CHAPTER III: MINISTRY OF COAL

Bharat Coking Coal Limited

3.1 Avoidable payment of penal interest

Bharat Coking Coal Limited repeatedly failed to pay the deployment charges of Central Industrial Security Force in time and consequently incurred avoidable payment of penal interest to the tune of ₹ 16.84 crore for delayed payment of dues for the period March 2005 to July 2013.

Bharat Coking Coal Limited (BCCL), a subsidiary of Coal India Limited (CIL) is a Central Public Sector Undertaking engaged in mining of coal and allied activities. BCCL deploys Central Industrial Security Force (CISF - a Central Para Military Force under the Ministry of Home Affairs, Government of India), on payment of deployment charges which include salary, allowances and other expenses, to meet the security requirement of its various coal mining projects located in Jharkhand and West Bengal. The deployment of CISF is governed by the guidelines of Ministry of Home Affairs (MHA), CISF Induction and Policy Manual 2000 and Memorandum of Understanding (MOU) signed between CISF and BCCL from time to time.

MHA issued guidelines in May 2005 underlining the need for timely payment and recovery of cost of induction of CISF in PSUs. As per the above guidelines, penal interest would be levied if a PSU defaulted in payment of monthly dues by more than one month at the rate of 2 *per cent* above the Prime Lending Rate (PLR) as decided by Reserve Bank of India from time to time. The interest would be levied with effect from 1 April 2005 on PSUs where CISF had been inducted and also in cases where existing strength of CISF was augmented on or after 20 August 1993. In case of PSUs where induction/ augmentation had taken place prior to 20 August 1993, interest at the above rate would be charged with effect from 1 April 2005, if they failed to clear the outstanding dues accumulated upto March 2005 within three months from the date of notice for payment. These guidelines were brought to the notice of all concerned for recovery of interest in case of default in payment.

Audit examination (July 2014) revealed that BCCL repeatedly defaulted in making payment of monthly dues towards salaries and other expenses of CISF personnel deployed at various locations. Delays in payment after due date ranged between 1 and 415 days. Consequently, through demand letters between August 2009 and October 2013, CISF made a claim of ₹ 16.84 crore as penal interest for delayed payment of monthly dues to its personnel for the period March 2005 to July 2013. However, BCCL did not agree to make such payment and represented (August 2013) to MHA for waiver of the above claim of CISF. Representation of BCCL was turned down by MHA in November 2013 on the ground that "the charging of penal interest in case of default/delayed payment was an integrated part of the terms and conditions of CISF deployment and hence, it was not possible to exempt the penal interest." The Board of Directors of BCCL finally

decided (January 2014) to make the payment of penal interest and accordingly, BCCL made a payment of ₹ 16.84 crore as penal interest to CISF in March 2014.

While accepting the audit contentions, BCCL stated (December 2014) that:

- Salaries and other expenses of CISF were based upon the MOU signed between BCCL and CISF from time to time and the same was a contractual liability of the Company.
- The then BCCL Management had managed their funds judiciously when there was financial crisis for discharging its liabilities.
- Being a BIFR company, BCCL had to move as per BIFR plan and only statutory payment, and expenditure which was the most important component to maintain the production level and to avoid industrial unrest, got priority.
- Since BCCL operated in a highly accident prone mining condition, in the event of occurrence of any such contingencies as well as precautionary measures, the fixed deposits of the Company were kept intact to meet such contingent requirement.

The contention of BCCL was not convincing as:

- The representation of BCCL for waiver of penal interest was duly considered and rejected by MHA. Further, safeguarding property of the Company through CISF was a critical issue for the organization and as such expenses on CISF should have been considered an obligatory expenditure of BCCL.
- Salaries and wages of BCCL's own employees which stood in the range of ₹ 1751.52 crore and ₹ 4465.65 crore during 2005-06 to 2013-14 were never defaulted.
- Except suffering loss in 2007-08 and 2008-09, BCCL made an annual average profit of ₹868.98 crore during the same period and was also regular in making repayment of loan to CIL at the rate of ₹ 20 crore per month.
- At the request of BCCL, CIL had provided assistance of ₹ 60 crore as interest bearing loan @ 6.5 *per cent* for meeting CISF dues of BCCL in March 2005. However, no further persuasion thereafter for seeking assistance of CIL (carrying lower rate of interest) was made by BCCL.

Thus, due to delayed payment of CISF dues by BCCL without adhering to the guidelines of MHA resulted in an avoidable outgo of funds on account of penal interest to the tune of ₹16.84 crore for the period from March 2005 to July 2013 to CISF.

The matter was reported to the Ministry in January 2015; their reply was awaited (March 2015).

3.2 Wasteful expenditure on procurement of Two Road Header Machines

Bharat Coking Coal Limited had made payment to a foreign supplier for procurement of two Road Header machines which were not in conformity with NIT specifications. The machines were not approved by DGMS for operation in the coal mines though the same were under field trials for a considerable period. Expenditure incurred on procurement amounting to ₹ 11.16 crore became wasteful.

Road Header machine is used in the underground mines of coal companies for excavation of coal and development of roads for the purpose of preparation of panel in mining. Specifications of the machine should conform to the mining conditions for operation in underground mines. Approval of Director General of Mine Safety (DGMS) is mandatory for safe mining which is accorded to supplier on successful completion of field trial and satisfactory performance reports of the machine during field tests in actual mining conditions monitored by DGMS.

Bharat Coking Coal Limited (BCCL) invited (June 2006) a Global Tender for procurement of two Road Header machines for its Moonidih Project of Western Jharia Area. In response, four firms submitted their offer but none of them was found technically qualified. A fresh tender was invited in April 2008. As per the pre-bid meeting (March 2008) held with the prospective bidders, some modifications were made in NIT which, inter alia, included that the machine should be approved by DGMS, India and if any bidder had neither valid DGMS approval nor field trial permission, they had to obtain field trial permission for use of the machine in the mines of BCCL well in advance before despatch of the same. Further, in case of imported supplies, 80 *per cent* value of each machine would be paid against Letter of Credit (LC) which would be opened after receipt of authenticated copy of valid approval or field trial permission accorded by DGMS along with the relevant despatch documents.

In response to the above NIT (April 2008), only two offers were received, out of which one offer was not qualified for technical scrutiny which was thus, carried out for only one offer received from a foreign firm (Supplier). During evaluation of the offer, the Supplier categorically stated (October 2008) that the main equipment did not have DGMS approval for use in underground mines in India and it was assured that they would take necessary DGMS approval before its use and also necessary field trial permission would be obtained before despatch from the country of origin. Based on the clarifications received, the offer of the Supplier was accepted by the Tender Committee and the same was approved (July 2009) by BCCL Board on single tender basis for ₹ 22.94 crore[1] . As per the supply orders issued (July 2009), the two Road Header machines were received and unloaded at Moonidih Project on 28 July 2011 and BCCL made a payment of ₹ 11.16 crore[2] during the period July 2011 to September 2012 for procurement of the two machines, out of which ₹ 8.49 crore was paid to the Supplier and its agent on 11 July 2011 and 21 July 2011 respectively.

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[1] ***comprising value of two machines, agency commission, spares cost for three years, duties and taxes, commission, installation and training charges including service tax***

[2] ***included 80per cent value of two machines and agency commission of ₹ 7.79 crore and ₹ 0.70 crore respectively, custom duty of ₹ 2.52 crore, ocean freight of ₹ 0.12 crore and ₹ 0.03 crore for escort charges, bedding charges, handling charges and insurance.***

Examination in audit revealed that:

- At the time of commissioning of the Road Header machines, the General Manager of Moonidih project refused (December 2011) to accept the machines on the ground that the height of the Road Header machines was not as per the specification of supply orders; this fact was also established during joint inspection carried out (December 2011) in presence of the Supplier.

- The Supplier admitted (April 2012) that if the machines were not found acceptable, the same should be sent back to their workshop at China at the cost of BCCL for making suitable modification to the height but obtaining DGMS approval thereafter would be the sole responsibility of BCCL. However, the conditions imposed by the Supplier were not found acceptable to the Committee constituted (April 2012) for the purpose in BCCL to settle the dispute.

- The Committee finally opined that if the Supplier ensured suitability of the machine for operation in mines where the seam thickness ranged from 1.9 metre to 2.9 metre, the payment already made to the Supplier would not go waste. Though the Supplier agreed to the above condition, the Road Header machines were yet to obtain DGMS approval and were under field trial till date (July 2014) despite lapse of three years since their receipt in Moonidih Project.

- As per clause No. 17 of NIT, BCCL had the option to conduct inspection and test at the premises of the Supplier at the point of delivery before shipment to detect non-compliance of any specification. The above clause also permitted the purchaser to conduct inspection on arrival at site which would be considered 'final'. As BCCL had not conducted pre-inspection at Supplier's end, it lost the opportunity to detect non-compliance of height specification before despatch and consequently to avoid release of payment of 80 *per cent* of the value of the two machines, agency commission and related expenditure which was made prior to delivery of machines at project site. Major payment on FOB[♦] value of the machines had already been made to the Supplier and hence inspection at Moonidih Project and detection of defects afterwards did not protect the financial interest of BCCL. It was a situation of fait accompli for BCCL to accept the defective machines.

- Though the Supplier agreed to take back the machines to their workshop at China for necessary modification, BCCL did not succeed in pursuing the Supplier to make necessary arrangements to meet specification requirements, free of cost, as per the conditions under Clause No. 17 of NIT.

- Performance bank guarantee of ₹ 2.29 crore accepted from the Supplier was not sufficient to recover the amount (₹ 11.16 crore) which was paid before the delivery of the two Road Header machines, which subsequently found defective.

[♦] ***Free on Board - indicates the passing of ownership and risks to the buyer at the port of shipment upon payment for the cost of goods which includes marine freight transport, insurance, unloading and cost of transportation from the arrival port to the final destination etc.***

- Experiencing the above, BCCL Board had decided that in future purchases, a clause relating to submission of additional bank guarantee equivalent to LC payment before opening the LC would be incorporated in NIT so that in case of any rejection, cost of LC opening amount could be recovered immediately. This decision was dictated by hindsight.

While accepting the audit observations, BCCL stated (April 2014) that:

- The advertised Global Tender was floated for procurement of two Road Header machines from proven manufacturers, i.e., the machine produced by the manufacturer was already put in use either in India or abroad with satisfactory performance. Payment terms in NIT were made on the basis of provisions of purchase manual of Coal India Limited taking into consideration the proven-ness of the manufactured goods. In case of procurement of plant and machinery from manufacturer of proven nature, inspection is done after commissioning of the same at site. Pre-despatch inspection at manufacturer's site was not mandatory as per NIT and supply order.

- Since DGMS approval was mandatory for use of such machines in underground coal mines in India, clause relating to "Field Trial permission of DGMS" was incorporated before delivery of the machines from foreign port for safeguarding the interest of BCCL.

- Ownership of machines was transferred to BCCL immediately as they were shipped on FOB basis. Had the request of the Supplier to send the machine back to their workshop at China been agreed to, the ownership of the Road Headers was required to be re-transferred in the name of the Supplier and in that case BCCL would have been at much higher risk as 80 *per cent* of the FOB price of the machines (₹ 11.16 crore) had already been paid and also goods not being in the custody of BCCL, it would have resulted into unavoidable situations.

- The terms of NIT and bank guarantee stipulation were made as per the purchase manual. Since such instances were not experienced in the past and the issue did not emerge during pre-bid meeting, provision of bank guarantee equivalent to 80 *per cent* of FOB value in the contract was not conceived.

Ministry re-iterated (December 2014) the views of the management furnished in April 2014.

The contention of BCCL/Ministry is not acceptable in view of the following:

- As per chapter – IX, clause 9.3 of the Purchase Manual of Coal India Limited, 80 *per cent* payment may be considered for supply of equipment for the suppliers whose equipment were considered proven for supplies to CIL and its subsidiaries and to be accepted only for regular supply orders placed for the proven equipment. The Road Header machines supplied by the foreign firm were only having the field trial permission which was provisional in nature and did not have final approval of DGMS for operation in the coal mines in India. As such, the interpretation of 'proven manufacturer' made by the BCCL in the instant case was

not appropriate. Proper and timely due diligence in framing terms and conditions of the NIT would have avoided the incident.

- Though final approval of DGMS was mandatory for use of machine in the mines, the terms and conditions set in NIT for payment to Supplier without ensuring DGMS approval were against the financial interest of BCCL. Release of 80 *per cent* payment to the Supplier based on the field trial permission was thus imprudent.

- BCCL had itself admitted that the ownership of the machines was transferred to it as soon as machines were shipped on FOB basis and there was risk in sending the machines back to Supplier. It is obvious that pre-despatch inspection and adequate provision of bank guarantee equivalent to 80 *per cent* of FOB value could have protected the financial interests of BCCL.

- The fact remains that Road Header machines were still lying inoperative (November 2014) since May/June 2013 for want of compliance with various observations of DGMS. The machines were under field trial even after a lapse of three years since their receipt.

Thus due to inept contract management, BCCL had to incur a wasteful expenditure of ₹ 11.16 crore on procurement of two Road Header machines that were lying idle for more than 3 years with little prospects of their gainful utilization.

South Eastern Coalfields Limited

3.3 Operational Performance of Dankuni Coal Complex

3.3.1 The Dankuni Coal Complex (DCC) was established at a cost of ₹ 147 crore in 1990 as a unit of Coal India Limited (CIL) based on the recommendations of the Fuel Policy Committee, 1974 of Government of India (GOI), and the Working Group No. 9 and 10 of the Planning Commission (1974). Later, CIL handed over DCC to South Eastern Coalfields Limited (SECL) for running the plant on operating lease basis in April 1995 and renewed lease subsequently at an annual lease rent of ₹ 7.50 crore followed by further renewal of lease w.e.f. 01.04.2010 at Re. 1 per annum.

3.3.1.2 The objective of setting up DCC, a low temperature carbonization (LTC) plant, was to produce environment friendly coal gas[1]/coke/tar and other coal derived by-product chemicals from non-coking coal for domestic and industrial use. The Plant includes Coal Handling Plant for crushing and screening coal into coal fines and obtaining sized coal, Retort Plant for heating up coal to produce coal gas, Gas Cleaning Plant for cleaning coal gas and separating tar, light oil and other impurities from the gas and a Gas Holder for storing gas. There are other utilities like the Gas Compressor for compressing and cooling the gas for taking out further impurities and the Effluent Treatment Plant (ETP[2]) for treatment of the toxic effluents.

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[1] ***Coal gas/town gas is a flammable gaseous fuel made by the destructive distillation of coal.***

[2] ***ETP is a plant designed to treat the effluent coming from different areas of the plant out of production process.***

3.3.1.3 An attempt was made in Audit to assess whether the Unit operated efficiently and economically while fulfilling the objective for which the Unit was established and included an examination whether:

- the targeted level of production was achieved;
- the equipment was properly maintained and utilised;
- effective marketing mechanism existed;
- proper pricing of products was ensured;
- regular review of the state of the plant was done; and
- environmental requirements were fulfilled.

3.3.1.4 Audit reviewed the accounts and records of DCC pertaining to last five years ie. from 2009-10 to 2013-14. Recommendations of the Fuel Policy Committee (1974) of GOI, recommendations from the Working Group No. 9 and 10 of the Planning Commission (1974), projections in the Feasibility Study on the unit, revised cost estimate for the unit, decisions of the Boards of CIL and SECL for the approval of various agenda items w.r.t. functioning of DCC, and reports submitted by external agencies on various functional areas of the unit were studied in Audit.

3.3.2 Audit Findings

3.3.2.1 Analysis of the operating results of DCC for the five years ended 31 March 2014 **(Annexure-I)** revealed that contributions from operations were in the range of only 18 *per cent* to 27 *per cent* of the income from sales proceeds. This could recover the fixed cost to the extent, at an average of 70 *per cent* only. As a result, contribution failed to recover even the fixed cost of the unit, approximately in the range of ₹ 5 crore to ₹ 31 crore during 2009-10 to 2013-14, which led to enhancement of operating loss to the equal extent during the same period.

3.3.2.2 The expenditure of DCC for the period 2009-10 to 2013-14 relating to pay and allowances, maintenance charges, plant running expenses and town administration expenses was as depicted under:

(₹ In Lakh)

Year	Pay and allowances		Maintenance Charges		Plant running Exp.	Establishment Exp.	Town Admn. Exp.
	Exec	Non-Exec	Capital	Revenue			
2009-10	743.89	2129.19	-	423.74	11378.27	1157.80	30.00
2010-11	675.52	2406.15	-	486.75	11979.54	356.83	30.42
2011-12	729.62	3214.68	-	496.22	15151.97	392.69	47.18
2012-13	810.13	3543.30	-	724.51	12822.94	534.93	73.09
2013-14	810.85	4007.69	19.01	764.99	14735.79	600.35	95.85

From the above it transpires that despite sustaining substantial amount of loss, DCC could not adopt any conscious cost saving measures with a view to reducing annual financial deficit. While revenue expenditure on salaries and maintenance was on the rise, there was no capital expenditure on plants.

SECL contended (February 2015) that DCC always incurred bare minimum expenditure which was essential to run the plant with safety measures.

However, it was noticed that establishment expenses and town administration expenses were on an increasing trend which implied that no effective cost cutting measures were implemented by the management.

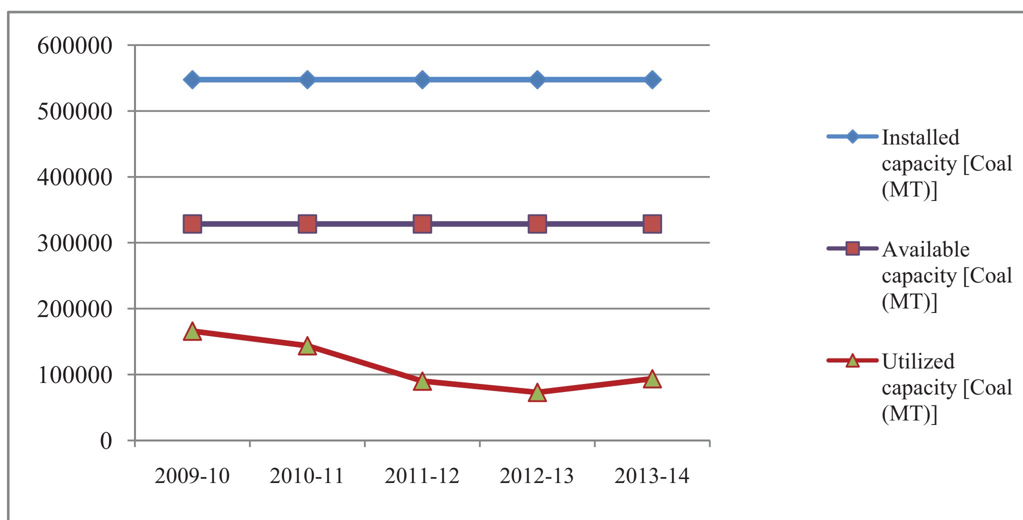
The accumulated loss of DCC stood at ₹ 650.97 crore as on 31 March 2014. The reasons for the loss can be traced to the issues as follows:

3.3.2.3 Under utilisation of plant capacity

Considering installed capacity of 1,500 tpd (ton per day) throughput of coal for 365 days in a year, i.e. 547500 MT coal in a year, the percentage utilised out of available throughput capacity (328500 MT) of DCC was in the range of 22 *per cent* to 51 *per cent* and, on the other hand, percentage utilized out of installed capacity was in the range of 13 *per cent* to 30 *per cent* in the last five years ended on 31 March 2014 **(Annexure-II).**

Chart 1

Capacity utilization at DCC during 2009-10 to 2013-14



The target for production of coal gas and coke were fixed below the level of available capacity. Moreover, gas, coke and coke fines, the major products of DCC, were produced below the target fixed during the last five years ended on 31 March 2014, as projected in **Chart 2, 3** and **4**.

Chart 2
Production of coal gas during 2009-10 to 2013-14 (in Nm^3**)**

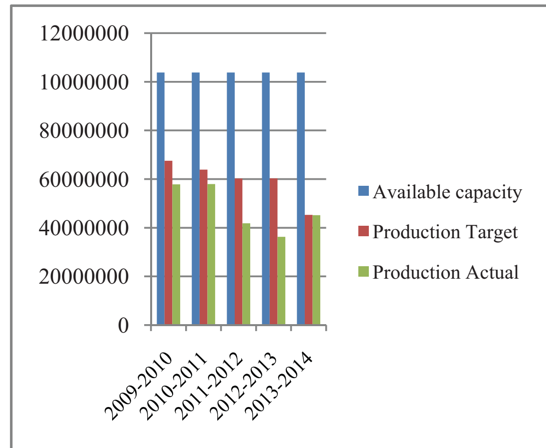


Chart 3
Production of coke during 2009-10 to 2013-14 (in MT)

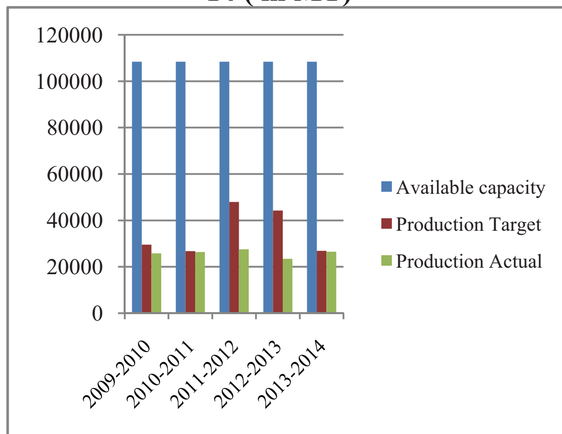
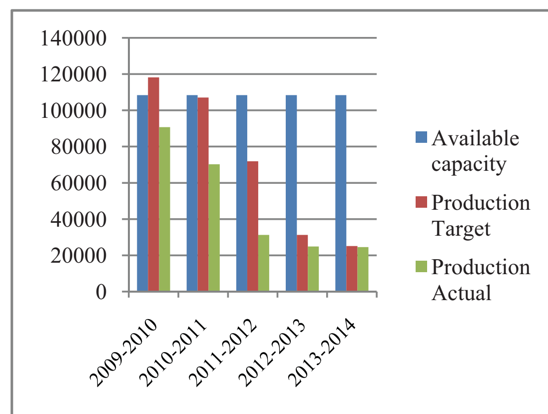


Chart 4
Production of coke fines during 2009-10 to 2013-14 (in MT)



It is seen in Audit that only a portion of the available capacity for coal gas and coke was planned as production target (in the range of 35-56 *per cent* and 56-75 *per cent* respectively)**.** Moreover, under performance against target was as high as 40 *per cent* for coal gas, 47 *per cent* for coke and 57 *per cent* for coke fines**.** This has resulted in loss of potential production to the extent of 5,81,35,249 normal cubic meter♠ (Nm^3) coal gas, 45,771 MT coke and 1,11,862 MT coke fines with an opportunity of earning potential revenue of ₹ 24.69 crore, ₹ 43.10 crore and ₹ 39.75 crore respectively during 2009-10 to 2013-14. Details are indicated in **Annexure-III**.

♠ ***Normal cubic meter is the metric expression of gas volume at standard conditions and it is usually defined as being measured at 0 °C and 1 atmosphere of pressure.***

Audit observed that the reason for underperformance in all areas of production was endemic to DCC since inception of the plant. Though established in 1990, CIL had decided (1995) to hand over the unit to SECL on rent as the plant had not been able to achieve financial viability and was beset with problems such as low capacity utilisation, low off-take of coke and gas and sourcing of raw materials. By 2000, the plant had already completed the normal life of a chemical plant of its kind and needed renovation. However, SECL could not accomplish the attempted capital rehabilitation for DCC till date. High landed cost of coal and consequential high cost of production of gas coupled with non-remunerative price of gas and failure of marketing of by-products resulted in continuing accumulated losses, as detailed in the subsequent paragraphs.

3.3.2.4 Delay in capital rehabilitation of the Plant

DCC was commissioned in May 1990. The normal life of a chemical plant like DCC is envisaged to be ten years only. CIL had expressed its desire to lease out or sell DCC and the Ministry of Coal accorded the approval (December 2000) for the same.

After a delay of almost seven years, a meeting was held on 26 June 2007 under the Chairmanship of Hon'ble Minister of Commerce & Industry, Govt. of West Bengal with the representatives of CIL, Hindustan Petroleum Corporation Limited (HPCL) and Ministry of Petroleum & Natural Gas, GoI for finding a way out for revival of DCC. Accordingly, CIL Board in its 235th meeting (25 September 2007) accorded the approval for entering into a Joint Venture (JV) by CIL (23 *per cent* share) with HPCL (51 *per cent* share) and Govt. of West Bengal (26 *per cent* share) for DCC.

However, in due course Govt. of West Bengal expressed their unwillingness to take part in the JV due to its financial crunch. Thereafter, HPCL appointed M/s SBI Capital Markets Limited (SBI CAPS) to carry out a detailed study of financial, legal, accounting and tax due diligence as well as valuation of DCC. SBI CAPS recommended that (November 2008) ₹ 69.03 crore was required for land purchase or ₹ 63.68 crore for land lease option by HPCL for acquiring 51 *per cent* stake in DCC. DCC would enter into a formal agreement with Greater Calcutta Gas Supply Corporation Limited (GCGSC), a Government of West Bengal undertaking and the sole distributer of coal gas in and around Kolkata for adequate supply of coal gas, on an 'arms-length' basis. CIL/SECL would execute the deed of transfer for transferring the land presently under the possession of DCC to the proposed JV with proper title and free of any encumbrances. CIL/SECL would obtain the revalidation/ renewal of all the relevant certificates/ consents/ approvals required from various statutory authorities in order to ensure smooth operations of the plant.

CIL Board considered (December 2008) the revised JV proposal with equity participation of HPCL (51 *per cent*) and CIL (49 *per cent*) along with due diligence report prepared by SBI CAPS. After more deliberations and setting up of a subcommittee, CIL held a meeting (April 2009) with HPCL and SBI CAPS, where HPCL expressed eagerness to complete the formation of JV and also establish Gas Distribution Pipelines network before emergence of any new player/competitor to capture the virgin gas market in West Bengal. HPCL also requested CIL for immediate decision and execution of draft Memorandum of Understanding (MoU) at the earliest for formation of the proposed JV. Agenda papers for Board meetings of CIL that were made available to Audit for the

period 2009-10 to 2013-14 revealed no progress in the matter and nothing affirmative could be ascertained from the reply (November 2013) furnished by SECL.

Meanwhile, in January 2005, DCC submitted a capital rebuilding scheme to SECL which envisaged augmentation of production capacity of gas to the extent of 4,50,000 Nm^3 per day planned to be achieved under three phases with proposed total capital investment of ₹ 58.83 crore. Later, DCC twice re-submitted modified revival plans, in 2005 and 2012 which were not supported by cost benefit analysis.

Revival plan for rebuilding of Retort Benches and enhancement of gas production to the extent of 2,75,000 Nm^3 in phased manner, involving capital investment of ₹ 54.17 crore in DCC, was submitted (June 2012) in SECL Board. It was seen in Audit that during 2009-10 to 2013-14, SECL and CIL held 43 and 58 Board Meetings respectively. No concrete decision regarding rehabilitation of the plant was taken as seen from test check of records.

SECL management stated (November 2013/January 2014) that the revival plan worth ₹54.17 crore had been under consideration and further action would be taken only after revision of price of co-products like coke, coke-fines, de-hydrated tar, etc and disposal of piled-up stock of these products. Further, in February 2015, it was stated that SECL was contemplating comprehensive capital rehabilitation and drawing out a roadmap for it in the form of upgradation of technology/adoption of new technologies.

The fact, however, remains that SECL as controlling authority of DCC failed to take any action so far to implement the revival plan which was necessary to bring DCC into economic health.

3.3.2.5 Procurement of poor quality coal at higher landed cost

As per the Feasibility Report (September 1977) of the unit, coal was proposed to be purchased from the collieries[1] of Eastern Coalfields Limited (ECL) as coal from these collieries was considered to be conducive to the Plant in terms of ash content, volatile matter and moisture. DCC, therefore, used to procure raw coal from ECL since inception.

In April 1995, DCC was handed over to SECL by CIL on operating lease basis since it had not achieved financial viability. CIL specified a need to identify adequate quantity of appropriate coal from alternative sources and endorsed sourcing coal from collieries[2] of SECL while handing the unit over.

However, contrary to the purpose envisaged, on test check of records it was noticed that coal received from different collieries of SECL included coal fines and stones, which could not be fed into the Retort Plant. Further, procured coal, especially from Bhatgaon and Amlai area of SECL contained higher moisture and ash leading to lower calorific value[3] of the products.

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[1] ***JK Nagar, New Kenda and Sripur colliery***
[2] ***West Chirimiri, Korba, Baikanthpur, Amlai, Bishrampur, Jamuna & Kotma, Bhatgaon and Hasdeo.***
[3] ***Calorific Value is the amount of heat produced by the complete combustion of a material or a fuel.***

Audit observed that DCC had to incur average railway freight for G4 & G5 (ROM) coal as high as ₹ 1440 per MT during 2009-10 to 2013-14, resulting in high landed cost of coal at DCC (as high as ₹ 5283 per MT during 2009-10 to 2013-14), as collieries of SECL are situated more than 800 kms from DCC. Thus, Audit had pointed out (August 2013) that during the period, 20-37 *per cent* of the landed cost of coal was towards railway freight as indicated in the table under:

Year (1)	**Landed cost of coal per mt including freight (₹) (2)**	**Freight charges per mt (₹) (3)**	***per cent* of Freight charges over Total landed cost of coal (4)=(3/2)*100**
2009-10	2930.65	1102.18	37.60
2010-11	3319.59	1097.58	33.06
2011-12	5282.73	1091.60	20.67
2012-13	4334.71	1292.39	29.81
2013-14	4581.04	1441.56	31.47

While accepting the contention of Audit, SECL stated (November 2013) that DCC had already started procuring coal from ECL (Raniganj) since September 2013 to bring down the landed cost of coal. SECL worked out the difference in cost between coal procured from ECL and SECL to be in the range of ₹ 1000 per MT approximately.

Thus, it was only after the issue was flagged in Audit (August 2013), that DCC started procuring coal from ECL since September 2013 while continuing to procure coal from SECL too. DCC, therefore, lost the opportunity of potential savings in railway freight of ₹ 138.45 crore during 2009-10 to 2013-14 (**Annexure-IV**) by not procuring coal entirely from ECL. It was further seen that upto March 2014, DCC had been able to prevent loss of revenue to the tune of ₹ 10.50 crore on account of freight charges only by procuring coal from ECL since September 2013.

3.3.2.6 Absence of a formal agreement between DCC and GCGSC leading to non-remunerative pricing of coal gas

DCC commenced its commercial production in May 1990. MoU was signed (May 1990) between DCC and GCGSC for supply of gas indicating therein the price offered by GCGSC. Accordingly, price of coal gas was fixed at ₹ 8.50 per therm[1] excluding sales tax and the same was applicable for a promotional period of one year only. It was also decided that the price would be reviewed jointly amongst GCGSC, DCC, representatives of Govt. of West Bengal and GoI after six months of commencement of supply of gas. However, with a view to fetching remunerative price for coal gas, the then CMD, CIL, suggested (April 1979) a price escalation formula[2] which was duly accepted (May 1979) by the Govt. of West Bengal. The MoU was valid for a promotional period of only one year, i.e. upto April 1991. No further MoU was entered into between the parties

[1] unit of heat energy approximately the energy equivalent of burning 100 cubic heat of natural gas

[2] $P_f = P_i\{0.35 + 0.4*C_f / C_i + 0.1*E_f / E_i + 0.05*L_f / L_i + 0.1*Ch_f / Ch_i\}$***; where C stands for Coal, E stands for Power, L stands for Wages and Ch stands for Chemical prices.***

thereafter. Though GCGSC is the only distributor of DCC produced coal gas, there is no legal agreement in existence between the two parties. Hence, business between the parties was carried out without any valid agreement. Though GCGSC proposed (December 2003) to enter into a legally enforceable agreement, DCC abstained from taking any initiative (December 2003) in this direction, and rather emphasised on immediate revision of coal gas price. There was no concrete decision on the part of DCC towards reframing of MoU or entering into a legal agreement with GCGSC (till December 2014).

However, it would appear that DCC could have been in a better position had it accepted the proposal (December 2003) offered by GCGSC for drafting a legally enforceable agreement covering every aspect mutually beneficial to both the parties.

As far as CIL is concerned, it only participated in a meeting (18.03.2004) where representatives of DCC, SECL and Govt. of West Bengal were also present. CIL showed its concern for non-remunerative price of coal gas for DCC but at the same time declared that it (CIL) was not in a position to substantially invest in DCC's revival. Further, no effective role of CIL in regard to DCC was found on record.

Audit observed that the price of coal gas has been revised and fixed solely by the Government of West Bengal from time to time unilaterally only after series of requests from DCC that the same was not remunerative enough as depicted under:

Year & Month	Prices of coal gas per therm (in ₹)	Cost of production of coal gas per therm (in ₹)
Upto: 1996 July	8.50	-
w.e.f: 1996 August	9.50	-
1997 November	11.50	-
1999 November	13.00	-
2000 September	14.00	-
2002 February	15.40	-
2004 January	17.00	-
2004 October	19.19	-
2006 February	22.00	-
2008 January	25.00	47
2010 April	30.00	47
2010 November	33.00	62
2011 September	38.00	91/93
2014 January	45 to 85 (progressive)	81

It would be observed that in 18 years, price of coal gas had increased only around 500 per cent. In the meanwhile, within a span of six (6) years, the per therm cost of production of coal gas at DCC went up by almost 200 *per cent*, being ₹ 47 in 2009-10, ₹ 62 in 2010-11, ₹ 93 in 2011-12, ₹ 91 in 2012-13 and ₹ 81 in 2013-14, which was not matched by the prices allowed. Thus, DCC had to bear loss during 2009-10 to 2013-14 arising out of dispatch of gas to GCGSC to the tune of ₹ 112.83 crore **(Annexure-V*)*.** There was, as

such, insufficient incentive for DCC to enhance its production as more production would have meant more loss.

However, after the issue was flagged in Audit (August 2013), the price of coal gas has been increased (December 2013) to ₹ 45 per therm with progressive increase in rate with increase in demand, upto a maximum of ₹ 85 per therm w.e.f. January 2014. It was further noticed that even after the price was revised in 2014, the per therm cost of production of coal gas was ₹81 in 2013-14. Therefore, in spite of the continuing accumulated loss, the company was able to earn additional revenue of ₹3.33 crore from January 2014 to December 2014 as a result of the latest price revision giving it partial relief. But this price revision was also not sufficient to cover the gap between the cost and the sales price.

It is pertinent to mention that GCGSC charged prices as high as ₹51/ therm, ₹ 110/ therm and ₹ 100/ therm, retaining margins of ₹ 25/ therm, ₹ 55/ therm and ₹ 54/ therm from Domestic, Commercial and Industrial consumers, respectively, during 2009-10 to 2013-14 (**Annexure-VI**).

DCC while accepting the facts, stated (August 2013) that though price of gas was reviewed by GCGSC from time to time, the specific formula-based review of the price was never done jointly by DCC, GCGSC, Government of West Bengal and Government of India.

Though the matter of fetching remunerative price of coal gas was regularly taken up in the meetings and discussions with GCGSC and SECL, it was not taken up with CIL and GOI. However, on being pointed out (August 2013) by Audit, the issue was taken up with the Government of West Bengal only in December 2013.

Thus, scrutiny of records made available in Audit revealed that DCC/SECL did not make any serious effort to escalate the issue to the level of CIL and Government of India earlier than August 2013 so as to fetch remunerative price for coal gas though the same was incumbent on the part of DCC for its survival.

3.3.2.7 Low offtake of gas against committed demand by a single customer and consequent flaring of gas leading to loss

Feasibility Report (September 1977) of DCC indicated that Government of West Bengal would arrange for uniform offtake of coal gas. Later, GCGSC, a Government of West Bengal undertaking became the sole customer of DCC coal gas with the finalization of MoU (1990) which was to be valid for a promotional period of one year. GCGSC was only to distribute the same to the ultimate consumers in industrial, commercial and domestic sector in and around Kolkata. GCGSC set up a PRS[♣] inside the Plant area of DCC for drawing coal gas for distribution.

The position of production, supply vis-à-vis loss of coal gas for last five years ended on 31 March 2014 was as follows:

[♣] ***Pressure Reducing Station (PRS) is set up alongside gas pipelines to filter out ingresses of solids and liquids and to control the gas pressure to bring up the same to the contractual specifications for delivery.***

(In Lakh Nm^3)

Year	Production	Supply	Gas loss due to flaring and venting
2009-10	578.42	549.47	28.94
2010-11	579.80	557.87	21.93
2011-12	418.34	413.80	4.56
2012-13	363.01	358.27	4.71
2013-14	451.61	440.28	11.35
TOTAL	**2391.18**	**2319.69**	**71.49**

In this regard, Audit observed that GCGSC did not draw gas against committed demand in several occasions (December 2008, March 2009, January and February 2014) which led to the flaring and venting of coal gas to the extent of 71.49 Lakh Nm^3 during the period 2009-10 to 2013-14. This also created environmental problems leading to complaints by local people. DCC stated (September 2013) that gas production is based on demand of GCGSC being the sole distributor of gas. Thus, when GCGSC's demand fluctuated, especially during the weekends and holidays and GCGSC did not alert DCC about the low demand well in advance, DCC could not control the production which, in turn, resulted in flaring of gas.

The fact, however, remains that DCC /SECL management had never done a detailed techno-economic feasibility study including a strategy for direct marketing of gas based on proposed demand of coal gas by prospective customers**.** Also, a scientific marketing strategy for the products of DCC needed to be adopted at the earliest to prevent wasteful flaring of gas and enhance its customer base to ensure its commercial viability.

3.3.2.8 Unsuccessful modernisation efforts

DCC uses the 'Continuous Vertical Retort' supplied by M/s Woodall-Duckham Limited, United Kingdom (UK) since inception.

It was noticed in Audit that formation of a Joint Venture (JV) between Gas Authority of India Limited (GAIL) and CIL was proposed (September 2011) by GAIL for setting up a coal based synthetic natural gas (SNG) production facility by utilizing the existing facilities at DCC for enhancing production of coal gas with advanced technology. Even, on recommendation of the Government of West Bengal, Ministry of Coal, Government of India directed CIL to examine the proposal of aforementioned JV floated by GAIL. However, no action was initiated by GAIL in this regard in view of the following uncertainties:

- The plant, being a very old one, was to be replaced with a new one, but land for the new unit was not available.
- The existing system was not considered suitable for SNG.

Further, it was also noticed that CIL advised (August 2012) SECL to invite an open Expression of Interest (EOI) for upgradation of the plant and to select one from the interested parties. But, no further step was taken by SECL in this regard.

SECL, in their reply, (November 2013 and January 2014) did not offer any comment on the above observation of Audit.

However, at the behest of SECL (October 2013) DCC took up the matter with Central Institute of Mining and Fuel Research, Dhanbad (CIMFR) with a view to exploring new initiatives for modernization. In this regard CIMFR suggested (July 2014) that before taking up the work of technological upgradation and modification, it would be prudent to opt for detailed technical assessments and marketing analysis. No further development in this regard was observed by Audit (February 2015) from DCC/SECL management and modernization efforts remained unfruitful.

3.3.2.9 Low yield of by-products coupled with poor dispatch

During the process of operation, DCC produces various by-products like coke, coke fines, coal fines, coal tar, ammonium sulphate and light oil which are obtained as by-products while producing coal gas so as to effectively utilize the raw coal. The yield of the by-products from one tonne of coal as per the pre-operational (1976) norms as well as the latest available (July 2011) norms fixed by SECL vis-à-vis actual production is indicated below:

Year	Coal consumption (in Thousand MT)	Coke			Coal Tar			Light Oil		
		Norms 1976 (660 kg) (in Thousand MT)	Norms 2011 (670 kg) (in Thousand MT)	Actual (in Thousand MT)	Norms 1976 (40 kg) (in Thousand MT)	Norms 2011 (55 kg) (in Thousand MT)	Actual (in Thousand MT)	Norms 1976 (----)	Norms 2011 (3.6 Litre) (in Thousand Ltr.)	Actual (Ltr.) (in Thousand Ltr.)
2009-10	346.82	228.90	232.37	25.78	13.87	19.08	8.75	-	1.25	0.34
2010-11	319.70	211.00	214.20	26.36	12.79	17.58	7.87	-	1.15	0.33
2011-12	263.50	173.91	176.55	27.57	10.54	14.49	5.29	-	0.95	0.31
2012-13	260.23	171.75	174.36	23.47	10.41	14.31	4.44	-	0.94	0.22
2013-14	297.28	196.21	199.18	26.47	11.89	16.35	3.66	-	1.07	0.28
Total		**981.77**	**996.66**	**129.65**	**59.5**	**81.81**	**30.01**	**-**	**5.36**	**1.48**

From the above, it is evident that production of by-products was far below both pre-operational and latest available norms.

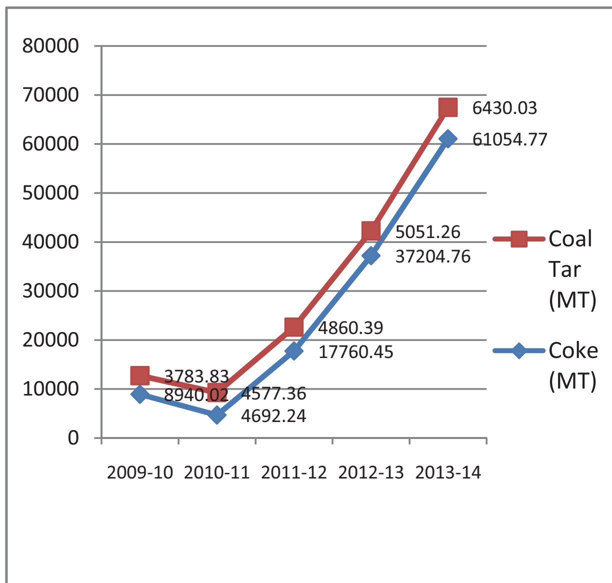
Records revealed that even though production was below the norms, revenue generated through sale of by-products constituted a substantial amount of revenue realised out of total sale of all products. This was as high as 74 *per cent* (2009-10) of the total sale proceeds of DCC in the last five years ended on 31 March 2014 **(Annexure-VII)**.

In the light of the above, Audit observed that during the concerned period, as yield of by-products, particularly coke, coal tar and light oil was far below the norms, DCC suffered loss of opportunity to earn revenue valuing ₹ 663.26 crore (867005 mt), ₹ 188.10 crore (51813 mt) and ₹ 9.48 crore (3879 kl) respectively **(Annexure-VIII).**

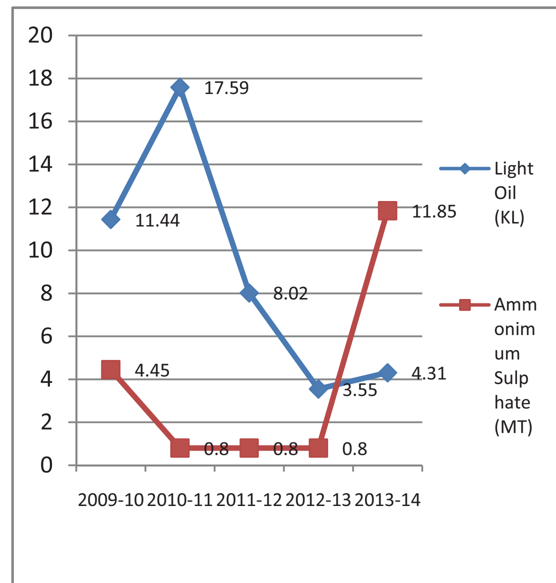
It is also pertinent to note that effective marketing by DCC would have helped it to recover a portion of its loss. However, in the absence of competitive rates, DCC could not insist on the customers for regular lifting even by lowering the prices of products and offering rebate.

Therefore, though there was potentiality of earning revenue on sale of by-products, DCC could not tap that as it did not augment coal gas production. Even the produced by-products were accumulating as stock on year to year basis **(Annexure-IX)** which can be seen from the graphs given below:

Year-wise position of closing stock of coke and coal tar



Year-wise position of closing stock of ammonium sulphate and light oil.



Audit observed that DCC neither explored the possibility of getting new buyers nor insisted on the existing customers to lift products regularly resulting in huge accumulation of stocks. DCC attributed (September 2013) the reason for low off take of by-products to poor demand on account of low fixed carbon content of products coupled with higher price.

Thus, in the absence of quality control as mentioned above as well as a professional and innovative marketing strategy, DCC was deprived of benefits from liquidation of accumulated stock of by-products.

3.3.2.10 Faulty effluent discharging system resulting environmental pollution

While issuing environmental clearance, the Ministry of Environment and Forests (MoEF), Government of India stipulated (April 1989) that the regulations made by the West Bengal Pollution Control Board (WBPCB) must be adhered to rigorously. Hence, as a measure to control environmental pollution, DCC commissioned (1990) an Effluent Treatment Plant (ETP) of 1000 cubic meter (m^3)/ day capacity. During the operation at

DCC, toxic chemical wastes are generated, which needed prior treatment through ETP, before disposing of the same to Dankuni Canal and thereafter to the Ganges.

However, ETP set up by DCC was inadequate to treat its effluents as per pollution control norms of WBPCB. Inspite of denial of consent to operate by WBPCB several times (in 2003, 2004 and 2005) and notice from the Hon'ble Kolkata High Court (October 2004), early steps on urgent basis were not taken by DCC in this direction. This ultimately resulted in non-issuance of consent to operate and a notice for closure (July 2010) by WBPCB.

Audit observed (February 2015) that though the requisite statutory charges (₹ 6.50 lakh towards consent to operate for the period 2013-15, ₹ 35,328 quarterly towards water cess and ₹ 7,800 towards collection and analysis of effluents) are being regularly collected by the State (WB) environment body, the closure notice had not yet been revoked.

It was also noticed that National Environmental Engineering Research Institute (NEERI), Nagpur suggested (January 2010) construction of a new ETP of 1300 M^3/day capacity for upgradation at an estimated cost of ₹ 3.92 crore (approx.), later revised at ₹ 7.09 crore. SECL Board also accorded approval to the same (June 2011). While tender prepared by CMPDI was floated in December 2011, it could not be finalized (February 2015). Thus, there was lack of action and commitment on the part of DCC/SECL in improving the situation towards adhering to statutory requirements.

In reply, SECL stated (November 2013) that the updated cost-estimate of new ETP was under preparation in consultation with CMPDIL and NEERI. It was further admitted (February 2015) by SECL that exceptionally long time is taken for scrutinizing the technical and commercial aspects of tender papers as offered by the parties for this "*never-done-before-item*" and therefore could not be further taken up with the Government of West Bengal, GCGSC, WBPCB and the like.

The Ministry stated (February 2015) that initiatives were being taken to address the issues raised by Audit.

Conclusion

DCC was established to produce coal gas, coke, coal tar and other chemicals from low temperature carbonization of non-coking coal with a view to producing environment friendly coal gas and coke for domestic and industrial use. Audit, however, observed that since inception DCC did not operate efficiently to achieve financial viability. The Unit has been sustaining substantial loss as it operated far below its installed capacity in the absence of capital infusion towards revival/capital rehabilitation of the plant coupled with outdated technology, poor offtake of gas by customer, non-remunerative price fixed by customer, poor sale of by-products and absence of marketing strategy. Moreover, DCC did not take effective measures to control environmental pollution. Thus, neither DCC, nor SECL or CIL took any coordinated and productive steps to address the core issues pointed out above which would have helped DCC to get its financial health restored.

Recommendations

In view of the above, Audit recommends that:

- ***SECL/CIL may guide DCC for putting in place well defined cost cutting measures which may also be monitored periodically.***
- ***SECL/CIL may take up the issue of pricing of coal gas with Government of West Bengal and Ministry of Coal to ensure reasonable fixation of price which would help DCC/SECL in gainful recovery of cost.***
- ***DCC may enter into a formal agreement with GCGSC, West Bengal with a view to fetching remunerative price of coal gas and also explore adding alternative consumers.***
- ***SECL/ CIL may assist and guide DCC in putting in place professional/ innovative marketing strategy for liquidating accumulated stock of by-products.***
- ***DCC/ SECL may expedite the process of commissioning new ETP, with the aim of making operations environment-friendly.***

Coal India Limited and its Subsidiaries

3.4 Irregular payment towards encashment of Half Pay Leave/Earned Leave/Sick Leave

Encashment of half pay leave/sick leave/earned leave in deviation from DPE guidelines, resulted in irregular payment of ₹ 75.29 crore.

In line with the Department of Personnel & Training, GOI guidelines (October 1997) enhancing the ceiling for accumulation of Earned Leave (EL) to 300 days for Central Government employees, DPE allowed (August 2005) enhanced accumulation of EL up to 300 days for the employees of CPSEs. On a reference made by the Ministry of Shipping, DPE clarified to all the CPSEs on 26 October 2010 that employees of CPSEs were not permitted to accumulate EL for more than 300 days and CPSEs are not permitted to encash leave beyond 300 days at the time of retirement of its employees.

In September 2008, GOI allowed consideration of both EL and Half Pay Leave (HPL) for encashment for Central Government employees with effect from January 2006, subject to a limit of 300 days for both kind of leave taken together. In a further clarification of 17 July 2012, DPE referred to its instructions of April 1987 and reiterated that on retirement for CPSEs employees, EL and HPL could be considered for encashment subject to an overall limit of 300 days and that cash equivalent payable for HPL would be equal to leave salary as admissible for half pay plus dearness allowance and commutation of HPL would not be permissible to make up the shortfall in case EL to the credit of a CPSE employee was less than 300 days. Further, GOI guidelines do not permit encashment of sick leave, which has been reiterated by GOI in December 2012 and February 2014 also.

Audit observed that the following CPSEs deviated from the DPE guidelines and made irregular payment of ₹ 75.29 crore to their employees towards HPL/EL encashment on superannuation/separation over and above the ceiling of 300 days.

Sl. No.	Name of CPSE	Period	₹ in crore
1.	Coal India Limited including North Eastern Coalfields Limited	2009-10 to 2013-14	5.57
	Mahanadi Coalfields Limited		4.92
	Eastern Coalfields Limited		11.86
	Northern Coalfields Limited		6.07
	Western Coalfields Limited		10.15
	South Eastern Coalfields Limited including Dankuni Coal Complex		10.44
	Bharat Coking Coal Limited		5.46
	Central Coalfields Limited		15.26
	Central Mine Planning & Design Institute Limited		5.56
Total			**75.29**

CIL in reply stated (October 2014) that the guidelines issued by DPE were advisory in nature as clarified in the DPE's office memorandum dated 08 April 1991. Government of India conferred Maharatna status on CIL with the delegation of power to structure and implement schemes related to personnel and human resource management and training. Therefore, there was no violation of the overall policy of Government of India in the matter of leave provisions for the executives of CIL.

Reply is not acceptable as leave encashment beyond the overall policy of GOI was not permitted as per DPE instructions of April 1987. Further, DPE's circular of 26 October 2010 clarified that CPSEs were not permitted to encash leave beyond the overall ceiling of 300 days. In another clarification issued in July 2012, referring to instructions of April 1987, DPE reiterated that EL and HPL could be considered for encashment on superannuation subject to overall limit of 300 days. Moreover, clarification issued by DPE in July 2012 specifically disallowed encashment of sick leave. Further, the contention that even in GoI service, commuted leave is encashable as a good health reward is not factually correct as in GoI Service, only leave on half pay (HPL) is permitted to be encashed to the extent the encashment of Earned Leave at superannuation falls short of prescribed ceiling of 300 days and HPL is not allowed to be commuted for the purpose of encashment.

Therefore, encashment of HPL to employees on retirement/separation beyond the overall ceiling of 300 days was in violation of DPE guidelines and was, thus, irregular.

The matter was reported (November 2014) to the Ministry of Coal in respect of irregular payment in CIL, their reply was awaited (March 2015).