

## CHAPTER III: MINISTRY OF COAL

### Bharat Coking Coal Limited

#### 3.1 Loss due to non-utilisation of Cenvat credit

**Bharat Coking Coal Limited failed to utilise Cenvat credit in respect of Service Tax paid of ₹30.48 crore, for the input services received during the period from 2011-12 to 2014-15 and thereby deprived itself of obtaining the benefit of such credit for a considerable period.**

Central Excise duty is an indirect tax levied on goods manufactured or produced in India. Coal became excisable as per a notification of Government of India, Ministry of Finance, Department of Revenue (March 2011). For production of coal, coal companies utilise capital goods, raw materials, input services etc. The Service Tax paid on any of these items is credited into a Cenvat credit account<sup>1</sup> and the accumulated credit may be utilised for payment of duty/tax on coal as per Cenvat credit Rules, 2004. Rule 3(4) of the Cenvat credit Rules, 2004 provides that while paying duty of Excise or Service Tax, the Cenvat credit shall be utilised only to the extent of such credit as is available on the last day of the month or quarter, for payment of duty or tax relating to that month or the quarter, as the case may be.

There was no time limit for utilising Cenvat credit till August 2014. However, Central Board of Excise and Customs vide notification (11 July 2014) stipulated that with effect from 1 September 2014, the manufacturer or the provider of output service is allowed to take Cenvat credit within six months<sup>2</sup> of the date of issue of any of the documents specified in sub-rule (1) of Rule 9, which, inter alia, included invoice issued by a manufacturer or invoice/bill/challan issued by a provider of input service or by an Input Service Distributor (ISD)<sup>3</sup>.

Bharat Coking Coal Limited (BCCL), a Miniratna Public Sector Undertaking and a subsidiary of Coal India Limited (CIL) is engaged in mining of coal under different operational areas/units and sale thereof to various consumers. These areas are individually registered with the Central Excise Department for payment of Excise Duty for utilising Cenvat credit on taxes paid for input services received. However, payments to service providers & Service Tax on it were made centrally from Headquarters, Dhanbad, like payment to Central Industrial Security Force (CISF), Central Mine Planning and Design Institute Limited (CMPDIL), MSTC Limited and mjunction<sup>4</sup>. The Service Tax, so paid,

<sup>1</sup> Known as 'Availment' of Cenvat credit.

<sup>2</sup> Extended to one year from March 2015 vide Notification No. 6/2015-Central Excise (N.T) dated 1 March 2015.

<sup>3</sup> Input Service Distributor is the office of the manufacturer of final products or the provider of taxable services for distribution of service tax credit to the manufacturing or service providing units.

<sup>4</sup> MSTC Limited and mjunction services limited provide services to BCCL for e-auction of coal.

was required to be distributed<sup>1</sup> to the concerned areas to utilise Cenvat credit at their end. During 2011-12 to 2014-15, Headquarters of BCCL paid an amount of ₹77.31 crore towards Service Tax for utilising the services of CISF, CMPDIL, MSTC and mjunction. Out of this, BCCL Headquarters was able to distribute and utilise only ₹46.83 crore during the above period. The balance of ₹30.48 crore was finally distributed in September 2016 to BCCL Headquarters. However, BCCL failed in utilising Cenvat credit of ₹30.48 crore pertaining to the period from 2011-12 to 2014-15 till November 2016.

Audit observed (March 2016) that:

- Out of ₹30.48 crore which could not be utilised till November 2016, ₹26.77 crore related to the period 2011-12 and 2012-13. As per Cenvat credit Rules, 2004, for distribution of Service Tax to different areas, BCCL Headquarters was required to be registered as ISD. Though the areas of BCCL started paying Excise Duty on coal with effect from March 2011, BCCL Headquarters applied and obtained registration as ISD only in November 2013. The reason for delayed registration of ISD was that BCCL was non-conversant with the various provisions under Central Excise Act and Rules made there under.
- There was a clear time gap of 51 days between the date of notification (11 July 2014) and date when it became effective (1 September 2014); restricting utilisation of Cenvat credit within the time limit of six months. BCCL failed to utilise the opportunity to take credit of old invoices/bills/challans which were more than six months old during the 51 days allowed.
- Though there was restriction of time limit as per Notifications of July 2014/March 2015 for utilising Cenvat credit, an amount of ₹3.71 crore pertaining to the period 2013-14 and 2014-15 was distributed belatedly in September 2016 and the same remained unutilised till November 2016.

In reply, the Management/Ministry stated (September 2016/December 2016) that:

- The various coal producing areas of BCCL having Central Excise registration started paying Excise Duty on the coal produced by them and availing Cenvat credit, since coal became excisable in March 2011.
- After obtaining ISD registration in November 2013, BCCL started distribution of Service Tax regularly to coal producing areas of BCCL for availing Cenvat credit at their end.
- The Service Tax on eligible inputs pertaining to the invoices paid during the period from April 2013 to October 2013 was distributed to concerned areas of BCCL after due scrutiny of the records. However, in respect of invoices paid during the period 2011-12 and 2012-13, the process of scrutinising the records got delayed as the records were more than three years old.

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<sup>1</sup> *BCCL adopted the system of paying Excise Duty and availing Cenvat credit centrally from November 2015.*

- Prior to July 2014, there was no rule providing for any restriction on availment of Cenvat credit within a period of six months/one year. The amendment made (July 2014/March 2015) in the Cenvat credit Rules, 2004, provided that the manufacturer or service provider should not take Cenvat credit after six months/one year of date of issue of any documents specified in the Rule 9(1) of Cenvat credit Rules, 2004.
- The above mentioned proviso/amendment in the Cenvat credit Rules only restricted the manufacturer or provider of output service from availing Cenvat credit. However, no such restriction had been imposed upon ISD who was neither a manufacturer nor a service provider. However, since the above view had not been tested in the Court of law, the same could be objected by the department and result in litigation before the appropriate forum.
- There was a scope for availing Cenvat credit in view of the fact that credit could not be denied on procedural grounds when Service Tax paid on goods and services were in principle eligible for credit.
- The Cenvat credit of ₹30.48 crore had already been availed by showing in the relevant returns and distributed to BCCL Headquarters having centralised registration with prior intimation to the jurisdictional authorities of Central Excise Department.

The views of the Management/Ministry are not acceptable in view of the following:

- Though BCCL started paying Excise duty and availing as well as utilising Cenvat credit from March 2011, BCCL Headquarters applied for ISD registration only in November 2013 for distribution of Service Tax, after a lapse of more than two and half years. Even after registration as ISD in November 2013, BCCL failed to utilise Cenvat credit of ₹26.77 crore for the period 2011-12 and 2012-13 before imposition of any restriction (September 2014/March 2015) of time limit for utilising such credit. There was further accumulation of credit of ₹3.71 crore for the years 2013-14 and 2014-15, which also remained unutilised till November 2016.
- Regardless of the restriction of time limit, it would have been a prudent practice to utilise Cenvat credit in time. Deferring the action for taking Cenvat credit for years together highlights imprudent tax management.
- As per clarifications (Circular No. 97 dated 23 August 2007) of Central Board of Excise and Customs, ISD is an office of the manufacturer of final products or the provider of taxable services for distribution of service tax credit to the manufacturing or service providing units. Therefore, all the rules and procedures regarding restriction of time limit as applicable to a manufacturer or an output service provider under Central Excise Act/Rules would also be applicable to ISD.
- BCCL failed to produce any documentary evidence in support of their contentions that the restrictions of time limit for taking Cenvat credit was not applicable to ISD

and the benefit of taking old Cenvat credits would not be denied on procedural grounds. The Management/Ministry itself has also admitted that the subject may become a point of litigation with the Central Excise Department.

Thus, BCCL failed to obtain the benefit of ₹30.48 crore due to non-utilisation of Cenvat credit for the period from 2011-12 to 2014-15.

### Coal India Limited & its subsidiaries

#### 3.2 Loss due to incorrect fixation of reserve price of coal under e-auction sale

**Coal India Limited and its subsidiaries failed to apply due diligence for correct fixation of reserve price for sale of G6 grade non-coking coal through e-auction to non-regulated sectors. This resulted in avoidable loss of revenue of ₹68.16 crore during the period from April 2012 to September 2015.**

Coal India Limited (CIL) produces and sells coking and non-coking coal of various grades, through seven wholly owned coal producing subsidiaries<sup>1</sup>. Coal is sold through Fuel Supply Agreements (FSAs) with customers at prices notified by CIL and through e-auction mode at market driven prices. For e-auction of coal, the subsidiary coal companies declare the quality and quantity of coal to be offered in the auction in advance. A reserve price for each grade of coal is also fixed. A bidder has to bid equal to or above the reserve price for participating in the e-auction process.

CIL notified the prices of non-coking coal based on Gross Calorific Value (GCV), effective 1 January 2012. There were 17 grades of coal (G1 to G17), each grade having a GCV bandwidth. G17 corresponded to the lowest GCV while G1 had the highest GCV. CIL had also informed its coal producing subsidiaries that the reserve price for e-auction to non-regulated sectors<sup>2</sup> for grades having GCV lower than 5,500 Kcal/kg would be 20 per cent above the notified price for that grade. The reserve price of higher grades would be the notified price for the relevant grade<sup>3</sup>.

The G6 grade had a GCV band ranging from 5,500 to 5,800 Kcal/kg and, hence, the reserve price for G6 grade would be the notified price for the grade. The G7 grade had a GCV band ranging between 5,200 and 5,500 Kcal/kg and, hence, its reserve price would be 20 per cent higher than the notified price for the grade.

Audit scrutinised the records regarding fixation of reserve price for G6 and G7 grades in coal producing subsidiaries of CIL over the period April 2012 to March/September 2015 and noticed the following:

<sup>1</sup> 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), Western Coalfields Limited (WCL)

<sup>2</sup> Non regulated sectors are sectors other than power, fertiliser and defence

<sup>3</sup> (a) when the midpoint of the GCV range for the colliery/source exceeds 5,500 Kcal/Kg, the notified price of the GCV band corresponding to such midpoint as applicable for non-regulated sectors shall be the reserve price.

(b) when the midpoint of the GCV range for the colliery/source does not exceed 5,500 Kcal/Kg, the notified price of the GCV band corresponding to such midpoint as applicable for non-regulated sectors plus 20 per cent shall be the reserve price.

- After introduction of GCV based pricing in January 2012, 122 bidding events took place on different dates for which the coal subsidiaries had to fix the reserve price of G6 grade as well as G7 grade non-coking coal. Though G6 grade was superior to G7 grade of coal, the reserve price of G6 grade was fixed lower than that of the G7 grade on the basis of the notification of CIL.
- The difference in pricing of non-coking coal of these two grades was considerable. While the reserve price of G6 grade was in the range of ₹1,960 and ₹2,770, the reserve price of G7 grade was in the range of ₹2,064 and ₹2,940 in different coal subsidiaries. Despite such an anomaly in the reserve price fixation, the matter was not noticed by CIL or its subsidiaries. The reserve price aberration between G6 and G7 grades continued over nearly four years (January 2012 to September 2015).
- The anomaly in fixation of reserve price was pointed out by Audit in January 2015 to Western Coalfields Limited (WCL). In view of the audit observation, WCL management (July 2015) requested CIL to examine the matter. CIL revised (October 2015) the earlier mechanism for fixing reserve price, stressing that in case of anomaly in reserve price between two grades, the reserve price for the higher grade would be the simple average of the reserve price of the immediately succeeding and preceding grades. Thus, as per the revised mechanism, for cases where the reserve price of G6 grade is lower than the G7 grade, the reserve price of G6 grade would be the simple average of the reserve price of G5 and G7 grades.
- Considering the revised reserve price of G6 grade of coal, Audit observed that CIL and its subsidiaries had suffered an avoidable loss of revenue of ₹68.16 crore during April 2012 to September 2015 through lower fixation of reserve price<sup>1</sup>, which in turn extended an undue benefit to the e-auction consumers by the same amount as detailed below:

Name of the coal subsidiary	Loss of revenue (₹ in crore)
BCCL	1.85
CCL	2.06
ECL	41.02
SECL <sup>2</sup>	16.85
WCL <sup>3</sup>	6.38
<b>Total:</b>	<b>68.16</b>

In reply, WCL, ECL and CCL stated (September/November 2016) that CIL was the deciding authority for pricing of coal, including fixation of reserve price for e-auction for all of its subsidiaries. They stated that the reserve price was modified once the norms were revised by CIL.

<sup>1</sup> Audit has considered instances where the bid price of G6 grade coal are lower than the reserve price of G7 grade coal. The difference between the bid price (at which the coal was sold) and the revised reserve price has been considered as a loss to CIL.

<sup>2</sup> For the period from April 2012 to March 2015, based on the data made available to Audit

<sup>3</sup> For the period from April 2012 to March 2015, based on the data made available to Audit

While pointing out that the guidelines for fixation of e-auction price has already been modified in October 2015, CIL Management stated (January 2017) that:

- The reserve price in respect of coal offered under e-auction was not fixed in isolation but was derived from the basic price of coal notified by CIL from time to time. Reserve price was the floor price from which the bidding process started but coal was actually sold at the bid price, which was guided by several market forces and other parameters. E-auction being a buyer's market, market sentiments played a crucial role and thus the actual bid/sale price fetched on auction of such coal was purely based on the market dynamics.
- While working out the loss, only those cases have been specifically picked up by Audit where the bid price of G6 grade coal was less than the mean of reserve price of G5 and G7 grade coal and notional loss of ₹68.16 crore has been arrived at. The mean reserve price of G5 and G7 grade coal had no direct relation with the G6 grade reserve price.
- Out of the total instances where G6 coal had been sold under e-auction during the said period, in a number of cases G6 grade coal had fetched bid price much higher than the reserve price of G7 grade coal and had fetched an overall weighted average premium of around 39 *per cent* over the weighted average reserve price during the reported period.
- G6 grade coal, if ultimately not sold in e-auction, would have been sold at the notified price applicable for power sector, which was about 25 *per cent* lower than the notified price applicable for non-regulated sector during the reported period.

Replies of the Management are not acceptable as:

- For e-auction of coal, the bid price should necessarily be equal to or above the reserve price. While working out the loss to CIL on account of lower reserve prices of G6 coal, Audit has considered only such cases where the bid price of a higher grade of coal (G6 grade) was less than the reserve price of lower grade (G7 grade). In these cases, the customers have obtained G6 grade of coal at bid prices for which they would not be able to obtain a lower (G7) grade of coal.
- While calculating loss, Audit has used the revised reserve price as per notification of CIL (October 2015) and has considered the difference between the actual bid price and the revised reserve price. For the 122 bids scrutinised by Audit, this worked out to ₹68.16 crore.
- The coal sold to non-regulated sector through e-auction has only been considered by Audit. The contention of the Management that if it was not sold in e-auction, the G6 grade coal would have been sold at lower price to the power sector is a conjecture.

Thus, CIL and its subsidiaries sustained an avoidable loss of revenue of ₹68.16 crore during the period from April 2012 to September 2015 due to their failure in exercising due

diligence regarding fixation of reserve price of non-coking coal for e-auction sale, which also resulted in undue benefit to the e-auction consumers.

The matter was reported to the Ministry in September 2016; their reply was awaited (January 2017).

### **Eastern Coalfields Limited**

#### **3.3 Delayed Payment of Central Excise Duty**

**Failure to make timely payment of Central Excise duty on Performance Incentive earned by Eastern Coalfields Limited on sale of coal resulted in avoidable loss of ₹17.57 crore towards payment of interest for the financial years 2011-12 to 2013-14.**

Eastern Coalfields Limited (ECL), a subsidiary of Coal India Limited (CIL) had entered into Fuel Supply Agreements (FSA) for supply of coal to consumers. As per terms of FSA, ECL has an opportunity to earn 'Performance Incentive' (PI) from the consumer, if supply of coal during the year is in excess of 90 *per cent* of the Annual Contracted Quantity (ACQ) for the year.

As per notification of Ministry of Finance, Government of India dated 1 March 2011, coal became an excisable product attracting levy of Central Excise duty. As per section 4 of the Central Excise Act, 1944 (Act), Central Excise duty was payable on the transaction value. As the transaction value included PI, Excise duty was also to be paid on the PI earned by ECL on sale of coal. In case of non-payment, ECL is liable to pay interest at the rate<sup>1</sup> prescribed under Section 11AA of the Act. The amount of PI is determined based on the quantity of coal supplied during the year against the ACQ and Central Excise duty on such PI should be paid by 31 March of every financial year to avoid payment of interest.

During scrutiny of records relating to payment of Excise duty in coal producing subsidiaries of CIL, Audit observed that ECL inordinately delayed payment of Excise duty on PI (delays ranging between 34 to 993 days) which led to its paying interest for the default. Audit further noticed that ECL obtained clarification from CIL regarding applicability of Excise duty on PI in March 2014, three years after Excise duty became payable on coal. CIL clarified the matter stating that Excise duty was to be paid on the PI, which could then be recovered from customers. ECL started payment of Excise duty on PI w.e.f. March 2014. However, even after the clarification, ECL delayed payment of Excise duty for the period 2011-12 to 2013-14, the delay ranging between one to nine months (payment was made during 31 March 2014 to 8 January 2015). On account of delay in remitting Excise duty, ECL had to make avoidable payment of interest amounting to ₹17.57 crore to Central Excise authorities for the financial years 2011-12 to 2013-14.

While admitting the facts, the Management/Ministry stated (September 2016/January 2017) that:

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<sup>1</sup> 18 per cent per annum with effect from April 2011, to be calculated from the date on which such duty becomes due to the date of actual payment of the amount of Central Excise duty

- On receipt of guidelines from CIL in March 2014, ECL had discharged its liability for payment of Excise duty on PI, though some of the FSA customers were expressing their strong reservations on applicability of Excise duty on PI.
- ECL had already raised requisite supplementary invoices on the respective FSA customers for interest accrued on delay in payment of Excise duty associated with PI.

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

- Coal became excisable in March 2011 and it was imprudent to delay payment of Excise duty on PI for three years. Even clarifications were obtained after three years which led to accumulation of the interest liability.
- Other subsidiaries of CIL also received PI from the customers during the same period and paid Excise duty on it. Operating in the same environment, ECL ought to have followed the practice of its peers in paying Excise duty on PI.
- PI is collected from FSA customers through coal bills. The FSA does not provide for collection of interest from customers on account of delayed payment of Excise duty on PI. Thus, the possibility of collection of interest paid by ECL from its FSA customers appears to be remote.

Thus, due to failure in making timely payment of Central Excise duty on PI, ECL had to bear an avoidable loss of ₹17.57 crore towards payment of interest for the financial years 2011-12 to 2013-14.

#### **Northern Coalfields Limited**

#### **3.4 Failure to earn additional revenue**

**Despite availability of coal and consent of the customer to pay a higher price, NCL did not maximise supply of coal from the specific mine which would earn a risk premium charge of 10 per cent. It thereby failed to earn additional revenue of ₹14.28 crore during February 2011 to March 2015.**

Northern Coalfields Limited (NCL), a subsidiary of Coal India Limited had been supplying Grade 10 coal<sup>1</sup> to Unit-I-VIII of Renusagar Power Division of M/s. Hindalco Industries Limited (HIL-RPD) from Jhingurdah mine in terms of Fuel Supply Agreement (FSA), executed between the parties in June 2008. As coal reserves of Jhingurdah mine depleted, HIL-RPD represented for supply against the annual contracted quantity (ACQ) of coal from Krishnashila mine. NCL and HIL-RPD agreed to modify (February 2011) the existing FSA through a Memorandum of Understanding (MOU) to incorporate supply of Grade 8 coal from Krishnashila mine in addition to Grade 10 coal of Jhingurdah mine. As per the agreement (February 2011), for supply of coal from Krishnashila mine, HIL-RPD would pay 10 per cent over and above the notified basic price of coal as 'risk premium charge'. It was also agreed that both the parties should make best efforts to maximise

<sup>1</sup> Coal is graded in 17 grades as per their Gross Calorific Value



off-take of coal from Krishnashila mine and shift the ACQ to Krishnashila mine at the earliest for normative requirement of 25.47 lakh tonne Grade 8-10 coal as per revised FSA. Thus, as per the modified FSA, supply of coal to HIL-RPD from Krishnashila mine had a distinct commercial advantage for NCL.

Audit observed (March 2015) that:

- NCL supplied 100.40 lakh tonne Grade-8 coal<sup>1</sup> to HIL-RPD during the period from February 2011 to March 2015 under the revised FSA. Of this, 64.61 lakh tonne Grade-8 coal was supplied from Krishnashila mine, 16.61 lakh tonne Grade-8 coal<sup>2</sup> from Jhingurdah mine, 8.97 lakh tonne Grade-8 coal<sup>3</sup> from Bina mine and the balance 10.21 lakh tonne Grade-8 coal<sup>4</sup> from other mines of NCL. Thus, NCL supplied 19.18 lakh tonne from mines other than Krishnashila and Jhingurdah, while the revised FSA contemplated supply from these two mines alone.
- NCL fetched additional revenue ranging between ₹140 and ₹169 per tonne of coal supplied from the Krishnashila mine on account of risk premium charge. For the 19.18 lakh tonne coal supplied from Bina and other mines, NCL did not receive risk premium charge and, hence, revenues for these supplies were lower.
- Both Krishnashila and Bina mines had some common customers<sup>5</sup>. During this period (February 2011 to March 2015), NCL dispatched 91.31 lakh tonne Grade-8 coal from Krishnashila mine and 28.22 lakh tonne Grade-8 coal<sup>6</sup> from Bina mine to these common customers. If NCL had supplied 8.97 lakh tonne Grade-8 coal from Bina mine to common customers instead of supplying it to HIL-RPD, this quantity could have been supplied from the Krishnashila mine to HIL-RPD which would have earned an additional revenue of ₹14.28 crore as 'risk premium charge'.

Audit further observed that in October 2015, the FSA with HIL-RPD was modified through MOU, incorporating provision for supply of full quantity of ACQ only from Krishnashila mine. In 2015-16, NCL supplied most of the coal to HIL-RPD from Krishnashila mine and only an insignificant quantity (0.01056 lakh tonne) of coal was dispatched from Bina mine in March 2016.

The Management/Ministry stated (September/December 2016) that:

- Coal was allocated to HIL-RPD on month to month basis from Bina mine instead of Krishnashila mine mainly keeping in view that coal stock at Bina mine was on fire. Priority was given to liquidate the above coal as early as possible to minimise loss that might arise due to burning of coal and deterioration of coal quality due to prolonged exposure to fire.

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<sup>1</sup> 68.35 lakh tonne Grade-8 coal + 32.05 lakh tonne Grade-8 coal (equivalent to 36.05 lakh tonne Grade-10 coal x 0.88893)

<sup>2</sup> Equivalent to 18.68 lakh tonne Grade-10 coal x 0.88893

<sup>3</sup> Equivalent to 10.09 lakh tonne Grade-10 coal x 0.88893

<sup>4</sup> 3.74 lakh tonne Grade-8 coal of Khadia + 6.47 lakh tonne Grade-8 coal (equivalent to 7.28 lakh tonne Grade-10 coal x 0.88893) of Kakri

<sup>5</sup> OTPS, ATPS-Anpara, KOTA, Lanco-Anpara, RGTPP-Haryana, VSTPP, MJPJ-Jhajra, MIGK-Arawai

<sup>6</sup> Equivalent to 31.74 lakh tonne Grade-10 coal x 0.88893

- NCL had taken all steps to maximise revenue while supplying quality coal on sustained basis. NCL had earned an additional revenue of ₹ 366.62 crore by offering 9.10 lakh tonne coal through road and rail mode under spot e-auction from Krishnashila mine at an average premium of 99.88 *per cent* over and above the notified price during the period 2010-11 to 2014-15, which was a considerably higher premium as compared to risk premium of 10 *per cent* that NCL was entitled for supplying coal to HIL-RPD from Krishnashila mine.
- Supply of coal to all common customers of Bina and Krishnashila mines were made through rail only as these customers did not lift coal by road due to long distance. Since Coal Handling Plant (CHP) of Bina mine was running at full capacity, common customers could not be transferred to Bina from Krishnashila mine under logistic compulsions. Further, coal was supplied to HIL-RPD through road and there was no common customer for road mode, who could be inter-changed between Bina and Krishnashila mine.

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

- The Management contention that coal from Bina mine had to be liquidated early on account of spontaneous heating and fire is not valid as Audit has merely suggested an interchange of customers between Bina and Krishnashila mines, rather than slower liquidation from Bina mine.
- Audit analysis of the book stock position of coal of Bina mine reveals that there was no significant accumulated stock of coal during 2011-16. The monthly stock position indicates a cyclical movement of coal indicating that the mine was carrying out normal mining operations, rather than liquidating old, on-fire coal stock.
- The audit observation is limited to the coal supply made to HIL-RPD from Bina instead of Krishnashila mine which led to NCL not receiving the 10 *per cent* risk premium charge. Supply from Krishnashila mine would have resulted in additional revenue to NCL over and above the spot e-auction revenue referred to by Management in reply.
- The Management's contention that evacuation of coal to common customers by rail from Bina mine was limited by the saturation of coal handling plant at Bina is not tenable since coal of Bina mine was transferred to Krishnashila siding through dumpers and contractual tippers and dispatched through the railway siding of Krishnashila mine. Thus it was entirely possible to supply coal from Bina mine to the common customers by rail using the railway siding of Krishnashila mine.

Thus, due to non-supply of maximum quantity of coal from the specified mine for which a risk premium charge of 10 *per cent* had been agreed to, NCL could not realise additional revenue of ₹14.28 crore during February 2011 to March 2015.

## NLC India Limited

### 3.5 Operational performance of Power Plants

#### 3.5.1 Introduction

NLC India Limited (Company), which was incorporated in the year 1956, is a public sector undertaking in the energy sector. It operated four open cast lignite mines (three at Neyveli in Tamilnadu and one at Barsingsar in Rajasthan), as of March 2016, to generate power through five pithead thermal power stations (TPS) having an aggregate capacity of 3240 MW. It owned 41,415.90 million tonne of lignite reserves which was 92.87 per cent of the total national lignite reserves of 44,594.53 million tonne. The total mining capacity of the Company was 30.6 million tonne per annum (MTPA).

The details of thermal power stations and the mines linked to them as of March 2016 are given below:

Units	Capacity in Megawatt (MW)	Linked Mines	Capacity in MTPA
TPS I	600	Mine-I & Expansion	10.50
TPS I Expansion	420		
TPS II	1470	Mine-II & Expansion	15.00
TPS II Expansion	500		
Barsingsar TPS (BTPS)	250	Barsingsar Mines	2.10
<b>Total</b>	<b>3240</b>		<b>27.60<sup>1</sup></b>

#### 3.5.2 Financial Performance

The Central Electricity Regulatory Commission (CERC) fixes the tariff for all power stations for a period of five years. The tariff for supply of electricity from a thermal generating station comprises of two parts, namely, capacity charges (for recovery of annual fixed cost) and energy charges (for recovery of primary fuel and limestone cost).

The performance of the Company during the five-year period ended 31 March 2016 is reflected in the following table:

Particulars/Year	2011-12	2012-13	2013-14	2014-15	2015-16	
Generation of power (Million Units (MUs))	18789.44	19902.34	19988.65	19729.13	19182.21	
Sale of power	MUs	15810.67	16841.51	16956.40	16671.23	16104.00
	Amount (₹ in crore)	4476.23	5069.49	5361.13	5589.87	6258.97
Operating Cost (₹ in crore)	3129.75	3581.01	4011.03	4162.53	4452.35	
Profit after Tax (₹ in crore)	1411.33	1459.75	1501.88	1579.68	1204.15	
Return on Equity (in per cent)	84.12	87.01	89.52	94.16	71.77	

<sup>1</sup> Excluding mine1A with capacity of 3 MTPA which is meant for sale of lignite.

The profit of the Company and corresponding Return on Equity showed an upward trend during the period from 2011-12 to 2014-15. However, it reduced by 23.77 *per cent* during 2015-16 as compared to 2014-15 mainly on account of shortfall in power generation due to reduced Operating Plant Load Factor (OPLF) in TPS-I, problems and forced outages/stabilisation issues in Barsingsar Thermal Power Station (BTPS) and increase in Clean Energy Cess. Further, heavy rainfall and floods during the year 2015-16 also added to the shortfall in generation and consequential reduction in profit.

### **3.5.3 Audit Approach**

#### **3.5.3.1 Scope of Audit**

Operational performance of three power plants (TPS-I, TPS-I Expansion & TPS-II) of the Company and their linked lignite mines during the period from 2011-12 to 2015-16 and that of BTPS<sup>1</sup> from 2012-13 to 2015-16 was reviewed in Audit. TPS-II Expansion was not reviewed as the plant was commissioned during the year 2015-16. The views expressed by the Management and the replies received were considered while finalising the report.

#### **3.5.3.2 Audit Objectives**

The objectives of the audit were to examine whether the Company

- assessed requirement of fuel correctly and consumed the same as per norms,
- utilised plant capacity optimally and efficiently, and
- ensured that the cost of generation of power was within the norms.

#### **3.5.3.3 Audit criteria**

The audit criteria included the provisions of

- Memorandum of Understanding entered into by the Company with Ministry of Coal, Government of India (GoI)
- Guidelines of Ministry of Coal for fixation of lignite price
- Regulations of Central Electricity Regulatory Commission (CERC) and its norms for consumption and fixation of tariff

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<sup>1</sup> *commissioned in December 2011/January 2012*

### **3.5.4 Audit Findings**

#### **3.5.4.1 Mining Operations**

##### **(I) Under recovery of cost due to underutilisation of linked mine of BTPS**

BTPS (2 x 125 MW), which was envisaged to be commissioned with full capacity in June 2009, was actually commissioned in December 2011/January 2012. It was seen in audit that the plant could not achieve full capacity utilisation upto 2015-16. Due to this, the capacity utilisation of the linked mines during the period from 2012-13 to 2015-16 also ranged between 58 per cent to 74 per cent only as against the norms fixed by CERC for capacity utilisation at 85 per cent (up to 2013-14) and 78 per cent (from 2014-15) for recovery of full cost of operation of mine through tariff. This resulted in under-recovery of cost to the tune of ₹79.78 crore for the period from 2012-13 to 2015-16.

The Company stated (March 2016) that new Circulating Fluidised-bed Combustion (CFBC) technology took time for the plant to get fully stabilised and that the performance of the unit would improve by 2016-17. The Ministry stated (May 2016) that the stabilisation period was not sufficient as various problems were faced in the operations and had to be rectified.

The reply of the Company and the Ministry has to be seen in the light of the fact that CERC had taken into consideration the stabilisation period and had fixed the norms, accordingly. Non-achievement of the same resulted in under recovery of cost.

##### **(II) Inadequate supply of lignite in TPS-I and TPS-I Expansion**

Test check of records relating to production and consumption of lignite linked with power generation in respect of TPS-I and TPS-I Expansion, for the period from 2011-12 to 2015-16, revealed that there was loss of generation every year due to inadequate supply of lignite either due to rains or due to electrical and mechanical breakdown of lignite handling equipment, even though sufficient quantity was available at site. Due to this, the plant could not operate at full load at different periods. This resulted in loss of generation of 660.45 million units (MUs) amounting to ₹160.64 crore from 2011-12 to 2015-16.

The Company stated (May 2016) that the inadequate supply of lignite was only during rainy season and action was being taken to have dry stock for a minimum of 03 to 04 days.

The reply was not acceptable since out of 660.45 MUs pointed out above, loss of generation to the tune of 397.26 MUs occurred during non-rainy days, which was clearly avoidable. The Company failed to take precautionary measures to avoid stoppage of equipment due to mechanical/electrical failures during the non-rainy days. Further, it also failed to ensure availability of adequate quantity of lignite during rainy days.

### 3.5.4.2 Operation of Plants

#### (I) Excess cost of generation over norm

The actual cost of generation of the power stations of Company vis-à-vis the norms fixed by CERC during the period under review was as under:

Year	TPS-I		TPS-IE		TPS-II (Stage I&II)		BTPS	
	Norm	Actual	Norm	Actual	Norm	Actual	Norm	Actual
2011-12	2.954	2.945	2.607	2.519	2.499/2.476	2.356	Not applicable	
2012-13	3.192	3.118	2.633	2.733	2.610/2.557	2.526	3.331	3.354
2013-14	3.423	3.376	2.808	2.759	2.727/2.690	2.623	3.150	3.219
2014-15	4.171	5.380	2.874	2.865	2.785/2.750	2.779	3.193	3.084
2015-16	3.98	5.139	3.73	3.13	3.17/3.16	3.32	2.890	3.25

(₹ per unit)

It was noted that there was under recovery of cost in all the above stations in one or more years under review. The excess cost absorbed by the stations where there was under-recovery, as worked out in Audit, was as under:

Unit	Year	Excess cost (₹ per unit)	Gross generation (MUs)	Excess cost absorbed (₹ in crore)
1	2	3	4	5=3x4*10 <sup>6</sup> /10 <sup>7</sup>
TPS-I	2014-15	1.209	3631.05	438.99
	2015-16	1.159	3160.98	366.36
TPS-I Expansion	2012-13	0.10	3319.77	33.20
TPS-II	2015-16	0.14	10583.15	148.16
BTPS	2012-13	0.023	1280.85	2.95
	2013-14	0.069	1438.24	9.92
	2015-16	0.35	1285.29	44.99
<b>Total</b>				<b>1044.57</b>

While examining the reasons for under-recovery of costs in respect of the above stations, which have been brought out in the ensuing paragraphs, it was observed that there was scope for improvement in other plants as well even though the cost recovered in those plants was above the CERC norms:

#### a) Non-achievement of Plant Load Factor and Plant Availability Factor

- CERC fixes norms for both Plant Load Factor (PLF)<sup>1</sup> and Plant Availability Factor (PAF)<sup>2</sup> in respect the power stations for recovery of energy charges and fixed charges from the beneficiaries. Scrutiny of these norms and the actuals for the power stations covered under review revealed that both these norms could not be

<sup>1</sup> PLF refers to the ratio between the actual generation and the maximum possible generation at installed capacity.

<sup>2</sup> PAF means the ratio of actual hours operated to maximum possible hours available during a certain period.

maintained in case of BTPS during the period from 2012-13 to 2015-16 as detailed in the following table:

	PLF				PAF			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
<b>Norm</b>	85	85	85	85	75	75	80	80
<b>Actual</b>	58.49	65.67	63.05	58.54	58.77	67.05	63.48	58.92

Achievement of lower PLF and PAF resulted in generation loss of 2012.17 MUs and under recovery of capacity charges of ₹306.91 crore.

The Company appointed a Committee in December 2014 for suggesting remedial course of action which recommended (June 2015) certain modifications in the Plant. These works, however, were yet to be completed (August 2016).

The Company stated (March 2016) that CFBC technology adopted in BTPS was a new technology. Since, BTPS was in initial stages of operation there were more number of breakdowns, causing more outages.

The reply is to be viewed against the fact that CERC took into consideration the stabilisation period and had fixed the PAF at a lower level of 75 per cent upto 2013-14 and thereafter, 80 per cent.

- Similarly, the PLF of TPS-I during 2014-15 and 2015-16 which was at 69.08 per cent and 59.98 per cent, respectively, was lower than the CERC norm of 75 per cent. The PAF achieved during 2014-15 was 67.74 per cent against the CERC norm of 72 per cent. Similarly during 2015-16, PAF achieved was 58.92 per cent as against the CERC norm of 72 per cent. The Company stated (May 2016) that there were frequent outages due to aging of the Plant and frequent breakdowns and all positive steps are being taken to improve the performance level.

The reply was not acceptable as CERC, while fixing the norms, considers the age of Plant and the achievement in case of TPS-I was lower than these norms.

**b) Higher consumption of lignite due to excess Station Heat Rate (SHR)**

CERC fixed the Station Heat Rate (SHR)<sup>1</sup> of 2,596.56 Kcal/unit in respect of BTPS. The actual SHR achieved by the plant during the years from 2012-13 to 2014-15 was, however, higher than these norms. This resulted in excess consumption of lignite to the tune of 64,274 metric tonne (MT) during these years, as detailed in the following table:

<sup>1</sup> Station Heat Rate (SHR) of a power plant is the amount of chemical energy that should be supplied to produce one unit of electrical energy.

Year	CERC norms (Kcal/unit)	Actual SHR (Kcal/unit)	Difference (Kcal/unit)	Gross generation (MU)	GCV of lignite (kcal/kg)	Excess lignite consumption (MT)
1	2	4	5	6	7	8=(5)x(6)/7x1,000
2012-13	2,596.56	2,616	19.44	1,280.850	2,668	9,333
2013-14	2,596.56	2,696	99.44	1,438.211	2,614	54,711
2014-15	2,596.56	2,597	0.44	1,380.710	2,647	230
<b>Total</b>						<b>64,274</b>

It was observed that the SHR exceeded the norm on account of low boiler efficiency. Against the designed efficiency of 81.81 per cent for the boiler, the efficiency achieved ranged between 78.39 per cent and 80.75 per cent, during the above years.

The Company stated (May 2016) that the performance of the plant would improve after August 2016 when the corrective measures will be implemented fully and the SHR will be brought down. The reply confirmed the fact that the plant was commissioned with inherent defects which led to higher SHR.

**c) Extra expenditure on Operation & Maintenance of plants**

CERC fixed norms for annual Operation & Maintenance (O&M) expenses per MW to be incurred by a thermal station. The actual O&M expenses as against the norm for the past five-year period ended 31 March 2016 were as detailed below:

(₹ in lakh/MW)

Year	TPS-I		TPS-IE		TPS-II		BTPS	
	Norm	Actual	Norm	Actual	Norm	Actual	Norm	Actual
2011-12	30.18	39.32	20.34	23.73	20.34	26.59	NA	NA
2012-13	31.90	41.82	21.51	25.34	21.51	28.26	28.36	28.17
2013-14	33.73	46.92	22.74	27.45	22.74	31.85	29.98	30.30
2014-15	38.12	46.41	23.90	28.89	23.90	31.26	29.10	34.76
2015-16	40.52	44.14	25.40	30.97	25.40	30.55	30.94	30.88

All the power stations, except BTPS in 2012-13 and 2015-16, had incurred O&M expenditure in excess of the norms up to 2015-16 mainly due to increase in wages and salaries. Test check of O&M expenditure for two years (2013-14 and 2014-15) at BTPS in Audit indicated that the manpower deployed was more than that envisaged in the Feasibility Report of the power station, i.e., the actual deployment in the managerial cadre was 76 as against 10 and in executive cadre it was 106 as against 35.

The Company/ Ministry admitted (May 2016) the audit observation and stated that efforts are being made to balance the manpower strength in future projects by optimising the manpower deployment.



d) *Auxiliary power consumption*

The norms for auxiliary power consumption<sup>1</sup> as fixed by the CERC and actual consumption for the period 2011-12 to 2015-16 by the four plants of the Company are shown below:

*(in percentage of gross generation)*

Year	TPS-I		TPS-IE		TPS-II (Stage I&II)		BTPS	
	Norm	Actual	Norm	Actual	Norm	Actual	Norm	Actual
2011-12	12.00	11.97	9.50	7.65	10.00	9.64	11.50	11.72
2012-13	12.00	11.55	9.50	8.56	10.00	9.66	11.50	12.68
2013-14	12.00	11.42	9.50	8.46	10.00	9.61	11.50	12.60
2014-15	12.00	12.07	8.50	8.21	10.00	9.60	11.50	13.51
2015-16	12.00	12.15	8.50	8.20	10.00	9.79	11.50	13.94

It is evident from the data that the auxiliary power consumption was above the norms in TPS-I in 2014-15 and 2015-16, even though the norms itself were fixed on the higher side as it was an outlived plant. Though BTPS was a new plant being commissioned in 2011-12, the auxiliary power consumption exceeded the norms in all the years. As CERC had fixed a higher percentage (by 1.5 per cent to 02 per cent) of auxiliary consumption in respect of BTPS compared to other plants (TPS IE and TPS II), the power station should have controlled the consumption within this extended limit. The loss absorbed by TPS-I and BTPS during 2011-12 to 2015-16 due to excess auxiliary consumption of 97.33 MUs led to excess expenditure of ₹12.72 crore as detailed below:

Unit	Year	CERC norms (per cent)	Actual (per cent)	Gross generation (MU)	Excess over CERC norms (in MU)	Energy charges adopted (₹/unit)	Excess expenditure absorbed (₹ in crore)
1	2	3	4	5	6=(4-3)x5	7	8=[6 x 7]x 10 <sup>6</sup> /10 <sup>7</sup>
TPS-I	2014-15	12.00	12.07	3631.05	2.54	2.648	0.67
	2015-16	12.00	12.15	3160.98	4.74	2.884	1.36
BTPS	2012-13	11.50	12.68	1280.85	15.11	1.039	1.57
	2013-14	11.50	12.60	1438.24	15.82	1.133	1.79
	2014-15	11.50	13.51	1380.71	27.75	1.212	3.36
	2015-16	11.50	13.94	1285.567	31.37	1.267	3.97
<b>Total</b>					<b>97.33</b>		<b>12.72</b>

The Company / Ministry accepted the audit observation and stated (May 2016) that the auxiliary consumption in BTPS would reduce with the implementation of the recommended measures to improve the performance. It further stated that the position was expected to improve from 2016-17. It mentioned that in case of TPS-I, the generation level during 2014-15 was low due to dislodgement of HP heater, extension of overhaul

<sup>1</sup> Energy consumed by a power station for operation of its equipment and common services is referred to as "Auxiliary consumption".

period on account of replacement of LP turbine journal bearing and shut down of one unit due to governing problem.

#### **3.5.4.3 Non-compliance with Public Liability Insurance Act, 1991**

As per the Public Liability Insurance Act, 1991, a person who owned, or had control over handling of any hazardous substance, should take out, before he started handling any hazardous substance, one or more insurance policies thereby he was insured against liability to give relief for death or injury to any person (other than workman) or damage to any property resulting from an accident while handling such hazardous substance. It was further provided in the Act that, every owner, apart from the amount of premium, should also pay to the insurer its contribution in Relief Fund which was established under the Act. A notification issued by Ministry of Environment and Forest (MoEF) in March 1992, required that owners handling certain chemicals including Chlorine above the threshold limit of 10 tonne, should take out such insurance policy. In July 2015, MoEF also emphasized to the Company that all the plants/isolated facilities, etc. handling hazardous chemicals may subscribe to Public Liability Policies and the same be renewed in time.

It was observed that the four plants which were reviewed in Audit, handled 29.3 tonne of Chlorine which was above the threshold limit as prescribed under the Public Liability Insurance Act. However, contrary to the provisions of the Public Liability Insurance Act, 1991, the Company neither obtained the Public Liability Policy nor made any contribution to the Relief Fund.

The Ministry stated (May 2016) that the fact that the total of three power stations put together exceed the threshold limit may not hold good as the three power stations were spread over a distance of more than 10 kms. However, initiatives would be taken to subscribe for the policy.

The reply was not acceptable as the Act did not consider distance between the plants as criteria but required every person handling hazardous substance to obtain the Public Liability Policy in case the quantity handled exceeded the specified threshold limits.

#### **Conclusion**

The Company did not achieve the norms fixed by Ministry of Coal for recovery of operational cost of mines in respect of BTSPS. Loss of generation on account of inadequate supply of lignite, non-achievement of PLF and PAF and higher SHR as against the norms was observed. Besides, the Company incurred extra expenditure on account of higher auxiliary consumption and higher Operation & Maintenance cost as against the norms. Further, contrary to the provisions of the Public Liability Insurance Act, 1991, the Company did not obtain the Public Liability Insurance policy.

**Recommendations****The Company may:**

- *initiate steps to improve the efficiency of the power stations to avoid under-utilisation of mine and consequential loss due to under-recovery.*
- *plan to utilise the available quantity of lignite to the maximum and maintain adequate stock as per the requirement of the power station to avoid loss of generation.*
- *take steps to ensure cost of generation, Plant Load Factor, Plant Availability Factor, Station Heat Rate, auxiliary consumption and operation & maintenance expenditure are kept within CERC norms.*
- *obtain Public Liability Insurance policy as per the provisions of Public Liability Insurance Act 1991.*

**Western Coalfields Limited****3.6 Non-recovery of Transportation Charges from the Customer**

**Despite a provision in the Coal Supply Agreement with Maharashtra State Power Generation Company Limited, regarding collection of transportation charges for supply of coal beyond the distance of three kilometres from the pithead to the delivery point, Western Coalfields Limited failed to recover the same suffering a loss of revenue to the tune of ₹16.62 crore during the period from 2010-11 to 2015-16.**

Western Coalfields Limited (WCL), a subsidiary of Coal India Limited (CIL) and Maharashtra State Power Generation Company Limited (MAHAGENCO) entered into a Coal Supply Agreement (CSA) in November 2009 for supply of Annual Contracted Quantity of 227.01 lakh MT coal per year from the mines of WCL. The agreement, *inter alia*, provided that where coal was transported by the seller beyond the distance of three kilometres (km) from pithead<sup>1</sup> to the delivery point, the purchaser had to pay transportation charges, as notified by CIL/seller from time to time.

Audit observed that during the period from 2010-11 to 2015-16, WCL supplied 35.22 lakh MT coal to Chandrapur Thermal Power Station of MAHAGENCO from its Padmapur Open Cast Mine (POCM). The coal was transported a distance of 3.340 km from pithead to delivery point:

- a distance of 0.400 km from pithead to stockyard through departmental means.
- a distance of 2.525 km from stockyard to Coal Handling Plant (CHP) through road transport contracted out.

<sup>1</sup> *Pithead as defined in the coal supply agreement, in case of an opencast coal mine, shall mean the exit point of coal on surface (mouth/entry of main access trench or an auxiliary access trench).*

- a distance of 0.415 km from CHP to MGR<sup>1</sup> loading point through conveyor belt for loading into the railway wagon of the customer.

Despite distance between pithead and delivery point being more than 3 km, WCL did not recover transportation charges from MAHAGENCO suffering a loss of revenue to the tune of ₹16.62 crore<sup>2</sup> during the period from 2010-11 to 2015-16.

The Management stated (August 2016) that:

- The total surface distance from pithead to POCM CHP was 2.525 km by road and the distance from POCM CHP to MGR delivery point was 0.415 km through conveyor belt. Since the total surface distance of coal transportation was less than 3 km, the surface transportation charge was not applicable.
- The pithead in open cast mine was only an entry into the deeper working of the mine and there existed continuous traffic of various departmental vehicles and other heavy earth moving machineries like dumper, dozer, truck etc. To avoid any untoward incidents on pithead site, pithead stock was separated from the access trench/entry and pithead was considered as the POCM stockyard of the mine for the sake of safety. Hence, the distance from pithead to POCM stockyard was considered as zero km.
- The length of the conveyor belt might not be considered for the calculation of surface transportation charges as the belt was a part/component of CHP for which crushing and handling charges were already claimed. Hence, recovery of other charges besides crushing and handling charges did not arise.

The Ministry endorsed (December 2016), the reply of the Management.

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

- The distance between the pithead to POCM stockyard was 0.400 km and the Management contention that the distance should be considered as zero is factually incorrect. Audit also noticed that in other projects in the Nagpur area, WCL duly considers the distance between pithead and stockyard for recovering transport charges from customers. The decision of WCL management to exempt transportation charges to MAHAGENCO was neither in line with the provisions contained in the CSA nor price notification of CIL.
- While coal could be stocked for operational convenience or safety considerations, the agreement provides that the distance from pithead to delivery point has to be considered for recovering the transport charges from the customer.
- Price notification of CIL provides separately for recovery of crushing charges which is in no way related to the length of the conveyor belt of the CHP. Thus, the

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<sup>1</sup> *Merry-Go-Round*

<sup>2</sup> *Worked out considering the surface transport rates notified by CIL; @ ₹44 per tonne for April 2010 to November 2013 and @ ₹57 per tonne for the balance period.*

length of 0.415 km conveyor belt used for transfer of crushed coal from the CHP to delivery point needs to be considered for recovery of transportation charges.

Thus, by not considering the distance from pithead to stockyard for supply of coal to MAHAGENCO, WCL failed to recover transportation charges from the customer and thereby suffered a loss of revenue to the tune of ₹16.62 crore during the period from 2010-11 to 2015-16. As no corrective action has yet been taken, the loss of revenue has continued.