.15 crore in March 2013 to ₹2,411.13 crore in 2017-18.
- (iii) As per the MoU, interest at the rate of nine *per cent* was to be charged on delayed payments by AAI from AIL. The amount of interest on the outstanding bills as on March 2018 worked out to ₹624.87 crore²⁰, however, AAI did not raise any claim for realisation of the amount from AIL.
- (iv) MoU signed between AAI and AIL in August 2013 was valid for a period of two years, i.e. upto August 2015. AAI, however, did not insist for renewal of the MoU beyond August 2015.

As a result of the above, a significant amount remained unrecovered from the National Carriers and AAI continued to suffer revenue loss of interest due to delay in recovery.

¹⁹ Air India, erstwhile Indian Airlines, Alliance Air and Air India Express

²⁰ Division of outstanding dues and interest as on 31 March 2018

	Period upto August 2015	From September 2015 to March 2018	Total (₹in crore)
Principal	1229.52	1181.61	2411.13
Interest	511.24	113.63	624.87

Note- As per approved credit policy, rate of interest is 12 per cent but in case of Air India Group rate of interest is considered @ 9 per cent as agreed in the MoU signed in August 2013

The Management replied (July 2017) that AAI was consistently following up with Air India Group for recovery of dues. The Ministry of Civil Aviation had also been requested to intervene and the matter was under active consideration.

The fact remained that dues were lying unrecovered from Air India Group and no claims for interests were raised by AAI on AIL, though an agreement was reached in this regard in the MoU (August 2013). Further, MoU signed with AIL in August 2013 was valid till August 2015, however, efforts made by AAI, if any, for extending validity of the MoU beyond August 2015, were not found on record. Thus, AAI was not in a position to pursue realisation of their dues from AIL on the basis of the MoU after its expiry.

1.1.2 Ground Handling Services

Ground Handling activities mainly comprise aircraft handling, cleaning and servicing, loading and unloading, security handling, surface transport, terminal and flight operations, etc. AAI notified its Ground Handling Regulation 2007 (GHR) in October 2007, which was recently revised as Ministry of Civil Aviation (Ground Handling Services) Regulation, 2017. As per GHR only three agencies, viz., (1) Airport Operator or its Joint Venture (JV) Companies, (2) subsidiary/JVs of AIL or (3) an agency selected through tender, were entitled to carry out ground handling activities at metropolitan²¹ airports and all other airports.

1.1.2.1 Failure to raise claims for royalty on ground handling revenue of AIATSL for third party handling

As per the GHR, subsidiary companies of AIL or its joint ventures specialised in ground handling, were entitled to carry out ground handling activities. Third party handling was permitted to these subsidiaries or their joint ventures on the basis of revenue sharing with AAI.

Air India Air Transport Services Limited (AIATSL), a subsidiary of AIL, is an independent entity for ground handling services. AIATSL signed a Memorandum of Understanding (MoU) with AIL on 19 April 2013 and the latter agreed to transfer its ground handling business at various locations across India. Further, AAI decided (15 April 2014) that AIATSL would be required to pay royalty at the rate of 13 *per cent* of gross turnover (GTO) for third party ground handling services with effect from 1 April 2014.

Audit observed that:

- (i) Though AIL or its subsidiary/JV may be permitted to provide third party handling, subject to revenue sharing with AAI, but the latter did not enter into any formal agreement with either AIL or its subsidiary, i.e., AIATSL even after a lapse of more than three years.
- (ii) As per the financial statements of AIATSL, AIATSL earned revenue by providing ground handling services to Group Companies as well as third parties. However, review of ground handling revenue of AAI revealed that despite decision taken in

²¹ *Metropolitan airports: Delhi, Mumbai, Bengaluru, Hyderabad, Chennai and Kolkata airports*

April 2014 to levy a royalty at the rate of 13 *per cent* in respect of third party ground handling, corresponding bills were not raised at all airports²² by AAI. Failure of AAI to ensure compliance with its own GHR and non-raising of royalty bills resulted in loss of revenue of ₹184.54 crore (March 2018) as detailed below:

Table1.4: Statement showing shortfall in revenue from AIATSL

(₹ in crore)				
Year	Revenue from 3 rd party ground handling of AIATSL	Royalty accrued at the rate of 13% as per AAI's GHR	Actual ground handling revenue collected from AIATSL ²³	Shortfall in revenue
[1]	[2]	[3=2 x 13%]	[4]	[5=3-4]
2014-15	455.56	59.22	2.59	56.63
2015-16	365.57	47.52	0.98	46.54
2016-17	406.51	52.85	8.15	44.70
2017-18	345.38	44.90	8.23	36.67
TOTAL	1573.02	204.49	19.95	184.54

The Management agreed (July 2017) that no agreement was signed between AAI and AIATSL and stated that efforts were now being made to enter into an agreement with AIATSL. Further, as AIATSL was not providing GTO details, AAI was unable to raise the bills. The Management added that AIATSL had approached MoCA and accordingly MoCA issued directions (26 July 2013) to AAI not to put pressure for paying royalty by non-issuing entry passes to AIATSL. Reply further stated that based on the audit observation, AAI was in the process of raising the bills on AIATSL.

Reply was not acceptable as the Management did not ensure compliance with its own Regulations and with the decision for charging royalty at the rate of 13 *per cent* from AIATSL. Further, MoCA had only directed not to implement the rates which AAI had received through tender process and did not prohibit AAI from charging royalty from AIATSL. Fact also remained that the Management did not devise any mechanism to ensure timely raising of bills for royalty from AIATSL.

1.1.2.2 Failure to finalise ground handling tariff of licensee and non-existence of mechanism to verify correctness of gross turnover reported by the licensee

M/s Indo Thai Airport Management Service Pvt. Ltd. (M/s Indo Thai, the licensee) was awarded (December 2010) ground handling contract at Amritsar, Varanasi, Lucknow, Jaipur, Udaipur and Dehradun²⁴ airports w.e.f. 01 January 2011 for a period of 10 years at a royalty share of 21 *per cent* of GTO subject to the minimum GTO of ₹40 crore per annum. However, non-entitled²⁵ entities continued to provide ground handling services at

²² Patna, Madurai, Jodhpur, Coimbatore, Chennai, Goa, Gaya, Shillong, Kullu, Varanasi, Kolkata, Agra, Tirupati, Bhuj, Bhubaneswar, Bhavnagar, Jamnagar, Port Blair, Amritsar, Calicut, Vishakhapatnam and Tezpur.

²³ AIL or its subsidiary, i.e., AIATSL

²⁴ In place of Srinagar airport, Udaipur and Dehradun airports were given to M/s Indo Thai

²⁵ As per the Ground Handling Regulation 2007, all entities apart from (i) AAI and its Joint Venture, (ii) Subsidiary Company of National Carrier i.e. Air India, (iii) any other agency appointed through bidding process by AAI and (iv) Self Handling by airlines excluding foreign airlines are treated as non-entitled entities.

all six airports, thereby intruding upon the business of M/s Indo Thai. Due to this, AAI decided (February 2011) not to charge the minimum guaranteed GTO to M/s Indo Thai and levy only a royalty share percentage on actual turnover till abolition of such non-entitled agencies. In January 2013, AAI decided to assess notional loss in the turnover suffered by M/s Indo Thai and to charge royalty share on actual GTO till non-entitled entities were abolished. Based on the assessment of the notional loss, the above decision was to be revisited by AAI. However, AAI had not made any such assessment.

Audit observed as under:

- (i) There was no uniformity in the royalty sharing arrangement with the non-entitled agencies operating at various airports with some of them paying 21 *per cent* of GTO while others were either paying only 13 *per cent* of GTO or making lump sum payments to AAI (March 2017). The status of rates charged during the year 2017-18 is awaited from the Management.
- (ii) Clause 24 of the agreement with M/s Indo Thai stated that the licensee shall have its tariff approved by AAI before levying the same and the same should be in compliance with rules and regulations imposed by AERA (for AERA airports) and by Government (for Non-AERA airports). Ground handling charges for Jaipur and Lucknow airports (AERA airports) were approved by AERA vide order dated 25 January 2012. In respect of non-AERA airports (*viz.*, Amritsar, Varanasi, Dehradun and Udaipur), M/s Indo Thai submitted (March 2013) provisional ground handling charges to AAI for approval by MoCA, however, the same have not been approved till date (October 2018) and the licensee continued to charge provisional rates. Reasons for delay in tariff finalisation for ground handling services were not available on record. Later, in view of the new ground handling policy, AAI gave a 180 days' notice (12 February 2018) to M/s Indo Thai for termination of existing license/contract, which was further extended to another 180 days, i.e upto 30 June 2019.
- (iii) In a meeting held on 20 March 2013 between AAI and M/s Indo Thai, it was agreed that 85 *per cent* of the rate would be treated as minimum revenue/ GTO for both AERA and non-AERA airports. As per tariff for Lucknow airport the maximum rate of ₹1,12,066 per flight was approved by AERA for scheduled aircraft of type B-737. Accordingly, minimum revenue/GTO per flight of B-737 type of aircraft worked out as ₹95,256. Audit carried out a test check of GTO figures submitted by M/s Indo Thai for the month of March 2018 in respect of Lucknow airport and noticed that against the minimum rate of ₹95,256 per flight of B-737 type of aircraft, M/s Indo Thai had charged an amount ranging between ₹5,800 and ₹63,837 per flight. Thus, AAI was unable to realise the minimum revenue, as per tariff approved by AERA, from M/s Indo Thai. In the absence of complete detail relating to various categories of flight handled by M/s Indo Thai, Audit could not undertake the calculations for arriving at the amount of revenue which AAI needed to realise from M/s Indo Thai.

- (iv) After a review of ground handling services at various AERA and non-AERA airports, a number of deficiencies like non-verification of monthly GTO statements submitted by M/s Indo Thai since July 2013 to March 2016, charging lower than the provisionally approved rates, non-submission of complete details of flights handled, rate actually charged to airlines, etc. were pointed out by AAI to M/s Indo Thai. There was no evidence of remedial action taken, if any, by AAI to address the aforesaid issues.
- (v) Despite directions of Corporate Headquarters of AAI and provisions of GHR, non-entitled agencies were not removed from airports. Further, AAI failed to make an assessment of notional loss of M/s Indo Thai as decided by AAI in January 2013, therefore, the revenue share of royalty at the rate of 21 *per cent* on minimum guaranteed GTO of ₹40 crore, as quoted by M/s Indo Thai in their bid, could not be executed. Had non-entitled agencies been removed as per GHR and minimum GTO criteria implemented, revenue loss to the extent of ₹6.64 crore²⁶ to AAI could have been avoided (March 2018).
- (vi) Though M/s Indo Thai had been operating for more than five years, AAI failed to devise an effective control mechanism to ensure correctness of GTO being submitted by M/s Indo Thai. Thus, as observed by Audit in case of Lucknow airport, accuracy of GTO figures reported by M/s Indo Thai during the period of its operations could not be ensured.

The Management stated (July 2017) that as the matter was pending in Hon'ble Supreme Court of India, non-entitled agencies could not be removed. It was further stated that lump sum payments of royalty charges were not permissible; however, the same would be checked and discontinued. As far as the methodology for correctness of GTO is concerned, the same was being verified by the concerned Directors of Airports and the same would be revisited and modified. The Management further stated that tariff approval in respect of M/s Indo Thai was in process. In respect of Lucknow airport (Major airport), ground handling services rates were being charged as approved by AERA.

The reply was not acceptable as ground handling charges were being collected at Lucknow airport at the rates which were lower than the rates prescribed by AERA. AAI should devise a system to avoid the possibility of manipulation in GTO reported by parties.

1.1.3 Duty Free Shop

Commercial manual of AAI stipulates that Duty-Free Shops (DFS) are to be maintained at international/custom airports run by AAI. The contracts for DFS being operated at 13 airports expired between December 2011 and February 2015. However, the tender process for all these DFS was started only in the month of March 2015 and completed by September 2016; as a result, re-awarding of DFS was delayed by 7 months (Trichy airport) to 50 months (Pune airport).

²⁶ *The amount has been worked out on the basis of difference between royalty to be earned based on minimum GTO of ₹40 crore and royalty amount actually earned by all ground handling agencies during 2013-14 to 2017-18.*

1.1.3.1 Surrender of partial space due to delay in award of Duty-Free Shops

As stipulated in Para 2 of Chapter 5 of commercial manual of AAI, the tender process for an existing facility should be initiated six months prior to the date of termination of the existing contract, so that on expiry of the existing contract, new contract would be in place. However, because of delay in re-award of the tender, M/s Flemingo Duty Free Shops Pvt. Ltd. (M/s Flemingo) surrendered (between 30 April 2015 to 12 June 2015) DFS spaces at departure side, out of the spaces allotted to them at seven airports²⁷, citing non-responsiveness of AAI and lack of clarity on tenure of the contracts. Subsequently, AAI extended (October 2015) all DFS contracts of M/s Flemingo (except departure side area at Calicut and Ahmadabad), upto 31 March 2016 or till award of new contract, whichever was earlier. AAI allowed gestation period of 15 days to M/s Flemingo to reset the shops of already surrendered area and obtain applicable permits. Accordingly, M/s Flemingo took repossession of the space for DFS at seven airports, after a gap of nearly six months. Thus, due to delay in timely decision making by the Management, AAI sustained loss of ₹9.88 crore²⁸ for the period 12 June 2015 to 10 November 2015 (after considering 15 days gestation period).

1.1.3.2 Reduction in MAG without proper assessment

Request for Proposal (RFP) for DFS at Amritsar airport for a period of 10 years at Minimum Annual Guarantee (MAG) of USD 15,67,564 was issued in the month of March 2015. Subsequently, due to various administrative reasons, 16 corrigenda were issued to modify the conditions of the RFP before AAI decided to call off the process of tender (27 and 29 August 2015) at all airports, including Amritsar airport.

Subsequently (September 2015), AAI reduced the amount of MAG in RFP from USD 15,67,564 to USD 10,50,200 citing non-responsiveness to the Notice Inviting Tenders. Finally, the DFS was awarded (19 February 2016) to the highest bidder, viz. M/s Flemingo Duty Free Shop Pvt. Ltd. (a subsidiary company of existing licensee) at an MAG of USD 10,50,200 or 40 *per cent* of GTO, whichever was higher. The new licensee, i.e. Flemingo Duty Free Shop Pvt. Ltd. commenced its operations in July 2016, after obtaining statutory clearances from Reserve Bank of India (RBI), Foreign Investment Promotion Board (FIPB) etc.

In this regard, Audit observed that:

- The existing MAG for DFS was USD 13,16,508.82 with annual escalation at the rate of 10 *per cent*. AAI approved extension of the contract for six months from 10 June 2014, which was further extended from time to time till June 2016, at the existing MAG. Thus, the party continued its operations during the extended contract period of 24 months, till June 2016, at MAG of USD 13,16,508.82.
- In the meantime, due to inordinate delay in award of DFS at Amritsar, the existing licensee M/s Flemingo DFS Pvt. Ltd. offered (June 2015) to continue at the

²⁷ Ahmedabad, Amritsar, Calicut, Goa, Jaipur, Lucknow and Trivandrum airports. Stipulated date of completion of existing contract at these airports was between January 2012 and February 2015.

²⁸ AAI had computed estimate loss of ₹7.18 crore upto 30 September 2015 based on which the Competent Authority decided (October 2015) to extend the contracts of M/s Flemingo. Audit has worked out the amount of ₹9.88 crore based on the amount computed by AAI.

tendered MAG of USD 15,67,564 subject to firm extension by two years. This indicated that existing higher MAG was profitable.

- Hence, decision of AAI for reduction in the amount of MAG by 33 *per cent*²⁹ cannot be considered as prudent in view of para 3 of Chapter 4 of the commercial manual of AAI which clearly stipulated that in case of non-participation after re-tender, MAG should be reduced upto a maximum of 30 *per cent* only.

Thus, due to inordinate delay in decision making and frequent modification in RFP and reduction in MAG to USD 10,50,200 without seeking recommendation from the respective airports and ignoring the fact that the existing licensee was operating at a much higher MAG, AAI suffered loss of revenue of USD 5,17,364 per annum. Review of revenue earned during 2016-17 and 2017-18 revealed that AAI has suffered a loss of ₹2.77 crore (USD 4,26,822)³⁰ during 2016-17 (w.e.f. 4 June 2016) and ₹3.29 crore (USD 5,06,013) during 2017-18 due to reduced amount of MAG.

The Management stated (July 2017) that though M/s Flemingo offered to continue DFS at Amritsar airport with tendered MAG, but it did not participate in the regular tender, which led to non-responsiveness of the regular tender. Hence, as per para 3 of Chapter 4 of commercial manual of AAI, retendering was initiated with downward revision in MAG by 30 *per cent* with the approval of competent authority.

The contention of the Management that MAG at Amritsar airport was reduced due to non-response to the tender, could not be substantiated in Audit as the Management did not furnish documentary evidence in support of their reply. Moreover, the existing licensee M/s Flemingo DFS Pvt. Ltd. continued its operations at higher MAG, which indicated that reducing the MAG from USD 15,67,564 to USD 10,50,200 was not justified. Hence, AAI should devise a mechanism for timely award of existing tenders with comprehensive inputs from airports.

1.1.4 Loss of revenue due to grant of rebate beyond agreed period and non-recovery of dues

M/s Meena Advertisers (M/s Meena) was awarded advertisement rights at Jaipur airport for a period of five years (with effect from 4 June 2007 to 3 June 2012) at a license fee of ₹0.23 crore per month with 10 *per cent* annual escalation. After commissioning of new terminal building in April 2009, the total traffic at Jaipur airport got split between two terminals. M/s Meena requested for sites at both terminals. However, AAI asked them to shift to the new terminal and sites at the new terminal were handed over in a phased manner. Aggrieved by this, M/s Meena sought relief of 40 *per cent* rebate on the annual license fee. As AAI did not agree for the rebate claimed, the party invoked the arbitration clause of the contract. The award pronounced (17 November 2011) by the arbitrator considered for a discount of 28 *per cent* in license fee. Aggrieved by the award, the party filed its objection under section 34 of the Arbitration and Conciliation Act, 1996 in the District Court, Jaipur. Both the parties mutually agreed for an out of court settlement (28 May 2012) according to which a rebate of 34 *per cent* was allowed to M/s Meena

²⁹ *USD 15,67,564 per annum minus USD 10,50,200 per annum = USD 5,17,364 per annum (i.e. 33 per cent reduction)*

³⁰ *1 USD= INR 64.79 as on March 2017 and INR 65.07 as on March 2018*

which was effective from 1 July 2009 till 3 December 2012 (as six months extension in the existing contract expiring on 3 June 2012 was also allowed to the party) and M/s Meena was required to withdraw court case filed before the District Court, Jaipur.

In this regard, Audit observed that:

- (i) AAI continued allowing rebate to M/s Meena beyond the last date of extended contractual period, i.e. 3 December 2012. Thus, AAI sustained an avoidable loss of ₹2.38 crore³¹ (December 2012 to August 2016) due to granting rebate beyond the agreed period to M/s Meena.
- (ii) As per out of court settlement (May 2012), M/s Meena agreed to pay to AAI the amount of ₹0.88 crore outstanding (May 2012), towards license fee and also to withdraw the case filed in District Court, Jaipur within 30 days of the settlement. However, the court case was settled only on 17 December 2014, i.e., after a period of 30 months. Further, AAI also failed to recover its dues from M/s Meena. The total amount recoverable from M/s Meena as on 31 March 2018 was ₹3.32 crore, against which full provisions exists in the accounts of AAI (March 2018). The matter of recovery from M/s Meena is pending with Hon'ble Supreme Court of India (31 January 2019).

The Management stated (July 2017) that the rebate was granted after verification of audited accounts of M/s Meena to establish its claim of losses. Further, the contract was temporarily extended from time to time due to non-response to the tenders. Non-invitation of tenders on expiry of contract in 2012 was attributed to frequent changes in the policy of the GoI towards management of airports (including Jaipur airport) through PPP mode in 2013, having a direct bearing on policy/ periodicity of commercial contracts for Advertisement Rights etc. Finally, the tender was invited during April 2016 with 'Novation³² clause' with MMG of ₹30.90 lakh.

The reply is not acceptable since the process for inviting tenders was delayed despite the fact that the party did not comply with the conditions of out of court settlement. Justification given by the Management that the delay in inviting tenders was due to frequent change in the Government policy was also not acceptable, as AAI should have completed the tender process before expiry of the existing contract on 3 December 2012. Further, the tender process could have been started just after receipt of instructions of the Government in October 2013 for adopting PPP mode for development of Jaipur airport, by inserting 'Novation clause', as AAI did later while inviting e-tenders for vehicle parking at International Airport Jaipur in November 2014.

1.1.5 Lack of control mechanism over the reporting of GTO figures

AAI follows two different revenue models for its commercial facilities, i.e., fixed amount of license fee or percentage of revenue (GTO) sharing and MAG amount, whichever is higher. AAI awarded a number of commercial facilities like ground handling, Common

³¹ *On the basis of rates agreed in the contract (₹0.38 crore to ₹0.50 crore) and rates awarded to new party (₹0.33 crore), whichever is lower and applicable escalation*

³² *Novation: The substitution of a new contract for an old one. The new agreement extinguishes the rights and obligations that were in effect under the old agreement.*

Use Terminal Equipment (CUTE), Scratch and Win facilities, DFS, Baggage Wrapping etc. on percentage sharing of GTO basis.

Audit reviewed contracts awarded by AAI on percentage sharing of GTO basis and noticed that AAI had no mechanism in place to ensure correctness of GTO reported by the concessionaires as highlighted regarding ground handling agency in para no. 1.1.2.2, so that AAI could recover from the concessionaires its correct due share in the GTO as per revenue share agreed with the concessionaire and possible loss of revenue due to misstatement of GTO by the concessionaires could be avoided.

A few of the cases noticed in Audit, relating to misstatement of GTO are given below:

- (i) The license for in-flight sales was granted to M/s AVA Merchandising Private Ltd. (AVA) on experimental basis for six months, w.e.f. 01 August 2007 at 13 airports on payment of two *per cent* of GTO or MAG of ₹0.03 crore per month, whichever was higher. This was subsequently extended from time to time on the same terms and conditions at 28 airports including Jaipur, Amritsar, Lucknow and Varanasi covered in Audit. Revenue sharing percentage was enhanced subsequently (December 2008) to 13 *per cent* without corresponding increase in the MAG. MAG was revised to ₹3,30,000 while granting extension to the contract for a period of three years w.e.f. 1 April 2010. Audit noticed that average turnover of the party was ₹1.50 crore (August 2007 to May 2008) when GTO share rate was two *per cent*. However, when the rate of GTO share was increased to 13 *per cent* turnover was reduced to ₹0.23 crore (December 2008). This indicated possible misreporting of GTO figures by M/s AVA. Thus, while the MAG remained stagnant, the turnover figures reported by the concessionaire kept changing based on revision of revenue share rate. This issue was also examined by the Vigilance Department of AAI during inspection of turnover at four airports³³ in January 2014 and February 2014. The Vigilance Department observed that against the GTO reported by the party, the actual GTO was higher by ₹0.16 crore at Chennai, ₹0.03 crore at Ahmedabad, ₹97000 at Jaipur and ₹13000 at Srinagar.

Thus, the Management failed to take cognizance of a sudden reduction in the GTO reported by M/s AVA after increase in revenue sharing percentage.

Though the royalty sharing model was prevalent since August 2007 and also cases of under reporting were noticed in vigilance inspection, the AAI, even after lapse of more than eight years, did not devise any mechanism to verify the turnover reported by the licensee.

The Management stated (July 2017) that GTO mechanism on revenue share was delayed due to legacy issues arising out of policy decision taken by the government in 2013 regarding operation and management of major airports through PPP model and necessary Request for Proposals (RFPs) to the effect was also floated. Thereafter, various meetings at the level of Government/ Planning Commission had taken place.

The Management reply is not acceptable as it is non-specific and silent on the audit observation. An effective control mechanism to avoid any possibility of manipulation in GTO amount reported by licenses/parties may be devised by AAI at the earliest.

³³ Ahmedabad, Jaipur, Chennai & Srinagar

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

1.2 Review of security at airports operated by Airports Authority of India

1.2.1 Introduction

AAI was constituted by an Act of Parliament and came into existence on 1 April 1995 by merging the erstwhile National Airports Authority and International Airports Authority of India. The merger brought into existence a single organisation entrusted with the responsibility of creating, upgrading, maintaining and managing civil aviation infrastructure, both on the ground and air space in the country. All the airports of AAI are categorised into five regions namely Northern, Western, Southern, Eastern and North-Eastern Region. AAI manages 137 airports across India, of which 97 airports were operational as of March 2018.

1.2.2 Role of Agencies involved in Security Operations at airports

1.2.2.1 Bureau of Civil Aviation Security

Bureau of Civil Aviation Security (BCAS) is recognised as an independent department under the Ministry of Civil Aviation (MoCA) and is responsible for laying down standards and measures in respect of security of civil flights at international and domestic airports in India. The main functions of BCAS are to lay down Aviation Security Standards in accordance with Annex 17 to Chicago Convention of International Civil Aviation Organisation (ICAO), monitor the implementation of security rules and regulations and carry out survey of security needs and also to ensure that the persons implementing security controls are appropriately trained and possess all competencies required to perform their duties.

1.2.2.2 Airports Authority of India– Airport Operator

AAI, being an airport operator, is required to provide and maintain necessary security infrastructure as per the specifications and directions of BCAS. It fulfils its responsibilities through the following:

Table 1.4: Responsibilities of the unit/ office

S. N.	Name of unit / office	Responsibility
1.	Directorate of Airports Security, established at Corporate Headquarters	<ul style="list-style-type: none"> ▪ Ensuring the installation and effective functioning of requisite equipment; ▪ Proper coordination for policy matters related to airport security; ▪ Monitor implementation of BCAS security guidelines; and ▪ Induction and other related issues with regard to Central Industrial Security Force (CISF)
2.	Directorate of Airport System	<ul style="list-style-type: none"> ▪ Planning, procurement, installation and maintenance of various security and surveillance equipment/technology
3.	Chief Security Officer	<ul style="list-style-type: none"> ▪ Assist Airport Director for all security needs at airport level; ▪ Coordinate with the security agency maintaining the security operations to ensure smooth security operations at airport level

1.2.2.3 Security Agency (CISF/ State Police)

The Central Industrial Security Force (CISF) or State police are responsible for security operations at airports. AAI deployed CISF at 53 airports whereas in case of 44 airports, State Police were deployed for security of the airports (March 2018).

Chief Airport Security Officer (CASO) from the Security Agency heads security at airport level and is mainly responsible for operations of security apparatus provided by AAI for safeguarding passengers, crew, ground personnel, aircraft, aerodrome; enforcement of access control measures in the restricted area of the aerodrome; security of perimeter area; screening of passengers; surveillance within and around aerodrome; liaison with local police and intelligence agencies and enforcement of overall security measures at airports.

1.2.3 Audit Objectives and Scope

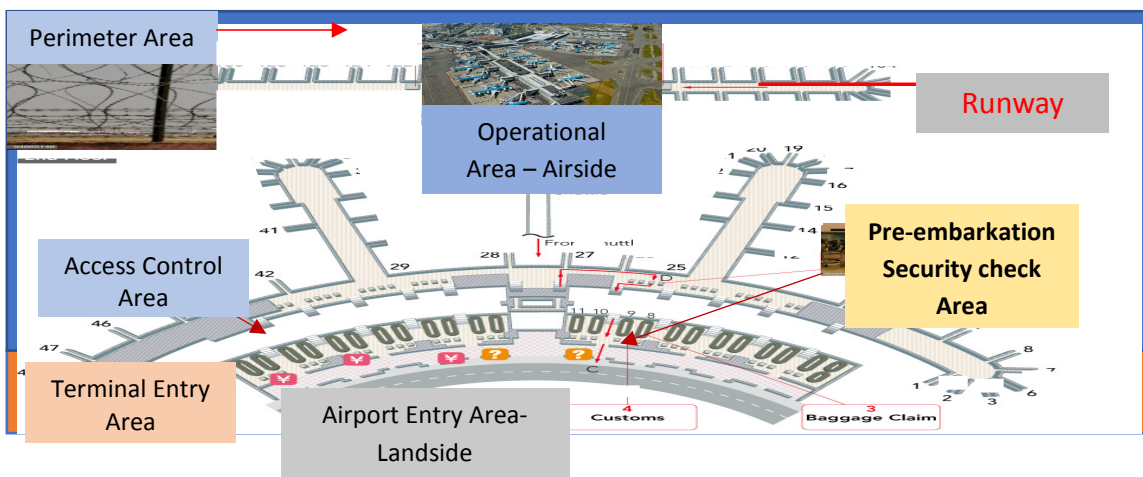
The objective of the audit was to assess adequate provision/availability of mandatory/recommended security equipment/infrastructure/technology, performance of the existing monitoring mechanism and availability of adequate and trained security personnel to ensure effective security at the airport.

Audit covered Directorate of Airports Security and Airport System at Corporate Headquarters of AAI and five airports³⁴, namely Airport-1, Airport-2, Airport-3, Airport-4 and Airport-5³⁵, for the period from 2013-14 to 2017-18.

1.2.4 Audit Findings

Airport security refers to the resources (manpower and equipment), techniques and methods used for protecting the passengers, staff, aircraft, and other airport assets/property from accidental/malicious harm, terrorist, crime, and other threats. The area of an airport can be divided into two major parts, i.e. airside and landside. Airside is the movement area of an aircraft on the airport surface whereas landside covers areas where passengers arrive/depart the airport terminal building and move through terminal building to board the airplane. Audit reviewed the security activities at different areas/stages to check compliance with the guidelines/directions given by BCAS for effective security at airports and the audit findings have accordingly been clubbed as per the stage of security check and sector of the airport.

Chart 1.1: Map of airport showing airside and landside area



³⁴ Two hyper-sensitive airports (Airport-1 and Airport-2), two sensitive airports (Airport-3 and Airport-4) and one non-operational airport (Airport-5)

³⁵ Airport-5 is a non-operational airport and only non-schedule flights, i.e. chartered flights, helicopter services are being operated

As per BCAS instructions of 2006, each airport operator is required to prepare, maintain and implement a written airport security programme (ASP) which contains details of security measures, equipment to be installed, responsibilities of different stakeholders, etc. The ASP is a commitment on the part of the airport operator and is approved by the BCAS. All security procedures at the concerned airport are followed in accordance with the approved ASP.

Non-compliance of provisions of approved ASP for relevant airport is discussed in para No.1.2.4.1(ii) and para 1.2.4.2(i).

1.2.4.1 Airside area of an airport

The entire airport area is enclosed, and the perimeter forms the outer-most border. Typically, a combination of barriers (fencing, etc) and surveillance (electronic equipment like surveillance cameras or patrolling through human resources) protect the perimeter area and guard the airside of the airport. This airside area mainly consists of runways, taxiways, ramps, etc. and perimeter security plays a vital role in deterring inadvertent or premeditated access of an unauthorised person in a non-public area of the airport.

As mandated by the BCAS, security at airside of any airport consists of provision of a perimeter wall, fencing, all-weather road for patrolling, lighting for perimeter and any other sensitive area, watch towers and installation of electrically/mechanically operated bird scaring devices. Further, after considering potential threats that an intruder may scale the wall to gain access to airport facility, BCAS decided that modern and mechanised technology like Perimeter Intrusion Detection System be installed so as to increase the effectiveness of the force deployed.

(i) Provision of perimeter walls, perimeter roads and watch-towers

As on 31 March 2018, the status of perimeter walls and roads, as required and actually available for airside security at airports selected in audit is given below.

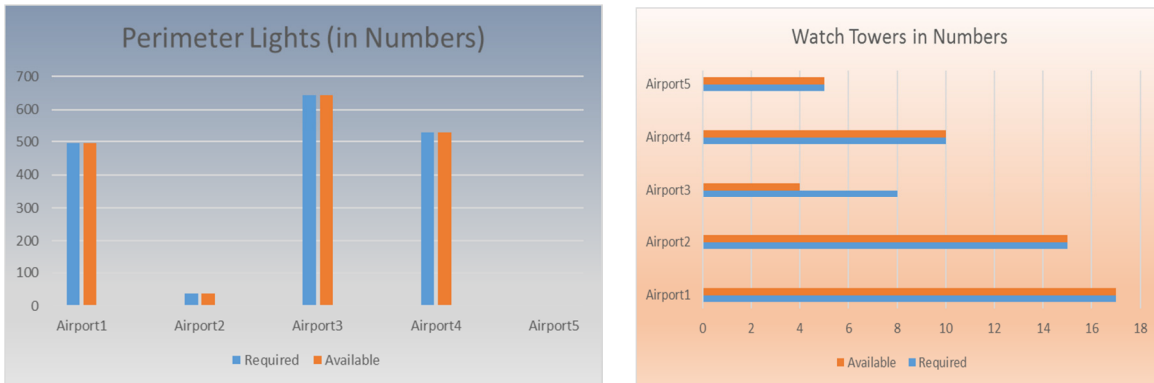
Table 1.5: Status of security infrastructure/equipment at airside of airports

Particular	Airport-1		Airport-2		Airport-3		Airport-4		Airport-5	
	R	A	R	A	R	A	R	A	R	A
Perimeter Wall (Length-km)	13.5	13.5	2.2	2.2	10	10	7.6	7.6	6	5.5
Perimeter Wall (Height-ft)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Perimeter Road (Km)	13.5	13.5	1.6	1.6	9.5	9.5	7.6	7.6	6	0

R – Required; A - Available

As regards watch towers, BCAS provided (July 2002) the requirement and specification of watch towers which were finalised on the basis of report given by a committee comprising officers of AAI, CISF and BCAS. As per specifications provided, the level of platform should be 8 ft. high above average ground level and height of the watch tower cabin above platform should be minimum 2.10 mtr. Review of records at Airport-3 revealed that against the requirement of eight watch towers, only four watch towers were available till

March 2018 while four other watch towers were provided in the form of huts, which did not meet BCAS specifications.



Charts 1.2: Status of perimeter lights and watch towers at airside of airports

As can be seen from the table and figures, there was no major shortfall in the provision of security infrastructure/equipment at the perimeter area of airport except shortage of watch tower at Airport-3 and of perimeter road at Airport-5.

The Management stated (December 2018) that remaining four watch towers could not be constructed due to NOC issue, i.e. in-sufficient distance from the basic strip. However, in place of four watch towers, four huts have been provided, and also land acquisition is in process for the said work.

While the Management has extended a factual reply, the fact remains that non-availability of watch towers, as per the standards specified by BCAS, adversely affects the effectiveness of perimeter security at airport. Further, the Management should initiate all required steps to expedite the construction of watch towers as per standards, in order to avoid all possible security breaches in perimeter security.

(ii) Perimeter Intrusion Detection System

Perimeter Intrusion Detection System (PIDS) aims to deter, detect, assess and track potential or actual breaches of the perimeter in a proactive manner. They also enhance the efficiency of security personnel in responding to security breaches and so provide a high level of protection for persons and property within the secured areas of an airport. Being a technology-based solution, other advantages through reduction in the requirement of manpower may also accrue.

In July 2006, BCAS had directed AAI to take immediate necessary action to install PIDS at all hyper-sensitive airports and also specified that the installation should be at Airport-6, Airport-7, Airport-8, Airport-9, Airport-10 and Airport-11 in the first phase. Subsequently, specifications for the PIDS were issued by BCAS on 14 February 2007.

Audit observed that despite the BCAS directions, no immediate steps were found on record to install PIDS at hypersensitive airports. After a lapse of almost two years, AAI

decided (April 2009) to install PIDS at eight³⁶ hyper-sensitive airports and constituted a team for site survey at selected airports. Nonetheless, till date, after more than 11 years of the initial decision, PIDS has not been installed at any of the selected airports.

Audit review revealed that, in the mean-time, the issue of PIDS continued with examination of alternative solutions as well. For instance, during the meeting of Committee of Secretaries held in April 2011, BCAS suggested for introducing a technology driven Radio Frequency (RF)/ buried cable in technique and CCTV to detect intrusion. However, it was stated that success of such technology based solutions has not been proven and the option of installing PIDS would entail financial resource of about ₹15 crore per airport, and the experience of JV airports is not encouraging. However, at Airport-10, a high voltage Direct Current (DC) based technique is used very effectively, but there are regulations with such DC current which have to be resolved in case this solution is to be used. Accordingly, after detailed discussion, it was decided that MoCA would pursue the technology-driven solution for detection of intrusion at the perimeter with DRDO and finalise a suitable mechanism to be introduced as soon as possible. Thereafter, AAI deliberated upon this issue but considering the prohibitive cost of the system and reports of other airport operators, the Secretary (CA) decided (May 2011) that AAI may hire an international expert on the subject to carry out a study and submit a report within six months. Though audit requisitioned the relevant report and correspondence, AAI stated (October 2018) that no report/information in this regard was available at the Security Directorate. As a result, the same could not be reviewed in audit.

Subsequently, the Advisory Committee for Civil Aviation Security decided (September 2013) that the technical specification committee of BCAS in consultation with DRDO would explore a cheaper technology solution to make this equipment cost effective. It was also advised that PIDS be installed at all metro airports within 18 months and BCAS would draw-up the modalities for the same. However, the outcome of this decision taken by the aforesaid committee was neither found on record nor any reply provided.

Recently, considering the advances in technological innovation, changed scenario and increased threat perception, BCAS replaced (April 2017) its earlier specification of PIDS given in February 2007 and suggested upgraded technologies of PIDS which were to be integrated along with CCTV System. Accordingly, in a meeting held on 2 January 2018, it was decided to install PIDS at Airport-8, Airport-11 and Airport-17.

The Management stated (December 2018) that BCAS and CISF had raised concerns over the false alarms generated by PIDS installed at Airport-6 and Airport-7 due to which reduction of manpower could not be implemented. Further, Airport-10 had installed PIDS but as the same was a green field airport and no watch tower was available since beginning; reduction of manpower with installation of PIDS could not be ascertained. In a meeting convened by BCAS in December 2013, AAI was requested to coordinate with Airport-18 to develop specification for suitable technologies and report of the same was to be submitted by January 2014. As regards installation of PIDS at metro airports, i.e., Airport-8 and Airport-11, which were proposed to be managed through PPP, it was decided to install PIDS at airport other than the airports where RFQ have been issued. It

³⁶ *Eight selected airport – Airport-1, Airport-12, Airport-13, Airport-14, Airport-11, Airport-15, Airport-8 & Airport-16*

was also stated that the technical specification issued in 2007 did not meet the requirement either at Airport-6 or Airport-7 which prompted BCAS to go for revised specifications with latest technologies which was issued only in 2017. AAI has now published Expression of Interest for installation of PIDS at Airport-8, Airport-11 and Airport-17. As far as saving of manpower *viz-a-viz* the PIDS installation can only be ascertained once PIDS is fully functional at any of the airport to the satisfaction of CISF and BCAS so that the manpower reduction can be implemented. It was also stated that tried and tested measure are in place at all airports, like watch towers, perimeter wall with concertina coil and perimeter road and perimeter light.

In audit opinion, given that AAI Management had decided as early as April 2009 to install PIDS at eight airports and in October 2013 to install PIDS at airports other than airports selected for PPP, it should have taken decisive action to implement the same. In fact, AAI had committed to provide electronic intrusion detection system at Airport-1 and Airport-3 in its approved Airport Security Programme (ASP) and non-compliance with the provisions of the approved ASP would be a serious breach of security provisions because the ASP is a series of inter-linked measures and dependencies. Further, BCAS had, time and again (July 2006 and September 2013) given target dates to install PIDS at hyper-sensitive and metro airports. However, AAI neither complied with the directions given by BCAS nor took exemption from BCAS for installing PIDS at airports.

(iii) Unauthorised use of fire crackers for bird scaring and non-installation of electronically/mechanically operated bird scaring devices

Airborne birds or animals on runways pose a serious risk to human lives and the aviation industry³⁷. Generally, different techniques to scare away birds include use of crackers, shooters with double-barrel guns, pyrotechnic lights and gas-operated bird scaring devices.

In the backdrop of detection of explosive material on-board airlines, BCAS decided (18 June 2010) that usage of sharp-shooters with shot-guns/12 bore guns would not be allowed in the airside with immediate effect. It was also directed to install electrically/mechanically operated bird scaring devices which did not contain any explosive materials at all the airports by 31 July 2010. Further, the current stock of crackers and ammunition at the airports was to be completely exhausted and confirmation be given by 31 July 2010. Accordingly, AAI decided (July 2010) to follow BCAS mandate and most suitable equipment would be procured by concerned regional offices/airports.

In August 2010, while revising the timeline for installation to 31 October 2010, BCAS suggested alternative technologies like sound waves, non-lethal weapon system and electronically operated disabling devices to be installed as bird scaring devices.

Audit noticed that despite lapse of more than seven years and even prohibition by BCAS, Airport-4 and Airport-5 continued to use fire crackers and zone gun for bird scaring in

³⁷ According to Report on Annual Safety Review 2017 of DGCA, during the period of 2013-2016, reported bird strike per 10000 movements for 18 major airports in India was ranging between 3.16 and 4.92 whereas reported wildlife strike at all airports in India per day was between 1.97 and 2.3.

contravention of guidelines. Moreover, no exemption was on record from BCAS for continued use of fire crackers by these airports.

The Management stated (December 2018) that this is a safety issue dealt by Operation Department of AAI and bird scaring devices are procured and maintained by Airside Department at each airport. Further, fire crackers are being used as per SOP given in the BCAS circular 19/2010 and proper record is being maintained at Airport-4.

The reply only states facts of responsibility and offers no justification for acting in contravention of the most recent BCAS guideline according to which the installation of mechanised device in place of existing fire crackers system for bird scaring was to be completed by 31 October 2010. Given the instances of explosive material being found on board aircrafts, the issue is not merely an operational one but also one of security, for which BCAS has issued specific instructions. Further, the Management itself decided in July 2010 to install suitable equipment for bird scaring but the same could not be complied at above mentioned airports even till date. Therefore, adequate provision for mechanised bird scaring device must be ensured for avoiding any possible security breach at airports.

1.2.4.2 Landside area of airport: deficiencies in security measures noticed

The landside area mainly covers airport entry, parking, terminal building, etc.



Chart 1.3: Airport Terminal Building

AAI, as airport operator, is expected to implement various security measures in accordance with the risk assessment. In this regard, deficiencies noticed in audit are detailed below.

(i) Security equipment required for acting as obstacle to unauthorised/non-tracked vehicle entry at airport

BCAS recommended (14 February 2007) installation at airport specific security equipment for creating entry barriers, designed to stop vehicles from entering either by disabling the vehicle or creating a physical obstacle. These include Crash rated Electro-Hydraulic Bollard System, Crash rated Electro-Hydraulic Tyre Killer, Crash rated Electro-Hydraulic Road Blocker

AAI is responsible for ensuring that the required physical barrier and infrastructure at city side are available at each airport for the aviation security services and had even made

provision for bollards and tyre killers in its approved ASP³⁸. However, Audit found that despite lapse of more than 10 years, the aforesaid security equipment could not be installed at four out of five selected airports; i.e., Airport-1, Airport-3, Airport-4 and Airport-5. Moreover, no alternate arrangement was found at these airports to prevent unauthorised entry of non-armoured or non-tracked vehicles at the airport.

The Management stated (December 2018) that there was no mandate of BCAS in 2007 to install this equipment. Security vetting at these airports was recommended with alternative and cost-effective measures like zig-zag barricades, boom barriers on approach road and fixed Bollards available in front of the terminal building. Further, AAI has taken a decision to install Bollards/ Tyre Killers/ Road Blockers at all hyper sensitive airports and sensitive airports and in-principle approval for procurement has been given to all regional offices.

While Management has initiated action to procure the equipment, it is unlikely that the equipment will be installed before June 2019. As far as mandate of BCAS in 2007 is concerned, BCAS lays down the security standards required to be maintained at the civil airports and accordingly, BCAS in 2007 had directed to install this security equipment at airports. Therefore, the process of procuring and installing the required physical barrier and infrastructure at city side must be expedited.

(ii) Access control for employees

In the background of perceived threats to hurt India's economic growth and target vital installations of the nation, the Minister of State for Civil Aviation reviewed (12 July 2006) the security arrangement at all operational airports and directed that installation of gadgets for upgrading the security at airport needed immediate attention. One of these measures was the introduction of Bio-metric Access Control System (BAC system) at all operational airports in India. The BAC system would have significant advantages over the manual system like doors and access points would be released only to authorised personnel after they had been identified by the system and system would also be able to generate any level of information required on the personnel in the building at any given point of time. The system would also provide comprehensive historical data of all personnel who had visited the building and also the solution would have minimal manual operation for overall success.

Consequently, BCAS directed (26 July 2006) AAI to take necessary action to install BAC system at all airports in India as early as possible commencing with hyper-sensitive airports with immediate effect. Although specifications for the BAC system were to be communicated to all airport operators by BCAS within six weeks, the same were provided on 14 February 2007, i.e., after a period of around 28 weeks. No action was initiated by AAI to procure /install the systems and subsequently, BCAS modified the specification of the BAC system in February 2009.

BCAS constituted (13 June 2012) a committee under the Chairmanship of Joint COSCA³⁹, BCAS and comprising members from MoCA, IB⁴⁰, CISF, AAI and NIC to examine the

³⁸ *Airport-4 (February 2015), Airport-1 (October 2015), Airport-3 (October 2015) and Airport-5 (January 2018)*

³⁹ *Jt. COSCA: Jt. Commissioner of Security of Civil Aviation*

⁴⁰ *IB: Intelligence Bureau*

modalities of BAC system through Smart Card at Indian Airports. Based on the Committee's deliberations, BCAS finalised the technical specifications of the BAC system and replaced the earlier specification of AVSEC Circular No. 02/2007 with AVSEC circular dated 19 November 2013.

Audit noted that even though revised specifications were issued as late as 2013 and the urgency of this equipment had been realised by MOCA/ BCAS as early as 2006, AAI issued a purchase order only on 23 December 2016 for SITC⁴¹ of BAC system at 43 airports including Airport-1, Airport-2, Airport-3 and Airport-4 to M/s Broadcast Engineering Consultant India Ltd. (BECIL).

Further, the work of software of access control system was taken up by BCAS with the task of developing the software being given to Electronics Corporation of India Limited (ECIL). However, ECIL defaulted in completion of the project. As a result, although equipment was received at airports⁴², the same could not be made operational till date (March 2019).

The Management in its reply (October/December 2018) submitted various deliberations made by various stakeholders to decide modalities of the system, as a result of which the specifications given in 2007 were revised in November 2013. As per Management, based on the revised specification received from BCAS, AAI awarded the work in December 2016 for SITC of biometric access control system at 43 airports to BECIL, which was to be completed by June 2017. However, installation is in process and the same will be completed by December 2018. It was further stated that the work for corresponding central system of BAC system was taken up by BCAS through M/s ECIL and the system is expected to go-live on 31 December 2018.

The reply only repeats the facts without offering reasons for initial inaction and delay in installation of BAC system upto June 2012. Further, the same has not been operationalised till date. Thus, the installation of BAC system needs to be expedited so that risk of possible security breach at airport is reduced.

(iii) Pre-embarkation security check for passengers: shortages of screening equipment

Weapons, explosives, or any other dangerous devices, articles or substances, if concealed and taken into the airport or on-board an aircraft pose a serious threat and may be used to commit an act of unlawful interference. In order to prevent this, BCAS prescribed mandatory screening of persons, hand baggage, hold baggage, cargo, etc. through DFMD, HHMD, XBIS and ETD before embarkation.

An assessment carried out by AAI Management during April 2014 to June 2014, calculated the shortage of XBIS as 370; DFMD as 448; ETD as 182; and HHMD as 905.

Audit reviewed the requirement (June 2014) and actual availability of security equipment during the period March 2016 to March 2018 in respect of selected airports and noticed that the shortages had largely remained unaddressed.

⁴¹ *SITC – Supply, Installation, Testing and Commissioning*

⁴² *Airport-1, Airport-2, Airport-3 & Airport-4*

Table 1.6: Percentage shortfall of equipment

		Airport-1	Airport-2	Airport-3	Airport-4	Airport-5
XBIS	Jun-14 (R)	21	11	10	07	02
	Mar-16 (A)	09 (57%)	08 (27%)	04 (60%)	04 (43%)	00 (100%)
	Mar-18 (A)	19 (10%)	14 (-27%)	06 (40%)	07 (Nil %)	02 (Nil %)
DFMD	Jun-14 (R)	18	13	15	07	04
	Mar-16 (A)	07 (61%)	09 (31%)	06 (60%)	02 (71%)	00 (100%)
	Mar-18 (A)	18 (Nil %)	16 (-23%)	08 (47%)	07 (Nil %)	03 (25%)
HHMD	Jun-14 (R)	62	19	37	24	10
	Mar-16 (A)	62 (Nil %)	31 (-63%)	18 (51%)	11 (54%)	00 (100%)
	Mar-18 (A)	50 (19%)	53 (-179%)	35 (5%)	30 (-25%)	02 (80%)
ETD	Jun-14 (R)	08	04	04	04	01
	Mar-16 (A)	03 (63%)	03 (25%)	02 (50%)	03 (25%)	00 (100%)
	Mar-18 (A)	08 (Nil %)	04 (Nil %)	04 (Nil %)	03 (25%)	01 (Nil %)

*Note – R – Requirement; A – Available and shortage in percentage shown in bracket
Requirement of security equipment was assessed by AAI in June 2014*

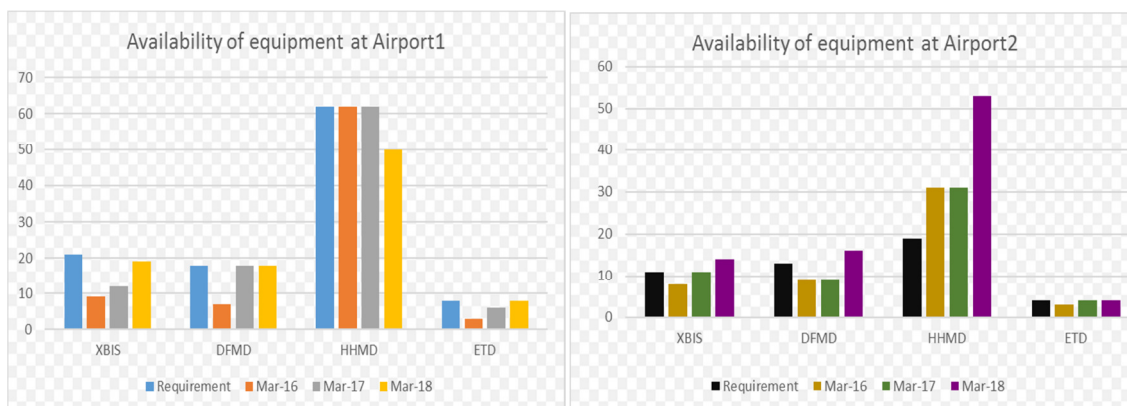


Chart 1.4: Availability of equipment at selected airports

As can be seen from the figures, the availability position since assessment was deficient for two out of the three years during the year 2015-16 to 2016-17 and reached the desired level only in the year 2017-18.

However, minor shortages in availability of XBIS, DFMD, ETD and HHMD continued at airports even as on 31 March 2018. In the case of Airport-5, the initial provisioning itself was done in the last year.



Audit also observed sub optimal use of equipment in two out of five airports in respect of XBIS equipment. In the case of Airport-4, although X-BIS was provided in November 2017 the same could not be installed due to space constraints and was lying un-utilised at the airport (October 2018). Similarly, at Airport-3, the new X-BIS machine was installed (November 2017) at the entry point but the same was not being utilised due to non-availability of trained CISF personnel (October 2018). Consequently, mandatory provision of random screening could not be complied at Airport-3 and Airport-4 for the period since August 2011 to March 2018.

The Management stated (December 2018) that the tendering process is time consuming and many tenders were cancelled/recalled due to various reasons leading to delay in procurement.

While Audit acknowledges that the procurement process may get delayed, however, given the criticality of the equipment, the sensitive nature of the airports, and the fact that it is the responsibility of the Management to ensure prompt availability of adequate security equipment, the absence of the equipment for such extended periods points towards poor planning and casual attitude. In fact, BCAS had highlighted the acute shortage of equipment in their audit (January 2017), which would also result in congestion and discomfort to the passengers due to long queues and more time taken for pre-embarkation checks at the airport. Further, as there were shortages in the available number of security personnel as highlighted in para no. 1.2.4.5(i), shortages in security equipment would adversely impact level of airport security. Therefore, adequate provision of required security equipment needs to be ensured for avoiding any possible security breach at the airport.

The Management accepted (October 2018) the fact that random screening could not be done due to space constraint at Airport-4 and non-availability of manpower at Airport-3.

1.2.4.3 Surveillance at airside and landside area of airport

Surveillance through Closed Circuit Television (CCTV) system is required to ensure effective surveillance of an area as well as to create a tamper-proof record for post-event analysis. In November 2003, BCAS directed AAI to install CCTVs at all hyper-sensitive and sensitive airports in the country covering passenger terminal, apron, cargo complex and car parking etc. This was re-iterated in a meeting taken by the Minister of State for Civil Aviation on 12 July 2006 wherein it was suggested that CCTVs, which are useful for both surveillance and detection, should be available at all operational airports and must be provided at all hyper-sensitive airports within six months as first phase of the programme.

Accordingly, BCAS provided specifications in respect of Surveillance CCTV System on 14 February 2007, which were reviewed⁴³ from time to time considering the security requirements. It was observed that by and large requirements, in terms of numbers, were met. However, at Airport-3, there was a shortage of 24 cameras against the requirement assessed (January 2017) by the security agency deployed at airport.

Bureau of Civil Aviation Security had communicated (February 2007) important areas for coverage purposes by surveillance CCTV and reiterated the same in April 2017. These areas included (i) complete perimeter, (ii) vital installation (ATC, Fuel Installation, etc.) and (iii) isolation bays. However, it was noticed that these areas were not covered at four airports⁴⁴ out of five airports audited, except coverage of ATC at Airport-1 and Airport-5. Cargo complex at Airport-2 was not covered under CCTV surveillance.

Further, BCAS directions provided protocol for the working procedures, back-up requirements etc. Audit review of compliance of these directions at selected airports revealed that though BCAS had advised (25 November 2003 and 4 August 2011) that the recordings of the CCTV system be kept for a minimum period of 30 days, in case of Airport-3 and Airport-4, the recordings were kept only for 20 days.

Further, in order to strengthen security from the city side of airports, BCAS directed (02 February 2011 and 5 April 2017) that photographs of the drivers and registration number of vehicles should be recorded and CCTV cameras should be installed in vehicle parking areas immediately. However, Audit found that there was no mechanism, through CCTV technology, for taking the photograph of drivers and recording the registration number of the vehicles entering the airport at four⁴⁵ out of five airports. Further, as far as CCTV coverage of parking area is concerned, separate cameras were not installed exclusively for parking area at Airport-4 and Airport-5; instead coverage was being done from the camera installed at the terminal building.

The Management stated (September 2018 and December 2018) that:

⁴³ *Requirements of CCTV reviewed on 2 February 2011, 4 August 2011 and 5 April 2017*

⁴⁴ *Airport-1, Airport-3, Airport-4 and Airport-5*

⁴⁵ *Airport-1, Airport-3, Airport-4 and Airport-5*

- In respect of Airport-2, the provision of camera for coverage of cargo complex is under progress.
- In respect of Airport-5, CCTV installation was completed in February and March 2018 and setup of CCTV cameras at Airport-5 was done as best could have been done with limited cameras. It was further submitted that there is no isolation bay and no perimeter road.
- In respect of Airport-3, Management accepted the audit observation and has already initiated the procurement of CCTV cameras.
- At Airport-1, process started for operation of cameras for photo recording of driver and vehicle at entry and exit gates.
- In respect of Airport-4, it was stated that due to non-availability of compatible hard disk drive with the existing system, 30 days recording was not available. However, recording time for 10 cameras has been increased to 30 days, while the process for other cameras is in progress. It was also stated that camera installed at departure gate and terminal building cover the parking area and installation of camera on ATC building is in process which will also cover the isolation bay.

The Management accepted the audit observations and has initiated action in most cases. It may be ensured that the final outcomes are strictly in conformity with BCAS directions.

1.2.4.4 Non-availability of BDDS equipment

On the basis of discussion held at MoCA on 12 July 2006, BCAS directed AAI and CISF to work out requirement of staff and equipment to raise Bomb Detection and Disposal Squads (BDDS) at all hyper-sensitive airports and send a comprehensive proposal latest by 31 August 2006 to BCAS for approval. While AAI took no action initially, CISF submitted (26 September 2006) the manpower requirement and required list of BDDS equipment (total 22 equipments) to BCAS. Accordingly, BCAS approved (August 2007) the required strength of 117 CISF personnel for BDDS units at all hyper-sensitive airports and also requested the MoCA to take up the matter with Ministry of Home Affairs (MHA) to sanction the establishment of BDDS as per the requirement of CISF. BCAS also directed (August 2007) AAI and other Airport Operators to procure the equipment for establishment of BDDS at airports. Later, CISF requested (20 March 2008), AAI to procure the bomb disposal and detection equipment for establishment of BDDS at all hypersensitive airport. However, AAI in May 2008 informed MoCA that no specification for equipment had been indicated either by CISF or BCAS and requested MoCA to provide guidelines/instruction in this regard. Nonetheless, AAI started the process by provisioning the budget for the procurement of BDDS equipment in December 2008. Eventually, specifications of 18 equipment were provided in August 2010; in respect of six equipment specifications provided earlier in December 2004 and February 2007 were available; and specifications for balance equipment were provided in November 2011.

Accordingly, AAI decided (July 2010) to initiate the procurement process for 28⁴⁶ BDDS equipment and establishment of BDDS. Further, MoCA decided (April 2011) that this would be implemented in 18 airports during first phase and gave target date of December 2011 to procure BDDS equipment for 18 hypersensitive and international airports operated by AAI.

Audit noted that AAI had been very slow in establishing the BDDS. The initial directions were given in July 2006 and even as per the revised target dates, the first phase was to be completed by December 2011 but despite lapse of considerable time of more than 12 years, 2 out of 28 BDDS equipment could not be provided even at airports selected for first phase. Further, there was inordinate delay of more than 13 years in respect of procurement of the Explosive Vapour Detector (EVD) for which the specification was provided by BCAS as early as December 2004 but procurement was completed only in October 2018. Similarly, procurement of balance two BDDS equipment is still (December 2018) under process.

It was further noticed that one of the BDDS equipment, i.e., Non-Linear Junction Detector (NLJD) was lying non-functional since 2013 at Airport-2, which was sent to OEM for repair but the same was not received till June 2018. In case of Airport-1 also, the same was non-functional.

In principle, the BDDS equipment was to be provided in the first phase for 18 airports, which were either hyper-sensitive or providing international operations. However, Audit observed that as on date (March 2018) eight⁴⁷ more airports were either under hyper-sensitive category or providing international operations, but no action/ decision was found on record for providing BDDS equipment at these airports (March 2018).

As a result, the bomb disposal and detection squad could not be fully operational at all airports as mandated by the BCAS.

The Management stated (December 2018) that delay in procurement was due to various reasons like limited availability of vendors, repeated failure of offered equipment during technical evaluation, resultant single tender situations, revision of specification for equipment like Bomb suite and EVD etc. Also based on request from AAI regarding huge financial implication of procurement of all 28 equipment for all airports, BCAS prioritised this equipment vide AVSEC Circular 13/2017 dated 20 October 2017 and 13 no. of equipment were mandated as Priority-I for activation of BDDS team at any airport. It was further stated that after successful procurement of Priority-I equipment, AAI has already initiated tenders process for 10 out of 13 Priority-I BDDS equipment as on date for all remaining airports including the mentioned airports. It was further submitted that the NLJD was beyond repair and the same is being replaced in the tender currently under progress.

⁴⁶ *BCAS initially (September 2010) provided list of 29 no. of BDDS equipment, whereas in August 2011, the Technical Specification Committee decided that one equipment, i.e., Telescopic Metal Detector is not useful in the airport environment. As a result, there are 28 no. of BDDS equipment.*

⁴⁷ *Hypersensitive – Airport-19, Airport-20 & Airport-21 and International Operations - Airport-22, Airport-23, Airport-24, Airport-25 and Airport-26*

Audit appreciates the difficulties arising from the huge financial implications, however, the reasons for delay submitted by the Management are procedural only and could have been addressed through appropriate mechanism in a timely manner. Though CISF provided the list of 22 equipment in September 2006 and specification for six equipment were available since February 2007, the Management did not take any concrete action to procure the equipment and only made budgetary provision by 2008. Further, though the procurement process commenced belatedly in July 2010, it has not been completed till date and two equipments are still to be procured.

1.2.4.5 Non-compliance of directions for deployment of security personnel

Till January 2000, security functions at all the airports in the country used to be performed by the police personnel requisitioned from State Governments. In the backdrop of security threats, GoI decided that in order to bring in uniformity of practices and procedures and also to have effective control and supervision by the MoCA, airport security would be entrusted to the CISF at all civil operational airports in the country. Pursuant to this decision, induction of CISF for airport security was to be commenced and completed in a phased manner. As of March 2018, over 15 years since the process began, out of 97 operational airports, CISF is deployed at only 53 airports.

(i) Shortage in deployment of security personnel

BCAS vide its orders dated 6 March 2002 forwarded the SOP, duly approved by MoCA, for the Aviation Security Group (ASG) of the CISF to AAI. The SOP stipulates that deployment of CISF personnel at civil airports would be in accordance with the norms drawn by BCAS in consultation with CISF and Airport Operator.

The objective of induction of CISF was to provide a standardised level of security for civil aviation operations in accordance with the norms of the ICAO and NCASP⁴⁸. Besides, since professionally competent and passenger compatible aviation security would be provided with a service provider's approach, it was expected that smooth functioning and harmonious relationship among all agencies would be facilitated at the airports.

As on March 2018, the position of sanctioned *vis-a-vis* actual deployment of security personnel at airports selected in audit is given below.

Table 1.7: Statement showing status of required and actual manpower

Airport	March 2018		October 2018	
	Required manpower	Actual manpower	Required manpower	Actual manpower
Airport-1	614	557	614	602
Airport-2*	149	212	149	201
Airport-3	255	181	255	243
Airport-4	204	168	204	168
Airport-5*	74	55	74	36

* State Police deployed at Airport-2 and Airport-5

⁴⁸ NCASP: National Civil Aviation Security Programme

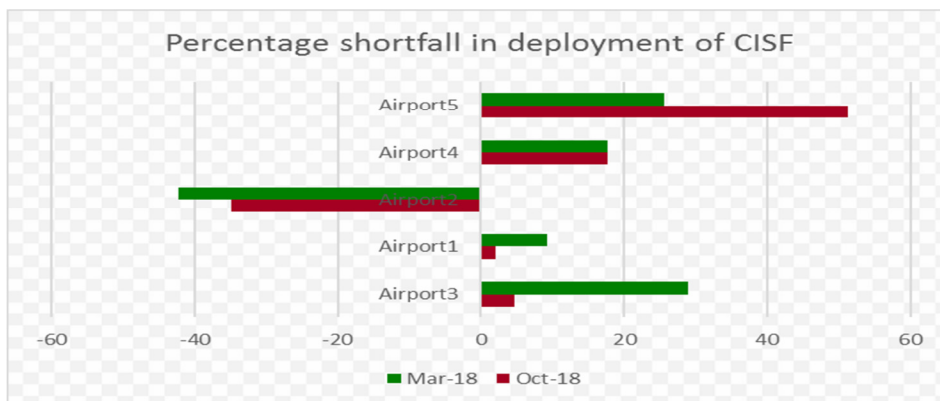


Chart 1.5: Percentage shortfall in deployment of CISF

As can be seen from the table and figure, the position of deployment was in excess at Airport-2. However, in all other cases, there was shortfall ranging from 9 per cent to 29 per cent in March 2018. The situation improved at Airport-1 and Airport-3 by October 2018, nonetheless, shortages remained at all four airports ranging from 2 per cent to 51 per cent.

The Management stated (October/December 2018) in respect of Airport-2 and also keeping enhanced threat (on the basis of intelligence input), they deployed excess number of police personnel but the billing is done only for 149 personnel.

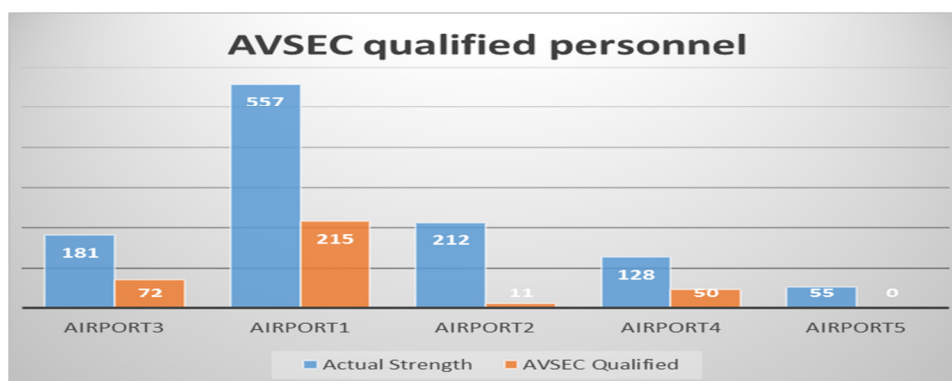
(ii) Deployment of inadequate trained security personnel

Frisking and screening is a key function to detect any unlawful interference for the purpose of securing the aerodrome operations. In line with the SOP, BCAS has given (13 January 2011) instructions that authorised and suitably trained and equipped armed personnel of CISF, NSG and concerned State/UT Police, as the case may be, should be readily available for deployment at the civil airports in India to assist in dealing with suspected or actual cases of unlawful interference with civil aviation; and all the personnel involved in the implementation of preventive security measures should be knowledgeable of the requisite procedures to be followed and the chain of command and communication in an emergency situation. In fact, BCAS has issued repeated instructions⁴⁹ to deploy only trained and certified officers for screening at airports and for securing the safety of aircraft operations. Some of the important SOP provisions for training of personnel include:

Clause 3.4	CISF personnel who would be deployed would focus at the designated airport well in advance and undergo the required training programme to be organised by the BCAS.
Clause 3.4.9	After giving training to CISF officers in frisking and x-ray screening and related subjects, a test of the CISF officials would be conducted by BCAS and those who pass the test would be given a certificate/rating for frisking/x-ray screening and only rated personnel should be allowed to perform frisking of passengers and x- ray screening of hand baggage.
Clause 6.4.2	To improve professional competence, the staff of the ASG should be put through regular training and tests; and, those who do not maintain the minimum prescribed standards should be posted out with a suitable replacement provided.

⁴⁹ BCAS instructions on deployment of trained security personnel– 13 June 2005, 28 August 2006, 5 January 2011 and 13 January 2011.

Chart 1.6: Actual strength vis-a-vis AVSEC qualified personnel



Thus, as per the requirement of BCAS, the Airport Director would be security coordinator at the airport and would be responsible for coordinating the implementation of security measures in accordance with the legal provisions and instructions issued by BCAS from time to time. The security coordinator would, in turn, designate a Chief Security Officer (CSO) who would be responsible for establishing a process for resolution of deficiencies or concerns identified in the security task delegated to the Airport Operator and other entities at the airport level. CSO would encompass all security controls at the airport level for which security coordinator was responsible. As per the requirement of BCAS, CSO should be Aviation security (AVSEC) trained/ certified, however, as intimated by the Airport-4 and Airport-5, the CSO posted was not AVSEC trained/certified.

Moreover, only AVSEC qualified security personnel are to be deployed for airport security but audit scrutiny revealed that there were huge deficiencies in the deployment of AVSEC qualified security personnel. In terms of percentages, shortage at, Airport-1 was 61 per cent, Airport-2 - 95 per cent, Airport-3 - 60 per cent Airport-4 - 61 per cent and Airport-5 - 100 per cent.

Further, the validity of the X-Ray screener certification was for two years from the date of successful passing the initial examination. Before the expiry of two years' period, a candidate would have to appear and clear the certification test for re-validation of the screener certificate. Review of records, as on March 2018, revealed deficiencies in availability of certified screeners as per the requirement of BCAS, shown in table below.

Table 1.8: Status of screeners deployed and trained

Airport	Total screeners	Certified screeners	Screeners certificate valid as on 31 March 2018	Screeners certificate expiry range
Airport-1	110	109	51	59 (required date for revalidation not provided by Airport-1 airport)
Airport-2*	04	Nil	Nil	NA
Airport-3	40	40	12	August 2007 to January 2018
Airport-4	28	25	18	April 2012 to March 2018
Airport-5*	Nil	Nil	Nil	NA

*State Police deployed at Airport-2 and Airport-5

Audit observed that no certified screeners were deployed at Airport-2 and Airport-5. In case of Airport-1, Airport-3 and Airport-4 only 47 *per cent*, 30 *per cent* and 72 *per cent* screeners, whose certificate was valid as on March 2018 were deployed for screening.

Further, on review of record it was noticed that while conducting dummy check by BCAS in the month of April 2017 at one airport, it was found that at three check points established at the airport for screening/frisking, screeners/friskers failed to detect the prohibited item.

The Management stated (December 2018) that BCAS had issued instructions to deploy only trained and certified officers for screening at airports and also for the purpose of securing the safety of aircraft operation. The screeners deployed at pre-embarkation Security check are from CISF and they have full-fledged ASTI (Aviation Security Training Institute) for CISF persons. Further, as on 01 October 2018, there are 22 qualified screeners at Airport-3.

The Management reply is not acceptable as noticed at airport compliance of training requirement was not fulfilled at all airports and deficiency at Airport-2 and Airport-5 on account of certified screeners were 100 *per cent*. Further, Airport Operator is also responsible to ensure compliance of guidelines issued by BCAS for deployment of trained security personnel and should take up such issue with concerned agencies for imparting requisite trainings so as to comply with the directions of BCAS. Therefore, availability of adequate number and of adequately trained security personnel should be ensured to strengthen the airport security.

1.2.4.6 Improper maintenance of online data of security equipment and infrastructure in Airport Information Management System (AIMS)

In the background of non-existence of regular reporting system of security equipment and infrastructure in Directorate of Security, it was decided (May 2016) to introduce a Security Equipment and Infrastructure portal in AIMS. Access to the same was provided by Directorate of Security vide its letter dated 31 May 2016 to all RCSO and CSO at the airport level for regular feeding and updating the data of security equipment and infrastructure.

While ascertaining the status of updation of the data at Airport-1, Airport-2, Airport-4 and Airport-5, audit was intimated that the user ID and password for AIMS required to update information is not available at the Station level. It was also noticed that available information in the portal is not matching with the available security equipment (old and new) at the station level.

Thus, the purpose of establishing an online system to monitor the status of available security equipment and infrastructure and also to ascertain shortages against requirement as mandated by concerned authorities so as to avoid any security hazard, has been defeated due to non-updating of the data regularly.

The Management stated (December 2018) that all RCSO and CSO of all airports have been instructed to maintain the online data of security equipment and infrastructure in AIMS. It was further stated that out of 40 airports the data has been updated at 18 airports,

which includes 4 airports pointed out by audit and in respect of the balance 22 airports (including Airport-5), the updation is in progress.

1.2.5 Conclusion

AAI has been slow in procuring and installing security equipment/technology as mandated/recommended by BCAS for enhancing the efficiency of security personnel in responding to security breaches and also provide a high level of protection to persons and property at the airport. Delays were noticed in assessment and procurement of major security equipment required for security check. Despite lapse of considerable time, some of the security equipment/technology are yet to be procured/ installed at selected airports. Non-availability of adequately trained security personnel and cases of un-qualified screeners deployed at airport were also noticed. An online system established for monitoring availability of security equipment could not be utilised optimally, which is essential to monitor the adequacy and efficiency of security equipment at airport level.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

1.3 Information Technology Audit of SAP ERP

1.3.1 Introduction

AAI was constituted under an Act of Parliament and came into existence on 1 April 1995 by merging the erstwhile National Airports Authority and the International Airports Authority of India, with the responsibility of creating, upgrading, maintenance and managing civil aviation infrastructure both on the ground and in the air space in the country.

AAI manages 137 airports, which include International Airports, Customs Airports, Domestic Airports, airports operated through Joint Ventures and Civil Enclaves at Defense airfields. Main Services of AAI include providing Passenger Facilities, Air Navigation Services, Security, Aerodrome Facilities etc.

1.3.2 Organisation Structure of Information Technology Directorate

Information Technology (IT) Directorate is headed by Executive Director, who is overall in-charge of all activities pertaining to IT. He reports to Member (Operations). Day to day activities of IT Directorate are handled by General Managers who are further assisted by Joint General Manager, Dy. General Managers, Asst. General Manager and others Sr. Managers of the directorate.

1.3.3 SAP ERP in AAI

AAI was using Integrated Financial and Personnel Information Management System (IFPIMS) developed (for Finance and HR) by M/s RAMCO since 2007. As IFPIMS was unable to meet the changed requirements of AAI and was working only partially, hence, a decision was taken to pre-close the same in March 2012. Consequently, SAP Enterprise Resource Planning (ERP) with R/3 architecture was implemented in the AAI in

March 2013 through System Integrator (SI), M/s KPIT Cummins Infosystems Ltd (June 2012⁵⁰), at a total cost of ₹16.07 crore. The application went live from 1 April 2013. M/s KPIT Cummins Infosystems Ltd. provided the technical support of SAP/ERP including the core functionalities of 'Human Resource Management (HRM)', 'Finance', 'Material Management (MM)' and 'Project System (PS)' from September 2013 to August 2014, the period was extended upto October 2015. However, later on, AAI decided to take direct services from M/S SAP India for quick resolution of issues which commenced from December 2015 for three years at a cost of ₹8.18 crore (including support for SAP SRM e-taps⁵¹). In addition to this, AAI has been incurring revenue expenditure at the rate of 22 *per cent* of the cost licenses of SAP per annum. There are 1312 professional SAP users licenses in AAI. In addition, there are 17,610 employees' self-service user licenses of SAP/ERP.

1.3.4 Functional Modules of SAP ERP in AAI

Following four modules were implemented in AAI:

- **Financial Accounting and Controlling Module (FICO).** It collects and stores the financial transactions data. FICO basically contains various sub-modules *viz.* General Ledger, Accounts Receivable, Accounts Payable, Asset Accounting, Banking, Cash and Bank Accounting, etc being used in AAI.
- **Human Resource Management Module (HR):** HR Module manages employee data for personnel and administration, payroll, employee self-service, time and leave management. All aspects from training to appraisal are covered in this module.
- **Material Management Module (MM):** This helps to manage the procurement activity of an organisation from procurement to payment. It supports all aspects of material management *viz.* material resource planning, inventory management, purchasing and maintenance of master data of vendors.
- **Project System Module (PS):** PS Module helps to manage project works of an organisation. It includes project planning budgeting, project implementation and completion.

1.3.5 Scope of Audit

Audit examined the records relating to implementation of SAP/ERP with respect to envisioned objectives of AAI with desired benefits and their achievement. Audit also covered the customisation and functioning of FICO, HRM, MM, and PS Modules and their Sub-Modules in SAP/ERP at the Head Office of AAI. For the purpose of data analysis, data for one year i.e for Financial Year 2016-17 was used alongwith samples of data.

⁵⁰ *Date of agreement : 4.6.2012*

⁵¹ *SAP E-Procurement application used earlier in AAI.*

1.3.6 Audit Objectives

Audit was conducted with the objective to ascertain whether:

- i. Business processes were sufficiently re-engineered to incorporate rules, regulations and procedures of the AAI and to achieve the organisational objectives.
- ii. IT controls; general and application, are in place to ensure:
 - a) that there exists a well-defined and documented IT Security policy/rules to ensure management and control of physical and environment security, business continuity, incident reporting, Backup, Restoration, log, password etc.
 - b) availability of accurate, reliable and complete information/data; and
- iii. Performance of the service provider have been effectively monitored.

1.3.7 Audit Criteria

Audit criteria for assessing the achievement of audit objectives were derived from:

- i. Directives, instructions policies, rules or procedures laid down by MoCA/Govt. of India in connection with IT and Agenda and Minutes of meetings of the Board of Directors and Delegation of Powers.
- ii. Agreements with the Service Providers and System Developers
- iii. End User Requirement Specifications and Business blue prints of various modules for implementation.
- iv. Users Manuals.
- v. Best practices in IT.

1.3.8 Audit Methodology

Methodology adopted for achieving audit objectives with reference to audit criteria was:-

- i. Review of Agenda and Minutes of meetings of the Board of Directors and Directive/circulars, instruction orders issued by the Management.
- ii. Review of examination of agreements with Service Providers.
- iii. Review of Business Blue Prints and user manuals.
- iv. Review of general and application controls.
- v. Review of MIS reports, logs reports and audit trails and analysis of exception reports/incident reports.
- vi. Analysis of the data from application.

1.3.9 Audit Findings

1.3.9.1 System Planning, Acquisition and Implementation

AAI entered into an agreement with M/s KPIT Cummins Infosystems Ltd (KPIT) on 4 June 2012 for "Implementation of SAP ERP solutions" at a cost of ₹16.07 crore with a further fixed cost of 22 *per cent* on licenses procured. The basic objective of the project was to integrate the functions and locations of AAI leading to standardisation of processes and to achieve transparency in working at the airport. The delivery period for the total project was nine months from the date of award. The project was to be completed in two phases which included stages of project preparation, business blueprint, realisation phase, final preparation, post Go-live support. Go-live of all the modules (i.e. FICO, MM, PS and HCM Module) were declared from 1 April 2013. Following deficiencies were observed relating to planning, acquisition and implementation of the project:

(i) Inadequate market assessment and absence of cost benefit analysis

In May 2011, Chairman, AAI, directed a team of senior executives to visit public enterprises wherein HR and Finance Modules of SAP was implemented to seek information regarding functionality of SAP. The team visited ONGC and recommended that as SAP ERP system is working satisfactorily at ONGC since 2004, a similar system needs to be implemented in AAI so as to have a uniform procedures and working across the organisation. Thus, despite availability of other ERP solutions/applications in the market, these were not assessed or considered. Further, cost benefit analysis with other existing ERP packages was not undertaken before going in for implementing SAP ERP. SAP implementation agreement was entered into with M/s KPIT (previous Service Provider) at a cost of ₹16.07 crore. In addition to this, the average support and maintenance cost ranged from ₹3 crore approx. to ₹4 crore yearly. More competitive bids and services could have been obtained if other ERP packages were considered before implementation.

The Management in its reply (October 2018) stated that already a product from RAMCO system was being used in AAI but due to its limited functionality, management took the decision to go for SAP ERP software. The Management reply is not tenable as the fact remains that other similar softwares were not assessed nor a cost benefit analysis was undertaken which led to foregoing of more competitive bids and services.

(ii) Declaration of go-live status even before achieving online status in various sub-modules

SAP ERP project was declared Go-Live on 01 April 2013 despite non-availability of various modules/functionality *viz.* Performance Management System, Vigilance in Employee Self Service, Governance and Risk Control, E-Recruitment, which were developed as late as upto February 2014.

The functionalities were delayed due to:

- Non availability of Core Team Members (CTM) which could only be made available after a delay of three months from the planned date of 13 June 2012.

- Delay in providing ERP servers to KPIT although the tenders for procurement of servers for ERP was started in May 2012. However, the servers were made available to SI only in November 2012 due to non-finalisation of installation site.
- Master data was made available to System Integrator during March 2013 as against the stipulated date of 30 September 2012 and 14 January 2013 for Phase I and Phase II respectively.

Thus, due to delay in providing basic requirements by AAI to M/s KPIT, AAI could not enforce its right to impose penalty for above incomplete functionalities and resultantly waived a penalty of ₹0.29 crore leaving imposition of a penalty of ₹0.13 crore only.

The Management vide its reply (October 2018) stated that it was management decision to go live with available functionalities as on date and commission other functionalities progressively with the maturity of system and resolution of constraints.

The Management reply confirms the audit observation. Progressive development of these functionalities with maturity of system was not in line with the terms and conditions of the agreement.

(iii) Deficient agreement clauses

The following clauses of the agreement (June 2012) were found to be deficient to the extent as follows:

- As per clause 1.3.1 Airports Information Management System (AIMS)⁵² was to be integrated with SAP ERP to capture revenue information directly. However, the scope of work was restricted to upload Flat Files⁵³ generated through AIMS, which was accordingly provided by M/s KPIT. Due to deficient scope of work, seamless integration with AIMS had to be subsequently developed (03 January 2017) by M/S SAP India at an additional cost of ₹1.05 crore.
- As per Annexure VII of agreement and business blueprint, M/s KPIT was to provide Specific Minimum functionalities viz,
 - Interface with Bank portal for e-payment and bank reconciliation,
 - Depreciation area as per Income Tax Act. However, these functionalities were also not developed by M/s KPIT and were later provided by M/s SAP India Pvt. Ltd at a total cost of ₹1.63crore⁵⁴.

Although, M/s KPIT was providing its service to AAI upto October 2015, however, due to non-inclusion of specific penalty clause for non-completion of services, AAI could not impose adequate penalty on the service provider and had to bear an extra financial burden of ₹2.68 crore which was well within the scope of M/s KPIT.

⁵² AIMS- Application developed for maintaining data pertaining to operational activities of AAI.

⁵³ Excel File

⁵⁴ (₹104.14 lakh and ₹58.83 lakh for two functionalities respectively)

The Management vide its reply (October 2018) in respect of non-inclusion of seamless AIMS Integration has stated that Flat file upload was accepted since the integration servers were not available, later on when the servers were provided, the automatic interface was developed. Further, in respect of non-inclusion of penal clause, it has submitted that in our contract proportionate deduction clause is available if the default is on the part of vendor. In this case PI servers required for deploying bank interfaces were provided after the termination of contract with M/s KPIT.

The Management's reply is not tenable as integration servers were prerequisite of AIMS Integration and could have been envisaged while framing the contract clauses. Thus fact remains that requirements were not adequately assessed and were not included in the agreement.

Further, the Management reply in respect of non-inclusion of penal clause is also not tenable as the penalty imposed on the service provider was only for delay in completion of project. Non completion/incomplete development of application were not considered part of the penalty.

1.3.9.2 IT General Controls

General controls include control over data centre operations, system software acquisition and maintenance, access security, and application system development and maintenance. Following deficiencies were observed in General Controls applied in AAI.

(i) Non formulation of Business Continuity Plan

AAI formulated (October 2016) Business Continuity and Management Policy (BCMP) to ensure that well-defined and tested business continuity plan exists at AAI to enable timely resumption of its critical business processes, information, and information processing facilities and safeguard its personnel in the event of disasters, long term outages and disruptions due to security failures. However, audit observed, that no business continuity plan was formulated in AAI, even after a lapse of almost two years of formulation of BCMP and the incident of data loss in July 2014.

The Management vide its reply (July 2018) has accepted the audit observation and assured that process to formulate business continuity plan is in process along with setting up of disaster recovery site. The Management has further assured (November 2018) that recovery strategy and continuity strategy are being updated as AAI Data Recovery Centre will be available within next few months.

(ii) Non-maintenance of Disaster Recovery Site in AAI

A Disaster Recovery Site (DR) or work area recovery site is a location where an organisation can relocate its lost data following a disaster, such as fire, flood, terrorist threat or other disruptive event. Audit observed that even after five years of SAP/ERP implementation, AAI does not have a DR site to host a scale down version of the applications to meet any disaster or in case of non-functioning of the main data center which is being maintained at New Delhi. Non maintenance of DR poses a risk towards business continuity of AAI in the event of a disaster.

The Management vide its reply (November 2018) has accepted that audit observation and has assured that the process of tender for establishment of DR has already been set into motion and going through mandatory financial approvals, once those approvals are received tender will be floated shortly within next few days.

(iii) Non-compliance to minimum standard requirements in relation with maintenance of Data Centre

Department of IT, Government of India, Ministry of Communications and IT in January 2010, published “Guidelines for Implementation of Security Controls”. Point No. 10 pertaining to ‘Protection against other External and Environmental Threat’ of the said guidelines require that every Centre or State Government organisation should provide physical protection to their Information System against damage from temperature, flood, earthquake, explosion, civil unrest and other form of natural and man-made disaster. Location for Information processing facilities (DATA Centre) should be carefully planned to avoid damage from flood, water logging, rampage arising from civil unrest etc.

Audit observed that the ‘Data Centre’ of AAI hosting the SAP/ERP application located at the Ground Floor of Hangar⁵⁵ Building at Safdarjung airport was not flood resistant and being in hangar building may not withstand earthquakes. Further, though the Environment and Security Policy of AAI specifically provides for fire hazards, it did not provide guidelines on prevention from other natural hazards like floods and earthquakes.

The Management vide its reply (November 2018) accepted the audit observation and assured to take corrective action plan\ including observations from both internal & external audits (as a part of ISO 27001 processes). Additionally, Disaster Recovery Centre, which will be created in Hyderabad will be in first floor and hence the audit observations regarding flood will be adhered to.

(iv) Non-compliance to the provisions of IT Policies

The documented policies and procedures guide the overall IT environment of the Company, ensuring that the corresponding controls and enforcement mechanisms are in place. In AAI various IT policies were adopted only in October 2016 i.e after the incident of loss of SAP ERP data. Following issues of non-adherence to the provisions of policies were observed:

(a) Incident Management Policy

The Incident Management Policy (October 2016) of AAI defines formal systems and procedures for detecting and reporting incidents and corrective actions to be taken to contain the damage and avoid the recurrence of such events in future. The policy also provides for formation of various teams⁵⁶, to monitor all the activities related to IT. The teams were also required to categorise the occurrences as events and incidents and to report the same through a monthly report along with a Corrective and Preventive Action Plan (CAPA).

⁵⁵ A hangar is closed building structure used for protection from the weather, direct sunlight, maintenance, repair, manufacture, assemble and storage of aircraft on airfields.

⁵⁶ IT Helpdesk (Support team), Physical Security and Health & Safety Help Desk.

Audit observed that despite requirement of preparation of monthly report, only one CAPA report was prepared in October 2017. Review of the said 'status' report revealed that as against targeted completion date of 31 March 2018, out of 50 incidents⁵⁷ reported in the CAPA, status (upto June 2018) only five incidents were shown as closed, for 37 incidents the status was 'blank' and for eight 8 incidents it was 'still in progress'. The Management vide its reply (November 2018) informed that Incident Management Policy strict implementation and monitoring is currently underway. Further, corrective action plans are formulated and closed under management supervision.

(b) Password Policy

Password Policy (October 2016) of AAI requires that:

- The minimum length of the password shall be 8 characters. In case of system/ applications which do not allow this, the length should meet the maximum permissible limit. A document / list of such exceptions need to be maintained.
- User Password shall be a combination of alphabets (lowercase and uppercase), numeric and special character.
- User Password shall not contain their Names/DOB/Name of any family person.
- User Password shall not be a part or same as user name or user ids.
- User Password shall not be a dictionary word.
- Password shall expire after a maximum period of 90 calendar days. The authentication system should check for the expiration of this period and force the users to select a new password.

Audit observed that none of the above stipulations were mapped on the login of SAP ERP. Further, out of 17,633 users⁵⁸, 8,801 users did not change their passwords for more than five years (upto June 2018), 3,825 users had not changed their password since last 3-5 years, 570 users had not changed their passwords for last 2-3 years and 2,303 users had not changed their passwords for last 1-2 years. It is pertinent to mention that AAI had witnessed incident of database crash in July 2014 and one of the reasons for the said incident was not changing of default passwords. However, despite database crash, the password policy was not implemented.

The Management in its reply (November 2018) accepted the audit observation and stated that the policy rollout requires production downtime which got postponed and is expected to rollout before commencement of payroll activity for Nov 2018.

(c) Physical & Environmental Security Policy

Physical & Environmental Security Policy & Procedure of AAI (October 2016) require that Fire Safety and Evacuation Drill, Fire mock drills were to be practiced and

⁵⁷ *Major incidents with resolution time of one day-19 nos, Minor incidents with resolution time of upto one week-13 nos, Other incidents & Observations with resolution time of upto 03 weeks.-18 nos.*

⁵⁸ *All users into SAP/ERP excluding Deactivated users, Super, Test ESS users, Upload KPIT users, and blank users.*

documented as per the periodicity mentioned in the onsite emergency plan. However, no fire and evacuation drills have been conducted since formulation of this policy.

The Management in its reply (November 2018) accepted the audit observation and informed that AAI Fire Department was scheduling a fire drill shortly.

(v) Non-monitoring of resolution of incidents

The IT Service Management (ITSM) is a SAP application used in AAI for reporting and resolution of problems and incidents in SAP usage. It allows the end users to create/raise tickets for issues in usage and AAI Core Team Members to process/ resolve the issues with assistance of SAP team. Audit observed that the system was only partially used by the AAI and since its implementation in August 2017, only 73 incidents were reported upto June 2018 through ITSM as against an average issues/complaints of 8-12 per day which are raised through mail. Further, there were delay ranging from 1-209 days in resolution and closing of incidents reported through ISTM.

The Management vide its reply (June & November 2018) accepted the audit observation and assured that ISTM shall be utilised to its full potential.

(vi) Lapses in dealing with incident of crash of ERP database

On 19 July 2014, the disk volume information of the ERP system was deleted by an unknown identity through access to HP storage. After restoration of the system (November 2014), data upto 23 June 2014 could only be recovered and therefore, AAI had to re-build the data from 24 June 2014 to 19 July 2014. The rebuild work was completed by M/s KPIT along with technical support from M/s Stellar Information System Pvt. and M/s Symantec Software Solutions Limited at total cost of ₹2.79 crore. In this regard, following lapses in handling the whole incident, on part of AAI, were observed:-

- The factory default username and password were not changed at the time of installation of hardware, which was a basic requirement. Change in password could have prevented the intruder from gaining access to the system. Password policy was also not formulated by then.
- The last backup, before the incident of crash, was taken almost three months before the crash i.e. on 26 April 2014. Subsequently, no backup of database was taken out by the data centre. The backup policy was formulated by AAI in October 2016 i.e. after a period of two years from the incident. Had, the policy been formulated in time and regular back-ups taken at periodical intervals by AAI, the recovery of data could have been made without much delay. Further there was no Disaster Recovery Site which further delayed restoration.
- The incident was reported to the Board of Directors by the Management only during 162th Board Meeting held on 17 October 2014 i.e. after a delay of almost three months. The Board took a serious note on this delay and directed to fix the responsibility of concerned. The incident being critical in nature should have been apprised to the Board at the earliest appropriate time.

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- Absence of restriction on use of Team Viewer⁵⁹ software made the IT environment, including the database, more vulnerable and prone to such cyber-attack.

While accepting the audit observations, the Management in its reply (June 2018 & November 2018) informed that a committee was duly formed to investigate the matter but could not come out with a definite conclusion. The fact remains that due to failure to implement necessary controls, the AAI had to suffer data loss and rebuild the same at additional cost of ₹2.79 crore.

(vii) Error in generation of SAP default user report

a). Test check of 'User Information System' dashboard by providing criterion for list of user who have not logged on for one year revealed that list so generated contained records of users who have logged in within that period. Thus, due to programming error in SAP, erroneous reports were being generated.

b) Similarly out of 22,412 users records (existing as on 06 September 2018), in 3,727 user records, the last login time with corresponding last login date was not punched. Gaps in time stamping of the login activities points out system programming error/bugs and may result in serious security lapse.

The Management in its reply (November 2018) has accepted the above audit observation and has stated that error has to be resolved by SAP for which an official message has been raised to SAP for resolution.

(viii) Incomplete Vendor Master and Customer Master Database

An analysis of databases containing the Vendor Master and Customer Master revealed the following:

- Due to absence of validation check, out of the total number of 20,626 registered vendors (excluding employees) with AAI (as on 18 June 2018), the GST number for only 4,961 vendors were captured. Further, after implementation of GST, 753 vendors were registered during the period from 01 July 2017 to 31 March 2018 without any GST number. Similarly, out of 12230 registered customers with AAI as on 18 June 2018, GST number for only 3012 customers was captured. Vendors/customers not requiring GST registration were not separately identified. Thus, system did not made it mandatory to fill GST information and vendors and customers could easily get away without filling the GST information.
- Non-feeding of information like postal code, district name and in-correct feeding of postal codes like 111111/ 123456 and dummy PAN numbers like PAN1361 /PAN1385 were observed in both of the above databases. Further, there was no provision in both the databases for triggering/ segregating the blacklisted vendor/customers. Fields such as PAN number and complete address of the vendors and

⁵⁹ *Team Viewer is proprietary computer software for remote control, desktop sharing, online gaming, web conferencing and file transfer between computers over the internet browsers and is also available free of cost to non-commercial buyers.*

customers should have been made mandatory in order to ensure deduction of statutory liabilities and to keep a track of vendor/customer.

The Management in its reply (October 2018) informed that new customers/vendors are not permitted to be created in the system without GST number. The data of dummy PAN number and postal code in vendor/ customer master was being modified and updated to ensure that dummy numbers were not incorporated and provisions for segregating/triggering data of blocked customer and vendor are now available.

1.3.9.3 Application Controls

Application controls particular to an application and are used to provide assurance that all transactions are valid, authorised, complete and recorded.

(i) Financial Accounting and Controlling Module (FICO)

FICO module of SAP in AAI was implemented to collect and record data of all business transactions for preparation of Financial Statement in unified formats, duly integrated with other modules viz. MM, PS and HR on real time basis. Following deficiencies were observed in FICO module.

(a) Non mapping of accounting policies, inadequate input control and data validation

Audit observed that:

- As per the accounting policy for 'Trade receivables', debts more than two years old recoverable from parties other than Government departments are considered doubtful and provided for. However, due to non-mapping of the above mentioned policy, as against the eligible debtors of ₹116.53 crore in FY 2016-17, a provision of ₹155.01 crore was created, under Northern Region of AAI. Thus, non-mapping of controls led to creation of an excess provision of ₹38.48 crore against ineligible debtors, which was in violation of accounting policies.

The Management in its reply (September & November 2018) stated that users erroneously put the facilities for incorporation of bad & doubtful debts in case of disputed cases and the error was rectified in FY 2017-18.

- As per significant accounting policy of AAI for the year ended 31.03.2017 "Assets individually costing less than ₹5000 are charged off to Revenue Expenses". However, during FY 2016-17, 8506 assets (line item wise) were capitalised out of which in 83 cases the cost was less than ₹5000. Thus, due to improper validation checks, system allowed capitalisation of assets valuing less than ₹5000 which needs to be rectified in line with the accounting policy. Further, out of the above 8506 capitalisations, no narration/text was found to be fetched/entered by the system in 325 entries.

While accepting the audit observation, the Management stated (October 2018) that validation had been implemented for assets less than ₹5000 & accordingly no assets creation less than ₹5000 had been allowed to be capitalised in the system thereafter. The Management also stated that necessary validation for narration had been made mandatory

for assets related document type for the financial year 2018-19 onwards and the text also have been updated in records with blank text.

(b) Under-utilisation of functionality of SAP/ ERP

The following functionalities of SAP/ERP were not utilised/ under-utilised resulting in non-achieving the benefits of automation and reduced manual intervention.

- Though the functionality of uploading of supporting documents of Journal Vouchers/entries in FICO is available, the same was not being utilised in AAI.
- Cash flow statement, which is an integral part of the Company's Financial reporting requirement, is being generated in AAI by using excel utility and not by SAP/ERP.

While accepting the audit observations, the Management in its reply (September & November 2018) assured that as upload facility was a recent development, the usage would increase in the coming period & the Cash Flow statement Generation in SAP system was being developed and shall be available in Fiscal year 2018-19.

(ii) Human Resource Management Module

Human Resource module of SAP ERP in AAI was implemented to manage personnel administration, organisational management, payroll and time management. Following deficiencies were observed in HR module:

(a) Non mapping of HR Rules and absence of validation checks

- **Master Data:** As per the requirements of agreements entered into with M/s KPIT, the system was to maintain Master Data of employees including details such as employee number, name, educational qualifications, date of birth, date of joining etc. Master data having basic details of total 28,514 employees has 17,589 active employees, 25 inactive employees, and 10,900 withdrawn employees. Audit observed absence of validation check and lack of input controls as detailed below:
 - Out of 28,514 employees, the 'date of separation' was not fetched/populated by the system in case of 340 employees, despite availability of date of birth. Out of said data, the date of separation in respect of 'active employees' was not captured/populated by system for 19 cases. SAP, being fully automated and integrated, should be able to automatically calculate date of separation on the basis of date of birth/joining of the employee and should not require any manual intervention for feeding the same. However, even such basic calculations are missing from the system. The Management vide its reply (November 2018) has informed that necessary rectifications in the application in view of observation of Audit have been made.
 - In case of 76 active employees, the 'length of service' was more than 60 years ranging from 61-85 years. Further, in case of 310 inactive/withdrawn employees, the length of service was coming to more than 60 years and ranged

from 61-90 years. This emphasises the fact that either the date of birth/joining or dates of separation from the organisation are incorrectly calculated or fed into the system. Thus, controls were not available in the system to check whether the date of birth/ joining or dates of separation captured in the system are correct or not. On being pointed out by audit, the Management vide its reply (November 2018) corrected the date of birth and the date of superannuation in respect of active employees and stated that the concerned users were directed to correct the data in respect of the separated officials which was under process.

➤ Status of 80 records was found to be 'withdrawn' or 'inactive' however, the date of separation and type of separation was found to be blank. As these employees have already left the organisation, thus, date of separation should have been auto captured/fed into the system. This emphasises the fact that date of separation is not being calculated by the system, it was also not a mandatory field. In absence of date of separation, payment of retiral benefits and other such allowances get affected and cannot be paid without manual intervention, thereby defeating the very purpose of automation. On being pointed out by Audit, the Management vide its reply (November 2018) had made necessary changes.

➤ Basic pay in respect of five inactive/ withdrawn employees was shown as '0' (zero). In absence of basic pay, the monthly salary and other allowances are being calculated manually and may result in manipulation. Further, such fields should be made mandatory in the system and should be auto-populated on the basis of 'post' and date of joining. The Management vide its reply (November 2018) stated that the basic pay had been maintained "Zero" for only one inactive official i.e. Sh. Alok Sinha, Ex-Chairman because he was not getting the pay and allowances from AAI. The Management reply was not complete as management has only replied about one entry and not about the remaining form.

➤ In respect of 17,589 active employees, educational qualifications were appearing as 'blank' in case of 8,498 employees and in case of 295 cases 'category' of employees was blank. Similarly pan card numbers were also missing in respect of eight active employees. The weight column had weights ranging from '0 to 6', similarly the height of employees was fed in 'inches', however, details of '0 to 5' inches was also found. Such basic information like education & category is important for promotion and other enhancements, however, these fields are not mandatory. The Management accepted (November 2018) the audit observation and data updation was under completion stage.

• **Loans and Advances**

Employees of AAI can avail House Building Advance, Conveyance Advance, Computer Advance, Festival Advance, Children Education Loan, Emergency as per admissibility and prescribed limits at specified rate of interest as per rules. Installments to be fixed for recovery of the same are accordingly laid in the rules.

Audit observed that rates of interest to be charged for each type of loans/advance was not fetched/appearing in 1,861 records out of 1,864 records and was appearing as '0' in these cases. The conditions pertaining to rate of interest were not mapped in the system. This

highlights the fact that in absence of 'rate of interest' to be charged against each category of loan/advance, the monthly instalments are being calculated manually and fed into the system. Thus, despite availability of functionality, the rate of interest against loans/advances is not mapped.

The Management in its reply (November 2018) accepted the audit observation and stated inadvertent omission would be addressed during fiscal year 2018.

- **Leave Encashment**

As per AAI (Leave) Regulation, 2003 (as amended from time to time), on retirement or resignation & on death, an employee (or his legal heir) will be entitled for encashment of unutilised earned leave due and admissible at the credit of the employee on the last day of his service without keeping any residual leave subject to a maximum of 300 days. Analysis of extracted data of leave encashment made during the year 2016-17 revealed that total amount of EL encashment payments calculated by SAP in respect of 590 (retired) employees was ₹27.38 crore. Out of this, shortage of ₹5.75 crore in respect of 101 employees and excess calculation of ₹0.16 lakh in respect of 179 employees was observed by audit. It is pertinent to mention that actual payment of leave encashment was done on the basis of manual cross checking and calculation. Thus, despite availability of functionality, the system was not adequately customised to ensure correct calculation of leave encashment.

The Management in its reply (November 2018) stated that there was no short or excess payment of EL encashment to retired employees as the arrears / recoveries due to change of DA on later date has been manually entered by the users at the station level.

The Management reply is not acceptable as despite availability of dedicated Module of SAP ERP, leave encashment were not being calculated/ paid without manual intervention. The system was not customised sufficiently to calculate correct amount of leave encashment.

(b) Non customisation and non-utilisation of functionalities pertaining to HR Module

Audit observed that the benefits for which SAP ERP was implemented have not been completely achieved due to non-utilisation of existing facility or non-customisation of application as per the requirement as illustrated below

- Payment of gratuity to a retiring employee was not being routed through HR module and only Finance Module is used for payment of gratuity. Thus, the information and data in respect of superannuation benefits was incomplete.
- Employees cannot apply through SAP Tour Advance /Travelling Advance and other kinds of advances and loans. Application of advance was still being done manually through files. Investment declaration by employees as per requirements of Income Tax Act had not been enabled.
- The appraisal of employees' function has been implemented only for executives.

Thus, the purpose of automation is not fully achieved.

The Management in its reply (November 2018) informed that the payment of gratuity was now being paid through SAP HR Module. The module of applying different advances through SAP was not available and the development was still to be done. The development of online travel module was under process. The link of investment declaration was available in Employee Self Service (ESS) portal and would be developed. The employee appraisal for non-executive except group-D has already been deliberated and the development was under process.

The Management reply confirms the audit observation regarding non customisation of application as per requirement.

(c) Errors in Loan Report generated in SAP

Audit observed that

- ‘zloan Report’ which includes details of loans & advances (part of HR module) given to employees was not linked with Paybill Register (PBR) and General Ledger for HBA (part of Finance Module). Due to this, deductions and recoveries had been effected in PBR and GL but were not shown in zloan Report. For the period 2016-17 a recovery of ₹1.29 lakh was not reflected in zloan report whereas the same was appearing in GL and PBR. The issue persistent since 2013-14 had not been resolved.
- Effects of repayment of loan and interest as well as grant of fresh loan were not reflected in zloan Report. Upto April 2018, five cases were observed wherein, a total amount of ₹1.94 lakh was repaid towards loan by respective employees, which was also deducted from pay, however, the repayment was not reflected in zloan report. Similarly, loans amounting to ₹30 lakh were granted to six employees upto April 2018, which were not reflected in loan schedule. It was also observed that in one case, a loan of ₹5 lakh was granted however, against this loan amount of only ₹4.50 lakh was appearing in loan schedule.

SAP provides integration of functionalities/modules and all the transactions appearing in one module automatically get update in other respective modules. However, such integration was missing in HR module and Finance in respect of ‘loans/advances’.

The Management in its reply (September & November 2018) has accepted the audit observation and assured that improvements in the report are under process.

(iii) Material Management

SAP Material Management system is a part of logistics area and helps to manage the procurement activity of an organisation from procurement of material to final payment. It supports all aspects of material management such as Planning, Control, Inventory, Stock transfer, Stock valuation, Domestic & Foreign procurement, etc. Following irregularities in utilisation and customisation of Material Management (MM) Module were observed.

(a) Incomplete upload of initial inventory in MM Module and difference in value of Inventory as per FICO and MM Module

When the SAP ERP is rolled out in an organisation, the organisation uploads the physical warehouse stock figures or the book inventory from the old/legacy system into the R/3 MM module. 'Movement type 561' is used in SAP for initial entry of stock balances from legacy system to SAP. The MM module went 'Live' in AAI with rolling out of SAP/ERP in AAI from 1 April 2013. A review of 'Movement type 561' revealed that while uploading inventory from legacy system to SAP, the value of inventory was not completely uploaded. As against the book value of ₹55.36 crore (as per books of accounts for the year ending 31 March 2012), an inventory of only ₹19.65 crore was upload into the SAP. Further, AAI continued to use the 'Movement type 561' even after initial upload on 1 April 2013 although the same was required to be used only for initial upload of inventory and was thus expected to be discontinued after Go Live. After the initial upload, inventory amounting to ₹3.39 crore, ₹0.21 crore, ₹26.99 crore, ₹0.00 and ₹0.02 crore was also uploaded from FY 2013-14 to FY 2017-18 respectively.

Audit also noticed that the closing value of Inventory as on 31 March 2017 as per MM module was ₹103.13 crore whereas as per FICO module it was ₹95.05 crore, leaving a difference of ₹8.08 crore between the data as per the two modules. It is pertinent to mention that no adjustment of difference in value of stock as per MM and FICO was being done in SAP and the same was reconciled only in June 2018.

Audit observed that the MM module was permitted to go-live without ensuring complete upload of inventory into the system. Even after a lapse of almost five years, 'Movement type 561' was being used to upload further inventory into the system indicating deficient controls in utilisation of functionalities of SAP. Repeated upload of inventory and unreconciled stock balances is a serious concern as it points at the defective Management Information System (MIS) and inadequate inventory management as management has still not been able to ascertain the actual quantity and value of its inventory which was existing at the time of initial upload.

The Management in its reply (November 2018) informed that reconciliation of MM and FICO stocks balances as on 30 June 2018 had been carried out and a new "z" report had also been created in the system.

(b) Maintenance of erroneous data due to improper validation checks

AAI had customised MM module of SAP as per its requirements and had defined various types of codes for materials/stocks available/to be procured. As per the standard functionality of SAP, the unit of measurement (UoM) against each stock was also defined.

Out of sample of 10,48,575⁶⁰ records of inventory, a review of 5787 records (excluding closing inventory with value zero) with UoM as 'EA' (Each) revealed that in 07 records, quantity of closing stock was mentioned in fractions whereas 'EA (Each)' means that the quantity for these can exist only in 'whole number'. A further analysis revealed that these items were Screw Machine, Transistor, Wrench and Diode, the quantity of which can

⁶⁰ Initial entries upto Financial Year 2016-17

logically exist only in whole numbers. Audit observed that availability of such items in fractional quantity indicates deficient validation checks in the system which impact the MIS, and results in incorrect stock keeping and inadequate inventory management.

The Management vide its reply (November 2018) informed that Validation for "EA", Checks in PO (purchase orders) for EA with integers, changes in PO quantity checks, have been implemented on 16.10.2018, now system was not allowing to enter decimal value with UOM "EA".

(iv) Project Management System

In AAI, the Project System (PS) Module in SAP helps to manage project works (civil works, renovations etc) and includes stages such as creation of project, project planning, budgeting and release, project implementation and project completion. A review of functionalities available in the standard PS Module vis a vis customisation of PS module adopted in AAI revealed the following deficiencies.

(a) Non-monitoring of progress of activities

- While executing projects, one of the main objectives of the organisation is to ensure that the projects are executed within the budget and scheduled time and to ensure that resources are allocated to the project as per the requirement. However, despite availability of requisite functionality of comparing budgeted cost of the project with actual cost, AAI was not utilising the same. Due to this, cost escalation or savings, if any, on the project was not being monitored through the system.
- Similarly, despite availability of provision to compare the projected milestones with actual achievement, AAI was not utilising the same. Delay in project execution was not being compared and monitored through the system.

Audit observed that these deficiencies result in non-monitoring and scheduling of activities of the project and thus defeat the very purpose of implementation of the PS module. Further, in absence of cost comparison, the likely completion cost may also exceed the projected cost by a substantial amount which may not come to early notice of management.

The Management vide its reply (October 2018) stated that that PS module was configured for Project monitoring & control and accepted that dashboard for monitoring needs to be developed. The Management reply was not tenable as despite a considerable gap since the implementation (March 2013) of the module, the Management had failed to utilise this module for even monitoring the cost and time of the project.

(b) Manual Intervention

Important conditions of the contract such as imposition of penalty or liquidated damages etc on the contractor were not mapped in the PS module for each project. Audit noticed

that during the year 2016-17, deductions and recoveries⁶¹ such as penalty, liquidated damages, SD etc amounting to ₹71.07 crore were made from the bills of the contractors which were calculated manually and was later fed into the system. Hence, due to non-customisation, the system remained underutilised and due to manual intervention inherent risk of inaccurate calculation cannot be ruled out.

The Management vide its reply (October 2018) assured to explore customisation for liquidated damages and imposition of penalty.

1.3.9.4 Other deficiencies

(i) Under-utilisation of SAP utilities

Following other modules of SAP were although developed by AAI were not being utilised optimally.

- **Business Objectives Module:** One of the basic reason for implementation of SAP ERP in AAI was to provide top management a holistic and integrated view of the information. In order to achieve the said objective, Business Objectives module was implemented as business reporting platform to provide a standardised and streamlined reporting process for the enterprise and retirement of manual reports and legacy reports. However, audit observed that presently, this module was not being fully utilised. Reports/dashboards in respect of Material Management and Project System were not developed in this module. Further, in respect of Finance and HR module, only partial information such as total Employee Distribution, Geo distribution of Each Personnel Area / Region wise etc. was developed. Thus, the purpose of implementation of this module were not achieved.

The Management in its reply (July 2018 & November 2018) stated that Dashboards had been configured as per the requirement of user departments. The presentation of HR dashboards had been given to top Management and the development of other dashboards as per management requirements was under progress. The dashboard requirement for MM and PS module was being analysed and shall be implemented as per requirement.

The Management's reply confirms the audit observation that all the functionalities of SAP were not being utilised.

- **E-Recruitment Module–** AAI had planned to implement the SAP E-Recruiting functionality to meet their business needs by providing a more effective E-Recruiting process and in order to have a more effective recruitment process. However, despite getting these modules developed and customised by SAP, AAI was still not utilising it.

The Management in its reply (July & November 2018) stated that the AAI HR team had decided not to use the E-Recruitment module of SAP. The decision had

⁶¹ Penalties- ₹6.45 crore, Security Deposit- ₹35.85 crore, Liquidated Damages and other deductions- ₹16.58 crores, EMD- A ₹12.19 crore.

been taken due to limitation of SAP system in processing large volume of applications. The E-Recruitment process used by other PSUs had also been evaluated and it was decided to use some other system.

The Management's reply was not tenable as despite customisation of this module as per requirement and deployment of funds for the same, a decision to not utilise this module was unjustified.

- **Manpower Planning Module** - This module was envisaged to automate manpower requirement/planning based on competencies, skills, experience, qualification etc. Provision to analyse the unit-wise, cadre wise, grade wise resources available and required and do a gap analysis within specific time frame, to generate a consolidated manpower plan, to issue alerts before any position falls vacant due to retirement/ term of temporary or contractual employee getting over and to integrate with the recruitment/ promotion module for filling up of vacancies. However, this model was not in use in AAI.

The Management in its reply (July & November 2018) informed that their HR team had decided to use this module and accordingly were getting it customised and assured that the module would be used in future for resource planning and placement.

- **Promotion Module:** The requirements of this module were to implement organisation's career path for various cadres, grades and scales, to define grade advancements within a channel (seniority/Merit/time based) and to draw a competency matrix in the system. However, this module was also never used.

The Management in its reply (July & November 2018) informed that their HR team had decided to use this module and accordingly were getting it customised and further assured that the module would be used in future for resource planning and placement.

(ii) Non monitoring of compliances to the provisions of SAP Global Service and Support Agreement

As per SAP Global Support Agreement (November 2015), the Service Provider was required to provide services as per the defined terms. However, SAP did not maintain following documentation required as per the agreement. Further, non-adherence of the same were also not monitored and objected by AAI:

- **Analyse Incident:** As per point no. 2.3.2.2 of clause 2, it was the responsibility of SAP to Document all the incidents/ problems and diagnosis findings. However, no documents for root cause analysis, investigation and diagnosis, effort estimation were maintained by the service provider.
- **Functional Support:** As per point no. 2.3.2.3 of clause 2, service provider was to document all support provided to key users regarding their individual business processes, fault reports in the components and processes supported, root cause

analyses, providing solution in the System-Adjust new configuration or development objects etc. However, no documents detailing the above were maintained.

- **ABAP Module:** As per point no. 2.3.2.5.1 of clause 2, service provider was to document all the changes/modifications/activities made into various objects of ABAP module like Debug programmes, Custom tables and indexes, existing SAP scripts, Managing Z-objects, Modification to existing custom screens, Optimisation of reports. However, no documents detailing the above were maintained.
- **Project Management-Governance:** As per point no. 2.6.2.1.3 of clause 2, service provider will provide ad-hoc Customer Reports, Monthly Governance Reports, Monthly Status Reports with participation in monthly review meeting with customer service manager to review the performance and help address escalated issues, organise a Monthly Service Review and publish KPIs to internal SAP stakeholders. However, till March 2018, only three meetings were held and documented for review of performance of service provider i.e in May, June and December 2017. Thus, no reports as per the requirement of above stipulation were provided to AAI and no periodic Governance and Review meetings (except above three) were held to monitor the progress, identify and evaluate the potential risks and creating mitigating risk plan in the absence of which efficiency and effectiveness of services may not be managed economically.

The Management vide its reply (October 2018) stated that Team was always onsite and review and monitoring takes place on a daily basis, however, IT Service Management (ITSM) Tool had now been implemented and all the incidents, modifications, problem findings were being recorded through this tool.

The Management reply was not tenable as the clause mentioned in para were included in the agreement in order to ensure uninterrupted and optimum services from the service provider. However, in absence of any documentary proof, which were required to be maintained as per the given clause, neither existence of optimum services could be ensured nor was monitoring of services was ensured. The Management reply that ITSM tool has now been implemented and was in use was not tenable as the clauses mentioned in the agreement cannot be substituted with usage of ITSM which was a tool used for reporting and resolution of problems and incidents.

(iii) Inadequate development of in-house expertise resulting into undue reliance on SAP consultants even after stabilisation of SAP ERP

AAI, on nomination basis, awarded (30 November 2015) work for providing SAP support service to M/s SAP India Pvt Ltd at a cost of ₹8.18 crore for 3,630 mandays. As per the said agreement, the services were to start from 15 December 2015 and were to end on 14 December 2018. Although, the support service was spanned across 36 months, however, all the man days were consumed within a period of 21 months. Thus, for the remaining period of 15 months, it was approved to take support from SAP at further cost of ₹7.25 crore for 3010 mandays, although, the initial support agreement with SAP provided for maintenance of both ERP and SRM with total man days of 3630 days and were for a period of 3 years, whereas, the support for later part of 15 months were only for ERP, even then the man days were assessed almost at par with previous estimates and

consumption despite major customisation, stabilisation and streamlining of existing modules. Thus, AAI had not yet achieved self-dependency and in house expertise was not adequately developed even after lapse of more than 05 years since implementation of SAP ERP.

The Management vide its reply (October 2018) accepted the audit observation and stated that effort was being made to recruit and place more officials in SAP IT Core team, who would be trained and developed to take up more responsibility in near future.

1.3.10 Conclusion:

SAP ERP in AAI was implemented with the objective of integration, standardisation and streamlining of all the activities of AAI. However, there was inadequate planning in implementation of SAP ERP, modules of SAP ERP were not utilised completely and the business rules were mapped inadequately. SAP ERP did not have adequate data input controls and validation checks. The difference between the legacy data and the data uploaded in SAP was not reconciled. Moreover, monitoring of cost and scheduling of the project was not being done through SAP. Non maintenance of industry specific Data Centre requirements and non-existence of Disaster Recovery Site poses potential threat to the data in AAI. AAI is largely dependent on SAP consultants for resolution of issue and in-house expertise is lacking.

The SAP ERP implementation was an ambitiously planned project at an enormous cost. However, even after more than five years from its 'Go-live' date, the system retains a high level of manual intervention. Thus, the lack of full integration, inadequate controls and under-utilisation of SAP ERP has seriously undermined its effectiveness.

1.3.11 Recommendations:

- AAI should ensure strict compliance to IT policies including formulation of business continuity plan and maintenance of disaster recovery site.
- AAI should strengthen its existing validation checks and build in additional checks so that the deficiencies and inconsistencies pointed out in the systems are eliminated and data integrity is enhanced.
- Business processes should be customised in the application incorporating all the relevant rules and regulations so as to eliminate scope for manual intervention.
- AAI should ensure optimum utilisation of the modules of SAP ERP by exploiting all their features in order to achieve their objectives.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

1.4 Loss of revenue due to allotment of hangar space at lower rate of license fee

Airports Authority of India allotted Hangar space at Guwahati airport at a license fee lower than the applicable rate and suffered a loss of revenue of ₹7.08 crore.

AAI rationalised (April 2008) the license fee for space w.e.f 01 April 2008 in respect of various airports/ international airports of the country. It was specified that there would be compound escalation of license fee at the rate of 7.5 *per cent* per annum (subsequently enhanced to 10 *per cent* per annum w.e.f 01 April 2011). The above guidelines of April 2008 also specified that the license fee for hangar space at airports would be at par with the rate of license fee for space applicable in respect of non-air conditioned terminal buildings.

Expression of Interest (EOI) was invited (March 2015) for allotment of newly constructed hangar space at Lokpriya Gopinath Bordoloi International (LGBI) airport, Guwahati. In response to the EOI, M/s AAA Aviation Private Limited (AAA), Shillong submitted (March 2015) their willingness for allotment of hangar space at LGBI airport, Guwahati. Accordingly, Local Commercial Advisory Committee (LCAC) comprising officials of LGBI airport, Guwahati was constituted for verification of credentials and offering recommendations thereof. LCAC recommended (April 2015) to allot hangar space to AAA for three years at ₹1,410 per square metre (sqm) per annum (i.e. ₹117.50 per sqm per month) and forwarded the same to Regional Commercial Advisory Committee (RCAC)/ North Eastern Region (NER). RCAC/ NER forwarded the recommendations of LCAC to the Corporate Headquarters of the AAI for their approval. Corporate Headquarters of the AAI approved (May 2015) the allotment of hangar space to AAA on the terms and conditions as recommended by RCAC/ NER. Accordingly, AAI allotted (June 2015) a hangar space measuring 3,172 square meter (sqm) at LGBI, Guwahati to AAA for three years for a license fee of ₹117.50 per sqm per month with the condition of annual compound escalation from the month of April every year and an agreement was entered into (June 2015) with AAA in this regard.

However, the Corporate Headquarters of AAI noticed (March 2016) that allotment of hangar space to AAA was done by considering the land rental instead of license fee for non-air conditioned space and directed the LGBI airport authority to revise the license fee based on non-air conditioned space with 10 *per cent* escalation per annum as per the above guidelines. The applicable rate of license fee for the above hangar space should be ₹565 per sqm per month as per the above laid down guidelines of rationalisation of license fee. AAI raised invoices for license fee on AAA at the rate of ₹117.50 per sqm per month upto March 2016 and ₹126.70 per sqm per month from April 2016. Subsequently, AAI raised the revised invoices on AAA from May 2016 incorporating the applicable rate of the above laid down guidelines with retrospective effect from June 2015.

AAA, however, did not agree with the revised rate of license fee on the plea that the same was not as per the terms and conditions of allotment letter as well as agreement. AAI continued raising invoices on AAA for license fee for the above hangar space at the applicable rate with annual escalation of 10 *per cent*. AAA did not pay differential license fee⁶² and service tax thereon. AAI pursued the matter with AAA on a number of

⁶² *Difference between the applicable rate and the rate mentioned in the allotment letter*

occasions, without any fruitful results. AAA finally intimated (March 2018) AAI their intention not to continue with the allotment of hangar and surrender the same within 60 days. AAA also denied to pay the differential license fee and Service tax/ GST thereon during the three-year period up to June 2018 which worked out to ₹6.43 crore and ₹1.03 crore, respectively. The matter was referred (June 2018) to the Dispute Resolution Committee (DRC) of AAI and AAA was asked to pay the revised license fee retrospectively from May 2016 instead of June 2015. AAA, however, did not pay the same. AAI ultimately encashed (November 2018) the bank guarantee of ₹0.38 crore submitted by AAA.

Audit observed that allotment of hangar space to AAA at a lower rate of license fee in violation of the approved laid down guidelines by the Management was not justified which led to a loss of revenue of ₹7.08 crore⁶³ to the Authority. This also indicated deficient internal control of AAI at every level.

The Management stated (November 2018) that the hangar space was allotted at a lower rate of license fee due to oversight of the approved guidelines and the same was rectified in May 2016. It was further stated that the formalities to initiate recovery proceedings before Eviction Officer as per provisions of Section-28 G of the AAI Act, 1994 (as amended in 2003) has been initiated as instructed by the competent authority to realise balance amount. If not realised, the next course of legal action would be taken on the basis of outcome of the aforesaid recovery proceeding. The Ministry endorsed (March 2019) the views of the Management.

Air India Air Transport Services Limited

1.5 Undue favour to Jet Airways due to non-levy of penal interest for delayed payment and non-recovery of outstanding dues

Non-levy of penal interest by Air India Air Transport Services Limited on Jet Airways as per Ground Handling Agreement for delayed payment on ground handling services for the period June 2014 to May 2016 resulted in loss of ₹7.55 crore and an amount of ₹4.18 crore outstanding for recovery.

Air India Air Transport Services Limited (AIATSL), a wholly owned subsidiary of Air India Limited (AIL), provides ground handling services to AIL and other airline customers at different airports in India as per Ground Handling Agreements (GHA) entered into with them. AIL entered into a GHA with Jet Airways (India)/ Jetlite (India) Ltd (hereinafter Jet airways) for international and domestic flights for ground handling services at Cochin station with effect from 1 July 2011. With operationalisation of AIATSL in April 2014, these agreements were novated (June 2014) to AIATSL.

As per clause 5 of GHAs for Cochin station:

- i. Carrier shall provide bank guarantee equivalent to 45 days handling charges based on frequency of flights.
- ii. Carrier will settle the invoices on monthly basis within 30 days of its receipt.

⁶³ (₹6.43 crore + ₹1.03 crore) - ₹0.38 crore

- iii. An interest of two *per cent* per month will be applicable on the unpaid amount from the due date till the payment date.

Jet Airways terminated the GHA in May 2016. Audit scrutiny of records/details for the period June 2014 to May 2016 revealed the following:

- During June 2014 to May 2016, there were delays ranging from 26 days to 274 days (for international flights) and 35 days to 237 days (for domestic flights) in raising the invoices which indicates lack of internal control.
- In order to protect the financial interest of the company, timely realisation of dues needs to be ensured by vigorous follow up with the customer airlines. However, Audit observed that there were delays (over and above the free credit period) in receipt of ground handling charges which ranged from 577 days to 1,111 days (for international flights) and 577 days to 1,083 days (for domestic flights) and continue to be pending for recovery which indicates lack of proper monitoring.
- An amount of ₹14.24 crore towards ground handling charges was outstanding from Jet Airways as on 31 March 2017. AIATSL received an amount of ₹10.05 crore till November 2018 from Jet Airways and an amount of ₹4.18 crore was outstanding at the end of December 2018.
- Though Jet Airways delayed payments by almost two years, AIATSL did not raise any bills towards penal interest despite a clause in the agreement. The loss of interest due to delay in receipt of payments amounted to ₹7.55 crore.
- Jet Airways had furnished bank guarantees of ₹0.91 crore towards domestic and international operations which were valid up to 17 June 2014. However, AIATSL did not obtain/ renew bank guarantee thereafter despite a clause in the GHA.
- Copy of approval of competent authority for continuing ground handling services to Jet Airways in spite of above mentioned deficiencies was not found on record.

The Management stated (November 2018) that:

- There has been no intent to accord any undue favour to Jet Airways and it would be reasonable to assume that Jet airways had accepted the outstanding and interest as well.
- AIATSL has been able to recover 66 *per cent* of the outstanding invoiced amount excluding the interest for delayed payment.
- The matter is being actively pursued with M/s Jet Airways for recovery.

The Management's reply needs to be seen in the light of following:

- AIATSL continued providing ground handling services without receipt of invoiced charges for two years and without levy of interest.
- AIATSL also failed to renew/obtain bank guarantee as per provisions of the agreement, which showed that undue favour was extended to the customer.

- Jet Airways terminated the GHA and there was no bank guarantee available with the company to safeguard its interest.

Thus, AIATSL extended undue favour to Jet Airways which resulted in non-recovery of ₹4.18 crore and loss of interest amounting to ₹7.55 crore (at the rate of two *per cent*) and the chances of recovery of the outstanding amount seems remote.

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

Air India Limited

1.6 Excess expenditure due to deviation from tender conditions and commitment given in the technical bid by lowest quoted party

The tender committee arbitrarily deviated from tender conditions and technical bid of L1 hotel while drawing up the financial evaluation report, which resulted in booking additional eight rooms per day than required for three years. This resulted in incurring excess expenditure of ₹13.13 crore to Air India. The fact that the projected financial outgo of the lowest bidder was based on 24 rooms instead of 16 was also not brought to the notice of Air India headquarters while forwarding the commercial evaluation report for approval.

AIL floated (30 January 2015) a tender for layover hotel accommodation for cockpit crew at New York. Clause 1 of notice inviting tender (NIT) stated the AIL's room requirement per day at 16 for the crew. Clause 3 mentioned that the billing will be done on actual use of rooms on "24 hours check-out" basis and no overlapping charges would be applicable for check-out exceeding 24 hours by 6 hours due to flight delays/ exigencies etc. In the event of check-out exceeding six hours but upto 12 hours, 50 *per cent* of the room rent and after 12 hours full rate will be payable. As per clause 2 of the technical bid, the hotel should have 24 hours check-in/check-out facility.

Four hotels⁶⁴ submitted their bids. The technical evaluation committee in its report (dated 25 February 2015) certified that on the basis of bids evaluation and visit to the hotels, three bids were found to be technically qualified. All the hotels had confirmed having 24 hours' check-in/check-out facilities. Financial bids of technically qualified hotels were opened on 26 February 2015 and M/s Millenium Hilton Hotel was found to be the L1 bidder. AIL entered into (01 May 2015) an agreement with the Hotel for three years commencing from May 2015.

Audit, on scrutiny of financial evaluation, observed that the committee while working out the total financial outgo for three years, considered 24 rooms per night instead of 16 rooms. This fact was not revealed in the commercial evaluation report of the Committee which was sent for approval of Air India headquarters. Financial evaluation based on 24 rooms was an infraction of the tender conditions and technical bids of the hotels confirming 24 hours check-in/ check-out facilities. The proposal was submitted through the Executive Director (Operations) and Finance wing and approved by the CMD on 17 April 2015.

⁶⁴ (i) *Conrad, New York*, (ii) *Millenium Hilton, New York*, (iii) *Hilton, New York* and (iv) *Radisson Hotel, New York*.

Subsequently, while signing the agreement, two clauses were inserted, wherein it was mentioned that the hotel agrees to provide 24 rooms on a daily basis and another clause stating 'room reservations for early arrivals (i.e. before 12 PM on day of arrival) will be charged the applicable crew rate for the night before' (Article I–Service). Insertion of these clauses was infraction of clause 3 of the NIT condition and assurance of the hotel in clause 2 of the technical bid. Thus, booking of eight extra rooms on daily basis for three years resulted in excess expenditure of USD 2.08 million (₹13.13 crore)⁶⁵ as shown below:

Table 1.9: excess expenditure due to extra booking of rooms

(in USD)				
Year	Per day room rent and breakfast charges	Total outgo at 24 rooms per day	Total outgo at 16 rooms per day (actual requirement)	Excess expenditure/commitment
1 st Year	233.00	20,41,080	13,60,720	6,80,360
2 nd Year	237.20	20,77,872	13,85,248	6,92,624
3 rd Year	241.48	21,15,365	14,10,243	7,05,122
Total excess expenditure				20,78,106

Audit also observed that the agreements between AIL and other hotels⁶⁶ providing crew accommodation across USA region where AIL operates its flights stipulated billing on 24 hours check-out facility with six hours grace as per the conditions of the NIT and technical bid requirement which is being honoured by the hotels.

Regional Manager, AIL, New York stated (September 2018) that while the hotel had checked for providing 24x7 check-in/check-out facility, they were unable to offer this facility free without additional charges. As stated by the Regional Office, this is primarily because the crew arrive early morning and to ensure that the crew do not have to wait, the rooms must be booked unsold from the previous night. It further stated that the finance and station nominees were part of the technical evaluation committee; they factored the requirement of third night during the financial evaluation. Regional Office further stated that while NIT reflects the terms and conditions that AIL expects, the evaluation needs to be carried out on the basis of bids received and thus, it is essential to seek approval for the expected financial outgo based on actual bids and not the theoretical outgo based on tender document. Thus, the committee calculated the financial outgo based on 24 nights after their technical evaluation and not 16 nights as per NIT.

The reply of the Regional Office is not tenable due to the following:

- (i) There were no documents on record to substantiate that the hotel was unable to offer this facility without additional charges. Besides, if the hotel was unable to provide the same, it should have been disqualified in the technical bid. Despite the hotel confirming to provide 24 hours check-in/check-out facility, the issue of 24 rooms in place of 16 per night was brought *de novo* by the committee while signing the agreement.

⁶⁵ Based on minimum rate of exchange of ₹63.19/USD prevalent during May 2015 to April 2018.

⁶⁶ Hotel Pennsylvania providing accommodation for cabin crew in New York, hotel Le Meridian for cockpit and cabin crew layover at San Francisco and Hotel Sofitel and Holiday Inn for cockpit and cabin crew respectively at Chicago

- (ii) The Regional Office did not bring this issue to the notice of AIL headquarters while sending the evaluation report nor the latter detected the infraction.
- (iii) The subsequent agreement executed with the same hotel effective 1 June 2018 for three years provided for charging of two room nights per crew, though the flight schedules remain the same and the hotel has also been honouring the same.

Thus, the tender committee arbitrarily deviated from tender conditions and technical bid of L1 hotel while drawing up the financial evaluation report which resulted in booking additional rooms and incurring excess expenditure of ₹13.13 crore.

The matter was referred to the headquarters of AIL in January 2018 and followed up in August 2018.

The matter was referred to the Ministry in November 2018; their response was awaited (May 2019).

1.7 Excess expenditure towards health insurance premium by Air India Limited for its employees in US Region

Air India Limited incurred excess expenditure of USD 437,847 (₹2.64 crore) towards health insurance premium for its employees in US region due to insertion of a clause in the agreement with the union limiting employees' contribution to fixed amount.

AIL executed (effective from 19 July 1974) an agreement with International Brotherhood of Teamsters Chauffeurs, Warehousemen and helpers of America (a labour Union in USA and Canada) representing the clerical and related employees. As per clause 36 (A) of the agreement, AIL agreed to continue in full force and effect its present group health insurance plan with increase in benefits and to pay 95 *per cent* of the cost of said insurance. In the subsequent agreement effective from 30 August 1977, while clause 36 (A) contained the same recital, another clause was incorporated as clause 36 (D) which stated that employees' contribution under the health insurance plan referred to in clause 36 (A) were to be limited to present employee dollar contribution.

Audit scrutiny revealed that though both clauses in the agreement are inconsistent with each other and date back to 1977, the same continues to be incorporated in all the five consecutive amendments between 1977 and 2005. Though cost to AIL on account of its contribution for health insurance has been on the rise depending upon the insurance premium, the employee contribution has stagnated at the rates fixed in 1977 despite manifold increase in salary and cost of living allowance of the employees.

Audit noticed (August 2016) that the Regional Office, AIL USA Region, New York has been deducting USD 1.11 (single coverage)/ USD 3.13 (family coverage) for health insurance and USD 1.02 (single coverage)/ USD 3.34 (family coverage) for dental insurance from its employees (both India based and local staff), taking recourse to clause 36 (D) inserted in 1977 without invoking clause 36 (A), which required deduction of five *per cent* of the cost of health insurance. The Regional Office stated (September 2016) that AIL has proposed to increase the employee contribution to 7.5 *per cent* without restriction to an amount equivalent to dollar contribution. No further report on the matter has been received (October 2018).

Further, audit observed (November 2017) that the monthly health insurance premium of an employee ranged between USD 696.69 and USD 2,126 depending upon the number of persons covered in the policy. A perusal of the payments made during the month of November 2017 revealed that USD 128,561 was paid on account of health insurance premium for 74 personnel. Against USD 128,561, an amount of USD 6,428 (five per cent) was to be deducted from the employees as per clause 36A of the agreement *ibid*. However, only USD 231.62⁶⁷ was recovered from the officials. In order to ascertain the excess financial outgo of AIL, the Regional Office was requested to provide the related records from 2005 onwards. However, the office could provide information on health insurance premium for last six years (2013–2018) only while information for the year 2007 was available on record. Based on the data available for seven years, the excess financial outgo of AIL is shown in the following table:

Table 1.10: Excess financial outgo of AIL on health insurance premium

Year	Premium paid by Air India	5 per cent deductible	No of India based and local employees	Actual amount deducted ⁶⁸	Difference	Total excess avoidable outgo
	(in USD)		(in No.)	(in USD)		
2007	13,26,564.00	66,328.20	125	4,695.00	61,633.20	437,846.96
2013	14,90,647.34	74,532.36	75	2,817.00	71,715.36	
2014	14,11,917.06	70,595.85	75	2,817.00	67,778.85	
2015	12,50,299.25	62,514.96	75	2,817.00	59,697.96	
2016	13,96,682.19	69,834.11	69	2,591.64	67,242.47	
2017	12,25,612.73	61,280.64	80	3,004.80	58,275.84	
2018*	10,77,578.95	53,878.95	69	2,375.67	51,503.28	

*(upto 11/2018)

Thus, AIL made an excess payment on account of health insurance premium amounting to USD 437,846.96 during the year 2007 and from 2013 to 2018 (upto November 2018). The excess expenditure would be much more if data for other years was made available.

In reply, the Regional Office stated (January 2018) that it is incorrect to say that AIL has omitted to strike out clause (D) inserted in 1977 as Union agreements are finalised after protracted negotiations between AIL Management and Union representatives. It further stated that any unilateral decision by AIL in this regard can be challenged in court by the Union.

The Management's reply is not tenable due to the fact that no document was produced by the Regional Office to suggest that any discussion has ever taken place on this subject and the Management continued to honour clause 36D of the agreement, to the financial detriment of AIL. In effect, AIL has been paying more than 99 per cent of the health insurance premium for its employees, both local and India based. Besides, the Regional Office neither approached its Headquarters to regularise the expenditure in question nor taken any initiative to remove one of the clauses which is not applicable. AIL is to retain/incorporate the correct clause (5 per cent or proposed 7.5 per cent) as deductible from the salary of employees in the wage agreement, which is being negotiated with the Union.

⁶⁷ Considering maximum deductions applicable to family, i.e., USD 3.13 per employee

⁶⁸ Considering maximum deductions applicable to family, i.e., USD 3.13 per employee

The matter was referred to the headquarters of AIL and Regional Office at New York in January 2018 and followed up between April- August 2018.

The matter was referred to the Ministry in November 2018; their response was awaited (May 2019).

Pawan Hans Limited

1.8 Improper management of rescue operations

Failure of Pawan Hans Limited in deploying cockpit crew as per the requirements of rescue operations in hilly terrains resulted in loss of ₹11.78 crore besides risking human life.

Pawan Hans Limited (PHL), incorporated in October 1985, is the flagship helicopter service provider of the Government of India and has the largest fleet of non-military helicopters in South Asia. Its area of expertise is in connecting inaccessible areas and conducting search and rescue operations which is in concurrence with some of its main objects mainly:

- To operate scheduled/ non-scheduled services by helicopter and such other means as may be determined by the Government in inaccessible areas and difficult terrains;
- To undertake operations that may be directed/requisitioned by the Government.

Audit observed that PHL deployed (June 2013) its Dauphin AS 365 N3 Helicopter (VT-PHZ) with State Government of Uttarakhand for carrying out rescue operations for devotees and local people affected by flash floods. While on a rescue mission, VT-PHZ met with an accident (28 June 2013) at Harshil Helipad, Uttarakhand. All the three people on board (two crew members and one passenger) sustained minor injuries but the tail portion of the VT-PHZ was substantially damaged. PHL intimated (28 June 2013) New India Assurance Co. Ltd. (the insurer) about the accident and after completion of the repair (October 2014) of VT-PHZ, filed an insurance claim of ₹10.87 crore with the insurer.

The insurer rejected (January 2017) the claim of PHL based on the findings of the Accident Investigation Board, constituted by the Ministry of Civil Aviation, which pointed out that a contributory factor in the accident was the deployment of cockpit crew to operate in hilly/mountainous terrain by PHL without requisite hill flying training/recurrent training. The insurer stated that the claim fell under General Exclusions No. 3 as there was clear breach and violation of the warranty applicable to insurance policy as per which the insured was under contractual obligation to comply with all air navigation and airworthiness orders and requirements issued by any competent authority affecting the safe operations of the aircraft.

Audit noted the following:

- PHL's Operational Manual and Civil Aviation Requirement (CAR) Section 7, Series 'B' Part XII specifically lays down training requirements for operations in

hilly region as flying in hilly region needs thorough expertise in understanding parameters like density altitude, mountain winds, conical hills etc. The training of the pilots for operating in hilly region is indispensable as flying in hilly terrain requires the knowledge of the typical characteristics of the hilly terrain, the effects of wind and rapidly changing weather conditions etc. that can restrict the operations. Height of the helipads may adversely affect the performance of helicopter especially during take-off and landing phases. Despite being aware of these requirements, PHL deputed a cockpit crew which did not have requisite hill flying training/recurrent training. This was despite the fact that PHL has regular scheduled operations in high altitude areas of Meghalaya, Mizoram, Sikkim, Himachal Pradesh, etc as also for special purpose like Mata Vaishno Devi Yatra, Shri Kedarnathji Yatra and Shri Amarnathji Yatra.

- Deputing of officers without requisite training exposed precious human life to imminent risk and is also indicative of PHL's lack of preparedness for its role in rescue operations and accomplishment, which is one of its main objects of incorporation.
- PHL had not taken any legal recourse to oppose the rejection of its insurance claim within 12 months from date of rejection which made the insurance claim inadmissible before the insurer, as per terms of insurance policy and resulted in a loss of ₹11.78 crore⁶⁹ to PHL.

PHL in its reply (October 2018) stated that it is pursuing with the insurer, at the highest level, for early settlement of insurance claim.

The reply of the Management is not tenable as it has not responded to the core issue of PHL's laxity in management of rescue operations, resulting in endangerment to human life and PHL's assets. Further, as per the terms of insurance policy, the claim of PHL is now inadmissible and thus the chances of it mitigating its financial losses on repair of helicopter are remote. Also, the revenue loss caused due to grounding of helicopter because of such accidents and loss to PHL reputation were not claimable in the insurance policy.

Thus, failure of PHL in deploying cockpit crew as per the requirements of rescue operations in hilly terrains resulted in loss of ₹11.78 crore besides risking human life.

The matter was referred to the Ministry in November 2018; their response was awaited (May 2019).

1.9 Unauthorised payment to the Executives, Pilots and Aircraft Maintenance Engineers

Flying Incentives and Improved Maintenance Incentives paid to the Executives, Pilots and Aircraft Maintenance Engineers of Pawan Hans Limited, over and above the 50 per cent ceiling limit laid under the "Cafeteria Approach" prescribed

⁶⁹ ₹10.87 crore insurance claim rejected by insurer + ₹0.04 crore of service tax paid by PHL on transit insurance taken from the insurer for shifting of damaged helicopter from Harshil to Mumbai for repair + revenue loss of ₹0.87 crore for the period 29 June 2013 to 24 August 2013 only, due to grounding of VT PHZ.

by the Office Memorandum issued by the Department of Public Enterprises, resulted in unauthorised payment of ₹11.13 crore till 31 December 2016.

Department of Public Enterprises (DPE), vide its office memorandum (OM) dated 26 November 2008, approved revision in the scales of pay of Board level and below Board level Executives and Non-Unionised Supervisors of Central Public Sector Enterprises (CPSEs) w.e.f. 1 January 2007. The OM also prescribed for allowances/perks, other than Dearness Allowance, House Rent Allowance and Leased Accommodation, within a limit of 50 per cent of the basic pay. Certain allowances, viz. North-East Allowance, Allowance for Underground Mines, Special Allowance for serving in difficult and far flung areas and Non-Practicing Allowance were outside the purview of the ceiling of 50 per cent but were subject to prescribed limits. DPE further prescribed that instead of a fixed set of allowances/ perks, the CPSEs might follow “Cafeteria Approach” whereby the executives would be allowed to choose from a set of perks and allowances within the overall limit of 50 per cent of the basic pay. DPE vide its OM dated 1 June 2011 and 29 June 2012 reiterated the fact that no allowance/benefit/perk other than those mentioned in DPE OM dated 26 November 2008 were admissible outside the 50 per cent ceiling.

Audit observed that PHL vide its circular dated 10 December 2012 revised the perks and allowances of its Executives, Pilots and Aircraft Maintenance Engineers w.e.f. 26 November 2008 within the limit of 50 per cent of the basic pay. However, in non-compliance of DPE OM dated 26 November 2008, 1 June 2011 and 29 June 2012, PHL continued with its schemes of Improved Maintenance Incentives and Flying Incentives for Executives, Pilots and Aircraft Maintenance Engineers. These schemes were introduced by PHL during the period September 2006 to June 2007 in order to boost profitability, productivity and retention of qualified and experienced personnel but were continued even after 26 November 2008 inspite of the fact that they were outside the purview of limit of 50 per cent of the basic pay. This resulted in unauthorised payment of ₹11.13 crore (based on the calculation of PHL Western Region only) towards Flying Incentives and Improved Maintenance Incentives during the period 26 November 2008 to 31 December 2016⁷⁰.

The Management stated (26 July 2016) that the continuation of Flying Incentives and Improved Maintenance Incentives schemes was justified and that they were paid in lieu of Performance Related Pay (PRP) which could not be finalised due to non-appointment of Independent Director in their Board of Directors. The Management further stated (7 December 2018) that once the PRP is introduced in PHL the Improved Maintenance Incentives paid to Executives and other categories of employees shall be adjusted and in case of Pilots, Flight Engineers and Aircraft Maintenance Engineers the issue is under active consideration of Ministry of Civil Aviation for obtaining approval of Cabinet.

The reply of the Management is not tenable as Flying Incentives and Improved Maintenance Incentives were being paid to Executives, Pilots and Aircraft Maintenance Engineers in lieu of Productivity Linked Incentive Schemes (PLI) and not in lieu of PRP, as stated. As per DPE OM dated 6 July 2011 PLI could be distributed only within the prescribed limit of 50 per cent of the basic pay. Further DPE OM dated

⁷⁰ w.e.f. 1 January 2017, DPE OM dated 3 August 2017 pertaining to pay revision of Board level and below Board level Executives and Non-Unionised Supervisors of CPSEs is in force, the compliance of which has not been commented upon in the para.

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26 November 2008, 1 June 2011 and 29 June 2012 did not contemplate any allowance/perk to be paid in lieu of PRP and the decision of Cabinet is still pending on the allowances being paid to Pilots and Engineers beyond the limit prescribed as per “Cafeteria Approach”.

Thus, Flying Incentives and Improved Maintenance Incentives paid, to the Executives, Pilots and Aircraft Maintenance Engineers of PHL, over and above the 50 *per cent* ceiling limit laid under the “Cafeteria Approach” prescribed by DPE OM resulted in unauthorised payment of ₹11.13 crore⁷¹ till 31 December 2016.

The matter was referred to the Ministry in October 2018; their response was awaited (May 2019).

⁷¹ *The excess payment related to Northern region and headquarters of PHL may be worked out by PHL similar to Western Region as indicated in the draft para.*

CHAPTER II: MINISTRY OF COAL

Coal India Limited and its Subsidiaries

2.1 Irregular payment towards employer's share of provident fund contribution on leave encashment

Coal India Limited and its subsidiaries deposited employer's share of ₹371.19 crore towards provident fund contribution on leave encashment with Coal Mines Provident Fund Organisation during the period from 2012-13 to 2017-18 (September 2017), though the same was not permissible as per the extant law. The practice was not stopped despite specific order (March 2008) of Hon'ble Supreme Court of India in this regard in another Civil Case and highlighting of the same in the C&AG's Audit Report of 2009-10.

Coal India Limited (CIL) a 'Maharatna' Public Sector Undertaking under Ministry of Coal, Government of India produces coking and non-coking coal of various grades for diverse applications through its seven wholly owned coal producing subsidiaries¹.

The Coal Mines Provident Fund (CMPF) Scheme, framed under the Coal Mines Provident Fund and Miscellaneous Provisions Act, 1948 provides for provident fund benefits to all the employees of coal mines in India. As per paragraph 27 of CMPF Scheme (11 December 1948), contribution to CMPF is to be made by the employee and the employer at specified rates on the total emoluments² of the employee as covered under the definition of 'Basic Wages'³ of the Scheme. The definition of 'Basic Wages and Total Emoluments' under CMPF Scheme is similar to that defined in Employees Provident Fund (EPF) Scheme and does not include leave encashment.

Audit observed (December 2017) that CIL and its subsidiaries deposited an amount of ₹371.19 crore with Coal Mines Provident Fund Organisation (CMPFO) towards employer's share of provident fund contribution on leave encashment during the period from 2012-13 to 2017-18 (September 2017), violating the extant law. The above violation continued inspite of the judgement (Civil Appeal No. 1832 of 2004 dated 12 March 2008) of Hon'ble Supreme Court of India relating to contribution to PF on leave encashment in another EPF case, wherein the Hon'ble Court held that "basic wage was never intended to

¹ *Bharat Coking Coal Limited (BCCL), Central Coalfields Limited (CCL), Eastern Coalfields Limited (ECL), Mahanadi Coalfields Limited (MCL), Northern Coalfields Limited (NCL), South Eastern Coalfields Limited (SECL) and Western Coalfields Limited (WCL). Besides, CIL has one subsidiary for mine planning and consultancy services viz., Central Mine Planning and Design Institute Limited (CMPDIL) and one coal producing unit (North Eastern Coalfields Limited)*

² *Total emoluments means the total cash emoluments inclusive of all allowances, overtime, compensation for guaranteed wage, additional payments for difficult and arduous work, remuneration for paid holidays, whether earned while on duty or on any kind of leave with pay.*

³ *Basic Wages mean the total cash emoluments, whether earned while on duty or while on leave with pay, but excluding all payments for food concession, dearness, house rent and other similar allowances, overtime, bonus, commission, presents, or donations.*

include amounts received for leave encashment” and directed that, “if any payment has already been made, it can be adjusted for future liabilities”.

The above violation was also highlighted in Report of C&AG (Report No. 9 of 2009-10, Paragraph 3.3.1) and the irregular practice was not discontinued. After a lapse of a considerable period, in the Action Taken Note, the Ministry of Coal (MoC) stated (July 2016) that Commissioner of CMPFO intimated (July 2016) that the judgement of the Supreme Court of India in respect of EPFO would be followed strictly in CMPFO also. Subsequently, MoC directed (August 2017) CMPFO that payment already made was to be adjusted against future liabilities and CIL and its subsidiaries be instructed for its strict compliance. However, only from November 2017, CIL instructed its subsidiaries for discontinuance of the practice and MoC in the Action Taken Note (January 2018) stated that the process had been commenced to list out the employees in respect of whom avoidable payment towards PF contribution occurred and it would be completed early for initiating adjustment process.

Notwithstanding existence of the judgement of Hon’ble Supreme Court of India and clear directions of MoC, no action had been taken for adjustment of excess contributions already made by the employer, against its future liabilities (November 2018). Thus, due to inordinate delay in taking remedial action, CIL and its subsidiaries lost the opportunity to adjust the excess amount of employer’s PF contribution in respect of employees already retired.

In reply, CIL stated (November 2018) that:

- The Commissioner, CMPF clarified (July 2016) that the judgement of Hon’ble Supreme Court of India in a case related to EPF, may be considered as guiding principle for suitable interpretation of CMPF scheme in the matter of non-inclusion of leave encashment in total emoluments for PF deduction with prospective effect and no further claim for refund on this account.
- After prolonged deliberation, CIL decided to obtain an opinion from Additional Solicitor General of India (ASG). The ASG opined (December 2017) that the Ministry may apply the decision of Supreme Court from the date of first clarification issued by the Commissioner, CMPF in July 2016 and the excess liability may be adjusted with respect to the employees who are still on the rolls of the Company and no adjustment can be made against those who have superannuated.
- On receipt of instructions from the Commissioner, CMPFO in September 2017, CIL and its subsidiaries stopped employers’ contribution of CMPF on leave encashment from November, 2017.

The contentions of the Management are not acceptable in view of the following:

- In spite of the judgement of Hon’ble Supreme Court in March 2008 and audit observation (2009-10), no action was taken to discontinue the practice of making employers’ contribution of PF on leave encashment till July 2016.

- Even after issue of clarification by the Commissioner, CMPFO in July 2016 that the judgment of Hon'ble Supreme Court in respect of EPFO be followed in CMPFO also, no action was taken by CIL till November 2017 to discontinue the practice.
- Though MoC in the Action Taken Note stated (January 2018) that the adjustment process would be initiated early, the same had not been implemented in respect of employees on roll till date (November 2018).

Thus, due to inordinate delay in taking action to discontinue the irregular practice of PF contribution on leave encashment, CIL and its subsidiaries made an irregular payment of ₹371.19 crore towards employer's share of PF contribution on leave encashment and lost the opportunity to adjust the same towards future liabilities in respect of the employees already retired.

The matter was referred to the Ministry in October 2018; their response was awaited (May 2019).

NLC India Limited

2.2 Avoidable expenditure in violation of DPE Guidelines

NLC India Limited incurred avoidable expenditure of ₹26.83 crore on account of irregular payment of ex-gratia, honorarium, rewards etc. in violation of DPE guidelines.

As per Department of Public Enterprise (DPE) Guidelines (November 1997), the employees of Public Sector Enterprises under the administrative control of Central Government, would not be paid ex-gratia, honorarium, rewards, special incentive etc, unless the amount was authorised under the duly approved incentive schemes in accordance with the prescribed procedure.

NLC India Limited (NLC) introduced various incentive schemes to its employees as given below:

1. NLC celebrated its Golden Jubilee Year in 2006. NLC granted two special increments as Personal Pay (Golden Jubilee Increments) w.e.f 01 January 2006 to all the Executives, Junior Engineers, Non executives and Workmen.
2. NLC launched (September 2009) another Scheme of distribution of 02 grams Gold Coin (Gold Coin Scheme) for the employees who have completed 30 years of continuous service in NLC.
3. NLC brought (January 2016) another scheme of presenting of Long Service Award in the form of '5 Year National Savings Certificate' (NSC Scheme) for the employees, on completion of 15 years of service in NLC.

Audit observed that none of the above schemes was included in the 'duly approved incentive schemes' of the Government. NLC has been paying above incentives since its

implementation and an amount of Rs. ₹26.83 crore⁴ was paid from 2014-15 to 2017-18⁵. All three schemes are operational till date.

The Management replied (September 2018) that the DPE Guidelines (November 1997) deals only with the payment of bonus or ex-gratia in lieu of bonus, in accordance with the provisions of Bonus Act, 1965 and did not restrict CPSEs from introducing other incentive, award and reward schemes.

The reply of the Management is not in consonance with the DPE Guidelines (November 1997) as no ex-gratia, honorarium, reward etc. should be paid unless the amount is authorised under the duly approved incentive scheme in accordance with the prescribed procedure. DPE never authorised a CPSE to introduce a new incentive scheme without the approval of the Government.

Thus, NLC incurred an avoidable expenditure of ₹26.83 crore, which is recurring in nature, in violation of DPE guidelines.

The matter was referred to the Ministry in September 2018; their response was awaited (May 2019).

2.3 Loss of revenue due to non-observance of CERC Regulations

NLC India Limited has incurred loss of revenue of ₹21.70 crore on implementation of NLC rebate scheme in violation of mandatory CERC Regulations as well as its own Power Purchase Agreement with DISCOMs.

Central Electricity Regulatory Commission (CERC) has been conferred with powers to determine the tariff for supply of electricity by power generating companies (DISCOMs). CERC notified CERC (Terms and Conditions of Tariff) Regulations, 2009 formulating the computation of tariff, rebate etc. for a power generating stations for a period of five years with effect from 1 April 2009. It allowed different rates of rebate for payment of bills by the State Electricity Boards (SEBs) viz. two *per cent* on presentation of bills, one *per cent* within the period of one month, no penalty-no rebate for 31st to 60th day and surcharge to be made for payment after 60 days.

NLC introduced (July 2012) 'NLC Rebate scheme' to supplement CERC Regulations for timely realization of its dues. The rebate scheme of the company prescribed rebate as two *per cent* if the payment was made on the 1st day, 1.97 *per cent* on 2nd day and 1.93 *per cent* to 0 *per cent* from 3rd to 60th day. This was approved by the Board of Company on 23 July 2012.

In February 2014, CERC notified CERC (Terms and Conditions of Tariff) Regulations, 2014 revising the tariff and rebate applicable for the next five years from 01 April 2014 to 31 March 2019. The said Regulations allowed rebate of two *per cent* for making payment within two days and one *per cent* from 3rd day to 30th day of presentation of bills. It also prescribed rate of surcharge to be payable by SEBs for delayed payment beyond 60 days.

⁴ ₹24.59 crore under Golden Jubilee Increment scheme + ₹1.80 crore under Gold Coin Scheme + ₹0.44 crore under NSC Scheme = ₹26.83 crore.

⁵ The amount has been calculated based on the available records for the last four years.

Further, Power Purchase Agreement (PPA) between NLC and DISCOMs also stipulated that the rebate shall be regulated according to prevailing CERC Tariff Regulation.

Audit observed that NLC followed its own Rebate Scheme (2012) in violation of CERC Regulations and its own PPA. In the process, NLC allowed additional rebate from the 3rd day to 59th day at the rate starting from 1.93 *per cent* to 0.03 *per cent* which resulted in loss of revenue of ₹21.70⁶ crore for the period from 2014-15 to 2017-18⁷.

The Management/Ministry replied (November 2018) that NLC adopted graded rebate scheme with modification from CERC Tariff Regulations as an improvised mechanism within the regulatory rebate bandwidth, keeping in mind realization efficiency maximization. Moreover, the rebate extended by NLC is nothing but a component upfront loaded in the determination of annual fixed cost and there was no financial loss.

The reply was contrary to the fact that the modification from CERC Regulations has not been accorded approval of CERC which was a violation of mandated CERC Regulations. Also the objective of early realisation of bills could not be achieved as the utilisation of rebate scheme by DISCOMs was reduced from 12 DISCOMs in 2014-15 to 5 DISCOMs in 2017-18. Further, interest on working capital as two months receivable has already been included in the annual fixed cost and considered by CERC while determining tariff/ rebate. As such, allowing additional rebate citing the same reason may not be justifiable.

Thus NLC, by allowing additional rebate to the DISCOMs, in violation of mandated CERC Regulations and its own PPA, incurred a loss of revenue of ₹21.70 crore.

⁶ ₹4,10,19,381 for 2014-15, ₹4,85,99,310 for 2015-16, ₹6,37,86,807 for 2016-17 and ₹6,36,00,407 for 2017-18 = Total ₹21,70,05,905.

⁷ The amount has been calculated based on the available records for the last four years.

CHAPTER III: MINISTRY OF FINANCE

National Insurance Company Limited

3.1 Avoidable loss due to imprudent underwriting of Group Personal Accident Policy

Non-adherence to policy guidelines by National Insurance Company Limited resulted in avoidable loss of ₹7.84 crore on the Group Personal Accident Policy issued to M/s. Telangana Rashtra Samithi

The underwriting policy (November 2013) of National Insurance Company Limited (NICK) envisaged that the rate quoted¹ should not be less than 0.10 per mille² on Sum Insured (SI) without specific approval of the competent authority. Besides, the Company's guidelines for Group Personal Accident Policy provided that the premium should be charged at the rate of ₹0.90 per mille for normal risk and the maximum discount permitted was only up to 30 per cent where more than 10 lakh persons were covered.

Audit observed that NICK's Marathalli Divisional Office (DO), Bangalore Region issued (April 2015) a Group Personal Accident Policy to 41.30 lakh party workers of the Telangana Rashtra Samithi (TRS), a political party, with a sum insured of ₹2 lakh per worker for one year for a premium of ₹4.13 crore at the rate of ₹10 per member (i.e. ₹0.05 per mille³). The DO incurred a claim of ₹13.17 crore (claim ratio of 319 per cent⁴) during the year 2015-16. In spite of such huge loss, the policy was renewed in the subsequent year (2016-17) covering 42.29 lakh party workers for a premium of ₹4.75 crore at the rate of ₹11.23 per member (₹0.056 per mille⁵) and the DO incurred a claim of ₹9.36 crore (claim ratio of 197 per cent⁶) on the renewed policy. The policy was not renewed further. Thus, against the premium of ₹8.88 crore earned during the two years, the DO incurred claims of ₹22.53 crore and thereby sustained a loss of ₹13.65 crore.

During both the years 2015-16 and 2016-17, the premium charged (i.e. ₹0.05 per mille and ₹0.056 per mille respectively) was lesser than the minimum chargeable premium of ₹0.63 per mille⁷ as prescribed in the Group Personal Accident Policy of the Company. Besides, the premium was charged at a rate lesser than that prescribed (₹0.10 per mille) in the underwriting policy without seeking approval of the competent authority. Considering the rate of ₹0.10 per mille prescribed in the underwriting policy, the DO should have collected minimum premium of ₹8.26 crore⁸ in 2015-16 and ₹8.46 crore⁹ in 2016-17,

¹ Rate quoted is based on pure premium plus loadings on account of business procurement expenses, management and promotional expenses, profit margin, etc.

² Per mille means per thousand

³ Per mille rate charged = Rate charged per member / (Sum Insured/1000) = ₹10/ ₹200 = ₹0.05

⁴ Claim ratio = Claims incurred/Premium charged*100 = ₹13.17 crore/ ₹4.13 crore*100 = 319 per cent

⁵ Per mille rate charged = Rate charged per member / (Sum Insured/1000) = ₹11.23/ ₹200 = ₹0.056

⁶ Claim ratio = Claims incurred/Premium charged*100 = ₹9.36 crore/ ₹4.75 crore*100 = 197 per cent

⁷ Rate of Premium as per Group Accident Insurance Policy (₹0.90 per mille)–Maximum discount allowed at the rate of 30 per cent (i.e. ₹0.27 per mille) = ₹0.63 per mille

⁸ Sum Insured/1000*0.10*No. of members covered i.e. ₹2,00,000/1,000*0.10*41,30,000=₹8,26,00,000

⁹ ₹2,00,000/1,000*0.10*42,29,000 = ₹8,45,80,000

against which it actually collected ₹4.13 crore and ₹4.75 crore respectively. This resulted in short collection of premium of ₹7.84 crore¹⁰. Thus, by adhering to the policy guidelines, the loss of ₹13.65 crore incurred by NICL on account of claims against the insurance policy could have been mitigated at least to the extent of ₹7.84 crore.

Thus, due to non-adherence of policy guidelines and renewal of the insurance policy in the subsequent year irrespective of adverse claims ratio, NICL incurred avoidable loss of ₹7.84 crore.

The Management accepted (March 2018) the underwriting lapses and stated that disciplinary proceedings had been initiated against the erring officials.

The matter was referred to the Ministry in May 2018; their response was awaited (May 2019).

New India Assurance Company Limited

3.2 Loss due to imprudent underwriting and lack of proper risk assessment

New India Assurance Company Limited incurred loss of ₹91.32 crore due to imprudent underwriting and lack of proper risk assessment

Appsdaily Solutions Private Limited (Insured), a mobile application provider sold mobile applications through its agents at the mobile sales points. It offered free insurance cover for new mobile handsets, provided the customer bought their application within 15 days of purchase of mobile handset.

The insured took a Master Package Policy from Bommasandra Branch Office of New India Assurance Company Limited (NIACL) to cover the risk undertaken at the time of sale of mobile handsets with coverage of fire & allied perils, theft, burglary and accidental damages. Claims were to be processed by the insured as per (i) General Guidelines for theft claims and (ii) General guidelines for damage claims.

The policy was initially issued with an estimated sum insured (SI) for ₹5 crore and a premium of ₹6 lakh was collected (at the rate of 1.2 *per cent*) for the period from 04 June 2013 to 03 June 2014. The policy was cancelled and reissued twice during October 2013 and February 2014 respectively, after re-negotiation of the terms and conditions with the insured. The premium rate and terms of depreciation were revised in favour of the insured; however, detailed justification for fixing initial rates and their subsequent revisions was not available on record.

Audit observed that:

- Despite increasing trend of Incurred Claim Ratio (ICR), the company renewed the policy during February 2015 and August 2015. The policy was cancelled in November 2015. Till then, NIACL collected total net premium of ₹33.78 crore against which it had to settle claims to the extent of ₹125.10 crore.

¹⁰ ₹8.26 crore + ₹8.46 crore – (₹4.13 crore + ₹4.75 crore)

- To insure a risk, the insured should have insurable interest in the subject matter of insurance. In the instant case, the master policy was issued to the insured who did not have insurable interest in the mobile handset, which was the subject matter of insurance. Rather, the customers who purchased the handset and installed the app had the insurable interest in the mobile sets. This was against the fundamental principles of insurance.
- Though it was an evolving line of business, no actuarial valuation of the policy was done by NIACL, while fixing the premium rate, etc.
- The policy was issued and renewed without the approval of the competent authority.

The Management in its reply (October 2018) stated that the policy was within the acceptance authority of the Regional Offices/Branch Office as per the circulars of Head Office (HO). Policy issuing office was authorised to decide the acceptance, loading and deductibles based on previous three years experience in case of adverse claims. Claim ratio was closely monitored and to sustain the policy, premium rate was increased and finally the policy was cancelled in November 2015.

The reply is not in consonance with the facts as stated below:

- As per the prescribed acceptance limits for underwriting, the portable equipment could be insured only with the approval of RO whose acceptance limit was ₹5 crore for the SI. However, the approval of RO for the initial policy was taken after the commencement of the policy. Subsequently, the policy was reissued for a SI of ₹50 crore without getting the approval of the competent authority i.e. Head Office.
- The policy was cancelled in November 2015 only, while the ICR was on an increasing trend since inception of the policy.

Thus, imprudent underwriting without the approval of competent authorities and lack of proper risk assessment, insurable interest and actuarial valuation resulted in loss of ₹91.32 crore¹¹.

The matter was referred to the Ministry in November 2018; their response was awaited (May 2019).

The Oriental Insurance Company Limited

3.3 Loss due to Excess Retention of Risks at own capacity

The Oriental Insurance Company Limited suffered a loss of ₹5.55 crore due to excess retention of risks in respect of two insurance policies under Miscellaneous Segment in violation of its Reinsurance Programme submitted to the IRDA

Insurance Regulatory & Development Authority of India (IRDA) (General Insurance Reinsurance) Regulations, 2016 govern the reinsurance arrangements. These regulations

¹¹ Claim ₹125.48 crore and commission outgo ₹3.89 crore minus ₹37.67 crore (Premium received)

require submission of reinsurance programme of every insurer to IRDA. Reinsurance programme of an insurer *inter-alia* defines the manner of cession of risks assumed by the insurer which are normally in the form of obligatory¹² cession, intergroup¹³ and other treaty¹⁴ cessions and facultative¹⁵ cessions and in that order. Further, IRDA circular on Reinsurance Arrangement – Guidelines for good Corporate Governance (November 2004) also require that an insurer shall ‘not go on risk’ without the required reinsurance having been placed.

Audit observed that the Oriental Insurance Company Limited (OICL) suffered a loss of ₹5.55 crore in respect of the claims incurred against two insurance policies under Miscellaneous Segment i.e. Special Contingency Policy (SCP) and Product Liability Policy due to excess retention of risks on its own account in violation of its Reinsurance Programme as detailed below:

(A) OICL issued (October, 2015) an event cancellation insurance policy under SCP to M/s One-97 Communications Private Limited¹⁶ for the period from 1 October 2015 to 30 September 2016 for the sum insured at ₹38.72 crore. The risk covered under this policy was loss of sponsorship cover of three cricket series which included a total 16 matches of T-20/One Day/ Test Series to be played in different cities in India.

Reinsurance Programme-2015-16 submitted to IRDA by OICL for the Special Contingency policies stipulate that after five *per cent* obligatory cession, policies having Probable Maximum Loss (PML)¹⁷ up to ₹10 crore were to be kept on net retention of the company and policies exceeding PML of ₹10 crore were qualified for the placement of Reinsurance arrangements like Inter Group Treaty (IGT) and Facultative cessions.

OICL considered PML as ₹2.42 crore (i.e. sum insured per match) and, therefore, after obligatory cession of 5 *per cent* of PML (₹0.12 crore) did not pass on the risk through Reinsurance arrangements.

Due to heavy rain, a T-20 Match at Kolkata on 8 October 2015 and 2nd to 5th days’ Test match from 15 November 2015 to 18 November 2015 were abandoned. Accordingly, M/s One-97 Communications Private Limited submitted claims (October to December, 2015) and total claims of ₹4.14 crore were approved (₹2.30 crore plus ₹1.84 crore respectively).

Audit observed, that the highest sum insured under the aforesaid special contingency policy was for the India-South Africa series i.e. ₹29.04 crore, which should have been considered as PML. However, OICL considered PML as ₹2.42 crore only (i.e. sum insured per match) while placing reinsurance arrangements which resulted in exclusion of

¹² *Mandatory cession of a specified percentage of sum insured to the Indian reinsurer viz. General Insurance Corporation of India.*

¹³ *Cession of reinsurance premium within four General Insurance Public Sector Companies.*

¹⁴ *Reinsurance arrangement, for one year and longer, applicable for defined class or classes of business*

¹⁵ *A specific RI arrangement which is placed after obligatory, inter-group treaties and other treaties on case to case basis*

¹⁶ *M/s One-97 Communications Private Limited entered into an agreement with Board of Control for Cricket in India (BCCI) for exclusive title for sponsorship of series of cricket matches.*

¹⁷ *The basic criteria to prepare RI Programme and to decide for placement of RI Arrangements.*

this special contingency policy from reinsurance placements and entire risk was retained to the net capacity of OICL.

As per the Reinsurance Programme of OICL for the year 2015-16, net retention of risk in respect of the aforesaid policy should have been kept at 34.44 *per cent*¹⁸ and after 5 *per cent* obligatory cession, rest of the 60.56 *per cent* risk should have been placed under RI arrangements (i.e. IGT and Facultative) which was not done resulting in excess retention of risk by 60.56 *per cent*.

Thus, because of wrong consideration of PML in violation of RI Programme-2015-16, OICL suffered a loss of ₹2.50 crore (₹4.14 crore*60.56 *per cent* excess retention).

The Management stated (October 2018) that the matches take place at different venues and dates, so chances that one peril will affect many matches is rare. Thus the PML is analysed on case to case basis and in this particular case 'per match sum insured' was taken as PML.

The reply of the Management is not acceptable as in the instant case risk covered was for all the series and not for an individual match and perils covered under the policy included perils like riot, civil commotion that could have affected the entire series. Therefore, maximum loss that can be suffered is the sum insured of the series having maximum number of matches and it is substantiated by the fact that there are many instances in the past where entire cricket match series were cancelled. OICL itself had underwritten SCP by considering the sum insured of series as PML, instead of sum insured per match, in 2016-17 & 2017-18 indicating that the company did not have any consistent policy to determine the PML for the event cancellation.

(B) OICL issued (July, 2009) a Product Liability Policy for the period 4 July 2009 to 3 July 2010 in favour of M/s IPCA Labs Ltd with a sum insured of ₹15 crore for covering the liability arising out of use of pharmaceutical products manufactured by M/s IPCA Labs Ltd. The sum insured was enhanced to ₹35 crore w.e.f. 27 July 2009.

OICL considered PML as ₹15 crore. As per reinsurance programme-2009-10, after 10 *per cent* obligatory cession, OICL kept 33 *per cent*¹⁹ risk on net retention and rest of the risk of 57 *per cent* was placed in Inter Group Treaty.

A claim under the aforesaid policy was reported (January, 2010) due to disease to the consumers across USA caused by the product Metoclopramide (Relgan) manufactured by M/s IPCA Labs Ltd. OICL approved the claim (July 2018) for ₹16.29 crore.

Audit observed that the Company considered PML of ₹15 crore only instead of ₹35 crore which led to net retention of risk to the extent of 33 *per cent* instead of 14.29 *per cent*²⁰ after 10 *per cent* obligatory cession and balance risk passed in IGT. Thus, excess retention of risk in violation of Reinsurance Programme-2009-10, led to a loss of ₹3.05 crore (18.71 *per cent*²¹ of ₹16.29 crore).

¹⁸ ₹10 Crore/₹29.04 Crore*100=34.44 *per cent*

¹⁹ ₹5 crore/₹15 crore*100=33 *per cent*

²⁰ ₹5 crore/₹35 crore PML*100=14.29 *per cent*

²¹ 18.71 *per cent* = 33 *per cent* – 14.29 *per cent*

The Management accepted (October 2018) that this policy should have been underwritten after arranging facultative reinsurance due to the enhanced sum insured on renewal of the policy as the risk went beyond the net retention capacity of OICL. It was also stated that requirement of arranging facultative reinsurance came into the knowledge of the Management after a lapse of considerable time resulting in non-arrangement of facultative reinsurance and accordingly, decision was taken to keep it on net retention of OICL.

Thus, reinsurance placement in violation of the applicable Reinsurance Programme resulted in a loss of ₹5.55 crore (M/s One-97 Communications P. Ltd - ₹2.50 crore and M/s IPCA Labs Ltd ₹3.05 crore) as well as violation of IRDA guidelines.

The matter was referred to the Ministry in November 2018; their response was awaited (May 2019).

Security Printing and Minting Corporation of India Limited

3.4 Irregular travelling allowance claims

Passing of travelling allowance claims based on the invoices of private travel agency without verification of actual air fare charged by the airlines led to excess payment of ₹4.84 lakh

Bank Note Press (BNP), Dewas, Madhya Pradesh is one of the nine units of Security Printing and Minting Corporation of India Limited (SPMCIL) which is headed by a General Manager (GM). As per delegation of powers of SPMCIL, head of the unit is empowered to pass travelling allowance (TA) bills of all officials/ officers of the unit i.e. head of unit is the claim passing authority for his/her own TA claims also.

Test check (January 2018) of TA claims by Audit revealed that while other officers of BNP, Dewas booked their air tickets for official journeys either through Balmer Lawrie (Government of India undertaking) or through the website of the airlines, the then GM, booked the air tickets through private travel agent viz. Meridian Air Travel Private limited. The then GM claimed ₹13.09 lakh towards domestic (nine tours) and international (four tours) tour performed during November 2015 to January 2018. The claims of the GM were processed at three²² levels and finally passed by the GM for ₹13.09 lakh (Annexure I).

Based on an audit observation issued in January 2018, BNP, Dewas obtained the travel certificate along with invoices against the air journeys performed by the GM from Emirates Airlines and Jet Airways. Copies of invoices furnished (April/ May 2018) by these airlines revealed that the actual invoice price of these airlines were lesser than the invoice price charged by the travel agent by ₹4.84 lakh in respect of three international tours and nine domestic tours as detailed in Annexure I. In respect of one international tour, the airline regretted to provide the original invoice. SPMCIL directed (November 2018) the GM to deposit ₹4.38 lakh, being the excess amount claimed and passed towards international tours.

²² TA Assistant, Assistant Manager I (Finance & Accounts) and Assistant Manager II (Finance & Accounts)

Audit further observed that:

- **TA claims processing authorities did not check the actual fare charged by the concerned airlines before passing the TA claims to ensure genuineness of invoices raised by the private travel agency.**
- **SPMCIL had authorised (May 2016) M/s Ashoka Travels and Tours (ATT) for booking air tickets. Even after this authorisation, the GM continued booking of air tickets through private travel agency till he was relieved from this unit in February 2018.**
- **The excess amount was yet to be deposited (March 2019) by the GM.**

The Management stated (December 2018) that BNP Dewas had checked travelling bills of all officers for the last two years on random basis and it was observed that all TA bills were settled as per SPMCIL Travelling and Daily Allowance Rules, 2010. However, in case of the GM, it was observed that all the invoices submitted by him were prepared by the private travel agency and invoices issued by Airlines were not submitted. Directions have been issued to the concerned GM for depositing the differential amount of ₹4.38 lakh immediately with SPMCIL. Further, the matter has also been referred to the Chief Vigilance Officer (CVO) of SPMCIL.

The Ministry of Finance (MoF) stated (March, 2019) that, in consultation with its CVO, SPMCIL had approved major penalty action and registration of case under provisions of IPC against the erring official and the travel agent for entering into criminal conspiracy to cheat SPMCIL by creating forged documents. Further, the case has also been referred to the Central Vigilance Commission (CVC) for its first stage advice. While the matter had been referred to CVC, the process of taking major penalty action and registration of case under IPC was yet to be initiated (February 2019).

CHAPTER IV: MINISTRY OF HEAVY INDUSTRIES AND PUBLIC ENTERPRISES

Bharat Heavy Electricals Limited

4.1 Undue benefit to employees towards Late Night Snacks Allowance

Bharat Heavy Electricals Limited extended undue benefit to its employees towards payment of Late Night Snacks Allowance to the tune of ₹16.69 crore, in violation of the guidelines of DPE as well as its own Personnel Policy.

The Department of Public Enterprises (DPE) issued (November 2008) guidelines on revision of scales of pay of the Board level and below Board level executives and non-unionised supervisors in Central Public Sector Enterprises (CPSEs) effective from 1 January 2007. DPE also issued (November 2006 and May 2008) guidelines for revision of wages and allowances of the unionised workers of CPSEs as per wage negotiations with the Managements with effect from 1 January 2007.

As per the DPE guidelines of November 2008, the Board of Directors of CPSEs would decide on the allowances and perks admissible to different categories of the employees subject to a maximum ceiling of 50 *per cent* of the basic pay. Instead of having a fixed set of allowances, the CPSEs could follow 'Cafeteria Approach' allowing the employees to choose from a set of perks and allowances. The guidelines further stipulated that infrastructure facilities created by CPSEs like hospitals, colleges, clubs, etc. should be monetised for the purpose of computing the perks and allowances. Further, only four types of allowances were kept outside the ceiling of 50 *per cent* of basic pay, *viz.* North-east Allowance, Allowance for underground mines, Special allowance for serving in difficult and far flung areas, and Non-practicing allowance. DPE further clarified (June 2012 and June 2013) that no other allowance/benefit/perks is admissible outside the prescribed ceiling.

Based on the DPE guidelines, Bharat Heavy Electricals Limited (BHEL) issued (February 2010) orders for revision in pay and allowances of executives, non-unionised supervisors and regular workmen of BHEL with effect from 1 January 2007. These circulars provided, *inter alia*, that the employees were entitled to Late Night Snack Allowance (LNSA) at the rate of ₹100 per night per employee for shifts extending beyond midnight. Accordingly, the Personnel Policy of BHEL also stated that LNSA would be payable to all employees who work in night shifts extending beyond midnight at the rate of ₹100 per night with effect from 1 January 2010 for a period of five years *i.e.* upto 31 December 2014. The rate of LNSA was raised (October 2015) to ₹175 per night with effect from 1 January 2015.

Audit observed that LNSA was kept outside the ceiling of 50 *per cent* of basic pay as stipulated in the DPE guidelines of November 2008, applicable to the executives and supervisors. Thus, the entire payment of LNSA made to the executives and supervisors was inadmissible. A review of the records pertaining to the period from 2014-15 to 2017-18 in Heavy Power Equipment Plant (HPEP) unit of BHEL at Hyderabad revealed that the unit paid an amount of ₹3.72 crore (**Annexure-II**) to its executives and

supervisors on account of LNSA in contravention of DPE guidelines. In case of workmen, the rate of payment of LNSA had been arrived at through negotiations. Accordingly, LNSA was to be paid as per the provisions of Personnel Policy which provided that it would be payable to employees who worked in night shifts extending beyond midnight. BHEL started operating third shift (i.e. from 11 pm to 7 am on the next day) from 1 September 2014 in the identified work centers of various production blocks on need basis. Audit observed that during September 2014 to March 2018, HPEP unit paid LNSA to the workers who were engaged in the second shift. This resulted in excess payment of ₹12.97 crore (**Annexure-II**).

The audit para pertains to BHEL-HPEP unit of Hyderabad only. The Management needs to work out similar excess payments made in other units of BHEL and take corrective action.

The Management/ Ministry stated (March/June 2018) that:

- (a) The intent behind introduction of LNSA was to provide monetary benefit to employees working during late nights for snacks/refreshments. The eligibility for LNSA and its consequential payment was always contingency-based, depending upon the type of shifts in which the employee is engaged.
- (b) The payment of LNSA to workers was outside the ambit of the DPE guidelines of November 2008 as the wage revision of workers had been carried out through negotiations with the Management.
- (c) The employees engaged in second shifts had been granted LNSA keeping in mind the time taken for commuting back home after duty.
- (d) The Unit had issued (April 2018) a circular communicating that LNSA would be paid to employees working in shifts extending beyond midnight only.

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

- (a) DPE had clarified (June 2012 and June 2013) that no other allowance/ benefit/ perks is admissible outside the prescribed ceiling of 50 *per cent* of basic pay in case of executives and supervisors. The payment of LNSA to executives and supervisors was an additional benefit granted over and above the ceiling of 50 *per cent* of basic pay and hence was inadmissible.
- (b) Grant of LNSA to workers engaged in the second shift was in contravention to the provisions of Company's Personnel Policy, based on the wage negotiations. Accordingly LNSA was to be paid to only those workers who worked in shifts extending beyond midnight (i.e. third shift).
- (c) The corrective action has been taken (April 2018) only by HPEP unit of BHEL, and in respect of workers only. The corrective action needs to be taken by BHEL as a whole and in respect of all the category of employees.

Thus, BHEL extended undue benefit of ₹16.69 crore to its employees towards payment of LNSA to the tune, in violation of the guidelines of DPE as well as its own Personnel Policy.

CHAPTER V: MINISTRY OF HOUSING AND URBAN AFFAIRS

Chennai Metro Rail Limited

5.1 Avoidable payment of compensation charges for Low Power Factor

Chennai Metro Rail Limited incurred avoidable payment of ₹9.08 crore by way of compensation charges levied by Tamil Nadu Generation and Distribution Corporation Limited due to Low Power Factor.

The Tamil Nadu Electricity Regulatory Commission (TNERC) vide its order No.1 of 2012 (30 March 2012) stipulated that in respect of High Tension (HT) service connections, the Average Power Factor¹ (APF) of the consumer installation should not be less than 0.90. If the APF is less than the stipulated level, compensation charges ranging from one *per cent* to two *per cent* of the current consumption charges would be levied. Further, Regulation 13(3) of Tamil Nadu Electricity Distribution Code (TNEEDC), 2008 stated that ‘the licensee should maintain the system power factor at the level of minimum of 0.90 (lag) at the interface(s) and carry out system improvement measures at strategic points in the distribution system by undertaking useful system studies and installing the required VAR² compensation equipment to meet the situation’. Further, it was obligatory on the part of the consumer to improve the power factor of their connected loads to the required level in accordance with the provisions of the code.

Chennai Metro Rail Limited (CMRL), being HT power consumer with two service connections (Koyambedu and Alandur) with maximum demand of 5 MVA per month each, was required to maintain power factor at 0.90 as stipulated by TNERC.

Audit observed that the actual power factor achieved by CMRL was below the prescribed power factor of 0.90 during the period from January 2014 to March 2017 in respect of Koyambedu connection and during February 2016 to March 2017 in respect of Alandur connection. Consequently, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) levied compensation charges amounting to ₹9.08 crore (₹5.32 crore for Koyambedu and ₹3.76 crore for Alandur) for the period from January 2014 to March 2017, which were paid by the Company.

The Management replied (August 2018) that it installed the VAR project equipment to match the full system requirement of Phase 1 of the Metro Project. As the underground stations were not commissioned and only elevated station loads were energised during the period from January 2014 to March 2017, it could not maintain the prescribed power factor. The company further stated that after commissioning (May 2017) of underground section, the energy consumption was increased and power factor also improved. The Ministry endorsed (November 2018) the views of the Management.

¹ Power factor means the ratio of the real power to the apparent power.

² VAR – Volt ampere reactive (VAR) is a unit by which reactive power is expressed in an AC electric power system.

The fact was that VAR power factor compensation panels were installed only between May 2017 to July 2017 (except one which was installed in November 2016) and power factor was corrected. Delay in taking corrective action resulted in non-compliance of statutory requirement as well as avoidable expenditure of ₹9.08 crore by way of compensation charges levied by TANGEDCO.

Housing and Urban Development Corporation Limited

5.2 Irregular payment of perquisites

Housing and Urban Development Corporation Limited provided perquisites of ₹16.22 crore to its executives during 2009-10 to 2018-19, which were beyond the ceiling fixed by DPE for the perquisites and allowances under the cafeteria approach.

The Department of Public Enterprises (DPE) issued (November 2008) guidelines on revision of scales of pay in Central Public Sector Enterprises (CPSEs) which were effective from January 2007. The guidelines permitted the CPSEs to follow 'Cafeteria Approach', which allowed the executives to choose from a set of perquisites (perks) and allowances (except North East Allowance, Allowance for Underground Mines, Special Allowance for serving in difficult and far flung areas, Non-Practicing Allowance for Medical Officers and House Rent Allowance/ Leased Accommodation) subject to a maximum ceiling of 50 *per cent* of basic pay. The said maximum ceiling was revised to 35 *per cent* of basic pay vide DPE guidelines (August 2017) on pay revision w.e.f. January 2017.

The Board of Directors of Housing and Urban Development Corporation Limited (HUDCO) approved house building advance, convenience advance, marriage advance welfare advance, festival advance and computer advance at concession rate of interest ranging between zero *per cent* to eight *per cent*.

HUDCO approved (December 2008) a set of four perks and allowances under cafeteria approach, which was enhanced (February 2018) to a set of 19 perks and allowances. The differential rate of interest on advances is treated as perks under the Income Tax Act, 1961 and HUDCO also considers it as part of the taxable salary of its executives for deducting tax at source. However, HUDCO did not include these perks under cafeteria approach, which was irregular.

HUDCO disbursed various advances at concessional rate of interest to its executive posted at Corporate Office and 21 Regional Offices. The value of concessional interest for the period from 2009-10 to 2018-19 was ₹16.22 crore³.

The Management replied (3 April 2019) that DPE in its guidelines for cafeteria approach has not classified interest concession on the advances as perks and allowances.

The reply is not acceptable as DPE, in its guidelines for the cafeteria approach, has specified certain perks and allowances which are to be excluded in applying the limits of 50 *per cent* or 35 *per cent* of basic pay and does not include concessional interest on

³ Information of perks value in respect of seven Regional Offices is awaited from HUDCO.

employee advances. The concessional interest value has also been treated by HUDCO as perks under the provisions of Income Tax Act.

HUDCO excess expenditure of ₹16.22 crore on perks and allowances to their employees from 2009-10 to 2018-19 due to non-adherence of DPE guidelines.

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

CHAPTER VI: MINISTRY OF PETROLEUM AND NATURAL GAS

Bharat Petroleum Corporation Limited & Indian Oil Corporation Limited

6.1 Irregular expenditure on employees under long service award scheme in contravention of Ministry's guidelines

Bharat Petroleum Corporation Limited and Indian Oil Corporation Limited discontinued the earlier policy of distributing gold coins to employees on completion of 15/20/25 years of service as per Ministry's direction since it was inconsistent with DPE guidelines. However, the Companies introduced a new policy of distributing pre-loaded card/voucher or an item/memento/emblem (other than gold/ silver) of employee's choice though this was also in contravention of DPE/ Ministry guidelines.

Bharat Petroleum Corporation Limited (BPCL)/ Indian Oil Corporation Limited (IOCL) introduced 'Long Service Emblem' Scheme (LSE) in 1976/1983 respectively under which awards in the form of articles were given to employees serving in BPCL and IOCL. These companies reviewed the scheme in 1998 and 1999 respectively and decided to give gold coins of different weights to employees on completion of 15/20/25/35 years of service and also at the time of retirement. Audit objected (August 2014) to distribution of gold coins to employees under the scheme in view of Department of Public Enterprises (DPE) guidelines dated 20 November 1997. These guidelines, *inter-alia*, stated that no payment of ex-gratia, honorarium or reward be paid by the Public Enterprises to their employees over and above the entitlement under Bonus Act or the executive instructions issued by DPE in respect of ex-gratia unless the amount is authorised under the duly approved incentive scheme in accordance with the prescribed procedure. The Ministry of Petroleum & Natural Gas (MOP&NG), based on audit observations, directed (25 February 2015) all Oil Marketing Companies (OMCs) to discontinue the scheme of presenting gold coins to employees immediately as it was in violation of DPE Guidelines.

Oil Marketing Companies discontinued the practice of issuing gold coins under the scheme from February 2015. BPCL and IOCL stated that stoppage of award had led to discontent among employees and that during discussion at Ministry it was made clear that there was no objection in giving long service awards and objection was only for giving gold coins. However, no such discussion note of the Ministry was found on record. BPCL and IOCL, thereafter, revised the scheme and decided to honour its employees on the basis of length of meritorious and faithful service by giving article of their choice or pre-loaded card/voucher or an item/ memento/emblem (other than gold/silver). The value of award per employee was equivalent to ₹1,500 for every completed year of service to those employees who have completed service of 15/20/25 years in case of BPCL and 15/25 years in case of IOCL. The value of award per employee was ₹2,500 for every completed year of service to those employees who have completed 30/35 years and also on retirement/ superannuation. The scheme was to be implemented retrospectively from January/ February 2015 in BPCL/IOCL respectively. The revised scheme was agreed amongst all OMCs.

Audit however, observed that DPE, Ministry of Heavy Industries and Public Enterprises reviewed all its guidelines and published (November 2015) a compendium containing only relevant guidelines. Scrutiny of the compendium of guidelines revealed that the DPE guidelines of November 1997 still exist. Despite this, BPCL and IOCL have formulated the new policy which is inconsistent with DPE guidelines. The new policy, in effect, is replacement of the old scheme of issue of gold coins by an article/ pre-loaded card which also tantamounts to contravention of DPE guidelines of November 1997. Thus, BPCL and IOCL incurred an irregular expenditure of ₹107.63 crore during the period January 2015 to August 2018 (BPCL) and February 2015 to August 2018 (IOCL) for distribution of article/ pre-loaded card as per the new scheme which was in contravention of DPE guidelines/direction of the Administrative Ministry.

BPCL/IOCL stated (October/November 2017) that DPE guidelines of 20 November 1997 were in respect of ex-gratia payments for establishments not covered by the Payment of Bonus Act, 1965 and, hence, does not apply to long service awards. BPCL also obtained an opinion (dated 5 March 2015) from Additional Solicitor General of India which stated that (a) LSE is duly approved independent scheme and is not part of Bonus Act and DPE guidelines of 20 November 1997, (b) the scheme is also part of a condition of service of an employee and (c) the giving away of gold coin may be an expenditure incurred by the Company but the DPE OM of November 1997 itself provides for such an eventuality as set out in clause 5 of the OM. IOCL further stated that introduction of the Scheme was with the approval of Board based on BPE advice vide DO No. 7(3)/79-BPE (GM.I) dated 14 February 1983 conveying their no objection if managements of the concerned public enterprises decide to honour an employee on completion of 20 or 25 years of meritorious service rendered, the award being based specifically on the length of the meritorious and faithful service.

The Ministry stated (December 2018) that the matter was examined in consultation with IOCL and BPCL as well as DPE and based on the inputs received it has directed both the Companies to make recovery of the un-authorized payment made to their employees. The Ministry has further requested BPCL and IOCL to furnish Action Taken Report on the matter.

Thus, the expenditure of ₹107.63 crore incurred by BPCL and IOCL under the long service award scheme was in contravention of DPE guidelines/directions of the Administrative Ministry and the recovery is yet to be effected (December 2018).

GAIL (India) Limited

6.2 Infructuous expenditure due to non-compliance with O&M Guidelines

Non-monitoring of ROU and lack of due diligence before award of contract resulted in infructuous expenditure of ₹10.17 crore coupled with non-achievement of the envisaged benefits.

GAIL (India) Limited (GAIL) awarded (June 2011) the work for laying and construction of steel pipeline, terminal and associated facilities of Karanpur-Muradabad-Kashipur-Rudrapur Pipeline (KMKRPL), along with the work of laying of Optical Fiber Cable (OFC) and High Density Polyethylene (HDPE) Duct to M/s. Corrttech International Pvt.

Ltd. It was envisaged that laying of OFC along the pipeline route would enable GAIL to take care of the requirement of voice and data communications for the pipelines and facilitate processing of real time data through SCADA¹.

As a part of Hazira-Vijaipur-Jagdishpur (HVJ) telecommunication system 8MB Microwave radio was operational along Karanpur-Dadri section of Auraiya-Dadri telecom network and no spare bandwidth capacity was available in that network. It was felt by the Management that the new KMKRPL telecom system would remain isolated till the time connectivity between Karanpur and Dadri was established through OFC network. Accordingly, OFC laying work of this section was also included in the scope of work awarded to M/s Corrttech International Pvt. Ltd.

The scheduled date of completion of entire pipeline laying work including OFC laying work in Dadri– Karanpur section was eight months from the date of award i.e. by February, 2012. GAIL was to provide access to Right of Use (RoU) for lying of OFC. However, GAIL could provide hindrance free access to RoU in the above section for 82.7 km only out of a total length of 150 km, till July 2016, and no further access could be provided thereafter, due to plantation of trees and construction of permanent structures such as boundary wall, brick houses and other structures like tube wells/borings etc. by farmers in the existing RoU of Dadri-Karanpur section. Therefore, the work of laying OFC was short closed (June 2018) after incurring an expenditure of ₹10.17 crore. GAIL created provision of entire expenditure of ₹10.17 crore in their annual accounts for the year 2017-18.

Audit observed that:

- GAIL's O&M Guidelines for Pipelines require monthly/quarterly patrolling for Natural Gas Pipelines by hired pipeline patrol agency/GAIL officials. Besides, yearly foot patrolling by GAIL officials after monsoon is also required. Further, Section 9 of the Petroleum and Pipelines Minerals Act, 1962 (Act) stipulates that the owner or occupier of the land was entitled to use the land but was not permitted to construct any building, other structure, well, reservoir etc. or plant any tree or do or permit any act of damage to the pipeline. Section 15 of the Act prescribed penalties in the form of fine or imprisonment or both for wilful obstruction, damage to pipeline etc. However, it is evident from the encroachments that GAIL did not carry out patrolling activities at regular intervals as required under O&M Guidelines.
- GAIL did not carry out any survey before award of work for laying of OFC in Karanpur-Dadri Section to ensure that hindrance free RoU could be made available for laying OFC, which led to short closure of the project after incurring expenditure of ₹10.17 crore. Besides, GAIL was also deprived from the envisaged benefits of OFC system.

¹ *Supervisory Control and Data Acquisition (SCADA) is a system of software and hardware elements that allows industrial organizations to control industrial processes locally or at remote locations and to monitor, gather, and process real-time data*

The Management replied (November 2018) that the main reason for non-completion of OFC work was not on account of non-availability of hindrance free RoU but on account of resistance from the farmers in opening of the RoU and compensation demands beyond the allowable limit. Prior survey was not deemed necessary as the OFC was to be laid in the existing RoU.

The reply is not tenable as the cross functional committee constituted for assessing the needs for payment of tree compensation to affected farmers in existing RoU of Dadri-Karanpur Section, observed (11 September 2012) that, dense population of tree plantation and encroachments like brick house, boundary wall/ tube well/ borings etc. in the RoU had become hindrance for OFC laying project work. Further, the demand for compensation beyond the allowable limit was on account of construction of permanent structures and these encroachments could have been avoided had GAIL carried out patrolling activities in line with its O&M Guidelines for Pipelines. Prior survey was required to be carried out to ensure whether encroachments free RoU was available with GAIL.

Thus, non-monitoring of RoU and lack of due diligence before award of contract resulted in infructuous expenditure of ₹10.17 crore coupled with non-achievement of the envisaged benefits.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

Hindustan Petroleum Corporation Limited

6.3 Additional expenditure due to non-utilisation of pipeline in economical manner

Hindustan Petroleum Corporation Limited failed to utilize available pipeline capacity in an economical manner for transfer of Liquefied Petroleum Gas to its bottling plants which resulted in additional expenditure of ₹15.89 crore.

Hindustan Petroleum Corporation Limited (HPCL) entered into (September 2001) a Transport Service Agreement (TSA) with GAIL for transfer of Liquefied Petroleum Gas (LPG) from Visakhapatnam to its bottling plants at Kondapalli (Vijayawada) and Cherlapalli (Secunderabad) through pipeline operated by GAIL, viz. Visakhapatnam-Secunderabad LPG Pipeline (VSPL). The agreement was for a period of 15 years, i.e., from the date of commissioning of the LPG pipeline system by GAIL. The total pipeline capacity of GAIL was 0.78 million metric tonne per annum (MMTPA), of which HPCL was entitled to avail 0.331 MMTPA for its transportation requirements. An addendum was subsequently inserted (December 2008) in the agreement in order to tap LPG through spur line² between VSPL Intermediate Piggling Station (IP-1) to HPCL bottling plant at Rajahmundry.

GAIL enhanced (July 2013) the capacity of VSPL pipeline from 0.78 MMTPA to 1.16 MMTPA. The augmented capacity of 1.16 MMTPA was available from July 2013 onwards. However, GAIL had undertaken a number of line integrity restoration measures in 2014-15 due to major metal loss issues in the pipeline. Accordingly, the pipeline

² *Spur line means a pipeline originating or branching out from the transmission pipeline*

operating capacity was reduced and the actual capacity made available in the year 2014-15 was only 0.76 MMTPA. GAIL further informed (September 2015) that remedial actions for integrity restoration were being taken, due to which the pipeline had to operate at reduced pressure and the expanded capacity would not be available at least for two years. GAIL started improving the flow rate and achieved a throughput of 1.04 MMTPA in the year 2017-18.

During the four years period from 2014-15 to 2017-18, HPCL transported 15.35 lakh metric tonne (LMT) and 3.88 LMT of LPG to its three bottling plants through pipeline and tank trucks respectively. The cost of transfer through pipeline for the period 2014-15 to 2017-18 ranged between ₹426.90 per tonne and ₹1171.70 per tonne whereas the cost of transfer through tank trucks varied between ₹1131.60 per tonne and ₹3756.88 per tonne depending on the place of transfer.

Audit observed that LPG requirements of the three bottling plants were known to HPCL in advance, based on the Industry Linkage Plans (ILPs) prepared on a monthly basis. As HPCL was aware of the requirements of bottling plants as well as the reduction in pipeline capacity by GAIL, it should have utilised the pipeline prudently by transporting LPG to the farthest terminal first, in order to derive maximum financial benefit. Within the pipeline capacity available for utilisation, HPCL should have first catered to the requirement of Cherlapalli followed by Kondapalli and Rajahmundry terminals (i.e., in decreasing order of distance). Instead, HPCL utilised the available pipeline capacity for transfer of LPG to all the three bottling plants arbitrarily. Consequently, it had to transfer LPG to Cherlapalli and Kondapalli through tank trucks to meet the demand. Had the pipeline been utilised economically for transfer of LPG to farthest terminal first, it could have avoided the additional expenditure of ₹15.89 crore (**Annexure-III**) in transportation of LPG through tank trucks to Cherlapalli and Kondapalli terminals.

The Management stated (August 2018) that utilisation of the pipeline within the entitlement was ensured in such a way that it gave maximum logistics benefits and savings to HPCL. The Management further stated (October 2018) that the pipeline was of 12" diameter from Visakhapatnam to Kondapalli and 10" diameter from Kondapalli to Cherlapalli. There was also a substantial elevation difference between Kondapalli and Cherlapalli, due to which full capacity was not available upto the end point. However, the Management noted the suggestions of audit for future compliance. The Ministry endorsed (October 2018) the views of the Management.

The reply of the Management/Ministry is not tenable in view of the fact that:

- (a) The audit observation was on failure to monitor the transportation of actual quantity in an economical manner and not on the transportation of quantity beyond the pipeline capacity. Within the capacity entitlement, HPCL should have first catered to the requirement of the farthest point i.e. Cherlapalli, followed by nearer points i.e. Kondapalli and Rajahmundry terminals. In this manner, HPCL could have avoided the additional expenditure of ₹15.89 crore on transportation of LPG through tank trucks to Cherlapalli and Kondapalli terminals.
- (b) Despite the variation in pipeline diameter and elevation differences between Kondapalli and Cherlapalli, HPCL transported 2.31 LMT of LPG through pipeline

to Cherlapalli during 2018-19. However, during 2014-15 to 2017-18, if the pipeline was used in the most economical manner, the maximum quantity of LPG transported to Cherlapalli through pipeline would have been 2.19 LMT (**Annexure-III**) only, which was less than 2.31 LMT transported during 2018-19. Thus, the argument given by the Management regarding lesser diameter of pipeline and elevation differences between Kondapalli and Cherlapalli does not hold good.

HPCL's failure to utilise the available pipeline capacity in an economical manner resulted in additional expenditure of ₹15.89 crore.

6.4 Additional expenditure due to failure to purchase power from alternate economical mode

Hindustan Petroleum Corporation Limited did not assess the power requirements of its Visakh Refinery in advance, in order to meet the foreseeable power shortage through open access purchase. Consequently, it incurred an additional expenditure of ₹10.79 crore towards penal demand charges (₹6.04 crore) and energy charges (₹4.75 crore).

The Visakh Refinery of HPCL entered into (June 1986) an agreement with Andhra Pradesh Eastern Power Distribution Company Limited (APEPDCL³) for import of power with Contracted Maximum Demand (CMD) of 13 Mega Volt Ampere (MVA) to meet contingencies in the event of forced outages of its own Captive Power Plant (CPP) which had an installed capacity of 93.96 mega watt (MW).

Andhra Pradesh Eastern Power Distribution Company Limited collected demand/ energy charges as per the tariff regulations specified by the Andhra Pradesh Electricity Regulatory Commission (APERC). While the demand charges were levied at 80 per cent of CMD or Recorded Maximum Demand (RMD) whichever is higher, the energy charges were levied on the basis of actual energy consumption. However, demand charges would be levied at double the rate if RMD exceeded CMD and energy charges would be levied at higher rates⁴ if RMD exceeded 120 per cent of CMD.

The generation capacity of the CPP was sufficient to meet the Refinery's load of 85 MW. However, due to aging and consequent de-rating⁵ of two old Gas Turbine Generators (GTGs) having aggregate capacity of 12.36 MW, the power supply by CPP got reduced to 81.6 MW leading to a shortfall of power by 3.4 MW. Further, with the commissioning of Diesel Hydro Treater (DHT) and ancillary plants in March 2015, there were additional loads on the grid power resulting in CMD exceeding 13 MVA. To meet the shortage of power, the Power Implementation Committee of the Refinery recommended (January 2016) for enhancement of CMD from 13 MVA to 24 MVA. HPCL filed (February 2016) an application with APEPDCL for enhancement of CMD. The Contracts Committee of the Refinery also accorded (June 2016) its approval for enhancement of CMD. APEPDCL agreed for enhancement of CMD after commissioning of a new substation at Malkapuram and enhancement was made from May 2017.

³ *Erstwhile Andhra Pradesh State Electricity Board*

⁴ *At 1.15 times of normal charges if RMD lies between 120 per cent and 200 per cent of CMD, and at 1.20 times of normal charges if RMD exceeds 200 per cent of CMD.*

⁵ *De-rating means operating a device at less than its rated maximum capability.*

Audit observed that there was shortfall in power generation before as well as after enhancement of CMD due to commencement of operation of DHT/ancillary units as well as shutdown of GTGs. The shortfall was met through import of power from APEPDCL. As a result, RMD exceeded CMD in 23 months⁶ out of 35 months (May 2015 to March 2018) which resulted in payment of ₹12.48 crore towards penal demand charges and ₹8.57 crore towards excess energy charges.

Audit further observed that the shortfall of power due to shutdown of GTGs also included instances of planned shutdowns. The GTGs were under planned outages for more than a day in eight months⁷ out of 35 months during May 2015 to March 2018. As HPCL was aware of the planned shutdowns, it should have assessed its power requirements in advance, at least for these eight months, and met the shortage through available alternative economical mode *viz.* open access. The availability of power from open access on day-ahead market would be known to HPCL a day in advance. However, HPCL met the shortage of power through import from APEPDCL. Consequently, RMD exceeded CMD on one or two days during the planned outages. Had the shortage been addressed through open access purchase of power on those eight occasions, HPCL would have avoided the penal demand charges of ₹6.04 crore (**Annexure-IV**) and excess energy charges of ₹4.75 crore (**Annexure-V**).

The Management stated (September 2018) that:

- Irrespective of power purchase through open access or through APEPDCL, the demand charges would remain the same as maximum demand was an instantaneous figure which got recorded whenever there was an increase in load on grid even for a short instance. Hence, penalty on demand charges was unavoidable.
- While for planned outages, the benefits of open access exchange power could be looked into but for sudden machine trips they were still liable to cross the CMD.
- They had taken note of the audit observation on open access mode of power purchase and an agreement was entered into (June 2018) with M/s PTC India Ltd for purchase of power through open access.

The reply of the Management is not acceptable in view of the following reasons:

- As per the APERC's order (May 2013) on open access metering and demand settlement, while charging for recorded demand, DISCOMs were to deduct the demand component of open access power/energy from the total recorded demand and bill accordingly. Thus, the penal demand/energy charges could be avoided by availing power from open access mode.
- The additional expenditure in respect of planned shutdown periods only has been highlighted while the periods pertaining to sudden machine trips and forced outages have been excluded.

The Ministry, while endorsing the Management reply, stated (December 2018) that:

⁶ 16 months before CMD enhancement and 7 months after CMD enhancement.

⁷ June 2015, July 2015, February 2016, March 2016, April 2016, May 2016, August 2017 and October 2017

- APERC's order of May 2013 indicated the methodology to arrive at the maximum demand consumed from DISCOM when the total RMD is less than total CMD, and the RMD of DISCOM and RMD of open access mode are less than the respective CMDs. Thus, whenever RMD exceeded the CMD, penal demand charges would be applicable.
- The Refinery had applied for enhancement of CMD in February 2016. However, the enhancement was made in May 2017 after commissioning of sub-station at Malkapuram. Thus, RMD exceeding CMD was inevitable and excess energy charges for those months could not be considered as avoidable.

The reply of the Ministry is not acceptable since:

- The RMD from DISCOM would have been less than the CMD in case the shortage of power due to planned outages of the GTGs was met by purchase of power through open access and thus, the penal charges would have been avoided.
- Considering the inability of APEPDCL to enhance the CMD due to infrastructural constraints, HPCL, being a commercial organisation, should have purchased the power through open access which was more economical.

Thus, failure to purchase power from alternative economical mode *viz.* open access, in order to meet the power shortage during planned outages of the GTGs resulted in additional expenditure of ₹10.79 crore.

Indian Oil Corporation Limited

6.5 Unjust burden of avoidable entry tax on the consumers

Consumers in the State of Bihar were unduly burdened with avoidable payment of entry tax amounting to ₹528.01 crore by Indian Oil Corporation Limited.

As per Bihar Entry Tax Act 1993 (BET), entry tax is payable on specified goods entering into Bihar from outside the State, and petroleum products were brought under purview in the year 2003 vide notification no. SO-159 dated 22 August 2003. The same was, amended in 2006 and it was stipulated that entry tax would be payable on such specified goods entering into a local area from outside such area within the State. As per section 13(2)(a) of the Bihar Value Added Tax Act, 2005 (BVAT) read with departmental notification No. S.O 43 dated 4 May 2006, VAT was not leviable on sale of High Speed Diesel Oil (HSD) and Motor Spirit (MS) between Oil Marketing Companies (OMCs⁸). However, the same was leviable at the time of sale of such products to the retailers or direct customers by the OMCs. Thus, the entry tax payable on the above products as per BET can be set off against VAT liability arising out of sale of such goods under the BVAT. In the case of sale of HSD and MS between the OMCs by bringing the same from outside Bihar/local area, as the case may be, there was no scope for set off of entry tax paid by the seller and the amount of entry tax so paid is, therefore, borne by the OMC.

⁸ *Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL) and Hindustan Petroleum Corporation Limited (HPCL)*

IOCL used to bring HSD and MS from its Barauni Refinery/Terminal to Patna Terminal through pipeline and therefrom these products were sold to the retailers/direct customers and also to OMCs. IOCL, however, did not pay the entry tax on such transfer of products from Barauni to Patna which was not in conformity with the requirement that such transfer attracted entry tax as per amendment of BET in 2006. The Revenue Department of Government of Bihar (GoB) raised (April 2014) the demand for payment of entry tax on the transfer of entire quantity of the above products from Barauni to Patna w.e.f. 2008-09.

IOCL, however, did not agree to the views of the GoB and challenged the demand in the court of law. In the meantime, IOCL stopped supplying the above products to the OMCs from Patna and the products were supplied directly from Barauni from June/July 2014 onwards. It was seen that IOCL sold 7.56 lakh Kiloliter⁹ (KL) of the above products to OMCs during the period from 2008-09 to June 2014 by transferring the same from Barauni to Patna which was ultimately sold by OMCs to their retailers/direct customers in Patna local area.

The Supreme Court of India held (November 2017) that as per the provisions of BET and BVAT, IOCL was liable to pay entry tax on the quantum of products transferred from Barauni to Patna and sold to the OMCs for selling the same to the retailer/direct customers in Patna in view of no VAT liability on the part of IOCL. Finally, IOCL paid (August 2018) entry tax of ₹528.01 crore in respect of the above 7.56 lakh KL products sold to OMCs from Patna terminal during the period from 2008-09 to June 2014. The above entry tax could not be set off as no VAT was payable on the part of IOCL for the products sold to other OMCs.

It was, however, decided by IOCL that the above un-adjustable entry tax of ₹528.01 crore was to be recovered by the OMCs from the consumers in the state of Bihar as Additional State Specific Cost (ASSC) by including the same in the Retail Selling Price (RSP) of MS and HSD thereby increasing the RSP. In the above process, OMCs recovered ₹187.25 crore in the form of ASSC during the period from February 2018 to September 2018 and it was expected that the recovery of the entire amount of ₹528.01 crore of entry tax would be completed by December 2019.

Audit observed the following:-

- Post BET amendment in 2006, the supply of MS and HSD to the OMCs by IOCL from its Patna terminal was not economical and justified as the entry tax payable on such transaction would not be adjustable as there was no VAT liability for such cases. Despite this, IOCL continued such uneconomic movement of products till June 2014 which resulted in payment of entry tax of ₹528.01 crore. This which could not be set-off as there was no VAT liability on such transactions between OMCs. The payment of such entry tax could have been avoided had IOCL supplied the products to the OMCs from Barauni.

⁹ *HSD - 5.46 lakh KL and MS – 2.10 lakh KL*

- The burden of the above entry tax of ₹528.01 crore arose due to failure on the part of IOCL by not resorting to economic mode of transport of products. Thus, shifting of the above burden to the consumers in the State by increasing the RSP of MS and HSD was not prudent and justified.

The Management stated (January 2019) that they were unaware of the amendment of BET in 2006. It was also stated that during the period from 2006 to 2014 both BPCL and HPCL were not having sufficient infrastructure to bring the products in a cost effective manner for their sale in Bihar and were dependent on IOCL's pipeline for supply of products. It was further stated that the entry tax became irrecoverable in nature and the same was passed on to the customers in the State. The Ministry endorsed (March 2019) the views of the Management.

The reply of the Management is not acceptable as citing ignorance of law is not a tenable position in respect of a well-established Company like IOCL. Further, the payment of entry tax arose on the supply of products by IOCL from its Patna Terminal to other OMCs for selling the same in Patna. The question of not having sufficient infrastructure in HPCL and BPCL for taking products from Baruni would not be limiting factor for the OMCs as indicated by the position that BPCL could take products from Barauni from June/July 2014. The burden of entry tax would not have arisen had IOCL supplied the products to the OMCs from Barauni.

Hence, the action of IOCL towards shifting the burden of avoidable expenditure of entry tax amounting to ₹528.01 crore on the consumers of Bihar was not prudent, justified and equitable.

6.6 Avoidable loss due to delay in taking decision for replacement of defective equipment

Bongaigaon Refinery of Indian Oil Corporation Limited suffered loss of ₹324.90 crore due to delay in taking decision for replacement of defective Helitower type Heat Exchanger of Catalytic Reformer Unit.

Bongaigaon Refinery (Refinery) of IOCL at Assam commissioned (January 2009) Helitower type Heat Exchanger¹⁰ (HE) at a total cost of ₹5.98 crore for revamping the capacity of its Catalytic Reformer Unit (CRU) with a view to maximize the production of Motor Spirit (MS)¹¹. The installation of the above HE was envisaged as a replacement of the existing Texas tower type HE, which was found to be thermally inadequate for revamping of CRU. The basic objective of MS maximization of the refinery was to increase the generation of high value distillate product (MS) with corresponding reduction in production of Naphtha, the demand of which was declining. Revamping of CRU would facilitate increase in production of Reformate¹², a component of MS, by processing Naphtha as a feedstock.

¹⁰ A device used to transfer heat between one or more fluid

¹¹ Motor Spirit is volatile liquid used as fuel like petrol

¹² Reformate is an intermediate product.

The HE failed eight times during February 2009 to July 2015 due to chronic problem of repeated bellow¹³ failure. The corrective action taken by the Management did not improve the position. The refinery management (IOCL-BGR) also pointed out a misalignment problem after the third failure (September 2009). M/s. Engineers India Limited (EIL), the Project Management Consultant (PMC) for CRU revamping, was engaged to investigate the reasons after fourth failure of bellow (August 2011). EIL indicated (May 2012) that misalignment between the tube bundle and shell was the probable reason for repeated failure. It was also opined by EIL that there was inherent fabrication inconsistency in the HE.

IOCL, however, did not take a final decision to bring a permanent solution to the problem and operations of defective HE were allowed to continue, though the equipment failed on subsequent occasions March 2013, December 2013, June 2014 and July 2015.

The defective HE was taken out of operation from July 2015 and since then CRU operations were continued with old Texas tower exchanger with lower capacity utilization. Technical Department of Refineries Division, HQ also stated (June 2016) that HE was a sick equipment and practically, it is not in operation since commissioning. Further, the Condemnation Committee constituted (October 2016) by the Management also stated in its report (November 2016) that repeated failure of the HE make the operational cost highly disproportionate in relation to the operational cost of similar assets.

IOCL finally decided (August 2016) to procure and install a new feed-effluent HE to replace the defective HE for sustainable operations of revamped CRU. However, the order for procurement of new exchanger was placed only in August 2017 at a value of ₹5.56 crore (excluding taxes, duties and freight) which was commissioned in November 2018.

Though the advice of EIL was received in May 2012, IOCL did not take immediate action and thus, suffered a loss of ₹324.90 crore¹⁴ during the period from 2012-13 to 2017-18 due to delay in taking decision for replacement of the defective HE. Further, the objective of revamping of CRU for maximization of MS production was also defeated as CRU had to be operated with old Texas tower exchanger from July 2015 onwards at a reduced capacity i.e. 85 *per cent* of its revamped capacity till commissioning of the new heat exchanger. Further, the Company could not claim the loss due to defect in the equipment because of absence of any clause in the agreement covering such defect. The mega insurance policy taken by the Company only covered damage to equipment from fire, earthquake etc. and there was no specific insurance coverage for indemnification of such defects. The Vendor repaired (February 2009, May 2009 and September 2009) the defects in the equipment free of cost. The same, however, did not yield any permanent solution.

¹³ *Bellow is a part of Heat exchanger.*

¹⁴ *The HE was commissioned on 14.11.2018. Taking into account for lead time for procurement and commissioning of HE for 8 months, the loss suffered by IOCL of ₹27.9 crore during the period from 01.04.2018 to 13.11.2018 was not considered by audit.*

The Management/ Ministry contended (September 2018/ January 2019) that the decision of replacement of HE was taken in February 2016, only after exhausting all the avenues of correcting the problem of bellow failures after consultation with the experts in the field, including EIL.

The contention of the Management is not tenable. EIL being the PMC of CRU revamp and expert in the field had already pointed out (May 2012) that the misalignment problem, coupled with inherent fabrication inconsistency in HE were the main reasons for such failures.

Thus, delay of more than four years in taking decision was neither prudent nor economically justified considering the magnitude of revenue loss suffered by the refinery due to failure of the defective HE.

Mangalore Refinery and Petrochemicals Limited

6.7 Undue benefit extended to the executives in the form of shift allowance

Mangalore Refinery and Petrochemicals Limited extended undue benefit to the executives by paying shift allowance amounting to ₹8.15 crore in violation of DPE guidelines

Government of India formulated the policy for revision of pay and allowances of Board level and below Board level executives as well as non-unionised supervisors in Central Public Sector Enterprises (CPSEs) with effect from 1 January 2007 vide DPE office memorandum (OM) dated 26 November 2008. The said OM provided, *inter alia*, that the Board of Directors of the CPSEs would decide on the allowances and perks admissible to the different categories of executives subject to a maximum ceiling of 50 *per cent* of the basic pay. CPSEs may follow 'Cafeteria Approach' allowing the executives to choose from a set of perks and allowances. Only four allowances were kept outside the purview of ceiling of 50 *per cent* basic pay, *viz.* North East allowance, Allowance for underground mines, Special Allowance for serving in difficult and far flung areas and Non-practicing allowance for Medical Officers. DPE had categorically stated (June 2012 and June 2013) that no other allowance/benefit/perks was admissible outside the purview of the ceiling limit, except the four allowances mentioned above.

Audit, however, observed that Mangalore Refinery and Petrochemicals Limited (MRPL) paid shift allowance to its executives and kept the same outside the purview of ceiling of 50 *per cent* of basic pay. During 2007-08 to 2017-18, MRPL paid ₹8.15 crore to its executives as shift allowance in violation of above DPE guidelines.

The Management stated (June 2018) that the shift allowance was a compensation paid for the hardships faced in performing hazardous, unpleasant and inconvenient duty during rotational shifts and hence placed outside cafeteria approach. It further stated that shift allowance was being paid in line with other PSUs in the oil sector.

The reply is not acceptable as shift allowance was meant to ensure continuous round the clock production and not to compensate for hazardous nature of duties performed by any employee. Further, it was paid over and above 50 *per cent* ceiling of basic pay under the

Cafeteria approach, which was against the provisions of DPE guidelines. The violation of DPE guidelines by other CPSEs including those in the oil and gas sectors has been reported in the CAG's Audit Reports No. 9 of 2017 and 15 of 2016 (Volume-II).

The Ministry has accepted (September 2018) the audit observation and advised MRPL to strictly comply with the DPE Guidelines and to recover any unauthorised payments in this regard.

Numaligarh Refinery Limited

6.8 Undue benefit to the executives in the form of running and maintenance expenses of vehicles

The Company extended undue benefits to its executives paying running and maintenance expenses of vehicles amounting to ₹19.72 crore in violation of DPE guidelines

According to Government of India (GoI) vide DPE Office Memorandum (OM) No. 2 (70)/08-DPE (WC)-GL-XVI/08 dated 26 November 2008, the Board of Directors of the CPSEs would decide on the allowances and perks admissible to the different categories of executives subject to a maximum ceiling of 50 *per cent* of the basic pay. CPSEs may follow 'Cafeteria Approach' allowing the executives to choose from a set of perks and allowances. Only four allowances *viz.* North East Allowance, Allowances for Underground Mines, Special Allowance for serving in difficult and far flung areas as approved by the Ministry and Non Practicing Allowance for Medical Practitioners were kept outside the purview of ceiling of 50 *per cent* of basic pay. Further, GoI has also clarified (April 2009, June 2011, June 2012 and June 2013) that except the four allowances as mentioned in the DPE OM dated 26 November 2008, no other allowance/benefit/ perks is admissible outside the 50 *per cent* ceiling which the CPSEs have to comply with strictly.

Numaligarh Refinery Limited (NRL) adopted (November 2008) the cafeteria concept on payment of allowances and perquisites to its executives. It was, however, seen that out of the total amount of running and maintenance expenses of vehicles paid to its executives having personal cars, NRL considered a fixed amount of the same for inclusion under the 50 *per cent* ceiling of Cafeteria and the balance amount was treated as business expenses.

Audit observed that payment of such running and maintenance expenses of vehicles by NRL over and above 50 *per cent* ceiling of Cafeteria was in violation of the above GoI guidelines and resulted in avoidable expenditure of ₹19.72 crore during the period from 2009-10 to 2017-18.

The Management stated (August 2018) that the officers had to utilise their vehicles for attending emergency situations and also for local movement on official assignments and for the same, they were neither reimbursed any additional conveyance charge nor they could claim any taxi charges for local movements. It was also contended that the facility being partly utilised for official purpose as well as for personal uses, a part of the amount was also included for purpose of valuation of 50 *per cent* of cafeteria ceiling and thus, NRL did not provide any undue benefit to the executives in the form of running and maintenance expenses of vehicles.

The fact remains that the payments of such running and maintenance expenses were not in conformity with the DPE guidelines.

The Ministry stated (November 2018) that it had instructed the company to ensure that all the allowances/ perks paid to executives should be in line with the DPE guidelines and any unauthorised allowances paid to them may be recovered in line with the said guidelines.

Oil and Natural Gas Corporation Limited

6.9 Loss of revenue on failure to avail benefit of pricing freedom eligible for Gas produced from Deep Water field

Oil and Natural Gas Corporation Limited (ONGC) did not avail the GoI notified benefit in terms of marketing/ pricing freedom granted for gas produced from Deep Water (DW) field as it did not wait for conclusion of price agreement with GAIL for DW S1 field; instead in the interim, ONGC proceeded to sell at domestic gas price without obtaining approval from competent authority for such sales. This resulted in loss of revenue of ₹21.87 crore.

Board of Directors of Oil and Natural Gas Corporation Limited (ONGC) approved (May 2013) the Integrated Development of Vasishta and S-1 fields at a cost of USD 751.65 million. The project envisaged to produce 15.957 BCM of natural gas from 4 sub-sea wells and achieve overall project completion in April 2016. Thereafter, the company decided (October 2013) to monetize one of the four wells viz., S2AB earlier than originally scheduled. ONGC Board accorded (July 2015) approval for this with revised overall project completion by December 2017 and S2AB well completion by October 2015.

ONGC intimated (10 March 2016) Ministry of Petroleum & Natural Gas (MoP&NG) and GAIL about the likely availability of additional and new gas from nominated fields including S2AB from end of March 2016. Meanwhile, MoP&NG vide its notification dated 21 March 2016 granted Marketing and Pricing Freedom to producers of gas from discoveries in Ultra-Deep Water, Deep Water (DW) and High Pressure and High Temperature areas subject to a ceiling price, which was based on landed price of alternative fuel. ONGC thereafter requested (April 2016) GAIL to arrange evacuation and customer tie-up for sale of gas at ceiling price. After many rounds of discussions and negotiations, a Term Sheet with GAIL was signed (August 2016) for sale of 0.7 MMSCMD¹⁵ of S1 gas at USD 5.05/MMBTU¹⁶ or at ceiling price notified from time to time, whichever is lower. In the meantime, gas production from S2AB well started in May 2016. This gas was sold ex-Odalarevu Terminal to GAIL till 10 August 2016 at domestic gas price of USD 3.06/MMBTU along with G1-GS 15 Gas without obtaining approval from competent authority viz., Committee of Directors (COD) consisting of Director In-charge (Marketing) and Director (Finance) as per company's Book of Delegated Powers (BDP).

¹⁵ MMSCMD - Metric Million Standard Cubic Metre per Day

¹⁶ MMBTU - Metric Million British Thermal Unit

Audit observed that commencing gas production from S1 field in May 2016 without waiting for finalization of higher price eligible for gas production from DW field and sale of such gas without the approval of competent authority at lower price resulted in loss of revenue of ₹21.87 crore in sale of 44.635569 MMSCM of gas during the period from May to August 2016.

The Management in reply stated (October 2018) that (a) lack of ready market in the KG Basin area for gas at such high price was established by the fact that GAIL commenced gas evacuation for quantities much lower than agreed minimum quantities; (b) continued extended production testing was an operational necessity, as ONGC was required to provide numerous details to GAIL on supply of gas; and (c) as Well-testing was an operational issue, decision for sale was made through discussions at Asset Level.

The Management reply was not tenable as (a) GAIL's average gas off-take in the first month was more or less in line with agreed quantities; (b) There was no exigent operational necessity of conducting extended production testing incurring loss of revenue, as ONGC had e-mailed draft Term Sheet even before commencement of production and sale of gas from S2AB well; (c) BDP does not contemplate taking decisions on sales through discussions at Asset Level.

The Ministry in its response (April 2019) has invited a reference to its response (22 April 2019) to ONGC concurring with audit observation and further stated that audit observation appears to be valid as management plea of extended production testing is devoid of merit and there was no explanation for not obtaining prior approval of the competent authority. It also advised management to conduct an enquiry into the matter and fix responsibility for the lapse; and put in place systemic reforms so that occurrence of such incidents is avoided in future.

Thus, ONGC suffered loss of revenue of ₹21.87 crore, as it did not wait for conclusion of price negotiations with GAIL to avail the benefit of higher price eligible for gas production from DW field but in the interim sold the gas at lower price without the approval of competent authority.

6.10 Avoidable payment of equipment standby rentals

Oil and Natural Gas Corporation Limited failed to incorporate adequate contractual safeguards against possibility of the contractor advancing mobilisation of equipment thereby increasing ONGC's liability for standby rentals. ONGC also failed to make beneficial use of the enabling terms and conditions of the contract for reducing such liability.

The Eastern Offshore Asset of ONGC at Kakinada awarded (April 2014) S2AB Well Completion Service contract on nomination basis to M/s Schlumberger Asia Services Limited (contractor), Mumbai for an amount of USD 4,841,266. For scheduling of activities and mobilisation of rental equipment, the scope of work was grouped under two categories *viz.* lower completion of subsea well (SLC) and upper completion of subsea well (SUC).

The contractor in their quote had requested 180 days mobilisation and delivery period for SLC equipment and 195 days for SUC equipment including production testing services (PTS) from the date of award of work. In the contract, however, the mobilisation period (180/195 days) was agreed to be reckoned from dates of mobilisation notices. The contract envisaged 35 days (7 operating days and 28 standby days) for completing SLC and also provided for separate mobilisation notices for SLC and SUC equipment.

As per Special Conditions of Contract (SCC), after mobilization, the contractor had to offer the equipment for on-hire survey by ONGC. The date of acceptance of equipment by ONGC after on-hire survey was to be considered as mobilisation date and the equipment day rates (rentals) comprising operational day rate (ODR) and standby day rate (SDR) were applicable from the mobilisation date.

ONGC, in anticipation of Rig Actinia to be deployed on 15 December 2014, issued mobilisation notice to the contractor for SLC and SUC (including PTS) rental equipment on 20 June 2014. The contractor mobilised all equipment for on-hire survey on 30 November 2014 (in 163 days) against the scheduled mobilisation period of 180/195 days and ONGC completed on-hire survey on 1 December 2014 and became liable for equipment day rates from thereon. However, Rig Actinia reached the well location only on 4 February 2015 as it got delayed at another drilling location due to weather and operational complexities. SLC and SUC were completed on 25 March 2015 and 9 April 2015, respectively and the corresponding rental equipment was de-mobilised by 27 March 2015 and 15 April 2015, respectively.

The contract value was enhanced from USD 4,841,266 to USD 7,400,519 due to additional man-days and deployment of rental equipment for additional number of days.

Audit observed the following:

1. The contractor had made clear their requirement of 180/195 days mobilisation and delivery period for SLC and SUC equipment along with their preference for Rig Actinia. Thus, the Company was aware (December 2013) about the importance of mobilization period (180/195 days) linked to the anticipated availability of Rig Actinia. Further, commencement of ONGC's liability for equipment day rate from the date of completion of on-hire survey after mobilisation was also a fact known to the Company. However, it did not foresee a situation whereof the contractor would advance the mobilisation of equipment and thereby increasing ONGC's liability for standby rentals.
2. ONGC should have reserved to itself the right, by incorporation of an appropriate clause, to carry out on-hire survey after the expiry of the agreed mobilisation period.
3. ONGC issued mobilisation notice for SLC and SUC equipment at one go despite the fact that the contract had envisaged 35 days (7 operating days and 28 standby days) for completing SLC and the contract had provisions enabling separate mobilisation notices. Thus, ONGC did not space serving mobilisation notices for SLC and SUC rental equipment by 35 days. This led to payment of additional

standby rental for 17 days (₹77.64 lakh) and 68 days (₹8.03 crore) for SLC and SUC equipment, respectively.

The Management in their reply (October 2018) agreed to incorporate adequate contractual safeguards in future contracts against the possibility of contractor advancing mobilisation of the rental equipment. ONGC justified mobilisation of SLC and SUC equipment together stating that all the service equipment was required along with the completion equipment for inspection and testing in the base/work shop before taking them to offshore. ONGC further stated that Interface Testing and Integrity Test involving Sub Sea Test Tree (SSTT) necessitated combined mobilisation of SLC and SUC equipment.

The Ministry in their reply (April 2019) while reiterating the Management's response added that it was a fact that there was a delay in deployment of the Rig and on hire survey of rental equipment was done before the agreed mobilisation period.

ONGC, thus, did not adequately safeguard its commercial interests by not incorporating appropriate clause in the contract for reserving its rights to conduct on-hire survey of rental equipment after expiry of the agreed mobilisation period. This, coupled with ONGC's failure to make use of the terms and conditions of the contract enabling separate mobilisation for lower and upper completion equipment, resulted in avoidable payment of additional standby rentals to the tune of ₹9.90 crore.

ONGC Petro additions Limited

6.11 Additional cost towards insurance payment to M/s Samsung Engineering Company Limited

ONGC Petro additions Limited (OPaL) could not provide utilities to the contractor to complete the project within the time schedule due to inefficiency in its procurement. Further, OPaL did not include clause on insurance liability in case of extension of contract resulting in additional expenditure of ₹5 crore towards insurance.

ONGC Petro additions Limited (OPaL) awarded (April, 2011) the work of dedicated High-Density Poly-Ethylene (HDPE) package for its Petrochemical Complex at Dahej, Gujarat on Lump Sum Turn Key (LSTK) basis to M/s Samsung Engineering Company Limited, Korea (the contractor) at a lump sum quoted price of USD 93,530,000 plus Euro 15,290,000 plus JPY 2,173,672,000 plus INR 3,806,901,000. The scheduled completion period was 28 months from the date of notice of award, in addition to grace period of one month. Thus, the contract was scheduled to be completed on or before 28 September 2013. OPaL appointed (January 2009) Engineers India Limited (EIL) as Project Management Consultant for construction of Petrochemical Complex.

As per clause 7.3.1, 7.3.2, and 7.3.8 of the General Conditions of the Contract (GCC), the contractor was liable to take insurance cover for all the risks from the date of commencement of works at his expense until the date of issue of completion certificate and its acceptance by OPaL. It shall have no liability whatsoever in this regard. It shall be the responsibility of the contractor to pay the premium in time and to keep the policies of the insurance, as required by the contract, valid throughout the period of execution of

works. Further, clause 7.3.9 of the GCC stipulated that in case the contractor fails to take out and/or keep in force the insurance policies, then OPaL may at its option take out and keep in force insurance considered appropriate and necessary in the circumstances and pay such premium as may be necessary for that purpose. OPaL shall also from time to time deduct the amount so paid with interest from any monies due or which may become due to the contractor or recover the same as a debt due to the contractor.

Audit observed that the contractor completed the work within the scheduled date of completion except activities from the pre-commissioning stage onwards and interface. OPaL sanctioned eight provisional extensions for completion of balance works till 31 May 2017 due to its failure to provide necessary utilities to the contractor. The contractor, therefore, made requests for reimbursement of insurance cost during extension period. In response, OPaL noted that since the contractor was not responsible for the delay, the cost of extension of insurance cover would be borne by OPaL. Accordingly, OPaL sanctioned reimbursement of extension cost of insurance cover upto grant of fifth provisional extension and reimbursed an amount of ₹5 crore¹⁷.

OPaL while processing the contractor's request for grant of sixth provisional extension realized (May 2016) its mistake that there was no clause in the GCC for reimbursement of cost of insurance policy. OPaL therefore, denied the contractor's request for reimbursement from the date of grant of sixth extension till commissioning of the Project (31 January 2017).

The Management stated (September 2018) that:

1. The contract was silent on the cost of renewal of insurance in case the delay is attributable to OPaL. At the same time, as per clause 3.3.2, the cost of extension of Performance Bank Guarantee (PBG) is on OPaL's account in case delay is attributable to it. In such a scenario, OPaL adopted this logic for reimbursement of insurance cost during extension period of the contract and also as recommended by EIL.
2. Decision to reimburse the cost of insurance was duly approved by the Director In-charge, OPaL.
3. As owner of the plants, OPaL cannot keep the assets involving huge financial value uninsured.
4. Keeping in view the commitment shown by the vendor during project execution and also withdrawal of claim of ₹148.68 crore towards Extension of Time (EOT), the Management decided not to recover ₹5 crore towards insurance cover.

The Ministry in its reply (January 2019) further added that reimbursement of insurance premium was considered as a post contractual issue of the LSTK contract and approval is being taken from BoD regarding amendment in Contract clause. The Ministry also added that as per OPaL's revised DoP, competent purchase authority (CPA) is having power for approval of post contract issues and in the present case, CPA is Executive Procurement Committee (EPC) consisting of Managing Director (MD), President and Chief Financial

¹⁷ 17 December 2014- ₹2,29,56,497, 02 July 2015- ₹77,51,127, 03 September 2015- ₹5,03,647 and 28 March 2016- ₹8,31,751.

Officer (CFO) and all were present in the meeting chaired by MD held on 20 November 2017.

The reply of the Ministry/ Management is not tenable in view of following facts;

1. As per the contract, there were no inter-linkages between the contractual clauses referred for PBG and for insurance; logic of OPaL linking PBG extension to insurance extension, was thus, not justifiable.
2. OPaL has merely obtained approval of Director-I/c, OPaL under clause 18.2.5 of ONGC's Material Management Manual, which was applicable only for extension of scheduled completion date. As the cost incurred on extension of contract was over and above the contract value, OPaL should have taken approval of its Board of Directors for reimbursement of cost of insurance during the extension period.
3. The concern of the management that the assets involving huge financial value cannot be kept uninsured, should have been addressed and OPaL could have taken the insurance policy on its own and recovered the amount of premium from the contractor as per clause 7.3.9 of the GCC.
4. The Management waived off ₹5 crore towards insurance cover in November 2017 whereas EOT claim has been withdrawn by the contractor in August 2018 i.e. after a gap of eight months. Therefore, linking the decision of non-recovery of ₹5 crore towards insurance cover with withdrawal of EOT claim by the contractor was not correct. Besides, the waiver of ₹5 crore was not submitted to the Board though as per delegation of powers, MD was empowered to waive an amount upto ₹10 lakh only.
5. Non-sanction of contractor's claim for reimbursement of insurance cost from sixth extension was an admission that earlier reimbursement was not as per the contractual clause.
6. To consider the waiver of the amount as post contractual issue is not justified since there is a separate specific clause of waiver in the revised DoP of OPaL and as per the clause MD is empowered to waive only ₹10 lakh.
7. The meeting held on 20 November 2017 was not an EPC meeting as it was not termed anywhere as an EPC meeting nor it was stated that the decision so taken in the meeting would be considered as EPC decision. The meeting was held amongst the Contractor (Samsung), Consultant (EIL) and OPaL Management. Thus, the contention of the Ministry that CIA is EPC seems to be an afterthought.
8. Further, the Management in its reply (September 2018) has stated that an amendment will be made in insurance clause accordingly in the Contract which is a tacit admission of the fact that there exists a gap in the existing contract with M/s SECL.

OPaL could not provide utilities to the contractor on time due to its inefficiency in procurement. This resulted in delay in completion of the project beyond the scheduled time. Besides, OPaL did not frame the clause of insurance liability in case of extension which resulted in additional expenditure of ₹5 crore.

Oil India Limited

6.12 Avoidable payment for keeping Contractor's equipments idle at site

Decision to serve mobilisation notice to the contractor without assessing the actual physical progress of work and time required for its completion led to keeping of contractor's production testing equipments idle and consequential avoidable payment of Standby Day Rate charges of ₹8.41 crore.

Oil India Limited (OIL) is primarily engaged in the business of exploration, development and production of crude oil and natural gas, transportation of crude oil and production of Liquid Petroleum Gas (LPG) both in the country and overseas. In the quest for discovery of hydrocarbons, after completion of drilling of exploratory wells and allied work¹⁸, OIL carries out production testing operation to assess presence of hydrocarbons.

The exploration block (MZ-ONN-2004/1) in Mizoram was awarded in New Exploration Licensing Policy Bidding Round-VI to a consortium of OIL (operator, with 85 *per cent* participatory interest) and M/s. Shiv-vani Oil and Gas Exploration Services Private Limited (15 *per cent* participatory interest). As part of the Minimum Work Programme in Phase-I, the consortium was committed to drilling five exploratory wells in the block.

OIL executed (February 2015) a contract with M/s Techno Canada Inc., Canada (TCI) for production testing of two exploratory wells (Aibawk-1 and Keifang-1) in Mizoram through hiring equipment and services¹⁹. The contract was awarded for an initial period of one year with an option to extend for another one year on the same terms and conditions. The modality of availing the production testing services under the contract was on 'call-out basis' (i.e. as and when required at the well site). As per clause 2 of the terms and conditions of the contract, the initial mobilisation of equipment, tools, accessories and manpower at the notified well was required to be completed by the contractor within 100 days from receipt of mobilisation notice from OIL. In case the well was not ready for production testing upon deployment of equipment, 'Standby Day Rate' (SDR) charges was payable by OIL for idling of equipments for the period from the date and time of completion of mobilisation by the contractor till actual deployment of the tools/equipments in the well. Thus, OIL was to endeavour to serve mobilisation notice in such a way that contractor's production testing equipment was not kept idle at site due to non-completion of drilling and allied activities to avoid payment of SDR charges.

Audit scrutiny (December 2016) of records related to exploratory activities of OIL in Aibawk-1 well revealed the following facts:

- OIL started (6 July 2014) drilling work at Aibawk-1 well, with a targeted depth of 4500 meters with the scheduled time of completion of 90 days (i.e. by 3 October 2014).
- OIL issued letter of award for production testing on 13 October 2014 and subsequently served notice to TCI on 21 October 2014 to complete mobilisation

¹⁸ This involves activities viz., wiper trip, logging hole probing trip, cementing, waiting on cement, drill pipe breaking, well-head hook up, testing, rot overt trip and hermetical test of exploratory wells.

¹⁹ Surface production testing services, well activation/stimulation/killing services, tubing conveyed perforation service and slickline service.

within 100 days. Though drilling was initially scheduled to be completed by 3 October 2014, OIL, however, rescheduled to complete the drilling and allied work in the well by 28 January 2015 as per the mobilisation notice.

- Due to slow progress of drilling in Aibawk-1 well on account of hard rock formation, OIL informed (6 January 2015) TCI to defer the mobilisation upto 15 March 2015.
- Subsequently, again on 10 February 2015, OIL informed TCI to complete the mobilisation by 15 April 2015.
- The mobilisation of production testing equipment at site was finally completed by TCI on 08 June 2015.
- OIL completed drilling work on 29 July 2015 and after completion of allied activities, the well was handed over to TCI for production testing, which was commenced on 18 August 2015 and ended on 19 October 2015.
- Based on the results of production testing, the well was declared (October 2015) abandoned due to non-presence of commercially viable hydrocarbons.

In this regard, Audit observed that:

- Drilling of well was started by OIL on 06 July 2014 and was scheduled to be completed by 3 October 2014. Thus OIL was required to drill an average of 50 meter per day (4500 meter/90 days) to complete the targeted depth in time.
- The date wise progress of drilling operation at Aibawk-1 well *vis-a-vis* issue of mobilisation notice for production testing from time to time is detailed below:

Table 6.1: Date wise progress of drilling operation at Aibawk-1 well and issue of mobilisation notice for production testing

Date of issue of mobilisation notice/ Communication	No. of meters drilled on the date of issue of mobilisation notice	No. of days of drilling as on the date of issue of mobilisation notice	Average drilling rate on the date of issue of mobilisation notice (meter per day)	Balance drilling as on the date of issue of mobilisation notice (in meters)	Anticipated days (date) of completion of balance drilling at existing drilling rate as computed by audit	Days (date) of targeted mobilisation as per mobilisation notice
(1)	(2)	(3)	(4) = [(2) / (3)]	(5)	(6)	(7)
21 October 2014	1229	108	11.38	3271	287 (4 August 2015)	100 days (28 January 2015)
6 January 2015	2182	185	11.79	2318	197 (22 July 2015)	68 days (15 March 2015)
10 February 2015	2717	220	12.35	1783	144 (4 July 2015)	63 days (15 April 2015)

- Finally OIL completed drilling work on 29 July 2015 and the well was handed over after completion of allied activities to TCI for production testing on 18 August 2015.
- Due to non consideration of ground realities, OIL repeatedly rescheduled their drilling completion date and accordingly also kept postponing mobilisation by contractor (TCI) As a result, ₹9.89 crore was paid to TCI towards avoidable SDR charges for the period from 08 June 2015 to 17 August 2015 (70 days) for keeping the contractor's equipments/tools idle. Considering the share of 85 per cent participatory interest in the consortium with Shiv-vani, OIL had incurred an avoidable payment of ₹8.41 crore.

The Management replied (September 2018) that:

- The well Aibawk-1 was the first well drilled by OIL in Mizoram in a logistically very difficult area and the estimation of completion time was based on limited geo-scientific information. The characteristics of lithology²⁰ of equivalent stratigraphy²¹ encountered in Mizoram and Assam shelf were different, which led to time overruns.
- Completion time for a well was estimated as per standard operating procedure, taking into consideration various factors, viz. formation type, hole size, bit type, mud properties etc. Normal maintenance of rig equipment as per schedule was considered while estimating completion time. It was difficult to factor in for time overrun and very poor rate of penetration due to various reasons like (i) mechanical failures, (ii) timely non-availability of consumables (like HSD) and spares constrained by challenging logistics, (iii) construction failures (like seepage from effluent pit), (iv) unforeseen down-hole complications due to highly dipping beds and multiple fault zones and (v) occurrence of boulder beds and hard formations in hilly terrains in the top-hole section.
- The mobilisation notice for well testing services to TCI was served after best possible estimation of completion time, taking due consideration of all information. The situation warranted decision under uncertainty. Had the well been completed as envisaged and the testing unit not available, it would have led to idling of rig and major associated services, involving higher standby charges compared to SDR of testing services.

The contentions of the Management are not tenable in view of the following:

- The process of estimation of mobilisation time in the North Eastern Region is not new to OIL and given their experience, the issues that arose could have been assessed more realistically. Considering various geological complexities and other associated bottlenecks encountered in drilling operation of Aibawk-1 well, OIL should have been much more cautious while estimating the time for completion of drilling and issue of mobilisation notice to minimise avoidable payment of SDR charges.

²⁰ *The study of the general physical characteristics of rocks.*

²¹ *The branch of geology concerned with the study of rock layers (strata) and layering (stratification).*

- The contentions of the Management that it was difficult to factor in for time over run and very poor rate of penetration due to various reasons like mechanical failures, timely non-availability of consumables and spares, construction failures, unforeseen down-hole complications etc. are not tenable since these reasons for delay relate to processes that are inherent components of drilling, which is a regular activity undertaken by OIL. OIL should have accounted for such drilling disruptions and planned their schedule accordingly.
- OIL was required to drill an average of 50 meter per day (4500 meter/90 days) to complete the targeted depth in time. However, the average drilling rate over the total period of completion of drilling up to the final depth of 4153 meter in 388 days (from 06 July 2014 to 29 July 2015) was only 10.7 meter per day. In fact, of the total drilling period of 388 days, drilling rate of more than 40 meter and 30 meter was achieved only for 4 and 16 days, respectively. Had OIL assessed the ground realities and actual progress of drilling work before serving mobilisation notice to TCI, the equipment of contractor would not have remained idle at site and OIL would have avoided payment of SDR charges.
- Against the schedule time of 90 days to complete the drilling work at Aibawk-1 well, the actual time taken for completion of drilling was 388 days. Hence, the question of payment of standby charges for idling of rig and major associated services would not have arisen, had mobilisation notice been served prudently.
- While accepting the audit contention, the Management stated (September 2018) that preparation of “Executive Drilling Plan” which addresses all geological and technical aspects for all exploratory wells had now been made mandatory.

The Ministry stated (November 2018) that:

- Under uncertain technical and geological condition, precise time schedule may not be possible when advance notice of 100 days was supposed to be given for mobilisation, though through improved planning, the actual variation could be minimised.
- The mobilisation was completed just before the onset of monsoon in the North-east and had the decision to serve mobilisation notice to the contractor been kept pending further, mobilisation of heavy equipments for production testing services to Mizoram would have been logistically challenging during monsoon and that would have led to idling of rig and associated services and payment of hefty standby charges.

The contentions of the Ministry are not agreeable in view of the following:

- The advance notice of 100 days for mobilisation was as per the terms of the contract, which OIL agreed considering the existing geological conditions and complexities.
- In spite of logistical problem for movement of heavy equipments during monsoon, OIL itself requested TCI to defer the mobilisation but TCI refused to comply with the same as they claimed to have initiated the mobilisation process and their tools and equipments were already on road.

- An effective planning for mobilisation would eliminate or reduce the chances of incurring avoidable standby charges for both idling of rig and associated services as well as idling of production testing services.
- In line with the audit observations, the Ministry also stated that after commencement of actual drilling, the rate of drilling per day and actual rate of penetration of bit were quite lower than projected estimate. Therefore, OIL should have revised the entire schedule based on ground results. The mobilisation was advised (10 February 2015) keeping in view the expected completion of drilling by 15 April 2015. Considering the actual drilling experience, OIL should have factored in drilling disruption and calibrated the drilling schedule.

Thus, serving of mobilisation notice without assessing the actual physical progress of drilling work led to keeping of contractor's production testing equipments idle and consequential payment of avoidable SDR charges for 70 days amounting to ₹8.41 crore.

CHAPTER VII: MINISTRY OF POWER

Damodar Valley Corporation

7.1 Marketing of Power

7.1.1 Introduction

Damodar Valley Corporation (DVC) was set up in 1948 and engaged in generation and distribution of power, flood control, irrigation, soil conservation and other social activities within the Damodar Valley area in the state of Jharkhand (erstwhile Bihar) and West Bengal. The main source of revenue of DVC was through sale of power. The total installed capacity of thermal power generating stations of DVC ranged from 5710 Mega Watt (MW) to 7640 MW during the period from 2013-14 to 2017-18. However, DVC was able to sell power ranging from 4511 MW to 6337 MW only during the above period through bilateral tie-ups¹ with power distribution utilities of various states and firm sale² in the valley area and thus there was surplus power³.

7.1.2 Audit Scope, Objectives and Criteria

The thematic audit covered the initiatives of DVC towards marketing of surplus power during the period 2013-14 to 2017-18.

The objectives of audit were to assess whether:

- initiatives of DVC for marketing of power were effective;
- purchase of power by DVC was judicious and economical; and
- DVC had an effective debtor management system.

The audit criteria included Board minutes and agenda, Power Purchase agreements (PPA) and Electricity rules and regulations.

7.1.3 Audit findings

The installed capacity of DVC (year-wise) vis-à-vis the contracted agreements for supply during 2013-14 to 2017-18 were as given in table below:

¹ *Bilateral tie-ups happen through long term PPA with a beneficiary for sale of power from a specific generator at tariff determined by Central Electricity Regulatory Commission*

² *Firm sale is sale of power to consumers in DVC command area in the states of Jharkhand and West Bengal at the tariff determined by respective State Electricity Regulatory Commission*

³ *Surplus installed capacity for generation of power is referred to as surplus power.*

Table 7.1: Status of Surplus Power

(Figures in MW)

Year	Capacity of new units added	Old units de-commissioned (Capacity)	Total installed capacity as on last day of the year	Bilateral tie-ups ⁴	Contract demand (firm sale)	Total sale of power	Surplus power
2013-14	500	0	5710	1670	2841	4511	1199
2014-15	500	0	6210	1670	2982	4652	1558
2015-16	1200 ⁵	140	7270	2220	3384	5604	1666
2016-17	500	130	7640	2870	3467	6337	1303
2017-18	0	550	7090	2870	3384	6254	836

Thus, there was surplus power ranging from 836 MW to 1666 MW during the period.

The Ministry stated (April 2019) that the surplus power ranged from 322 MW to 972 MW during the above period considering the declared capacity⁶ of the power plants of DVC. Audit, however noted that the tie-ups for bilateral sale are done considering the installed capacity of the power plants, and surplus power should, therefore, be assessed on the basis of such installed capacity. The Ministry further stated that DVC was required to keep spinning reserve⁷ of 250 MW to meet the exigency requirement and considering the same, the quantum of surplus power during 2013-14 to 2017-18 was not considerable. The contention of the Ministry is not acceptable in view of the fact that spinning reserve was maintained by withholding a part of the declared capacity of the generating stations from scheduling and the same had no relationship with the surplus power with respect to installed capacity of the generating station.

Audit reviewed records of DVC for the period of five years from 2013-14 to 2017-18 and observed the following:

7.1.3.1 Strategy for Marketing of Power

A marketing team was formed (January 2015) to undertake market research on the power scenario, identifying States/ entities with potential demand, visiting potential customers and making presentations/negotiating sale of power, preparing publicity material, etc. Audit observed that no road map with specific targets was laid down for the marketing team. The report of market research or outcome of initiatives was also not placed before the Board. Audit further noted that the marketing team had conducted field visits to only five States with energy shortage, out of eight to 18 such States⁸ during the period 2013-14 to 2017-18 and consequent to such field visits DVC could enter into only one PPA of

⁴ Based on date of commencement of supply of power

⁵ Capacity added on 31.03.2016

⁶ Declared Capacity of a power plant indicates its capacity to generate power at a particular point of time taking into account availability of various inputs like fuel, water etc.

⁷ Spinning Reserve is defined as part loaded generating capacity with some reserve margin that is synchronized to the system and is ready to provide increased generation at short notice pursuant to dispatch instruction or instantaneously in response to a frequency drop.

⁸ J&K, Rajasthan, Uttar Pradesh, Maharashtra, Daman & Diu, Dadra & Nagar Haveli, Goa, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Bihar, Jharkhand, Odisha, West Bengal, Arunachal Pradesh, Assam and Nagaland

75 MW for three months. Hence, the initiatives of the marketing team could not succeed considerably to market the surplus power of DVC.

The Management accepted (January 2019) that the report prepared by marketing team was not presented to the Board but was silent on the absence of road map with specific targets or lack of extensive field visits by marketing team. The Ministry endorsed (April 2019) the views of the Management.

7.1.3.2 Sale of Power

There are generally three avenues available to DVC for sale of power viz. (a) bilateral PPA for medium/ long term period; (b) firm sale in the valley area; and (c) short term sale of power through power traders⁹ and power exchanges¹⁰. The initiatives of DVC for selling its surplus power through the above avenues during the period from 2013-14 to 2017-18 are discussed in the following paragraphs:

(a) Sale of power by entering into bilateral PPA (medium/ long term period)

DVC from time to time entered into bilateral PPA with the bulk consumers for medium term¹¹ as well as long term¹² period for a specific power generating station. A power generator was able to recover fixed charges of a power generating station in proportion to the tied-up (through PPA) capacity from the bulk consumers irrespective of power drawn by them subject to availability of the power station for generation. The status of installed capacity of units available for PPAs and their respective PPA tie-ups is depicted below:

Table 7.2: Status of PPAs

Period	Units Installed	Capacity (MW)	PPAs signed for units installed prior to April 2013 (MW)	PPAs signed for units installed from April 2013 to March 2018 (MW)	Total PPAs signed (MW)
Prior to April 2013	8	3000	1570	700	2270
April 2013 to March 2018	5	2700	300	300	600
Total	13	5700	1870	1000	2870

As seen in table above, DVC was able to enter into PPAs for only 600 MW during 2013-14 to 2017-18. Audit observed that DVC did not have a marketing policy duly approved by the Board enumerating the broad guidelines for marketing of power. It also did not maintain database regarding details of tenders floated by prospective power purchasers. In the absence of such database, DVC was unable to assess the market scenario of purchase and sale of power through PPAs.

The Management stated (January 2019) that the policy for marketing of power was being framed. It further stated that over and above the entitlement of the tied up beneficiaries, power was utilized for feeding the valley area consumers, short term trading as well as

⁹ PTC India Limited (PTC), NTPC Vidyut Vyaapar Nigam Limited (NVTNL) and Tata Power Trading Corporation Limited.

¹⁰ Indian Energy Exchange Limited and Power Exchange of India Limited

¹¹ Not exceeding three years

¹² Not exceeding twenty-five years

sale of power through Power Exchange and therefore non-recovery of such fixed charges could not be construed as loss to DVC. However, the Management was silent on non-maintenance of database of tenders.

The reply of the Management/ Ministry is not acceptable as surplus power (as depicted in Table 7.2) was considered by audit after taking into account power fed to beneficiaries in the valley area. Further, the short term sale of power was only 55 MW to 81 MW compared to the quantum of available power.

(b) Sale of power to firm consumers¹³ in the valley area

DVC supplied power to firm consumers in core sectors like Railways, Steel, Coal, other industrial users, JBVNL¹⁴ and WBSEDCL¹⁵ in the valley area by entering into agreement with them for a specific contract demand. Status of firm consumers' contract demand and their overdrawal is depicted in table below:

Table 7.3: Contract Demand of Firm consumers and status of overdrawal of power

Period	Range of number of consumers	Range of Contract Demand in Million Volt Ampere (MVA)	State	Number of firm consumers over-drawing power	Range of power overdrawal (in%)	Period of overdrawal in months
2013-14 to 2017-18	270 -291	0.25-220	West Bengal	77	0.09 to 207.43	2-43
			Jharkhand	81	0.10 to 1090.78	

Audit noted that there were several instances of tripping of power lines due to above overdrawal of power which caused interruptions in power supply. It further noted that:

- DVC did not prepare strategy to identify the prospective firm consumers in the valley area to tap new business;
- marketing team did not prepare reports indicating prospective industrial consumers along with their power requirements, strategies adopted by competitors for appraising the Board;
- DVC did not publicize its sale of power in the valley area to draw attention of prospective firm consumers; and
- it did not approach the overdrawing consumers to enhance their contract demand to ensure uninterrupted power supply.

Audit noted that an increase in contracted demand of overdrawing consumers could lead to enhanced usage of the surplus power. Also, out of the total enhancement of contract demand of 637 MW during the period 2013-14 to 2017-18, 358 MW was during 2015-16 on account of increase in demand of JBVNL.

¹³ Firm Consumers are consumers to whom firm sale of power is made

¹⁴ Jharkhand Bijli Vitran Nigam Limited

¹⁵ West Bengal State Electricity Development Corporation Limited

The Management accepted (January 2019) that overall load in the valley area had not increased significantly and that there was scope for increasing contract demand by removing system constraints and pursuing consumers for submission of security deposits (SD). The Ministry stated (April 2019) that DVC had organized consumer meet to explore the possibility of new consumers in the area.

The fact, however, remains that the number of industrial firm consumers (other than public sector bulk consumers like Railways, Coal, SAIL, JBVNL and WBSEDCL) did not increase during April 2013 to March 2018 and was 167 in April 2013 and 161 in March 2018.

(c) Short term sale of power

(i) Short term exchange sale

DVC obtained (March 2011) membership of Indian Energy Exchange (IEX) and Power Exchange India Limited (PXIL) for sale of surplus power through such exchanges. It started selling power on such exchanges from September 2013 onwards. It was decided (March 2011) to trade power upto 300 MW through such exchanges. The details of power sold by DVC through IEX during the period from 2013-14 to 2017-18 are given below:

Table 7.4: Power sold on Indian Energy Exchange

Year	Power sold through IEX by DVC (Million Unit)	Total power transacted in IEX (Million Unit) (All India Basis)	DVC's share of sale through IEX (per cent)	Average realisation by DVC (₹ Per Unit)
2013-14	46.86	26460	0.18	4.12
2014-15	179.55	28170	0.64	3.98
2015-16	170.65	33980	0.50	3.29
2016-17	575.09	39840	1.44	2.83
2017-18	1441.86	44860	3.21	3.39

Audit observed that:

- sale of power by DVC on IEX gradually increased during 2013-14 to 2017-18, however, it ranged from 0.18 *per cent* to 3.21 *per cent* with reference to the total power sold on the exchange;
- average rate of realization on the exchange was higher than the average energy cost of power generated by DVC which allowed recovery of a portion of fixed cost.
- inspite of having surplus power ranging from 836 MW to 1666 MW during the period from 2013-14 to 2017-18 the limit for trading on exchange was kept at 300 MW till December 2016.

Audit considered the situations where power stations were available for generation of power and market clearing prices¹⁶ at IEX were higher than the energy cost of power generation and assessed that DVC could have earned contribution of ₹510.60 crore by

¹⁶ The average of price realized through exchange by all the power sellers in a given period

generating 8,698.36 million units¹⁷ (MU) of power and selling the same at IEX during the period from 2013-14 to 2017-18 for which market was available.

The Management stated (January 2019) that the limit for quantum of bidding of power through exchanges was restricted to 300 MW due to non-availability of consistent and reliable power. The Ministry stated (April 2019) that quantum of unallocated surplus power was increased to 1000 MW for bidding on exchange along with relaxation of principle to ascertain rate of such bidding in March 2018.

The reply of the Management/Ministry is not acceptable as DVC increased the limit of quantum of bidding of power four times from 400 MW (January 2017) to 1000 MW (February 2018) whereas reliable and consistent power was available much earlier and there was scope for increase in bidding quantity of power through exchanges.

(ii) Short term sale through tendering

DVC decided (July 2014) to sell surplus power on short term basis by bidding through power traders at a competitive rate by sacrificing a part of the fixed charge for minimization of loss. However, participation in short term bidding commenced from 2015-16 onwards.

Scrutiny of records revealed that DVC was successful in 29 such short term bids during the period from 2015-16 to 2017-18 with an average annual sale of 710.63 MU which was equivalent to 81 MW¹⁸ of power only on Round the Clock (RTC) basis. DVC participated in 23 bids in 2017-18 and was successful in 12 bids. It, however, did not maintain proper records relating to participation in such bids during 2015-16 to 2016-17. Audit noted that DVC did not prepare reports to analyze the reasons for unsuccessful bidding and did not apprise the Board about the same.

The Management/Ministry were silent on non-maintenance of records relating to participation in short term bids and non-preparation of reports to analyze the reasons for unsuccessful bids.

7.1.3.3 Uneconomical purchase of power

DVC entered into PPAs with NVVNL and NTPC Limited (NTPC) in March 2011 and January 2012 respectively for procurement of 40 MW¹⁹ of solar power for fulfilment of its Renewable Purchase Obligation (RPO)²⁰. DVC also agreed to procure 40 MW of thermal power from NVVNL (20 MW) and NTPC (20 MW). Audit however, noted that DVC had surplus power at the time of entering into above agreements.

DVC started drawing thermal power as per agreement from NVVNL and NTPC in August 2013 and March 2014 respectively. The average annual cost of procuring such thermal power ranged from ₹3.33 per unit to ₹3.80 per unit during the period 2013-14 to 2017-18,

¹⁷ *The same has been assessed considering Low System Demand (LSD) only in units I to IV of Mejia Thermal Power Station (MTPS) and Units I to III of Bokaro Thermal Power Station (BTPS)*

¹⁸ *81 MW= (710.63 * 10 million)units/24*365*1000*

¹⁹ *NVVNL 20 MW, NTPC Talcher unit 10 MW and Unchahar unit 10 MW*

²⁰ *Renewable Purchase Obligation means the obligated requirement to purchase electricity generated from renewable sources*

which was higher than its cost of generating energy which ranged from ₹2.34 per unit to ₹2.67 per unit. The procurement of thermal power was therefore not commercially justified. DVC subsequently, pursued (August 2016 and May 2017) the matter of de-allocation of above 40 MW thermal power with the Ministry of Power (MoP), which de-allocated the same with effect from December 2017. Audit noted that DVC procured 925.05 MU of thermal power from NRVNL and NTPC during the period 2013-14 to 2017-18 and incurred an additional expenditure of ₹105.34 crore.

Audit noted that procurement of solar power alone could have fulfilled DVC's RPO, and DVC suffered loss of ₹105.34 crore towards procurement of 925.05 MU of thermal power instead of generating the same during the above period.

The Management in its reply (January 2019) did not state reasons for entering into agreement for purchase of thermal power along with solar power while there was surplus power available with DVC. The Ministry, however, stated (April 2019) that surrendering of 40 MW of bundled thermal power by DVC would have had serious impact on its capacity to meet demand of the load of its internal consumers in the valley area.

The reply of the Ministry is not consistent with the fact that DVC had surplus power ranging from 836 MW to 1666 MW during the period 2013-14 to 2017-18 as indicated in Table 7.1. Further, the Ministry's reply regarding inability of DVC to meet the demand of internal consumers on surrendering the bundled thermal power, needs to be seen in the light of its own assessment of surplus power ranging from 322 MW to 972 MW during the period as stated by it in reply to Para 7.1.3.

7.1.3.4 Increase in power purchase cost by ₹7.90 crore due to non-availing of rebate

Apart from purchasing power from NRVNL and NTPC, DVC also purchased power from various sources²¹ as per long term PPAs entered into during the period from September 2006 to August 2009. The power sellers allowed rebate for settlement of power bills within a specific time schedule. DVC had availed cash credit from banks to settle such bills during the period 2013-14 to 2017-18. Audit noted that the quantum of rebate in case of timely payment of power bills was more than the additional interest burden on account of requirement of cash credit for timely payment of such bills. DVC, however, did not make payment of such power bills within scheduled time during the period 2013-14 to 2017-18 on a consistent basis to avail the rebate. Audit noted that consequently, DVC lost the opportunity to save ₹7.90 crore on account of difference between rebate on power bills and additional interest burden during the above period.

The Management stated (January 2019) that availing rebate ultimately did not result into savings in expenditure as corresponding income through tariff got reduced as net power purchase cost was allowed in tariff. The reply of the Management is not acceptable as DVC had availed such rebate on some bills intermittently during 2013-14 to 2017-18, and audit had noted that such rebate was not considered in the tariff petition filed by DVC with the Electricity Regulatory Commissions.

²¹ *Maithon Power Limited (MPL), PTC and NHPC*

The Ministry, however, stated (April 2019) that during the truing up process of tariff, the respective regulatory commission considered the power purchase cost of DVC as booked in the annual accounts and as also claimed by DVC in its tariff petition. The fact, however, remains that the gross power purchase cost was booked in the annual accounts without deducting the rebate amount there-from which was claimed by DVC in the tariff petition and the same was allowed by the respective regulatory commissions. Availing the rebate therefore would have resulted in savings to DVC.

7.1.3.5 Debt securing mechanism

(a) Long Term PPAs/ bilateral sale

As per the terms and conditions of long term PPAs entered into by DVC with the power purchasers, payment of bills for supply of power by DVC was required to be made through irrevocable revolving Letter of Credit (LC) established in favour of DVC with a public sector scheduled bank. The value of LC would cover 105 *per cent* of one month's estimated billing for supply of power. It was also stipulated that the value of LC would be reviewed half yearly on the basis of the average of billing of previous 12 months and the LC amount would be enhanced/reduced accordingly.

Audit observed that DVC did not carry out the above exercise of review of value of LC during the period from 2013-14 to 2017-18. It was also observed that LC was not collected from nine out of 14 power purchasers under Long Term PPA. It was seen that five power purchasers from whom LC valuing ₹150.31 crore was collected had outstanding dues of ₹65.77 crore whereas nine power purchasers from whom LC valuing ₹334.71 crore was not collected had outstanding dues valuing ₹1050 crore (June 2018).

The Management stated (January 2019) that beneficiaries were reluctant to submit LC. The Ministry also endorsed (April 2019) the views of the Management. This contention is however, not acceptable as beneficiaries were supposed to furnish LC as per terms of PPAs.

(b) Firm Consumers

As per regulations of Electricity Regulatory Commissions of Jharkhand and West Bengal, the firm consumers in the valley area were required to furnish security in the form of cash deposit and/ or bank guarantee as specified therein. The position of security against outstanding debt of firm consumers is depicted in table below:

Table 7.5: Security Deposit(SD) and debt outstanding from firm consumers

State	No. of consumers				₹in crore			
	Total ²²	Without SD	With SD	Security needs replacement	Dues from parties without SD		Dues from parties with SD	Amount of security collected from parties which submitted SD
					> 3 yrs	Total		
Jharkhand	69	30	39	0	85	123	42	90
West Bengal	92	50	22	20	279	437	89	102
Total	161	80	61	20	364	560	131	192

²² Other than multiple point consumers like JBVNL, WBSedCL, Railways etc

It could be seen from the above table that 61 consumers from whom DVC had collected security valuing ₹192 crore had dues of ₹131 crore only whereas 80 consumers from whom DVC did not collect any security had dues valuing ₹560 crore indicating that collection of security was beneficial for DVC. However, there was deficiency in implementation of debt securing mechanism as stipulated in the PPAs and electricity regulations.

The Management/ Ministry stated (January/April 2019) that the number of consumers furnishing SD had been improving. The reply may be seen in the light of the fact that SD had not been collected in respect of all the consumers.

7.1.4 Conclusion

DVC did not have any laid down marketing policy approved by its Board enumerating the broad guidelines to be followed for marketing of power through all possible avenues and strategies to be adopted from time to time for the same. Although a marketing team was constituted for marketing of power, no road map with specific target along with time frame for achievement of its objectives was set. DVC added installed capacity of 2700 MW during the period from 2013-14 to 2017-18 with total tied up capacity of 1000 MW as on March 2018, of which only 300 MW was tied up during the above period. There was scope for increased sale of power through the power exchange which was not availed by DVC resulting in loss of opportunity to recover contribution. There was deficiency in the initiative for tapping the business with firm consumers in the valley area. The decision of DVC to procure thermal power with solar power was not economical and justified. There was also deficiency in the debt securing mechanism.

7.2 Imprudent decision to implement RTPS II

DVC incurred infructuous expenditure of ₹138.92 crore due to imprudent decision for implementation of the Phase-II of Raghunathpur Thermal Power Station project without ensuring the availability of equity contribution thereof.

DVC decide (March 2006) to set up Phase-I of Raghunathpur Thermal Power Station (RTPS-I) with two units of 600 Mega Watt (MW) each as per capacity addition programme during 11th Five Year Plan. The said units of RTPS-I were commissioned in March 2016. In order to fulfil the objectives of 'Power to all' by 2012, as envisaged through National Electricity Policy by Ministry of Power, Government of India, DVC decided (June 2010) to set up Phase-II of Raghunathpur Thermal Power Station (RTPS-II) consisting of two units of 660 MW each in Purulia district of West Bengal while RTPS-I was under implementation.

The cost of RTPS-II project was initially estimated as ₹8,077.12 crore which was subsequently revised to ₹9,088.99 crore. The financing pattern of RTPS-II was considered as debt and equity proportion of 70:30. Considering deficit in generation of internal sources for equity funding of RTPS- II, due to non-realisation of dues from the major power consumers and lower Plant Load Factor (PLF) of the thermal power plants, DVC decided (September 2011) to constitute a Committee to evaluate and analyse the risk involved regarding the availability of equity funding for implementation of RTPS-II. The Committee indicated (January 2012) that financial assistance from GoI in the form of

capital/ equity contribution and recovery of arrear dues from Jharkhand State Electricity Board (JSEB), a major consumer, were the pre-requisites for implementation of RTPS-II. DVC finally decided (March 2012) to go ahead for implementation of RTPS-II.

DVC arranged (April 2013) term loan of ₹6,362.29 crore from Rural Electrification Corporation Limited (REC) for financing the debt portion of RTPS-II at an interest rate of 11.25 *per cent* per annum with disbursement pre-conditions of signing PPA with DISCOMs for a quantum of at least 70 *per cent* of the capacity and proportionate investment of equity from own sources. DVC drew (August/ September 2013) ₹401 crore from REC as term loan to finance the project work.

The work orders for main plant civil works, supply of construction power and civil consultancy were also issued in August 2013, September 2013 and March 2014 respectively. However, there was little progress of the project work primarily due to insufficient cash flow. DVC ultimately decided (December 2015) to abandon RTPS-II project due to inability to arrange equity fund from its own sources as per the condition of the loan agreement with REC.

The term loan of ₹401 crore was repaid (September 2016) to REC with pre-payment charges of ₹1.15 crore. DVC, in the meantime, paid interest amounting to ₹140.43 crore to REC on the term loan for the period from August 2013 to September 2016.

Audit, therefore, observed as follows:-

- As the equity contribution amounting to ₹2,727 crore for RTPS-II was required to be funded by DVC from its own internal resources, DVC should, therefore, have ensured improvement of realisation of dues from JSEB and approval/confirmation of MoF, GoI for equity contribution prior to taking final decisions for going ahead for RTPS II project.
- DVC was having PPA for 400 MW only (September 2012) for RTPS-I (1200 MW) which indicated lower demand of power in the valley area and consequential lower PLF. Though there was pre-condition in the loan agreement with REC for entering into PPAs with DISCOMs for a quantum of at least 70 *per cent* of the capacity of RTPS-II, no PPA was entered into by DVC for the same. It was further observed that DVC approached West Bengal State Electricity Transmission Company Limited for bilateral tie up of 400 MW for RTPS-II and it was also proposed to utilise the balance capacity in its valley area. However, there was no fruitful result towards entering into PPAs for RTPS-II.
- DVC should not have gone for term loan (₹401 crore) when they were unable to arrange fund from its own sources. This would have saved DVC from payment of interest and pre-payment charges of ₹138.92 crore (interest and pre-payment charges of loan ₹141.58 crore, less interest recovered from contractor of ₹2.66 crore) on term loan.

Thus, the decision of DVC for implementation of RTPS-II without ensuring the availability of equity contribution thereof was not prudent, judicious and realistic. This has resulted in infructuous expenditure of ₹138.92 crore.

The Management contended (October 2018) that the decision for implementation of RTPS-II project was consciously taken after ensuring availability of equity contribution but due to change in power scenario with lower demand, the new units remained idle and could not generate internal resources, as was envisaged earlier. The Management further contended that possibility of revival of the project was being explored by engaging consultant for Due Diligence Study on Cost Benefit Analysis of the project. The Ministry also concurred (January 2019) with the views of the Management.

The above contention is not tenable as PPA of only 400 MW was with DVC (September 2012) for RTPS-I and there was no PPA for RTPS-II indicating lower demand of power in the valley area. Further, recovery of arrear dues from JSEB, the major consumer, was one of the pre-requisites for implementation of RTPS-II but accumulation of dues of JSEB increased from ₹2,302 crore as on March 2011 to ₹2,963 crore as on March 2012.

7.3 Avoidable loss due to non-recovery of fixed charges

DVC did not take early initiative towards evacuation of ash from temporary ash ponds for sustainable operation of the Unit-I of Koderma Thermal Power Station and supply of power to West Bengal State Electricity Distribution Company Limited (WBSEDCL). This led to termination of PPA by WBSEDCL for which DVC suffered loss of ₹71.25 crore towards non-recovery of fixed charges.

DVC set up Koderma Thermal Power Station (KTPS) for generation of 1000 Mega Watt (MW) of power with two units (Unit-I & II) having capacity of 500 MW each. Commercial Operation of Unit-I commenced in July 2013. The permanent ash pond for KTPS could not be constructed due to non-availability of land. Two temporary ash ponds were, therefore, created as a contingent measure for operation of the units. DVC entered into (October 2013) a PPA with WBSEDCL for supply of 200 MW of power from KTPS for 25 years. The supply of power by DVC to WBSEDCL from KTPS was to be made during the period of six months from April to September of 2014 and 2015 and continuously thereafter from April 2016 onwards. It was, however, seen that the sustainable operation of Unit-I was not achieved due to inadequacy of wet ash disposal area in the temporary ash ponds which were filled up with ash slurry disposed during commissioning of Unit-I and its subsequent operations. Ash evacuation initiative from such filled up temporary ash ponds was, therefore, immensely required for uninterrupted operation of Unit-I. It was, however, observed that although the tendering process for ash evacuation work from the temporary ash ponds was initiated in May 2013, work order for the same was issued in June 2014 i.e. after a delay of 13 months. It was seen that Unit-I could not be operated for supply of power to WBSEDCL from April 2014 as stipulated in the PPA due to wet ash evacuation problem. DVC also did not intimate the firm date of supply of power although repeatedly sought for by WBSEDCL. In the meantime, DVC intimated (13 June 2014) that the Commercial Operation Date (COD) of Unit-II would be on 14 June 2014. However, such declaration of COD was not in line with the regulation of CERC which stipulated that COD of generating unit should commence through successful trial run after seven days notice by the generating company to the beneficiaries. This condition was also incorporated in the PPA. WBSEDCL issued (July 2014) the default notice to DVC intimating that the PPA had become ineffective and inoperative due to non-supply of power by DVC for continuous period of three months from April 2014 as per

the terms and conditions of PPA coupled with non-declaration of COD of Unit-II as per the CERC regulations. DVC raised invoices on WBSEDCL for recovery of 20 *per cent* of fixed charges of KTPS Units amounting to ₹71.25 crore for the period from June 2014 to September 2014 (₹18.20 crore) and April 2015 to September 2015 (₹53.05 crore). WBSEDCL, however, denied paying the fixed charges on the ground that PPA had become ineffective due to fault on the part of DVC.

Audit observed that DVC was well aware of the constraints of wet ash disposal, and evacuation of the ash slurry from the temporary ash ponds was the only available solution for the sustainable operation of the Unit-I. Further, DVC was required to supply uninterrupted power to WBSEDCL from April 2014 as per PPA. Despite this, DVC did not take early and effective action for evacuation of ash from the temporary ash ponds and Unit-I could not be operated for supply of power to WBSEDCL continuously during the period of three months from April 2014, resulting in default of the terms of PPA on the part of DVC. Moreover, the declaration of COD of Unit-II by DVC was not in line with the CERC guidelines and the terms of PPA. All these resulted in termination of PPA by WBSEDCL which ultimately led to avoidable loss of ₹71.25 crore to DVC due to non-recovery of fixed charges of Unit-I & II of KTPS. In this connection, it is worth mentioning that DVC has to absorb this recurring loss of non-recovery of fixed charges (average of ₹14 crore per month) till new consumers, for purchasing of such power (200 MW) are firmed up.

DVC referred (September 2018) the matter to CERC challenging termination of the PPA by WBSEDCL and recovery of the fixed charges by WBSEDCL. The matter was pending (March 2019) before CERC. Audit, further, observed although DVC's legal expert opined that there was sufficient ground for termination of PPA by WBSEDCL due to fault in execution of the same by DVC.

The Management stated (September 2018) that inspite of all out efforts the land acquisition problem for construction of permanent ash pond could not be overcome by DVC and the PPA was terminated by WBSEDCL due to non-supply of power. The contention of the Management is not acceptable as non-availability of land for construction of a permanent ash pond was a known fact and two temporary ash ponds were, therefore, created as a contingent measure for operation of the units. As the temporary ash ponds were filled up with ash slurry, urgent action for evacuation of ash therefrom should have been taken for sustainable operation of Unit-I and supply of power to WBSEDCL from April 2014 onwards as per the provision of PPA. However, the work order for ash evacuation activity was issued in June 2014 and DVC was not able to supply power at a stretch of three months from April 2014 which led to termination of the PPA by WBSEDCL. The Management, however, did not offer any comments regarding declaration of COD of Unit-II being not in line with the CERC guidelines and the terms of PPA which was one of the reasons cited by WBSEDCL for termination of the PPA.

The Management further contended that DVC did not incur any loss on account of fixed charges as the same was recovered from the firm consumers, short term sale and sale through exchange. The contention of the Management is not tenable as during April 2014 to September 2014 and April 2015 to September 2015 (10 months)²³, DVC could generate

²³ *Two months not considered as DVC did not raise the bills*

negligible excess power to the extent of 216 MW²⁴(the declared capacity²⁵ of KTPS ranged between 0 MW and 430 MW) after accounting for pre-existing PPA's with Haryana (100 MW) and Karnataka (250 MW). Moreover through short term sale and sale through exchange, DVC could only recover its variable cost and a meagre contribution towards the fixed costs. The reply of the Management is self-contradictory as had it been able to recover its fixed costs from its short term sale/ sale through exchange, the question of raising claim over WBSEDCL for recovery of same would not have arisen.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

7.4. Imprudent decision to re-locate Research & Development Centre led to idling of high end equipment

Imprudent decision of DVC to re-locate the Research and Development Centre led to idling of high end equipment worth ₹6.84 crore procured for the centre as it remained uninstalled.

DVC decided (July 2007) to set up a Research & Development (R&D) Centre of Excellence cum Management Training Centre at Kolkata, in association with Indian Institute of Technology, Kharagpur (IITK), at an estimated cost of ₹120 crore. The basic objective of such R&D centre was to carry out in-depth study and analysis of day to day as well as generic problems of power stations and Transmission & Distribution (T&D) system for achieving zero forced outage and higher Plant Load Factor (PLF). DVC was allotted (May 2007) three acres of land at New Town, Kolkata by West Bengal Housing Infrastructure Development Corporation Limited for permanent setting up of the R&D Centre. DVC, in this regard, entered into a Memorandum of Understanding (MoU)/ Agreement with IITK in January 2008/ June 2008 regarding formation and functioning of R&D centre at Kolkata with a Co-ordination Centre at IITK for a period of five years. The R&D centre was to be managed by manpower support from IITK as well as DVC. The fund required for developing the R&D centre and functioning of the same was to be provided by DVC. In the meantime, DVC arranged (January 2008) a rented accommodation at Salt Lake City, Kolkata on licence basis for temporary setting up of the R&D centre, with a monthly payment of ₹4.14 lakh²⁶. The licence was for three years, extendable upto a further period of three years, on mutual consent. The R&D centre at Kolkata, however, could not function beyond 31 December 2011 as the licensor refused to extend the licence further. Finding no other alternative accommodation, DVC decided (November 2011) to shift the R&D centre to its Mejia Thermal Power Station (MTPS). All the equipment and instruments of the R&D centre valuing ₹8.78 crore were shifted (April 2012) to MTPS by DVC on its own. Although IITK expressed (October 2011) its concern that such shifting of the equipment etc. by dismantling and decommissioning without the concurrence and involvement of Original Equipment Manufacturer (OEM) would result in loss of warranty, DVC did not pay heed to the same. DVC also did not

²⁴ *Excess power generation (216 MW)= 1966 MW(April 2015-430 MW, May 2015-412 MW, July 2015-383 MW August 2015-371 MW and September 2015-370 MW) less 1750 MW(350*5)*

²⁵ *The capability to deliver ex-bus electricity in MW declared by such generating station in relation to any time-block of the day as defined in the Grid Code or Whole of the day, duly taking into account the availability of fuel or water, and subject to further qualification in the relevant regulation.*

²⁶ *₹3.89 lakh as licence fee and ₹0.25 lakh as maintenance charges*

renew the agreement with IITK which expired in June 2013. The other equipment were utilised for carrying out routine laboratory tests at various units and there was no R&D activity at all. DVC finally decided (July 2016) for closure of the R&D centre primarily due to its adverse financial condition.

Audit observed as follows:-

- The Management did not ensure that the temporary arrangement of R&D centre at rented accommodation could be continued till the permanent set up was available, after acquisition of the land at New Town. This exercise was specifically required as the rented accommodation was available initially for 3 years and thereafter on consent of the licensor. The temporary arrangement ultimately came to a halt at end of fourth year due to refusal of the licensor to extend the licence further.
- The action of the Management towards shifting of all the equipment of R&D centre to MTPS, and other units subsequently without the concurrence and assistance of OEM was not judicious as it ultimately resulted in loss of warranty of such equipment.
- While taking the decision for closure of R&D centre, DVC did not spell out any action plan for carrying out the study and analysis of the problems of power stations as well as T&D system for which the R&D centre was proposed to be set up. This indicates that the envisaged objective of achieving zero forced outage and higher PLF remained unattended.

Thus, shifting of the R&D centre from Kolkata to MTPS by DVC was not prudent and well planned. This has resulted in idling of expensive equipment worth ₹6.84 crore which were lying uninstalled and were not in working condition.

The Management, while justifying (September 2018) the closure of R&D centre on the ground of adverse financial condition, did not offer any comment towards imprudent and unplanned shifting of the same as observed by audit. The Ministry endorsed (November 2018) the views of the Management.

NTPC Limited and NTPC-SAIL Power Company Private Limited

7.5 Excess payment of half-pay leave encashment

Adoption of incorrect method for computation of half-pay leave amount payable on superannuation/ separation resulted in excess payment of ₹74.89 crore to the employees of NTPC Limited and NTPC-SAIL Power Company Private Limited which would increase further with the passage of time.

DPE guidelines (24 April 1987) state that individual PSU may frame leave rules for its employees with the approval of the Board of Directors keeping in view the broad parameters of the policy guidelines laid down in this regard by GoI. DPE also clarified (17 July 2012) that earned leave (EL) and half-pay leave (HPL) could be considered for encashment on retirement subject to over all limit of 300 days. The cash equivalent payable for HPL would be equal to leave salary as admissible for HPL plus dearness allowance (DA). DPE reiterated the same position in February 2014.

During scrutiny of records at National Thermal Power Corporation Limited (NTPC) and NTPC-SAIL Power Company (P) Limited (NSPCL), Audit noted the following:-

i. As per the Leave rules of NTPC, HPL means leave on half pay earned in respect of service with the Company and can be granted to an employee for any reasons including on medical grounds. The half pay for this purpose shall be treated as half of the basic pay. All other allowances would be paid in full. Further, for the purpose of computing encashment of HPL, only half of the basic pay shall be taken into account.

During April 2011 to March 2018, 6607 employees who superannuated from NTPC were paid HPL encashment amounting to ₹298.62 crore comprising of basic component (₹150.71 crore) and DA component (₹147.91 crore).

ii. As per leave rules formulated by NSPCL, on separation of their employees, entire leave subject to a ceiling of 300 days of EL and HPL will be encashable (HPL will be encashed if EL will fall short of 300 days and shall not be commuted). For the purpose of encashment, basic pay and DA are taken into account.

During April 2011 to July 2018, 80 employees separated from NSPCL and were paid HPL encashment amounting to ₹3.05 crore comprising of HPL encashment basic component (₹1.20 crore) and DA component (₹1.85 crore).

Audit observed that the Management of NTPC and NSPCL, allowed DA at the admissible rate on full basic pay instead of half basic pay, while calculating HPL. This resulted in payment of twice the amount of DA due. Thus, due to adoption of incorrect method for computation of HPL, NTPC paid excess amount of ₹73.96 crore during the period between April 2011 and March 2018. Similarly, NSPCL paid excess amount of ₹0.93 crore during the period between April 2011 and July 2018.

The Management of NTPC replied (December 2018) that DPE OM did not provide for payment of half pay and half DA in lieu of Half Pay Leave encashment and that NTPC Leave Rules regarding the Half Pay Leave were in line with DPE, DoPT and CCS guidelines. NSPCL Management also stated (November 2018) that DPE OM dated July 17, 2012 stipulated that cash equivalent payable for half-pay leave would be equal to leave salary as admissible for half-pay plus DA and not half DA.

The replies are not acceptable as DA is expressed as a *per cent* of the basic pay and when half of basic pay was considered for HPL encashment, the DA should also have been on half basic pay only. Moreover, DoPT, while extending orders for encashment of EL and HPL to industrial employees, re-iterated (December 28, 2012) that cash equivalent applicable for HPL would be equal to leave salary admissible for HPL plus DA admissible on the leave salary. The practice followed by both the companies was therefore not in line with the extant rules.

Thus, adoption of incorrect method for computation of HPL encashment on superannuation/separation resulted in excess payment of ₹74.89 crore to employees of NTPC and NSPCL which would further increase with the passage of time.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

NTPC-SAIL Power Company Private Limited

7.6 Irregular payment to executives in contravention of DPE guidelines

NTPC-SAIL Power Company Limited paid ₹23.30 crore to its executive employees on allowances/ perks in contravention of DPE guidelines during the period 2008-09 to 2017-18 which would further increase with passage of time.

GoI notified the policy for revision of pay and allowances of Board level and below Board level executives as well as non-unionised supervisors in CPSEs with effect from 1 January 2007 vide DPE O.M.²⁷ dated 26 November 2008. The said OM inter-alia provided that Board of Directors of the CPSEs would decide on allowances and perks admissible to different categories of executives subject to a maximum ceiling of 50 *per cent* of the basic pay. CPSEs may follow the 'Cafeteria Approach', allowing executives to choose from a set of perks and allowances. Only four allowances *viz.* North East allowance, Allowances for underground mines, Special Allowance for serving in difficult and far flung areas as approved by the Ministry and non practicing allowance for Medical Practitioners were kept outside the purview of the ceiling of 50 *per cent* of basic pay.

DPE clarified (June 2012) that no further allowance/benefit/perk was admissible outside the 50 *per cent* ceiling fixed under Cafeteria Approach except the four allowances mentioned in their OM of November 2008. DPE reiterated (June 2013) that allowances over and above the 50 *per cent* ceiling would be construed as serious violation and not stand scrutiny of audit and other oversight agencies. DPE requested all CPSEs to follow the guidelines in letter and spirit.

NSPCL, decided (October 2009) to pay 47 *per cent* of the revised pay as perks and allowances under Cafeteria Approach (after monetizing recurring expenditure on maintaining and running infrastructure facilities) with effect from 26 November 2008.

Audit noted that NSPCL paid ₹23.30 crore to its executive employees (during 2008-09 to 2017-18) towards compensation for working during night hours (₹4.10 crore), special allowance for difficult and far flung areas (₹14.35 crore), and reimbursement towards uniform (₹4.85 crore) in contravention of DPE guidelines as cited below:

- (i) Compensation for working during night hours: NSPCL introduced (September 2010) a scheme for compensation by way of a fixed amount for working during night hours with effect from 26 November 2008. Such compensation for working during night hours was neither in cafeteria list nor included in admissible allowances outside the cafeteria list, such payment was in contravention of DPE guidelines.

The Management stated (October 2018) that round the clock operation of power plants warranted deployment of employees in three shifts including night shift and hence reimbursement of hospitality expenditure was made to these employees. Management's reply is not acceptable as all perks and allowances other than the four

²⁷ Department of Public Enterprise Office Memorandum No. 2(70)108-DPE(WC)-GL-XVI/08 dated 26/11/2008

allowances outside the cafeteria list were to be covered under the 50 per cent ceiling fixed by DPE.

- (ii) Special allowance (difficult and far flung areas): As per DPE OM of November 2008, only four allowances including Special Allowance for serving in difficult and far flung areas as approved by Ministry were kept outside the purview of ceiling of 50 per cent of basic pay. Further, Department of Expenditure (DOE) prescribed (OM dated 29 August 2008²⁸) areas eligible for grant of Special Compensatory (Remote locality) Allowance. DPE further stated (22 June 2010) that in case an area was considered difficult and far flung by Administrative Ministry/Department of CPSEs and was not covered under the DoE OM, the concerned Ministry/Department, may in consultation with its Financial Advisor decide on rate for Special Allowance as indicated in para 4 of the OM based on comparability of localities specified in the DoE OM.

Audit noted that NSPCL allowed (October 2009) payment of Field Compensatory Allowance²⁹ at the rate of 10 per cent of basic pay to its employees posted at Bhilai, Rourkela and Durgapur site offices with effect from 26 November 2008.

Audit further observed that NSPCL did not consider provisions of DPE guidelines while allowing payment of Special Allowance to its employees. NSPCL site offices are located at Durgapur, Rourkela and Bhilai which are well connected and developed cities with infrastructure facilities created by Steel Authority of India Limited. These cities are not comparable with remote districts prescribed in DoE OM. Moreover, allowance was allowed on the ground that employees were exposed to extreme heat, explosive liquids, gases etc. However, these conditions did not warrant payment of allowance meant for difficult and far flung areas. Besides, approval of the Administrative Ministry was also not obtained. Thus, payment of Special Allowance by the company was irregular.

The Management stated (October 2018) that payment of allowance would be regulated in line with approval by Ministry of Power, which was yet to be received.

- (iii) Reimbursement towards uniform was allowed (March 2015) by the Management to its employees to encourage organisational culture devoid of discrimination and to reflect organisational discipline with effect from 2013-14. The scheme envisaged reimbursement of cost of uniform annually within a fixed yearly ceiling. Audit observed that above benefit was not admissible because such allowance/perk was neither included in cafeteria list nor included in the four allowances admissible outside the cafeteria list.

The Management stated (October 2018) that uniform offered a sense of togetherness and fostered mutual growth. The Management's reply is not acceptable as all perks and allowances other than the four allowances outside the cafeteria list were to be covered under the 50 per cent ceiling fixed by DPE.

²⁸ Department of Expenditure, Ministry of Finance OM No. 3(1)/2008-E.II(B) dated 29 August 2008

²⁹ Renamed (January 2014) as Special Allowance @ 6 per cent of basic pay with effect from 1 Nov 2013

Thus, NSPCL paid ₹23.30 crore to its executive employees on allowances/perks in contravention of DPE guidelines during 2008-09 to 2017-18. The excess payment would further increase with passage of time.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

Power Grid Corporation of India Limited

7.7 Short recovery of house rent from executives availing leased accommodation

Non-compliance of DPE's instructions for recovery of lease rent from the executives availing leased accommodation, resulted in short recovery of ₹18.94 crore during April 2012 to December 2016.

In DPE directions of March 2012, it was *inter alia* stated that rent recovery in respect of leased accommodation arranged by CPSEs is to be at the rate of 10 *per cent* of the basic pay or actual rent whichever is lower.

Audit noticed that Power Grid Corporation of India Limited (PGCIL) recovered house rent at the slab rates fixed by it instead of 10 *per cent* of basic pay for leased accommodation provided to executives till December 2016. PGCIL started recovering house rent at the rate of 10 *per cent* of basic pay w.e.f. January 2017 from the executives availing leased accommodation in compliance of 3rd Pay Revision Report. Thus, non-compliance of above DPE instructions resulted in short recovery of ₹18.94 crore during April 2012 to December 2016.

The Ministry of Power (MoP) replied (January 2019) that the rates for recovery of house rent are revised at the time of wage revision. Once finalised, the license fee/HRR remains unchanged till the next wage revision, as reductions in perks/benefits impacts morale of employee. Also, there are employees who have separated from PGCIL between 2012 to 2016, therefore, it would be difficult to recover house rent at the rate of 10 *per cent* of basic pay from such employees.

The reply of MoP is not acceptable, as despite *inter alia* clear DPE's directions of March 2012, PGCIL continued recovery of house rent at the lower slab rates fixed by it than at 10 *per cent* of basic pay of the employee and waited till next wage revision to implement the applicable rate of recovery. PFC Ltd. and Bharat Heavy Electricals Limited, etc. successfully implemented these guidelines without waiting for any wage revision. Thus, non-compliance of DPE instructions resulted in short recovery of ₹18.94 crore during April 2012 to December 2016.

PFC Limited and REC Limited

7.8 Irregular payment of allowances and perks beyond admissible ceiling

Non-adherence to guidelines of DPE regarding grant allowances and perks to executives to maximum ceiling of 50 *per cent* / 35 *per cent* resulted into irregular payment perks valuing ₹19.91 crore and ₹13.39 crore to the employees of PFC Limited including its subsidiaries and REC Limited respectively.

The Department of Public Enterprises issued (November 2008) guidelines on revision of scales of pay in CPSEs effective from January 2007. The guidelines permitted the CPSEs to follow 'Cafeteria Approach', which allowed the executives to choose from a set of perquisites (perks) and allowances (except North East Allowance, Allowance for Underground Mines, Special Allowance for serving in difficult and far flung areas, Non-Practicing Allowance for Medical Officers and House Rent Allowance/ Leased Accommodation) subject to a maximum ceiling of 50 *per cent* of basic pay. The said maximum ceiling was revised to 35 *per cent* of basic pay vide DPE guidelines (August 2017) on pay revision w.e.f. January 2017.

7.8.1 The Board of Directors of PFC Limited (PFC) approved (January 2007) interest free multipurpose Advance Scheme with a ceiling of six months' pay³⁰, recoverable in two to four years. The scheme was revised (July 2015) to permit interest-free advance with a ceiling of 12 months of pay, recoverable in two to five years. Similar schemes of advances for house building, computer, marriage, conveyance and education at concession rate of interest were also approved. These schemes were also applicable to the employees of its subsidiaries³¹.

PFC had allowed (November 2009) its executives to choose from a set of 15 perks and allowances to be included in the approved basket of the perks/ allowances under cafeteria approach, which were later increased (April 2014) to 17 perks/ allowances. The concession rate of interest on advances is treated as perks under the Income Tax Act, 1961 and PFC including its subsidiaries also considers it as part of the taxable salary of its executives for deducting tax at source. Besides this, moveable assets perk was also allowed by PFC. However, these perks were not included in the approved basket of perks/ allowances and perks/ allowances were used.

PFC disbursed interest free/concessional interest advance to its executives and an concessional interest of ₹18.97³² crore on such advances and moveable assets perks valuing ₹0.94³³ crore from April 2009 to March 2018 were not considered as perks within the ceiling of 50/35 *per cent*, under cafeteria approach though the same were required to be included in the ceiling limit as per DPE guidelines. PFC incurred excess expenditure of ₹19.91 crore (₹18.97 crore+₹0.94 crore) (**Annexure VI**) on perks / allowances to their employees, due to non-adherence of DPE guidelines.

7.8.2 The Board of Directors of REC Limited (RFC) approved (July 2008) interest free multipurpose Advance Scheme with a ceiling of six months' pay³⁴, recoverable in two to four years. The scheme was revised (October 2014) to permit interest-free advance with a ceiling of 12 months of pay, recoverable in three to five years. Similar schemes of advances for house building, computer, marriage, household goods, conveyance and education at concession rate of interest were also approved.

³⁰ *Pay included basic pay, dearness allowance, dearness pay, stagnation increment and personal pay*

³¹ *PFC consulting Limited, PFC green Energy Limited and PFC Capital Advisory Services Limited*

³² *Figures for the year 2017-18 of PFC Green Energy Limited and PFC Capital Advisory Services Limited were not provided*

³³ *Figures for the year 2017-18 of PFC Green Energy Limited and PFC Capital Advisory Services Limited were not provided*

³⁴ *Pay included basic pay, and dearness allowance*

REC had allowed (July 2010) its executives to choose from a set of 16 perks and allowances to be included in the approved basket of perks/ allowances under cafeteria approach with ceiling of 50 *per cent* of basic pay. The concession rate of interest on advances is treated as perks under the Income Tax Act, 1961 and REC also considered it as part of the taxable salary of its executives for deducting tax at source without including in the approved basket of perks/ allowances.

REC disbursed interest free/ concessional interest advance to its executives and a concessional interest of ₹13.39 crore (**Annexure VII**) on such advances from April 2009 to March 2018 which were not considered as the perks within the ceiling of 50 *per cent* /35 *per cent*, under cafeteria approach though the same were required to be included in the ceiling limit as per DPE guidelines. As such, REC incurred excess expenditure of ₹13.39 crore on perks / allowances to their employees from April 2009 to March 2018 due to non-adherence of DPE guidelines,

PFC/REC replied (18/ 26 April 2019) that DPE in its guidelines for cafeteria approach has not classified the interest on the advances as perks and allowances.

The reply of PFC and REC are not acceptable, as DPE in its guidelines for Cafeteria Approach, has specified certain perks and allowances (*viz*: North East Allowance, Allowance for Underground Mines, Special Allowance for serving in difficult and far flung areas Non-Practicing Allowance for Medical Officers and House Rent Allowance/ Leased Accommodation) to keep outside the ceiling of 50 *per cent* /35 *per cent*.

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

THDC India Limited

7.9 Irregular payment of perquisites beyond the ceiling limit fixed by DPE

In violation of DPE guidelines, THDC India Limited incurred expenditure of ₹15.99 crore on payment of perquisites and allowances to their employees.

The Department of Public Enterprises (DPE) issued (November 2008) guidelines on revision of scales of pay in CPSEs effective from January 2007. The guidelines permitted the CPSEs to follow 'Cafeteria Approach', which allowed its executives to choose from a set of perquisites (perks) and allowances subject to a maximum ceiling of 50 *per cent* of basic pay. Four allowances i.e. North East Allowance, (ii) Allowance for Underground Mines, (iii) Special Allowance for serving in difficult and far flung areas and (iv) Non-Practicing Allowance for Medical Officers and (v) House Rent Allowance/ Leased Accommodation were outside purview of ceiling of 50 *per cent* of the basic pay. In places, where CPSEs have created infrastructure facilities such as hospitals colleges, schools, clubs etc., these facilities should be monetised at replacement cost for the purpose of computing perks and allowances. DPE reiterated (April 2011/ June 2012/ June 2014) that no perks/ allowances, other than above four allowances, were outside the preview of ceiling of 50 *per cent* of basic pay and perquisite tax for providing leased housing accommodation should be kept within the ceiling of perks/ allowances.

At the time of pay revision w.e.f. January, 2017, DPE revised (3 August 2017) the ceiling of perks/ allowances to 35 *per cent* of basic pay and allowed 50 *per cent* of perquisite tax within preview of perks and allowances. The recurring cost incurred on running and maintaining of infrastructure facilities like hospital, colleges, and schools etc. was also kept outside purview of the ceiling of perks/ allowances.

THDC India Limited (THDC) allowed 47 *per cent* of basic pay out of available basket of 50 *per cent* towards perks / allowances to their employees. Balance three *per cent* of basic pay was ₹15.73 crore for the period 1 April 2009 to 31 December 2016. Monetised value of facilities of hospital, college and schools etc. and perquisite tax for providing leased housing accommodation were outside the basket of perks/ allowances allowed by THDC. Audit, however, noticed that THDC had incurred an expenditure of ₹30.25 crore on infrastructure facilities such as hospitals etc. (₹19.81 crore) and perquisite tax (₹10.44 crore) during the same period. Besides this, THDC had incurred an expenditure of ₹2.94 crore on perquisite tax on leased accommodation from 1 January 2017 to 14 May 2018 without restricted it to 50 *per cent* as perks/ allowances. THDC started to restrict 50 *per cent* of it as perks/ allowances w.e.f. 15th May 2018 in compliance of DPE guidelines dated 3rd August 2017. Thus, THDC incurred an irregular expenditure of ₹15.99 crore (₹30.25 crore - ₹15.73 crore + 50 *per cent* of ₹2.94 crore) from April 2009 to 14 May 2018 i.e. beyond ceiling limit of perks/allowances.

The Ministry/Management replied (March 2019) that monetised value of facilities (₹3.05 crore) and tax on housing perquisite were well within ceiling of perks/allowance.

The reply is not acceptable as amount of ₹3.05 crore indicated by THDC for monetisation of facilities only represents the amount of depreciation charged by the company on infrastructure of the facilities. It does not include the amount of other running and maintenance expenses like medical stores purchased, staff salaries for the facilities etc., amounting to ₹16.76 crore incurred by THDC on these facilities. As such, in violation of DPE guidelines, THDC incurred excess expenditure of ₹15.99 crore on perks / allowances to their employees from 1 April 2009 to 14 May 2018.

CHAPTER VIII: MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

National Highways Authority of India

8.1 Extending of undue benefit to the concessionaire

Undue benefit given to concessionaire in fixing the appointed date resulted in a loss of ₹93.78 crore to the National Highways Authority of India/exchequer.

National Highways Authority of India (NHAI) entered (19 July 2010) into a Concession Agreement (Agreement) with SP Jammu Udhampur Highway Private Limited (Concessionaire) for four-laning of a part¹ (approx.64.58 km) of the Jammu-Udhampur section of National Highway No. 1-A on design, build, finance, operate and transfer annuity basis (DBFOT annuity).

As per Article 24 of the agreement, financial close was to be achieved within 180 days from the date of agreement and as per Article 48 of the agreement, Appointed date means the date on which financial close is achieved or an earlier date that the parties may by mutual consent determine which shall be deemed to be the date of commencement of concession period. Hence, the financial close cannot be before the Appointed Date as per Article 48 of the agreement. NHAI approved (29 April 2011), the date of financial close as 24 March 2011 i.e. with a delay of 68 days. However, subsequently, it was observed (08 June 2011) that the construction was started by the concessionaire without fixing an Appointed date. The Appointed date was later on fixed as 17 June 2011 as approved by the Executive Committee of NHAI in its 90th meeting held on 20 October 2011.

The concessionaire commenced construction and, on 1 June 2014, the Independent Engineer (IE) certified that, since a length of 50.587 km (i.e. 78.33 *per cent* of total length as per the agreement) of the project highway was complete, the project highway was provisionally fit for entry into commercial operation on 1 June 2014 as per Article 14.3² of the agreement. Thereafter, citing the reason that the project was completed 14 days before the Scheduled Completion Date (COD), i.e. 15 June 2014³, NHAI paid (19 June 2015) a bonus of ₹15.45 crore to the concessionaire as per Article 28.1 of the agreement for early completion of the project.

With regard to fixing of Appointed date on later date, examination of the records revealed the following:

¹ From Kilometer 15.000 to Kilometer 67.000

² Independent Engineer may, at the request of the concessionaire, issue provisional certificate for operating part of the project highway, if at least 75 (seventy five) *per cent* of the total length of the project highway has been completed.

³ According to Article 12.4.1 of the agreement, scheduled date of completion was the 1095th (one thousand and ninety fifth) day from the Appointed date.

- In letter dated 8 June 2011 from General Manager (J&K), posted in NHAI Headquarter, addressed to concessionaire and referring to the visit by Member (Finance) to the project site on 04 June 2011, it was observed that the construction was started by the concessionaire without fixing an Appointed Date. The letter also stated that the Project Director (Jammu) informed that the concessionaire had started the work since March 2011. A copy of this letter was also forwarded to Regional Office (J&K/HP) of NHAI.
- The fact that construction was started earlier than June 2011 was also substantiated by the Monthly Progress Report (MPR) for the month of June 2011 as strip chart⁴ for the project shows that cleaning and grubbing and excavation in Ordinary Soil/Rock work were undertaken from chainage 15.200 to 17.100 and from chainage 45.500 to 45.600, which was equivalent to nine *per cent* of the total cleaning and grubbing work.
- The Executive Committee (EC) of the Authority in its 90th meeting (20 October 2011) fixed 17 June 2011 as Appointed Date, with corresponding scheduled COD as 15 June 2014 considering the actual date of start of work by concessionaire as 17 June 2011 as reported by RO Chandigarh. However, audit observed that the decision of the EC with respect to the Appointed date was not based on facts since the record of the visit of the Member (Finance) and strip chart clearly revealed that the concessionaire had started the construction work in March 2011 itself and the financial close was achieved by the concessionaire and approved by the NHAI on 24 March 2011.
- Therefore, in terms of the provisions of the Agreement, 24 March 2011 should have been the Appointed Date and 22 March 2014 should have been the scheduled COD. Resultantly, the commercial operation of the project was achieved after a delay of 71 days from 22 March 2014 rather than earlier than the scheduled COD. Hence, in terms of Article 28.2⁵ of the agreement, a reduction of ₹78.33 crore in the Concessionaire's First Annuity should have been effected instead of granting a bonus of ₹15.45 crore.

The Management in its reply (30 March, 2016) stated that the concessionaire had started construction work from 17 June 2011, hence, in compliance to the terms of the provision of the agreement the Appointed date was correctly fixed as 17 June 2011 and accordingly, the bonus to the concessionaire was admissible for early completion of the project.

The reply of the Management is not tenable due to the following:

- The documents indicate that the concessionaire had started the construction work in March 2011 itself; financial close was achieved on 24 March 2011 and, therefore 24 March, 2011 should have been the Appointed date.

⁴ *A strip chart is a special form of graph, which presents a record of raw data over a period of time.*

⁵ *In case the concessionaire achieves COD after the scheduled four laning date then it shall be liable for reduction in its first annuity for delayed completion of the project. The reduction for such delayed completion shall be the product of average daily annuity and the number by which the COD preceded the scheduled four laning date.*

- Audit also noted that the reply was silent with regard to the documents mentioned by audit. Therefore, audit sought (4 December 2015, 1 November 2016, 18 June 2018 and 25 July 2018,) additional clarifications and documentary evidence in the form of MPR for the months of March 2011 to May 2011 along with the Request for Inspection⁶ (RFI). Besides this audit sought copy of joint site inspection report carried out as per Article 10.3.1⁷ of the agreement and copy of video recording carried out as per Article 13.6⁸ of the agreement.
- The Management in its further reply (23 August 2018) stated that Project Implementation Unit (PIU) Jammu had requested the concessionaire to provide the copy of documents requisitioned by Audit. However, the Concessionaire intimated that the copies of RFI from serial no. 1 to 50 were not traceable as several documents were destroyed during heavy rain/floods in September 2014. However, the Management was silent in respect of the copy of RFI retained by IE (Project Director of NHAI). Audit did not find the reply acceptable since the basic records relating to any project are to be maintained at the project office itself for monitoring purpose and to requisition the same from the concessionaire was improper.
- Further, as per the Article 23 of the agreement, IE, who is to inspect the construction work and project highway once every month, is to be appointed not later than 90 days from the date of the agreement. Audit noted that NHAI did not adhere to this requirement and appointed the IE only in August 2011. In the absence of the IE's MPR (prepared independently) and other documents, the correspondence of the Project Director (PD) Jammu, who was carrying out the duties of the IE, has to be relied upon. In any case, even the first MPR submitted by the concessionaire for June 2011 revealed that work was started prior to June 2011 since it indicated the cumulative progress up to May 2011, which was that 4.00 hectares site clearance work for diversion out of total work of site clearance of 44.00 hectares was executed. Therefore, the Appointed date should not have been taken in June 2011. Considering the Appointed date of 24 March 2011, the scheduled date of completion was to be 22 March 2014. Hence, there was a delay of 71 days in completion of work.
- While approving the Appointed date as 17 June 2011, Executive Committee decided to fix the Appointment Date as 17 June 2011 as reported by RO Chandigarh. However, Member (Finance) in his visit to project site on 4 June 2011 observed that construction had been started since March 2011. Hence, the contention of the Management that the work was started from 17 June 2011, as reported by RO Chandigarh, is not tenable.

⁶ *A formal letter issued by Concessionaire to IE for inspection of a particular item of project highway.*

⁷ *Before declaration of appointed date, NHAI and Concessionaire inspect the site and prepare a memorandum containing an inventory of the site including the vacant and unencumbered land etc., deemed to constitute a valid licence and Right of way to the Concessionaire for free and unrestricted use and development.*

⁸ *Concessionaire would provide to NHAI a video recording covering the status and progress of construction works within seven days of the appointed date and thereafter close of each quarter.*

To sum, undue benefit was given to concessionaire in fixing the Appointed Date which resulted in a loss of ₹93.78 crore⁹ to NHAI and exchequer.

The matter was referred to the Ministry in November 2018; their response was awaited (May 2019).

8.2 Failure in Project Management

Undue favour to contractor and poor project management by National Highways Authority of India (NHAI) in construction of second office building for NHAI, right from the stage of project conception till its execution resulted in time overrun, cost overrun, blockage of fund amounting to ₹43.60 crore (upto October 2018) and avoidable payment of rent of ₹11.79 crore (during April 2015 to October 2018). Though more than five years have lapsed from the scheduled date of completion and over a decade from the date of release of land, the envisaged benefits of the proposed building are yet to be reaped as the building construction work is still in progress.

NHAI established under the NHAI Act 1988 has its Head Office at Dwarka in Delhi. Over time, because of expansion of its activities and increased staff strength, the space at existing Head Office Building fell short. Consequently, NHAI Board approved (April 2005) purchase of land measuring 6,072 sqm. at Dwarka from Delhi Development Authority (DDA) at cost of ₹0.87 crore for construction of its second office building (building). Allotted land (April 2005) was physically handed over to NHAI by DDA in November 2005. However, due to delay in appointment of architect, delay in obtaining the approval from Delhi Urban Arts Commission and delay in settling the queries raised by DDA, NHAI obtained No Objection Certificate (NOC) from DDA in February 2011, i.e. after a delay of more than five years from the date of allotment of land by DDA. In the meanwhile, to accommodate the increased staff strength, NHAI hired (August 2010) a building from MTNL in Dwarka.

NHAI entered (February 2012) into an agreement with M/s Unity Infraprojects Limited (contractor) for construction of building (Phase I) for NHAI at Dwarka at a cost of ₹51.09 crore with the scheduled date of completion, March 2014. Interior/furniture work, IT work, security work and other allied works were kept outside the scope of work of the contractor, as these items were to be dealt separately in Phase II. The contractor could achieve only 34 *per cent* of financial progress upto the scheduled completion date of the work i.e. March 2014. A supplementary agreement was entered (August 2014) between NHAI and contractor for extension of time (EoT) upto 31 March 2015 along with support of working capital advance of ₹5.00 crore against bank guarantee (BG) to the contractor and deferment of levy of liquidated damages (LD). However, the contractor still could not complete the work and achieved only 59 *per cent* of financial progress upto January 2016. Thereafter, the contractor requested (July 2016) for foreclosure of the contract through amicable settlement. Due to failure on part of contractor to achieve the milestones, as per the agreed terms and conditions, NHAI encashed (August 2016) BG amounting to ₹4.70 crore which was furnished by the contractor against the working capital advance. NHAI finally foreclosed (July 2018) the principal contract and supplementary contract for construction of building retrospectively, w.e.f. 1 January 2018 while retaining a

⁹ *Average daily annuity of ₹1,10,33,000 * 71 days i.e. delay in completion + ₹15.45 crore Bonus paid*

performance BG of ₹5.10 crore of the contractor against the work executed and equipment supplied by it till completion of the project. An amount of ₹36.76 crore was paid to the contractor upto 31 December 2017 against work done and the full and final settlement of contractor including issues of EoT, LD, defective works etc. was yet to be finalised under amicable settlement process. NHAI awarded (3 July 2018) the Phase I left over work and Phase II work to M/s ANJ Turnkey Projects Pvt. Ltd. at a total cost of ₹58.75 crore with a completion period of one year .

Audit observed the following infirmities in project management of the building construction by NHAI:

- It took more than five years, from date of handing of physical possession of land by DDA, to obtain (February 2011), NOC from DDA for construction of building.
- It took more than one year, from date of NOC, to enter into an agreement with the contractor for construction of building.
- The agreement entered into with the contractor did not have any “foreclosure clause” or “risk and cost clause” to safeguard the interest of NHAI inspite the NHAI being in the business of construction activities for so long.
- M/s Datta & Datta, the architect/ design consultant (consultant) of the building construction work, repeatedly issued show cause notices to the contractor and pursued NHAI for termination of the agreement, as the contractor was unable to meet the construction milestones because of its financial crunch and lack of knowledge on its part to manage the situation. Infact, the Chairman & Managing Director of M/s Unity Infraprojects Limited admitted the fact that due to shortage of cash flow with them there were problems in mobilisation of manpower and procurement of costly equipment like lifts, Diesel Generating (DG) sets, Heating, Ventilation, and Air Conditioning (HVAC) systems etc. This explanation was reiterated by contractor management many times but still NHAI kept on granting extension to the contractor and that too without levying of LD. NHAI even entered into supplementary agreement with the contractor so as to provide support of ₹5.00 crore working capital advance. Nonetheless, contractor kept on failing in its promises and no concrete action towards repudiation of contract was initiated by NHAI.
- Consultant (M/s Datta & Datta) was removed (January 2018) from its services and M/s D K Associates was made the architect/design consultant (supervision consultant) for remaining work of the construction of building. M/s D K Associates concurred (June 2018) with the request (July 2016) of the contractor for foreclosure of contract by passing the onus of delay in construction of building on NHAI and the consultant. The reasons attributed by supervision consultant and the contractor were: a) there was non-synchronisation of work due to splitting of building work in two phases; b) delay in technical clearances and administrative approvals and c) the ineffective supervision of consultant. Strangely, these reasons were never raised by contractor before nor were pointed out by the consultant (M/s Datta & Datta); while, NHAI accepted these reasons in the foreclosure

agreement, the failure on part of contractor in arranging the requisite men and machinery (a dominant reason pointed out throughout by the consultant and admitted by contractor) were not incorporated in the foreclosure agreement. This lopsided foreclosure agreement thus jeopardized the interests of NHAI in the amicable settlement process including the levy of LD, EoT and claims against defective works.

- NHAI accepted the suggestions of supervision consultant and the Phase I left over work and Phase II work were synchronized as a single work inspite of the fact that the consultant was of the view that splitting of work was not hampering the work of contractor and infact it was the other way round as the tender for phase II could not be finalised because of failure on part of contractor to adhere to its work schedule as Phase-I and Phase II were interrelated. This was indicative of NHAI's irresolute nature in planning the building construction work as it changed its decisions as per the consultant's views.

The Management in its reply (October 2018) accepted delay on part of contractor in construction of second office building & furnished factual position of chronology of events.

Thus, even after lapse of more than 13 years from date of NHAI's Board decision to purchase land, the work of building construction for NHAI is still in progress indicating poor planning, execution and management of the project. Besides the time and cost overrun, NHAI actions were reflective of undue favours to the contractor which may compromise its financial interests in the future settlement process. In the meantime an amount of ₹43.60 crore (upto October 2018 and including consultancy charges) has been spent on construction of building and avoidable payment of rent of ₹11.79 crore (during April 2015¹⁰ to October 2018) for MTNL Building while the work of building construction is still in progress.

Thus, failure in project management by NHAI resulted in time overrun and cost overrun besides blockage of fund and avoidable payment of rent of ₹11.79 crore till October 2018.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

8.3 Undue financial benefit to concessionaire

Undue financial benefit to the concessionaire on account of payment of early completion bonus amounting to ₹14.08 crore by NHAI, Begusarai

NHAI entered (8 April 2011) into a Concession Agreement(CA) with Khagaria-Purnea Highway Project Ltd. (concessionaire) to augment the existing road from km 270.00 to km 410.00 (approximately 140.42 km) on the Khagaria-Purnea Section of NH-31 on design, build, finance, operate and transfer on annuity (DBFOT Annuity) basis. Appointed date for the project was 5 October 2011 and the scheduled two laning date (STLD) was 2 April 2014.

¹⁰ Considering scheduled completion date of Phase I and adding one year to it for Phase II work.

As per clause 14.3 of the CA, the Independent Engineer (IE), at the request of the concessionaire could issue a Provisional Certificate of Completion if at least 90 *per cent* of the total length of the project highway was complete and the highway could be safely and reliably placed in commercial operation.

As per Schedule-M of the CA, 29 annuities of ₹56 crore each were payable to the concessionaire (October 2014 to October 2028). Clause 28.1.1 of CA provided that in case the concessionaire achieved Commercial Operation Date (COD) prior to the STLD then, it shall be entitled to receive bonus for early completion of the project. It was, however, explicitly clarified that completion achieved on issue of Provisional Certificate would not qualify for payment of bonus and bonus would be payable only when Completion Certificate was issued before STLD. As per clause 28.1.2 of the CA, bonus shall be product of average annuity and number of days by which COD preceded the STLD date.

Provisional Certificate was issued w.e.f. 4 November 2013 after completion of 131 km length (out of total 140.42 km). Completion Certificate was issued w.e.f. 3 February 2014. NHAI released first annuity on 4 October 2014 and early completion bonus on 31 July 2015 for 149 days amounting to ₹45.59 crore on the recommendation of the Executive Committee of NHAI. Out of the 149 days, 45 days were allowed under article 28.1.3(i) for delay on the part of NHAI in conveying the appointed date while 104 days were allowed on account of early completion.

Audit observed that while allowing 45 days for the delay in conveying the appointed date was in order, Executive Committee's decision to allow early completion bonus for 104 days was not correct, as the early completion bonus was allowable for only 58 days {STLD (April 2, 2014) minus COD (3 February 2014)} instead of 104 days allowed by NHAI considering the date of issuance of Provisional certificate. Thus, bonus was allowed for extra 46 days.

Audit also noted that Executive Committee allowed early completion bonus for 104 days based on the recommendations of the Independent Engineer. The Project Director and the Regional Officer had recommended only 58 days for calculation of bonus. Independent Engineer's recommendation of bonus from date of issuance of Provisional certificate was in violation of clause 28.1.1 which explicitly clarified that Provisional certificate would not qualify for payment of bonus.

The Management stated (January 2019) that, clause 28.1.1 of the agreement laid down only the qualifying criteria for eligibility of bonus and that the quantum of bonus was provided in clause 28.1.2 which prescribed the computation of bonus from COD. Further, as per clause 15.1 of the agreement, COD is the date of issuance of completion certificate or provisional certificate. It further stated that the concessionaire was made to accept 45 days of delay in conveying appointed date, and not claim interest on delay in the release of bonus and that the decision of Executive Committee was based on detailed deliberations and therefore, its interpretation of the bonus clause may be agreed to.

The reply of the Management was not acceptable because clause 28.1.1 of the CA explicitly clarified that the COD achieved on issue of Provisional Certificate would not qualify for payment of bonus and bonus would be payable only when Completion Certificate was issued before the STLD date. Further, clauses 28.1.1 and 28.1.2 are both

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sub-clauses of Clause 28.1 which deals with “Bonus in Annuity on account of early Project Completion” and the entire clause 28.1 needs to be considered to correctly calculate bonus.

Thus, NHAI paid extra early completion bonus of ₹14.08 crore for 46 days (46* ₹0.306 ¹¹crore) to the concessionaire in violation of clause 28.1.1 of CA.

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

¹¹ *Average Annuity= ₹56 crore/182.5 days= ₹0.306 crore.*

CHAPTER IX: MINISTRY OF SHIPPING

Cochin Shipyard Limited

9.1 Improper estimate in quoting prices for construction of double-ended Ro-Ro Ferry vessels

Cochin Shipyard Limited incurred a loss of ₹7.83 crore due to fixing of low contract price for the Ro-Ro Ferry vessels built for Kochi Municipal Corporation.

Kochi Municipal Corporation (KMC) invited (9 December 2014) a Detailed Project Report (DPR) from Cochin Shipyard Limited (CSL) for the construction of two Double Ended Ro-Ro¹ Ferry vessels required for operation between Fort Kochi and Vypeen Island. CSL submitted (18 December 2014) the DPR along with its offer for construction of vessels at a price of ₹7.60 crore (₹3.80 crore each) on non-profit basis. The offer was accepted by KMC and a contract was entered between KMC and CSL on 2 March 2015. Construction of both the vessels was completed (January 2017 & February 2017) after a delay of 169 days & 109 days respectively from the contractual date of delivery (July 2016 & October 2016). The vessels were delivered on 27 April 2018.

Audit observed that against the estimated cost and contract price of ₹7.60 crore, CSL incurred a total cost of ₹15.43 crore for construction of both the vessels whereas it recovered only ₹7.60 crore as against the total cost. No claim was preferred by CSL to recover the balance amount of ₹7.83 crore. Thus, wrong estimate had resulted in loss of revenue of ₹7.83 crore.

The Management replied (September 2018) that during the progress of the project, some additional features were made for improving the overall quality/reliability of the vessels. The contract price was fixed considering KMC's limited financial resources and the additional expenditure was made as a social commitment. The Ministry endorsed (January 2019) the views of CSL.

However, the fact was that KMC did not request any additional feature or quality improvement in the vessels. Had the same been required, it should have been brought to the notice of KMC by CSL and demand for increased cost price raised. The reply of CSL supports audit observation that CSL could not claim for increase in cost for additional features or quality improvement done in the vessels, which were not provided in the contract. Moreover, KMC did not request for any price concession due to its financial difficulties and CSL being a commercial undertaking was expected to follow commercial prudence while accepting and implementing contracts and client's payment ability should not have been a factor for determining cost price. Thus, fixation of unrealistic low contract price in the estimate had resulted in avoidable loss of ₹7.83 crore to CSL.

¹ *RORO/Roll-on Roll-off: These ships are vessels designed to carry wheeled cargo, such as cars, trucks, semi-trailer trucks, trailers, and railroad cars, that are driven on and off the ship on their own wheels or using a platform vehicle, such as a self-propelled modular transporter.*

The Shipping Corporation of India Limited

9.2 Payment of Performance Related Pay in violation of DPE Guidelines

As per DPE guidelines, profits from only the core business activities of the CPSEs were to be considered for distribution of Performance Related Pay (PRP) to employees but the Shipping Corporation of India considered non-core profits also, for distributing PRP.

The Department of Public Enterprises (DPE), Ministry of Heavy Industries and Public Enterprises approved (November 2008) payment of Performance Related Pay (PRP) for Board level and below Board level executives and non-unionized supervisors of Central Public Sector Enterprises (CPSEs). The CPSEs were required to follow a 'Bell Curve' approach in grading the officers so that not more than 10 *per cent* to 15 *per cent* are graded outstanding and 10 *per cent* are to be graded below par who are not to be paid any PRP². Further, DPE clarified³ that PRP should be distributed based on profits accruing only from core business activities of the CPSEs.

The Board of Directors of the Shipping Corporation of India Limited (SCI) approved (February 2011) a PRP Scheme for its employees but since SCI reported losses during 2011-12 to 2013-14, PRP was not payable. During 2014-15, SCI reported profit before tax (PBT) amounting to ₹276.13 crore and PRP of ₹11.03 crore was paid to employees, as per approval (November 2016) of Board of Directors.

Audit observed:

- The Management did not deduct non-core profits such as profit on sale of fixed assets including ships (₹122.42 crore), interest on employees loan (₹0.64 crore), Interest on loan given to joint venture (JV) (₹ 28.67 crore), dividend from mutual funds (₹6.72 crore) and interest income on rescinding of ship building contracts (₹ 124 crore) aggregating to ₹ 282.45 crore from PBT, while calculating profit available for distribution of PRP. If such profits are excluded, being non-core profits, there was no profit⁴ arising from core business activity during the year 2014-15 which would entail payment of PRP.
- SCI categorized the below par employees into two categories *viz.* 'Opportunity for development (OFD)' consisting of 9.84 *per cent* of total employees and 'Do not meet expectation (DNME)' consisting of 1.48 *per cent* of total employees. The OFD category employees were paid PRP amounting to ₹38.46 lakh while DNME employees were not paid any PRP. This means that PRP was paid to major section of below par employees also in violation of DPE guidelines.

² As per DPE clarification dated 6 July 2011.

³ 18 September 2013 and 02 September 2014

⁴ PBT (₹ 276.13 crore) less inadmissible non-core activity income (₹ 82.45 crore) resulting in (-) ₹6.32 crore

The Ministry replied (4 December 2018) that:

- The objects for which SCI was established were defined in its Memorandum of Association (MoA) and purchase and sale of vessels was mentioned therein, indicating that profit arising from sale of ships was an income from core activity.
- SCI's investment in JVs was in line with its MoA and the loans given by SCI to its JVs was part of its core business and accordingly the earnings from this investment constitute core business activity of SCI.
- The placing of orders and consequent rescindment of ship building contracts was in line with the core business activities and hence any associated income was also core business income for SCI.

The reply is to be viewed against the following:

- SCI's core activity was marine logistics and incomes relating to the core activity such as freight, charter hire, demurrage etc. were booked under the head "Revenue from Operations" in the Annual Financial Statements. Though the Management has stated that income earned from profit on sale of fixed assets including ships, interest income etc. amounting to ₹ 282.45 crore was also from core activities, as per the audited financial statements of SCI for 2014-15, these incomes fall under "Other Income".
- A business enterprise cannot carry out any activity unless it is permitted by its MoA. However, mention of an activity in the MoA alone does not mean that it is a core activity.
- The Remuneration Committee, while deliberating on payment of PRP to employees, did not distinguish profit from core activities from other profits. Hence the Management's stand that all activities are core activities is not a conscious decision but an argument put forth after audit raised the issue.

Thus, the payment of ₹11.03 crore to its employees by SCI as "Performance related pay", was not in compliance with DPE guidelines.

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 crore³. 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, Gulpahar 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 minerals⁴ 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/outside occupants occupying BSLC's quarters in the Birmitrapur township. BSLC spent ₹9.55 crore⁵ 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).

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 productivity⁶ 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 388⁷.

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 leases⁸ were in the name of OMDC and three⁹ 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.

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	BPMEEL	Manganese	266.77	4.7	24/08/2006	Non-renewal of Mining Lease	Rejected by GoO	24/08/2006
5	Kolha-Roida	BPMEEL	Iron & Manganese	254.952	40.36	16/11/2006	-do-	-do-	16/11/2006
6	Thakurani	BPMEEL	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:

Particulars	(₹ in crore)				
	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 lease¹⁰ 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 production¹¹ 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.

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 leases¹²

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) Limited¹³ (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 produce¹⁴ 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.

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 crore¹⁵ 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.

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 Iron¹⁶ 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 crore¹⁷.

(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 crore¹⁸ 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/outsideers 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 crore¹⁹ 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 agencies²⁰ 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 tonnes²¹ 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.

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 crore²². 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

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 plants²⁴, 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:

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 systems²⁵ 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.

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/plants²⁶, 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 units²⁷, 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.

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 plants²⁸, three special steel plants²⁹, 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/ debottlenecking³⁰ 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 1783³¹ 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.

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 indenter to prepare judicious estimate of the current value of the indent. The indenter 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			76³²	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.
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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 weeks³³. 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

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 crore³⁶ 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 1 and 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 924⁰C to 1100⁰C 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/THM³⁷. 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 TPD³⁸ 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 tonne³⁹. 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 crore⁴⁰.

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

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 be 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/nm³. 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 Metal⁴¹(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

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	(₹ in crore)
							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	12,922	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 rate⁴² 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 productivity⁴³ 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 Consumption⁴⁴ (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 M³ blast furnaces (BF), two pig casting machines and associated facilities for ₹226.67 crore⁴⁵. 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

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₹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).

CHAPTER XI: MINISTRY OF TEXTILES

National Textile Corporation Limited

11.1 *Doubtful recovery due to lack of due diligence in export of yarn*

Doubtful recovery of ₹5.91 crore due to lack of due diligence in export of yarn to two private parties in Pakistan without verification of their credentials and acceptance of Letter of Credit issued by M/s General Equity, New Zealand which was reported by Financial Markets Authority, New Zealand to be engaged in misleading and deceptive conduct

The New Minerva Mills, Karnataka, one of the mills of National Textiles Corporation Limited (NTC) exported (August 2015) yarn amounting to ₹5.91 crore to two consignees/buyers in Pakistan viz. M/s Transtrade Global and M/s Madina Impex International on the strength of two irrevocable Letters of Credit (LC) dated 28 July 2015 & 05 August 2015 of General Equity, New Zealand (GE). NTC received the LC through Krung Thai Bank, Mumbai Branch which was issued by Suisse Credit Capital (2009), London on behalf of GE.

Audit noticed that GE, New Zealand was only a building society formed in 2007 to assist its members/clients. It was not a licensed financial market participant in New Zealand. It was neither a bank registered under the Reserve Bank of New Zealand Act, 1989 nor it was regulated by the Financial Markets Authority¹ (FMA).

FMA had publicly issued a warning (September 2014) on its website that persons dealing with GE should exercise extreme caution before obtaining any financial services or acquiring any financial products from it. In particular, FMA cautioned that GE was not a licensed financial market participant in New Zealand and does not have to meet any prudential requirements in New Zealand and was not a New Zealand bank or a non-bank deposit taker. GE had made misleading and deceptive statements in respect of assets it claimed to hold and the same was used to give a misleading impression of adequate asset backing to support the issuance of LC by GE. Further, in view of most of GE's business being conducted outside of New Zealand that were subject to the laws of, and oversight of financial markets regulators of those places where it conducts that business, FMA cautioned that it had limited ability at law to take action in connection with financial services provided by New Zealand entities outside of New Zealand.

FMA had ordered that the said warning in respect of GE be displayed on the website of GE so that those dealing with it are made aware of FMA's concerns. Accordingly, the said warning was displayed on the main page of GE's website.

FMA made the warning disclosure order for the following reasons:

¹ *New Zealand government agency responsible for financial regulation of all financial market participants, exchanges and the setting and enforcing of financial regulations.*

- (a) It was important that those dealing with GE were made aware of FMA's concerns as expressed in the warning.
- (b) A disclosure order would ensure that the warning was disseminated directly by GE, which would result in a wider and more targeted and relevant distribution than might otherwise be the case if FMA relied solely on publishing the warning on the FMA website.
- (c) In particular, individuals and entities from overseas who might be dealing with GE were more likely to be made aware of the warning if it was published by GE.

Audit observed that NTC sought (July 2015) consultation from Corporation Bank on the LC issued by GE. However, all containers were shipped² (August 2015) by NTC even before receiving any verification advice from the Bank.

As per the terms and conditions of the LC, GE had to release the payment on the 90th day from the date of Bill of Lading³. Accordingly, the payment against the said exports became due in November 2015⁴. Though, Consignment Handling Agent (CHA) of NTC had informed that all the ten consignments had been released, NTC had received proof of delivery for only eight consignments, the payment of which has not been received by NTC till date. The Corporation Bank informed (February 2016) NTC that it had received a SWIFT⁵ message from GE stating that GE was informed by their clients that the goods did not meet the description and GE had received letters of cancellation of transaction from NTC. GE further informed that it was now a matter between the parties and it had closed the file. However, NTC claimed that the said letters were forged as it had never issued such letters. Moreover, despite being called for, GE did not return the original Bill of Ladings.

NTC asked (April 2016) the Corporation Bank to make payment along with interest on or before 30 April 2016 as it did not get proper service, guidance and help for recovery despite paying each and every charge as it was purely a banking side service issue. In response to the same, the Bank pointed out (May 2016) that by accepting LC directly from GE without their advice made them assume that the buyer was known to NTC and the NTC being a commercial organization had exercised due diligence on buyers as well as applicants on its financial strength, antecedents, etc. before entering into a sale contract for such a big amount.

Audit noticed that the applicant (One Anametrics Intertrade Limited, Thailand) mentioned in the LC was different from the consignees who had taken delivery of the consignment in Pakistan. Audit observed that NTC had not signed any formal written agreement/contract either with the consignees or with the applicant mentioned in the LC. Audit did not find on record any details of independent verification/evaluation of the credibility (financial profile) of the buyers/ applicant with whom the transaction was to be done especially in view of the

² *Four on 08 August 2015 and six from 26th to 29th August 2015.*

³ *8th, 26th & 29th August 2015*

⁴ *6th, 24th & 26th November 2015*

⁵ *Society for Worldwide Interbank Financial Telecommunications i.e. a messaging network that financial institutions use to securely transmit information and instructions through a standardized system of codes*

geographical location (Pakistan) of the buyers and due to the fact that NTC had never entered into any transaction with the said parties earlier.

Thus, overlooking the warning of FMA and solely relying on the LC issued by GE, an entity which was not even a bank or licensed financial markets participant was not in the favour of NTC.

It was also observed that there were no specific rules, policy or procedure framed by NTC governing the execution of export orders through LC.

After denial (February/April 2016) of payment by GE, the matter was taken up (March 2016) with International Chamber of Commerce (ICC) which replied (May 2016) that GE is not a member of ICC, New Zealand. Further, NTC requested Banking Ombudsman to intervene in the matter which was rejected (May 2016) by the latter stating that it was outside their purview.

In view of the above facts and the “limited ability” expressed publically by FMA, chances of recovery are remote.

The Management stated (September 2018) that:

1. The ECGC Limited had approved the credit limit application in respect of Transtrade Global on 12 June 2015 as the party was not in the caution list of ECGC. In the case of Madina Impex management had taken their credentials and found that they were registered tax payers in Pakistan and they had signed the contract before opening of LC.
2. NTC has taken necessary steps to safeguard the interest of the Corporation and there were no objections raised by the Corporation Bank at any point of time in relation to genuineness or otherwise of the LCs.
3. NTC had received the LC through Krung Thai Bank, Mumbai Branch which was a State- Owned Bank of Thailand. The Krung Thai Bank received the LC from GE through Suisse Credit Capital (2009), London with whom it had got a Relationship Management Acceptance (RMA) established for transmission of LC. It meant that Krung Thai Bank would have already checked the credentials of Suisse Credit Capital (2009) and GE at the time of establishing an RMA with them. Since the LC was received through a State owned bank there was no scope for a doubt on the credentials of the LC establishing Bank.
4. Now, NTC has been covering all exports under ECGC, apart from taking credit approval for all the overseas buyers before proceeding with export formalities. Hence it is ensured that no such instances are repeated in future.

Subsequently, it was also informed by the Management (April 2019) that a recovery suit has been filed by the company before the High Court of Sindh, Karachi, Pakistan and next date of hearing in the case is in August 2019.

Reply needs to be viewed against the following facts:

1. The said credit limit approved by ECGC was for arrangement of credit insurance in respect of M/s Transtrade Global, but audit scrutiny revealed that the export of goods was not insured by the Company. On being asked to furnish the signed copy of the contract with the buyer, management has provided copy of the signed Proforma Invoice with one of the parties only which cannot be construed to mean a valid contract/agreement. The fact remains that NTC failed to evaluate/verify the credibility of the buyers and the applicant before exporting the goods.
2. NTC had not exercised due diligence before export of goods and cannot place sole reliance on its own Banker and the transferor bank for correctness/genuineness of LC issued by GE. NTC had overlooked GE's status of not being a Bank or licensed financial market participant in New Zealand apart from other adverse facts mentioned in the warning about GE by FMA.
3. The Company has not furnished any specific reply on the audit observation regarding overlooking the warning about GE which was already displayed on its website as per the orders of FMA stating that GE was not a Bank or a licensed financial market participant in New Zealand apart from other adverse facts.

Thus, exporting goods without exercising due diligence led to doubtful recovery to the extent of ₹5.91 crore.

The matter was referred to the Ministry in October 2018; their response was awaited (May 2019).

CHAPTER XII- RECOVERIES AND CORRECTIONS/ RECTIFICATIONS BY CPSEs AT THE INSTANCE OF AUDIT

[Air India Limited, Indian Oil Corporation Limited, National Highways Authority of India, National Insurance Company Limited, New India Assurance Company Limited, NTPC Limited, Numaligarh Refinery Limited, Orissa Mineral Development Company Limited, SBI Capital Market, Steel Authority of India, SUD Life Insurance Company Limited](#)

12.1 Recoveries at the instance of audit

In 13 cases pertaining to 11 CPSEs, audit pointed out that an amount of ₹20.82 crore was due for recovery. The Management of CPSEs had recovered an amount of ₹19.80 crore (95.10 per cent) during the period 2017-18 as detailed in **Appendix-I**.

[Cochin Shipyard Limited, National Highways Authority of India, Orissa Minerals Development Company Limited, Steel Authority of India Limited](#)

12.2 Corrections/rectifications at the instance of audit

During test check, cases relating to violation of rules/regulations and deficiencies in the system were observed and brought to the notice of the Management. Details of the cases where corrective action was taken or changes were made by the Management in their rules/regulations, etc. at the instance of audit are given in **Appendix-II**.

CHAPTER XIII

Follow-up on Audit Reports (Commercial)

Audit Reports of the CAG represent the culmination of the process of scrutiny of accounts and records maintained in various offices and departments of PSUs. It is, therefore, necessary that appropriate and timely response is elicited from the executive on the audit findings included in the Audit Reports.

The Lok Sabha Secretariat requested (July 1985) all the Ministries to furnish notes (duly vetted by Audit) indicating remedial/corrective action taken by them on various paragraphs/appraisals contained in the Audit Reports (Commercial) of the CAG as laid on the table of both the Houses of Parliament. Such notes were required to be submitted even in respect of paragraphs/appraisals which were not selected by the Committee on Public Sector Undertakings (COPU) for detailed examination. The COPU in its Second Report (1998-99-Twelfth Lok Sabha), while reiterating the above instructions, recommended:

- Setting up of a monitoring cell in each Ministry for monitoring the submission of Action Taken Notes (ATNs) in respect of Audit Reports (Commercial) on individual Public Sector Undertakings (PSUs);
- Setting up of a monitoring cell in Department of Public Enterprises (DPE) for monitoring the submission of ATNs in respect of Reports containing paras relating to a number of PSUs under different Ministries; and
- Submission to the Committee, within six months from the date of presentation of the relevant Audit Reports, the follow up ATNs duly vetted by Audit in respect of all Reports of the CAG presented to Parliament.

While reviewing the follow up by the Government on the above recommendations, the COPU in its First Report (1999-2000-Thirteenth Lok Sabha) reiterated its earlier recommendations that the DPE should set up a separate monitoring cell in the DPE itself to monitor the follow-up action taken by various Ministries/Departments on the observations contained in the Audit Reports (Commercial) on individual undertakings. Accordingly, a monitoring cell is functioning in the DPE since August 2000 to monitor the follow up on submission of ATNs by the concerned administrative Ministries/Departments. Monitoring cells have also been set up within the concerned Ministries for submission of ATNs on various Reports (Commercial) of the CAG.

A review in Audit revealed that despite reminders, the remedial/corrective ATNs on 4 transaction audit/compliance audit paragraphs/reviews contained in the last five years' Audit Reports (Commercial) and 1 Performance Audit Report (Report No. 16 of 2017) relating to the PSUs under the administrative control of various Ministries, as detailed in **Appendix-III**, were not received by Audit for vetting.



(Venkatesh Mohan)

**Deputy Comptroller and Auditor General
and Chairman, Audit Board**

New Delhi

Dated: 17 September 2019

Countersigned



(Rajiv Mehrishi)

Comptroller and Auditor General of India

New Delhi

Dated: 18 September 2019

**APPENDICES
&
ANNEXURES**

Appendix-I
(Referred to in Para 12.1)
Recoveries at the instance of Audit during 2017-18

(Amount ₹ in lakh)

Name of Ministry/ Department	Name of the CPSE	Audit observations in brief	Amount of recovery pointed out by Audit	Amount recovered by the Management
Civil Aviation	Air India Ltd.	Excess payment of commission to M/s Sutherland Global Services Limited (SGS) Fare Auditors of Air India Ltd.	17.18	5.19
Finance	National Insurance Company Limited	Irregular settlement of M/s Katariya Automobiles Ltd. Under Motor Trade (Road Risk) Policy.	1.04	0.81
Finance	National Insurance Company Limited	Avoidable payment of Service Tax to M/s Dimension Data India Ltd. in procurement of IT assets.	77.15	3.72
Finance	New India Assurance Company Limited	Excess settlement of Business Interruption claim of M/s Vikram Ispat.	11.40	11.40
Finance	SBI Capital Markets Limited	Non-recovery of interest from SBICAP Securities Ltd.	14.99	10.94
Finance	SUD Life Insurance Company Limited	Non-recovery from exiting employees in violation of Separation Policy	54.60	1.72
Petroleum and Natural Gas	Numaligarh Refinery Limited	Excess payment on transportation of crude oil on account of VAT	854.00	854.00
Petroleum and Natural Gas	Indian Oil Corporation Limited	Recovery from the contractor	764.00	764.00
Power	NTPC Ltd., (NCPS Dadri)	Non-recovery towards Labour Welfare Cess.	2.93	2.05
Steel	Steel Authority of India Ltd.	Excess payment to contractor M/s Trans Tech Turnkey Private Ltd. due to	30.65	8.46

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		considering the same inspection certificate (IC) in 31st Running Account (RA) Bill for fabrication of steel, which had already been submitted in 29th RA Bill. (Bokaro Steel Plant)		
Steel	Steel Authority of India Ltd.	Lack of internal control in the accounting/finance software application resulted in duplicate processing of bills and excess payments. (Bhilai Steel Plant)	6.30	5.70
Steel	The Orissa Minerals Development Co. Ltd.	Non-adherence of DPE guidelines while making payment towards lease rent and electricity expenses of leased accommodation, transport charges etc.	Amount was not specifically pointed out	8.11*
Road Transport & Highways	National Highways Authority of India (PIU Purnea)	Non-recovery of damage payment along with interest thereon from M/s JKM Infra Projects Ltd. towards default in submission of Performance Security.	247.36	303.60**
		TOTAL	2081.60	1979.70

* Amount accepted by the Management of OMDC is ₹9.23 lakh. The balance amount is under recovery.

** Including amount of ₹56.24 lakh towards interest.

Appendix-II
(Referred to in Para 12.2)
Corrections/Rectifications at the instance of Audit

Name of Ministry/Department	Name of the CPSE	Audit observations/suggestions in brief	Action taken by the Management
Steel	The Orissa Minerals Development Co. Ltd.	Non-adherence of DPE guidelines while making payment towards lease rent and electricity expenses of leased accommodation, non-recovery of transport charges for personal use of car.	Management has started deducting (January 2017) the charges for private use of car and electricity charges for residence from the salary of Managing Director. In case of Director (P&P) also, the Management has started deducting (January 2017) electricity charges for his residence from his salary.
Steel	Steel Authority of India (SAIL) / Bhilai Steel Plant	Bhilai Steel Plant has been maintaining the Road from Nandini mines to Bhilai Steel Plant which is extensively used by heavy vehicle movement of ACC Cement Plant Jamul. However, the management has never taken up the issue for entering into an agreement with M/s ACC for sharing the cost of maintenance of the road.	The Management has demanded Rs.40 lakh from M/s ACC Ltd, Jamul, Durg, (i.e. 50 per cent of repair and maintenance charges incurred by BSP in 2013-14), for repair of the road from Patheria Chowk to Nandini Airport and has also asked them to enter into a contract agreement for sharing of maintenance charges of the road.
Shipping	Cochin Shipyard Limited	The Company transferred pension contribution amounting to Rs.4.08 lakh to the Pension Trust, in respect of two employees, who had already been retired, prior to introduction of the Scheme.	The Company informed (April 2018) that the amount of Rs.4.08 lakh has been transferred back to Cochin Shipyard Limited.
Shipping	Cochin Shipyard Limited	Avoidable expenditure on the remaining quantity to be supplied, due to failure of verification of price increase after implementation of GST.	Management has informed (April 2018) that they took up the matter of increase in price, with the supplier, resultantly, the supplier agreed to reduce the price after

			<p>passing on a benefit on account of anti-profiteering clause of GST Rules. Management further informed that the payment for the lot supplied after GST implementation, was under process and would be cleared only after effecting the above changes agreed with the supplier.</p>
Road Transport & Highways	National Highways Authority of India (NHAI) (PIU Raipur)	<p>NHAI and M/s Ashoka Highways (Durg) Limited entered into a Concession Agreement on 23-01-2008 for design, engineering, finance, construction and maintenance of End of Durg by-pass Chhattisgarh-Maharashtra Border section from Km 322.400 to Km 405.00 of NH 6 under Build, Operate and Transfer (BOT) basis for a concession period of 20 years (3 years for construction and 17 years for O&M).</p> <p>Later on NHAI decided to construct one more flyover at Rajnadgaon based on the cost proposal/abstract submitted by the concessionaire. Accordingly, the Change of Scope Order was issued on 01-08-2016 to the concessionaire.</p> <p>Audit observed that in the cost abstract the Concessionaire had considered maintenance charges of garden below the flyover and energy charges for 15 years instead of balance concession period which was not more than 10 years. This might result in excess payment of Rs.1.54 crore.</p>	<p>In view of the Audit observation, NHAI has revised the schedule of payment for the fly over from the total cost (fixed cost) of Rs.54.42 crore approved earlier to Rs.53.03 crore, resulting in reduction of contract value by Rs.1.39 crore.</p>

Appendix-III
(Referred to in Chapter XIII)
Statement showing the details of Audit Reports (Commercial) upto to 2017
for which Action Taken Notes were pending

No. & year of Report	Name of Report	Para No.
Ministry of Finance (Department of Financial Services-Insurance Division)		
9 of 2017	Compliance Audit	Para 7.1
16 of 2017	Performance Audit	
21 of 2015	Compliance Audit	Paras 7.3
Ministry of Housing & Urban Affairs		
15 of 2016	Compliance Audit	Para 5.1
Ministry of Shipping		
15 of 2016	Compliance Audit	Para 4.1

Annexure-I
(Referred to in Para 3.4)
Particulars of Local journeys performed by the then GM

Sl. No.	Period of journey	Particulars of journey	Air fare claimed and reimbursed as per invoice of private travel agent	Actual amount charged by Airlines	Excess Amount reimbursed (₹)
1	05-06-2016 to 06-06-2016	Indore to Delhi and back	23834	21634	2,200
2	26-06-2016	Indore to Delhi	25913	21634	4279
3	27-06-2016	Delhi to Indore	25911	21632	4279
4	19-07-2016	Indore to Delhi	23833	21634	2199
5	21-07-2016	Delhi to Indore	23833	21632	2201
6	28-08-2017 to 30-08-2017	Indore-Mumbai- Bengaluru- Indore	48997	36328	12,669
7	14-12-2017	Indore-Hyderabad via Mumbai	48129	47758	371
8	16-12-2017	Hyderabad to Indore via Mumbai	46458	32939	13519
9	11-01-2018 to 13-01-2018	Indore –Mumbai and back	28759	24273	4,486
Total			295667	249464	46203

Particulars of international journeys performed by the then GM

Sl. No.	Period of Journey	Particulars of journey	Air fare claimed and reimbursed as per invoice of private travel agent	Actual amount charged by Airlines	Excess Amount reimbursed (₹)
1	21.05.2016 to 26.05.2016	Mumbai-Dubai-Washington-Mumbai (Return Journey)	3,83,333	1,76,710	2,06,623
2	12.11.2017 to 19.11.2017	Mumbai-Munich-Paris-Mumbai (Return Journey)	3,00,377	2,06,467	93,910
3	15.11.2015 to 22.11.2015	CWBN Pre Shipment inspection at Switzerland	2,31,170	94,092	1,37,078
4	17.05.2017 to 20.05.2017	Currency conference 2017 at Malaysia	98,636	---	--
Total			10,13,516	4,77,269	4,37,611

*Details not provided by the Airlines.

Gross Total = ₹0.46 lakh plus ₹4.38 lakh = ₹4.84 lakh

Annexure-II
(Referred to in Para 4.1)
Inadmissible payment of Late Night Snacks Allowance by BHEL-HPEP, Hyderabad

Year	Amount of LNSA paid to Executives (₹)	Amount of LNSA paid to Supervisors (₹)	Amount of LNSA paid to Workers for second shift (₹)
2014-15	2009900	3805427	20643340
2015-16	3902450	7646700	40620100
2016-17	3489500	6868050	35500600
2017-18	3030300	6441575	32990025
Total	12432150	24761752	129754065

Annexure-III
(Referred to in Para 6.3)

Statement showing computation of additional expenditure due to failure to transfer LPG in economical manner

Sl. No.	Terminal	LPG transported by HPCL								
		Through Pipeline			Through Tank truck				Total	
		Quantity (MT)	Pipeline Transfer rate (₹/MT)	Value (₹)	Quantity (MT)	Rate (₹/MT/km)	RTK M	Value (₹)	Quantity	Value (₹)
1	2	3	4	5 = 3 x 4	6	7	8	9 = 6 x 7 x 8	10 = 3 + 6	11 = 5 + 9
2014-15										
1	Rajahmundry	31076	426.90	13266344	61780	2.760	410	69910248	92856	83176592
2	Kondapalli	146879	644.80	94707579	1933	2.7323	818	4320296	148812	99027876
3	Cherlapalli	165315	1161.9	192079499	47040	2.7323	1244	159888076	212355	351967574
	TOTAL	343270		300053422	110753			234118620	454023	534172042
2015-16										
1	Rajahmundry	27106	430.2	11661001	84204	2.8175	410	97270356	111310	108931357
2	Kondapalli	161357	650.1	104898186	2749	3.02	818	6791020	164106	111689205
3	Cherlapalli	147894	1171.7	173287400	35440	3.02	1244	133143827	183334	306431227
	TOTAL	336357		289846587	122393			237205203	458750	527051789
2016-17										
1	Rajahmundry	51465	430.2	22140243	77972	2.8175	410	90071305	129437	112211548
2	Kondapalli	145622	650.1	94668862	12085	2.4052	818	23776677	157707	118445539
3	Cherlapalli	201624	1171.7	236242841	17663	2.4052	1244	52848911	219287	289091752
	TOTAL	398711		353051946	107720			166696893	506431	519748839
2017-18										
1	Rajahmundry	109729	430.2	47205416	25073	2.8175	410	28963703	134802	76169119
2	Kondapalli	152820	650.1	99348282	12972	2.4052	818	25521808	165792	124870090
3	Cherlapalli	193810	1171.7	227087177	9114	2.4052	1244	27269715	202924	254356892
	TOTAL	456359		373640875	47159			81755226	503518	455396101
	GRAND TOTAL	1534697			388025			719775942	1922722	2036368771

(MT – Metric Tonne; RTKM – Round Trip Kilometres)

.....continued from pre-page

LPG that can be transferred to get maximum logistic benefit										
Sl. No.	Terminal	Quantity that can be transferred through pipeline in tonnes	PLT Rate (₹/MT)	Transportation cost for pipeline transfer (in ₹)	Balance quantity that can be transferred through tank trucks (MT)	Rate (₹/MT/km)	RTKM	Transportation cost for tank truck transfer (₹)	Total transportation cost (₹)	Additional expenditure due to not transferring LPG in the most economical manner (₹)
		12	13	14 = 12 x 13	15	16	17	18 = 15 x 16 x 17	19 = 14 + 18	20 = 11 - 19
2014-15										
1	Rajahmundry	0	426.90	0	92856	2.76	410	105075850	105075850	-21899257
2	Kondapalli	130915	644.80	84413992	17897	2.7323	818	40000178	124414170	-25386294
3	Cherlapalli	212355	1161.9	246735275	0	2.7323	1244	0	246735275	105232300
	TOTAL	343270		331149267	110753			145076028	476225294	57946749
2015-16										
1	Rajahmundry	0	430.20	0	111310	2.8175	410	128582529	128582529	-19651172
2	Kondapalli	153023	650.10	99480252	11083	3.02	818	27379000	126859252	-15170047
3	Cherlapalli	183334	1171.70	214812448	0	3.02	1244	0	214812448	91618779
	TOTAL	336357		314292700	122393			155961529	470254229	56797560
2016-17										
1	Rajahmundry	21717	430.20	9342653	107720	2.8175	410	124435451	133778104	-21566556
2	Kondapalli	157707	650.10	102525321	0	2.4052	818	0	102525321	15920218
3	Cherlapalli	219287	1171.70	256938578	0	2.4052	1244	0	256938578	32153174
	TOTAL	398711		368806552	107720			124435451	493242003	26506836
2017-18										
1	Rajahmundry	87643	430.20	37704019	47159	2.8175	410	54476898	92180916	-16011798
2	Kondapalli	165792	650.10	107781379	0	2.4052	818	0	107781379	17088711
3	Cherlapalli	202924	1171.70	237766051	0	2.4052	1244	0	237766051	16590841
	TOTAL	456359		383251449	47159			54476898	437728346	17667754
GRAND TOTAL		1534697		1397499968	388025			479949906	1877449873	158918898

(MT – Metric Tonne; RTKM – Round Trip Kilometres)

Annexure-IV
(Referred to in Para 6.4)

Statement showing computation of additional expenditure due to penal demand charges

Sl. No.	Month & Year	Recorded Maximum Demand (RMD) (in KVA)	Contracted Maximum Demand (CMD) (in KVA)	RMD in excess of CMD (in KVA)	Penal demand charges (₹)
1	June 2015	18,600	13,000	5,600	41,55,200
2	July 2015	21,800	13,000	8,800	65,29,600
3	February 2016	26,400	13,000	13,400	99,42,800
4	March 2016	25,600	13,000	12,600	93,49,200
5	April 2016	26,400	13,000	13,400	1,03,40,512
6	May 2016	35,600	13,000	22,600	1,74,39,968
7	August 2017	26,390	24,000	2,390	22,70,025
8	October 2017	24,467	24,000	467	4,43,175
Total					6,04,70,480

Source: APEPDCL monthly bills

Annexure-V
(Referred to in Para 6.4)
Statement showing computation of additional expenditure on account of excess energy charges

Sl. No	Month & Year	Date on which RMD exceeded CMD	Quantum of energy imported in the month in KWH	Energy charges paid to APEPDCL		
				Normal Energy charges (in ₹)	Excess energy charges (in ₹)	Total energy charges (in ₹)
1	2	3	4	5	6	7 = 5 + 6
1	Jun-15	24.06.15	5204000	28541300	4430190	32971490
2	Jul-15	02.07.15 & 24.07.15	5292000	29262300	4539600	33801900
3	Feb-16	11.02.16	9188000	54229500	11217600	65447100
4	Mar-16	01.03.16	9002000	52602100	8166885	60768985
5	Apr-16	07.04.16	5890000	32917500	6825000	39742500
6	May-16	13.05.16	7376000	46357500	9590280	55947780
7	Aug-17	02.08.17	7908000	47887776	0	47887776
8	Oct-17	12.10.17	8093250	48601776	0	48601776
		TOTAL	57953250	340399752	44769555	385169307

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Statement showing computation of additional expenditure on account of excess energy charges

Sl. No	Month & Year	Date on which RMD exceeded CMD	Energy charges payable						Additional energy charges paid (in ₹)
			Quantum of energy that can be purchased through open access to avoid penalty (in KWH)	Charges payable to IEX (in ₹)	Balance energy that can be imported from APEPDCL (in KWH)	Rate of energy charges payable to APEPDCL (in ₹ per KWH)	Energy charges payable to APEPDCL (in ₹)	Total energy charges payable to IEX and APEPDCL (in ₹)	
			8 = 20.4 MW x 24 Hrs x 1000	9	10 = 4 - 8	11 = 5 / 4	12 = 10 x 11	13 = 9 + 12	14 = 7 - 13
1	Jun-15	24.06.15	489600	2598586	4714400	5.484	25853770	28452356	4519134
2	Jul-15	02.07.15 & 24.07.15	979200	5243305	4312800	5.233	22568882	27812187	5989713
3	Feb-16	11.02.16	489600	2272927	8698400	5.902	51337957	53610884	11836216
4	Mar-16	01.03.16	489600	3280576	8512400	5.843	49737953	53018529	7750456
5	Apr-16	07.04.16	489600	3256241	5400400	5.589	30182836	33439077	6303423
6	May-16	13.05.16	489600	2084481	6886400	6.285	43281024	45365505	10582275
7	Aug-17	02.08.17	489600	2393152	7418400	6.056	44925830	47318982	568794
8	Oct-17	12.10.17	489600	2965821	7603650	6.005	45659918	48625739	-23963
		TOTAL	4406400		53546850		313548170	337643259	47526048

Source:

- (1) For quantum of energy imported and for energy charges (Column 4, Column 5 and Column 6): APEPDCL Monthly bills
- (2) For quantum of energy that can be imported through open access (Column 8): Considering GTGs capacity of 20.4 MW, the power that can be purchased through open access = 489600 KWH (20.4 MW x 24 hours x 1000)
- (3) For IEX energy charges (Column 9): Block-wise data (Quantity and basic price) relating to the particular day downloaded from IEX Website and other open access incidental charges added to basic price.

Annexure –VI
(Referred to in Para 7.8)
Statement showing excess payment of perks and allowances to employees of
PFC Limited and Its subsidiaries

PFC Limited

Financial Year/ Perquisites	Interest Perks- HBA	Interest Perks- Car	Interest Perks- Multi Purpose Ln	Interest perks- festival	Interest Perks- EDU. ADV.	Movabl e Assets Perks	Total
2009-10	2790690	825324	3477168	221522	0	284698	7599402
2010-11	5806680	1459053	5331082	376668	364286	472569	13810338
2011-12	3052038	694706	8245663	561141	304486	370399	13228433
2012-13	8464059	2073454	7487247	530610	1481852	514151	20551373
2013-14	6974041	1783211	8740187	697034	1389785	1000734	20584992
2014-15	7775998	2352135	10488502	703162	1990815	380364	23690976
2015-16	4081232	1677009	13825472	543142	973231	953130	22053216
2016-17	3161489	1892697	23393053	658973	665516	1564530	31336258
2017-18	953642	1216264	22541220	632472	147509	2496395	27987502
Total	43059869	13973853	103529594	4924724	7317480	8036970	180842490

PFC Consulting Limited

Financial Year/Perquisites	Interest Perks- HBA	Interest Perks- Car	Interest Perks- Multi Purpose Ln	Interest perks- festival	Interest Perks- EDU. ADV.	Perks Value- Others	
2011-12*	0	1988879	1488539	0	0	0	3477418
2014-15	468360	231947	17127	0	133780	1283779	2134993
2015-16	416129	202467	1727078	66259	101639	0	2513572
2016-17	284346	164477	2150294	78315	0	0	2677432
2017-18	66373	112126	2062697	65121	11607	0	2317924
Total	1235208	2699896	7445735	209695	247026	1283779	13121339

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PFC Green Energy Limited

Financial Year/Perquisites	Interest Perks-HBA	Interest Perks-Car	Interest Perks-Multi Purpose Ln	Interest perks-festival	Interest Perks-EDU. ADV.	Movable Assets Perks	Total
2012-13	4381	0	3299	4619	0	0	12299
2013-14	117193	24911	139302	32472	27553	47452	388883
2014-15	331600	105115	417384	25166	105627	0	984892
2015-16	175252	104064	693400	29980	39840	7732	1050268
2016-17	33135	29463	270543	13506	5385	654	352686
Total	661561	263553	1523928	105743	178405	55838	2789028

PFC Capital Advisory Services Limited

Financial Year/Perquisites	Interest Perks-HBA	Interest Perks-Car	Interest Perks-Multi Purpose Ln	Interest perks-festival	Interest Perks-EDU. ADV.	Movable Assets Perks	Total
2013-14	72893	20030	44904	9039	17318	44100	812411
2014-15	97134	48475	170705	5747	21179	0	838772
2015-16	62238	29562	169622	2980	19973	9753	555729
2016-17	16674	10189	28675	1890	3944	0	139497
Total	248939	108256	413906	19656	62414	53853	2346409

199099266
or say
Rs19.91
crore

Note:

* Figures in r/o FY 2012-13 and 2013-14 not provided by PFCCL.

In case of subsidiaries, the figures prior to the financial years 2011-12 /2013-14 given herein are included in those of PFC as the salaries and allowances to the employees of subsidiaries for that period were paid by PFC itself.

The above perks calculation has been taken as per calculation of Income Tax Act

Annexure-VII
(Referred to in Para 7.8)
Statement showing excess payment of perks and allowances to employees of REC Limited

Financial Year/ Perks	Concessional Interest on								Grand Total
	Loan Perks- Car loan	Loan perks- Computer Loan	Loan Perks- Higher Studies Loan	Loan Perks - Household goods loan	Loan Perks- Marriage Loan	Loan Perks- Multi-purpose Advances	Loan Perks- Two Wheeler Loan	Retro loan perks	
2009-10	95818	21271	3396	21672	15507	2540211	8870	455533	3162278
2010-11	222677	41098	3049	37589	24453	3601715	15759	50248	3996588
2011-12	394861	27182	58335	32715	12297	9397743	11014	98359	10032506
2012-13	472730	15029	183459	20610	12303	12796021	15619	-882734	12633037
2013-14	454161	5998	270216	13956	32681	7192135	10029	-844232	7134944
2014-15	270319	997	259646	11064	50759	18078921	8843	195906	18876455
2015-16	218824	5644	223544	15987	58424	33320651	6320	-	30275306
2016-17	194126	6826	173361	12789	31736	25783767	4387	3574088	26461030
2017-18	159549	3616	137716	7083	16706	20755402	1438	254038	21287709
Total	2483065	127661	1312722	173465	254866	133466566	82279	4040771	133859853

Or Say ₹ 13.39 crore

Note: The above perks calculation has been taken as per calculation of Income Tax Act

Annexure-VIII
(Referred to in Para 10.3)

Additional expenditure due to non-finalisation of tenders for production of briquettes

Sl. No.	Details	Amount
1	Minimum generating capacity of briquettes by both the contractors in tonnes (30 days per month)	1800
2	Minimum generation of briquettes (in tonnes) during August 2015 to September 2016 i.e. 14 months (= Row 1 x 14 months)	25200
3	Cost of calcined lime (+10 mm) for 2015-16 as per cost sheet (₹ per tonne)	7549
4	Material cost of -10 mm fines (₹ per tonne)	2863
5	Conversion cost of fines to briquettes (₹ per tonne)	933
6	Cost of briquettes (₹ per tonne) (Row 4 + Row 5)	3796
7	Additional expenditure due to non-conversion of fines to briquettes (₹ per tonne) (Row 3 - Row 6)	3753
8	Additional expenditure due to non-conversion of fines to briquettes from August 15 to September 16 in (Row 2 x Row7)	94575600 (₹9.46 crore)

Annexure-IX

(Referred to in Para 10.3)

**Avoidable additional expenditure due to not enforcing minimum briquettes production as per the terms of contracts
for lime briquetting work**

Year	Minimum quantity of briquettes to be produced (tonnes)	Actual Briquettes produced (tonnes)	Quantity of lime fines that could be converted to briquettes (tonnes)	Cost of Briquettes			Rate of calcined lime (₹ per tonne)	Net additional expenditure (₹ per tonne)	Net avoidable additional expenditure due to non-production of Briquettes as per contractual terms (₹)
				Cost of -10 mm fines (₹ per tonne)	Rate of conversion of fines to briquettes (₹ per tonne)	Cost of Briquettes produced from - 10mm lime fines (₹ per tonne)			
<i>1</i>	<i>2</i>	<i>3</i>	<i>4 = 2-3</i>	<i>5</i>	<i>6</i>	<i>7=5+6</i>	<i>8</i>	<i>9 = 8 -7</i>	<i>10 = 9 x 4</i>
2013-14	21900*	12749	9151	3839	625	4464	8229	3765	34453515
2014-15	18240#	11099	7141	3362	625	3987	8874	4887	34898067
2015-16	7320**	2093	5227	2863	625	3488	7549	4061	21226847
TOTAL			21519						90578429

* 30 tonnes per day x 2 agencies x 365 days = 21900 tonnes

30 tonnes per day x 2 agencies x 304 days (i.e. excluding October 2014 and November 2014) = 18240 tonnes

* 30 tonnes per day x 2 agencies x 122 days (April-July 2015) = 7320 tonnes

Annexure-X
(Referred to in Para 10.4)
Statement showing deficiencies in Vendor Data

Name of the Unit	Test check in audit revealed following deficiencies:
BSP	<ul style="list-style-type: none">➤ PAN, GSTN number, Bank account, Vendor registration, email, address and postal codes were not captured in 896, 12446, 6282,1608, 5779, 52 and 2300 cases respectively.➤ Validity/registration of vendors was not modified/ updated. Audit noticed that BSP placed 214 purchase orders valuing ₹1200 crore on 62 vendors whose validity had expired (out of 307 expired vendors as per data base) during 2014-15 to 2017-18.
DSP	<ul style="list-style-type: none">➤ GSTN number, Account number, email-id, address, Postal code, Phone were not captured in 1892, 1790, 15, 269, 9 and 786 cases respectively.
CMO	<ul style="list-style-type: none">➤ PAN, GSTN number, Bank Account Number, address, Postal Code were not captured in 1189, 1815, 1897, 23 and 2 cases respectively.
RSP	<ul style="list-style-type: none">➤ PAN, Excise registration number, Service category, Service validity date and registration validity were not captured in 7740, 16850, 1974, 2142 and 1283 cases respectively.
BSL	<ul style="list-style-type: none">➤ Invalid numbers were filled as Telephone number in 1026 cases.➤ Email ids, bank account number, PAN were not captured in 5176, 4401 and 3954 cases respectively.➤ In 59 cases PAN number were same, though company name/vendor was different.

Annexure-XI
(Referred to in Para 10.4)
Statement showing deficiency in input control in various ERP reports of CMO

Material Management Module			
Sl. No.	Report Name	Sample Size	Observation
1	Bay-wise Stock Report	BSO/Faridabad (As on 14.08.2018)	Item identification No., Delivery No. and Quality Description were blank in 764, 372 and 2 fields out of 3785 fields.
2	STTR Incoming Report	BSO/Kolkata (01.08.2017 to 31.07.2018)	Arrival Date and Quality Description were showing blank in 180 and 160 fields out of 2906 fields.
3	Job Order Report	BSO/Chennai (01.08.2017 to 31.07.2018)	Invoice No./date, Document No., Party Code/Name and Vehicle No. were blank in 780, 766, 766, 766 and 788 fields out of 8139 fields.
Sales & Distribution Module			
1	Export Master Report	All Plants (01.08.2017 to 31.07.2018)	Negotiation Bank Name, Vessel Name, Port of discharge, Country of final destination, shipping bill no & date, ARE No & date and consignee name and address were shown blank in all 781 fields.
FICO Module			
1	Cheque Dishonoured Report	All Branches (15.08.2017 to 14.08.2018)	MR for MR No. showed blanks in 111 field out of 142 fields.
2	GL Account Line Item	All Items BSO Kolkata (July, 2018)	Narrations were left blank in 18011 fields out of 238404 fields.
3	Assets Balances	BSO, Chennai as on 31.07.2018	Deactivation date was left blank in all 918 fields.
4	Vendor Payment with G/L	BSO, Kolkata (01.08.2017 to 31.07.2018)	P.O. No. was left blank in 1400 out of 2389 fields. Vendor number/Name, Invoice number, Payment Document/date, Expenses G/L and Authorised by, were left blank in 3 fields.

Annexure-XII
(Referred to in Para 10.4)

Statement showing deficiencies in HRIS database

Name of the Unit	Test check in audit revealed following deficiencies:
ISP	➤ Email-ids, Marital status, Parents name, Current basic pay were not captured for executives/ non-executives in 12939, 559, 9089 and 9831 cases respectively.
CMO	➤ Father's name and location were not captured in 660 and 3 cases respectively. ➤ Marital Status of executives was not captured and in 4 cases of married non-executives, spouse name was not captured. ➤ PAN, Bank Account number and IFSC Code were not captured.
RMD	➤ PAN, Bank Account number, Father's name, spouse name of married non-executives, location were not captured/incorrectly captured in 113, 133, 7, 84 and 1 cases respectively.

Annexure-XIII
(Referred to in Para 10.4)
Statement showing deficiencies in MMIS data base

Name of the Unit	Test check in audit revealed following deficiencies:
ISP	➤ Out of 9371 vendors, GSTN number, email ID, Phone number, PAN, UCS not codified party and UCS party were not captured in 8313, 8471, 8754, 9371, 293 and 478 cases respectively.
CFP	➤ PAN and bank account number were not captured in 3969 and 3960 cases respectively.
ASP	➤ Account number, email-id, CST number, Service Tax number, VAT number, GSTN number/Type, telephone number, PAN and Bank Code were not captured in 3971, 3547, 4057, 4486, 4045,4538 , 3971 3977 and 3202 cases respectively.
RMD	➤ PAN, GSTN, Bank Account Number, Postal Code, address were not captured/incorrectly captured in 672, 1424, 63, 455 and 197 cases respectively.

Annexure-XIV
(Referred to in Para 10.4)

Statement showing deficiency in Beneficiary database in RSP, BSP& DSP

Nmae of the Unit	Major deficiency noted in audit
RSP	➤ Date of birth of beneficiaries has not been captured in beneficiary database and entitlement for availing medical facilities of 307 brothers, 1621 sisters and 13239 sons could not be ascertained.
BSP	➤ There are 1901 Medical beneficiaries (OP books) of the employee's son whose age exceeded 25. ➤ The 760 beneficiaries who are brothers and sisters of the employees have crossed the age limit of 21 years. However, as per the medical attendance rules minor brothers/minor un-married sisters more than 21 years of age are not eligible for availing treatment under medical attendance rules. ➤ The database were not updated in case of 1329 beneficiaries even after the superannuation of parent beneficiaries (other than BSP employees)
DSP	➤ The status of 5229 medical cards issued to daughters (beneficiaries) not updated and classified as unmarried/divorcee/insane as the case may be. 164 data were found blank in DOB field. ➤ In 9422 cases of medical beneficiary, the date of birth column were left blank due to which their legitimate entitlement as beneficiary could not be ascertain.

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