

Chapter-2

Performance Audit

Chapter-2

Performance audit of Government Companies

Punjab State Civil Supplies Corporation Limited

2.1 Procurement and custom milling of paddy

Executive Summary

The Punjab State Civil Supplies Corporation Limited is one of the five State foodgrains procurement agencies entrusted with procurement of wheat and paddy in the State for the central pool. Performance audit of procurement and custom milling of paddy by the Company was taken up.

The Company could not get reimbursement of guarantee fee of ₹ 2.26 crore. Excess purchase of gunny bales resulted in blockade of ₹ 74.81 crore for at least five months and consequential loss of interest of ₹ 4.05 crore.

(Paragraphs 2.1.9 and 2.1.10)

Failure of the Company to raise transportation charges claims timely and without requisite certified documents resulted in non recovery of transportation charges of ₹ 57.10 crore from FCI as well as irrecoverable loss of interest ₹ 16.97 crore to the Company.

(Paragraph 2.1.12)

Failure of the Company to get paddy milled by millers within stipulated period resulted in loss of interest, custody and maintenance charges of ₹ 1,432.28 crore. Non conducting of physical verifications (PVs) on fortnightly basis resulted in shortage of paddy of ₹ 35.04 crore.

(Paragraphs 2.1.15 and 2.1.16)

Inadequate control on milling operations of paddy resulted in short delivery/ misappropriation of paddy/ rice amounting to ₹ 149.94 crore by the millers.

(Paragraph 2.1.17)

As on 31 March 2013, there were 780 arbitration cases involving ₹ 565.53 crore, on account of shortage of paddy/ short delivery of rice by millers since 1992-93.

(Paragraph 2.1.18)

There was no internal audit system in the Company.

(Paragraph 2.1.32)

Introduction

2.1.1 Punjab State Civil Supplies Corporation Limited (Company) was incorporated on 14 February 1974 with the objective of procurement, storage, supply and distribution of foodgrains and essential commodities in the State. The Company is one of the five¹ State foodgrains procurement agencies for central pool. It procures paddy from various *mandis* allocated by Food, Civil Supplies & Consumer Affairs Department (F&SD) of the State at minimum support price (MSP) fixed by the Government of India (GOI) for each crop year gets it milled from the authorised rice millers at specified rates under custom milling policy (CMP) framed by the State Government. The resultant rice is delivered to Food Corporation of India (FCI) for central pool at rates fixed by GOI.

The Company procured 146.40 lakh MT of paddy for ₹ 15,468.19 crore during crop years 2008-13 and delivered the rice valuing ₹ 18,896.02 crore to FCI during the same period.

Organisational set up

2.1.2 The Management of the Company is vested in a Board of Directors (BOD). As on 31 March 2013, the Board comprised of eight directors (including Chairman and Managing Director), all of whom are Government nominees. The Managing Director is the Chief Executive of the Company who is assisted by Additional Managing Director and a team of Managers² at the head office and in the field. There are 19 district offices³ headed by a District Manager for carrying out the procurement and milling operations.

Audit Objectives

2.1.3 The objectives of the performance audit were to ascertain whether:

- Company utilised sanctioned cash credit limits efficiently and economically;
- Company received full reimbursement of guarantee fees and other statutory levies imposed by the State Government;

¹ Punjab State Civil Supplies Corporation Limited (PUNSUP), Punjab State Grains Procurement Corporation Limited (PUNGRAIN), Punjab State Warehousing Corporation (PSWC), Punjab Agro Foodgrains Corporation Limited (PAFCL) and Punjab State Co-operative Supplies and Marketing Federation Limited (MARKFED).

² General Manager (Personnel and Administration), General Manager (Procurement and Storage / Commercial / Export and Supplies), General Manager (Finance and Accounts / Company Affairs / Distribution) and General Manager (Information Technology)

³ Ludhiana, Sangrur, Barnala, Patiala, Moga, Mansa, Kapurthala, Faridkot, Hoshiarpur, Ropar, Mohali, Jalandhar, Amritsar/Tarantaran, Ferozepur/Fazilka, Mukatsar, Gurdaspur / Pathankot, Fatehgarh Sahib, Nawanshehar, Bathinda

- Company executed functions relating to procurement, storage, transport and custom milling of paddy in an efficient, effective and economical manner and as per the prescribed norms;
- Company delivered rice to FCI within the stipulated / extended period fixed by GOI and raised bills within the stipulated period;
- Company had devised and made operational a reliable system of monitoring and oversight; and
- Internal Control System was effective and commensurate with the size and activities of the Company.

Scope of Audit and Methodology

2.1.4 The present performance audit conducted between January and June 2013 covers the activities of procurement and custom milling of paddy by the Company during the years 2008-09 to 2012-13. The audit examination involved scrutiny of records at the head office and five⁴ out of 19 district offices selected on the basis of Probability Proportional to Size sampling method which covered 51.61 *per cent* of the total paddy procured by the Company during 2008-13.

Audit methodology consists of :

- Scrutiny of agenda and minutes of meetings of Board of Directors, custom milling policies, instructions issued by the State Government and milling progress reports of district offices;
- Examination of records relating to delivery of rice to FCI, raising of claims and receipt of payment there against;
- Scrutiny of records relating to cash credit limits, payment of guarantee fee and other charges and their reimbursement from FCI;
- Examination of Internal Audit Reports and its follow up; and
- Issue of observations and queries and interviews with the officers and staff of the Company.

Audit Criteria

2.1.5 Sources of audit criteria are as follows:

- Instructions/guidelines issued by the GOI/State Government/FCI with regard to activities of procurement and custom milling of paddy;
- Instructions of GOI for re-imbursement of cost, incidentals and differential claims;

⁴ Patiala, Ludhiana, Moga, Gurdaspur and Sangrur

- Terms and conditions of handling and transportation contracts;
- Norms/rates for timely raising of bills for rice and other related expenses fixed by the GOI and their reimbursement from FCI;
- Terms and conditions of the cash credit limits availed by the Company; and
- Provisions in the accounting manual and internal control mechanism in the Company.

2.1.6 We explained the audit objectives to the Company during an entry conference (February 2013). Audit findings were reported to the Company and the State Government in August 2013 and discussed in an exit conference held on 30 September 2013. The exit conference was attended by the Managing Director of the Company. The Company replied to audit findings in September/October 2013. The views expressed by the Management have been considered while finalising this performance audit report. The audit findings are discussed in succeeding paragraphs:

Working Results

2.1.7 The working results of the Company for the four years ending 31 March 2012 are given below. The financial results for the year 2012-13 have not been finalised so far (October 2013).

Table 2.1.1

(Amount: ₹ in crore)

Particulars	2008-09	2009-10	2010-11	2011-12
Sales and other income	5,170.94	6,591.23	7,709.51	8,901.35
Expenditure	5,167.03	6,590.68	7,709.01	8,900.41
Profit after tax	3.91	0.55	0.50	0.94
Impact of comments of Statutory Auditor and CAG	(-)1,181.61	(-)397.05	(-)420.59	(-)1,105.17
Loss after impact of comments	(-)1,177.70	(-)396.50	(-)420.09	(-)1,104.23

The Company had accumulated losses of ₹ 448.44 crores at the close of the year 2011-12. Statutory auditors have consistently remarked that the accounts of the Company do not reflect a true and fair view of the state of affairs of the Company. The Company was not preparing its accounts on realistic basis and depicting interest, custody and maintenance charges, transportation charges etc. as recoverable without their confirmation from the concerned agencies. Above table shows that had the qualifications of the statutory auditors and CAG been considered, profits of the Company would have converted into huge losses.

Procurement of paddy

Procurement targets and achievements

2.1.8 The details of targets and achievements of procurement of paddy during 2008-13 are given below:

Table 2.1.2

Crop year	Target	Actual	Excess /(Shortfall) of the Company against the targets
	(LMT)	(LMT)	(LMT)
2008-09	25.00	27.16	2.16
2009-10	28.00	31.68	3.68
2010-11	28.00	30.07	2.07
2011-12	30.80	28.38	(-) 2.42
2012-13	34.50	29.11	(-) 5.39

The above table shows that total quantity of paddy stock procured by the Company during 2008-11 was more than the targets fixed by the State Government. However, there was shortfall in achievement of targets during 2011-13.

Guarantee Fee

2.1.9 The CC limit was availed in accordance with requirement of funds assessed on the basis of minimum support price (MSP) of paddy, cost of gunny bags, transportation charges etc. The guarantee fee is paid by the Company to the State Government at the rate of 1/8 percent of Cash Credit (CC) limit actually availed. Ministry of Consumer Affairs, Food and Public Distribution, GOI circulated rates of custom milled rice for each kharif marketing season (KMS) and allowed guarantee fee subject to maximum of 1/8 percent of MSP of quantity of paddy equivalent to rice delivered to FCI (central pool). The gap remains uncovered. The following table shows the position of CC limit sanctioned, actually availed, guarantee fee paid by the Company to the State Government and reimbursed / reimbursable by the FCI during 2008-13:

Table 2.1.3

(Amount: ₹ in crore)

Crop Year	CC limit sanctioned	CC limit availed	Guarantee fee paid on availed CC	Reimbursed/ Reimbursable from FCI
2008-09	3,165.55	3,153.40	3.94	2.98
2009-10	4,138.40	3,935.61	4.92	3.81
2010-11	3,799.88	3,790.00	4.74	3.79
2011-12	4,565.79	4,192.60	5.24	3.81
2012-13	5,489.10	4,829.92	6.04	4.47
Total			24.88	18.86

Following was noticed:

- As against the guarantee fees of ₹ 24.88 crore paid by the Company to the State Government for the crop years 2008-13, FCI reimbursed ₹ 18.86 crore only. While admitting the facts, Management stated (October 2013) that matter in this regard was taken up with GOI. However, in accordance with instructions of GOI, this was not reimbursable by FCI. To bridge this gap, the Company should have approached the State Government either to reduce its rate of guarantee fee or to restrict it to the extent of reimbursement from FCI.
- The guarantee fee is paid to the State Government at the time of procurement of paddy and availing of the CC. FCI reimburses the guarantee fee after the stock of rice are actually delivered by the Company to FCI. For the intervening period, there is no provision to compensate the Company for interest paid on CC availed on account of guarantee fee. We observed that the Company had not taken up the matter with GOI through State Government to compensate the loss of interest for the intervening period.
- During the scrutiny of five selected district offices it was noticed that in four⁵ district offices, there were instances of non/short reimbursement of guarantee fee amounting to ₹ 2.26 crore for the crop years 2008-09 to 2012-13. On being pointed out (May 2013), the district office Patiala raised bill of guarantee fee amounting to ₹ 27.95 lakh during August 2013 for crop year 2011-12 for rice delivered upto 31 March 2012 after a delay of 15 months. Non/short reimbursement and delayed raising of claim of guarantee fee resulted into loss of interest amounting to ₹ 23.49 lakh. This shows inadequacy of internal control to assure timely raising and proper follow up of the claims lodged with FCI.

Management admitted (September 2013) that reimbursement of ₹ 2.26 crore was still pending.

Excess purchase of gunny bags

2.1.10 Accounting Manual of Punjab State Civil Supplies Corporation Limited *inter alia* provided that while indenting for the supply of gunnies it may be ensured that the funds of the Company are not blocked for unnecessary period.

Department of Food, Civil Supplies and Consumer Affairs, Punjab directed (June 2010) the heads of all State Foodgrains Procuring Agencies not to effect the recovery from the millers on account of gunny bags left surplus with the millers after milling of paddy into rice and to take the custody of these surplus gunny bags and use the same during procurement for Kharif Marketing Season (KMS) 2010-11. Consequent to these instructions, the Company had balance of 0.33 lakh bales of once used gunny bags. There were no Government

⁵ Patiala (2010-12), Moga (2011-12), Gurdaspur (2008-09) and Sangrur (2009-13).

instructions for use of such once used gunny bags for KMS 2011-12. The Company without seeking any clarifications about once used gunny bales placed an indent for 1.76 lakh new gunny bales during May 2011 for KMS 2011-12 which was enhanced to 1.81 lakh bales during July 2011. However, the Company requested (July 2011) the State Government to seek clarification from the GOI regarding use of once used gunny bags for KMS 2011-12. The GOI permitted (October 2011) to use once used gunny bags for procurement of paddy during KMS 2011-12 also. Audit observed that in order to ascertain the actual requirement and to avoid excess purchase of gunny bales, the Company should have sought this clarification before placing indent for the purchase of gunny bags. The Company received 1.80 lakh gunny bales against the indent. During the KMS 2011-12, 1.62 lakh gunny bales were used for procurement of paddy (1.29 lakh new gunny bales and 0.33 lakh once used gunny bales) leaving surplus of 0.56 lakh⁶ new gunny bales valued at ₹ 126.45 crore which were used during Rabi Procurement Season 2012-13. This failure of the Company to seek the clarification regarding use of once used gunny bales before placing of indent resulted in excess purchase of new gunnies to the extent of 0.33 lakh bales resulting in blockade of ₹ 74.81 crore for at least five months (August 2011 to December 2011) till the time for placing of indent for Rabi Procurement Season in January 2012 and consequential loss of interest of ₹ 4.05 crore (calculated at the CC rate of 13 per cent per annum).

Management stated (October 2013) that it had requested (August 2010) the State Government for seeking clarification from GOI regarding use of once used gunny bags during KMS 2010-11 for which permission was received from GOI in October 2011 and by that time indented quantity of gunny bales was received. Reply of the management is not acceptable as there was no need to seek clarification for KMS 2010-11 as the State Government had already issued (June 2010) instructions in this regard.

Transportation of paddy

Non recovery of transportation charges

2.1.11 While fixing the rates of custom milled rice (CMR) for the crop years 2008-2013 by GOI, separate rates of transportation charges within eight Kms were not fixed as these were included in the milling charges. Audit scrutiny showed that for transportation of paddy from purchase centres to rice mills within eight Kms, expenditure of ₹ 51.94 crore was incurred by five selected district offices of the Company for crop years 2008-13. The Company, however, did not recover this amount from the millers at the time of settling their accounts. Resultantly, this resulted in loss of ₹ 51.94 crore to the Company.

Management stated (October 2013) that claims for transportation charges incurred on transportation of paddy within 8 Kms are included in the

⁶ Opening balance of 0.33 lakh of once used gunny bales + 0.06 lakh gunny bales + 1.80 lakh new gunny bales received against the indent – 0.01 lakh gunny bales transferred to other agencies – 1.62 lakh gunny bales used for procurement of paddy.

incidental charges pending for settlement with GOI. The reply is not acceptable as in a meeting held (July 2013) GOI reiterated its orders that expenditure for transportation of paddy from purchase centre/mandi to mills and also delivery of rice to FCI godowns upto 8 Kms was to be borne by millers as this was inbuilt in the rates itself.

Raising of claims for transportation charges without requisite documents

2.1.12 State agencies were required to produce audited certified document/vouchers which could prove that the State agencies had actually paid the transportation charges. Audit scrutiny of the records in five selected district offices showed that the Company incurred an expenditure of ₹ 57.10 crore on transportation of 20.27 lakh MTs of paddy beyond eight KMs during the crop years 2008-09 to 2012-13. Transportation charges were paid to the transporters immediately after shifting of paddy from the mandis to the millers' premises. However, the claims of transportation charges were raised (March 2009 to March 2013) with FCI after delays ranging from three to 57 months without requisite certified documents. As a result, the district offices of FCI did not release any payment there against (September 2013).

Raising claims without required certificates resulted in non recovery of transportation charges of ₹ 57.10 crore as well as irrecoverable loss of interest ₹ 16.97 crore (upto September 2013).

Management in admitting the facts assured (September 2013) for remedial action against delayed raising of claims.

Non-recovery of service tax

2.1.13 Service Tax on payment of transportation charges was imposed with effect from January 2005 in pursuance of GOI notification (December 2004). Accordingly, district offices of the Company started to pay service tax to the taxation authorities. As per this Service Tax notification, the person making payment towards freight would be liable to pay the service tax, in case the consignor or the consignee of the goods transported was Company/ Corporation established by or under the Companies Act or any law. As such service tax paid on transportation was required to be recovered from the transporters.

Scrutiny of the records of four selected districts showed that the service tax amounting to ₹ 55.48 lakh paid on the transportation of paddy during the years 2008-09 and 2009-10⁷ remained unrecovered from the transporters.

Management stated (October 2013) that matter has been referred to State Government for getting the needful done at the time of finalisation of rates of incidentals by GOI/FCI. However, district office Patiala, had recovered the service tax from the transporters.

⁷ Service tax on transportation charges was abolished after 2009-10.

Storage and Milling of Paddy

Storage of paddy in own custody

2.1.14 Milling policy of each Kharif Marketing Season (KMS) envisaged that storage of paddy in own custody by procuring agencies should be to the minimum extent. Milling of paddy was to be got done at the earliest and the responsibility for maintaining the quality and quantity of paddy stored vested with the staff concerned.

Audit scrutiny showed that Company stored during KMS 2009-10, 7,891 MT paddy valuing ₹ 10.24 crore in own custody in Faridkot, Mukatsar, Bathinda and Moga district despite having sufficient (41,929 MT) storage capacity with allotted millers. The district offices failed to get them milled till expiry of extended date (15 July 2011). The Company realised ₹ 4.43 crore on sale of 6,916 MT paddy as 975 MT paddy was found short at the time of sale. Thus due to non-milling of paddy stored in own custody, the Company had suffered a loss of ₹ 5.81 crore (₹ 4.54 crore on account of disposal of paddy and ₹ 1.27 crore on account of shortage of paddy).

Management stated (October 2013) that PAU 201 variety of paddy was sown by the farmers first time in Punjab and Government allowed to purchase this variety of paddy. Since this variety of paddy contained excessive contents of damaged and discolored grains, millers were reluctant to store it. Reply of the management is not convincing as State Government had allowed the purchase of this variety of paddy, they should have been approached to compensate the loss.

Milling of paddy

2.1.15 The paddy procured from mandis is stored in the premises of millers under joint custody. Custom Milling Policy of the State Government for each crop year and standard terms of agreement between the rice millers and the Company, *inter alia*, provided that rice millers would deliver the custom milled rice to FCI within the stipulated / extended period.

The following table gives details of the paddy procured, rice due and rice delivered during the crop years 2008-13:

Table 2.1.4

(Quantity in lakh MT and percentage in brackets)

Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	Total
Paddy procured and stored	27.16	31.68	30.07	28.38	29.11	146.40
Rice due	18.20	21.23	20.15	19.01	19.50	98.09
Rice delivered	18.12 (99.56)	20.81 (98.02)	19.72 (97.87)	18.41 (96.84)	18.70 (95.90)	95.76 (97.63)
Rice not delivered	0.08 (0.44)	0.42 (1.98)	0.43 (2.13)	0.60 (3.16)	0.80 (4.10)	2.33 (2.37)
Rate of rice per MT (₹)	16,893.50	18,798.20	19,089.50	20,675.30	23,284.20	
Value of rice not delivered (₹ in crore)	13.51	78.95	82.08	124.05	186.27	484.86
Stipulated dates ⁸	31 March 2009	31 March 2010	31 March 2011	30 June 2012	31 March 2013	
Dates of extended period ⁹ (No. of months)	31 July 2010 (16 months)	15 July 2011 (15.5 months)	30 June 2012 (15 months)	31 December 2012 (6 months)	30 September 2013 (6 months)	

The above table shows that as against 98.09 lakh MT of rice due, the millers delivered 95.76 lakh MT.

During crop years 2008-13, weighted average period of delivery of rice was 18 months for 2008-09, 17 months for 2009-10 and 2010-11, 9 months for 2011-12 and 7 months for 2012-13. Though weighted average period decreased from 18 months in 2008-09 to seven months in 2012-13, yet it was very much higher than the weighted average period of two months allowed by GOI. Further, percentage of undelivered rice increased from 0.44 *per cent* in 2008-09 to 4.10 *per cent* in 2012-13. Thus, failure of the Company to get the paddy milled within stipulated period resulted in loss of interest, custody and maintenance charges of ₹ 1,432.28 crore (interest: ₹ 1,213.73 crore and custody and maintenance charges: ₹ 218.55 crore) during crop years 2008-13 reflecting extremely poor efficiency.

Management while admitting the facts stated (October 2013) that best efforts were made to recover the due rice from the millers within the stipulated time period/extended period. Reply of the Company is not convincing. Upto KMS 2007-08, in case of failure of the millers to adhere to schedules prescribed in Custom Milling Policies and Draft Agreements with the millers, there was a provision of payment of penal interest at the rate of 12 *per cent* of the cost of short delivery of rice. When the State Government dispensed with (June 2009 and October 2010) this clause for KMS 2008-09 and 2010-11 and did not incorporate (September 2011) this clause in custom milling policy for 2011-12, the Company should have taken up the matter with the State Government

⁸ Stipulated dates as per custom milling policy of the State Government.

⁹ Reasons on the basis of which the State Government requested GOI to extend the stipulated dates of delivery of rice were not made available to Audit.

for making a provision of compensation in lieu of waiver of interest for the extended/delayed period of milling of paddy. However, the Company did not initiate any action in this regard. Further, the Company also did not initiate any action to recover the penal interest from the millers for delayed milling of paddy/delivery of rice for KMSs 2009-10 and 2012-13 in spite of a provision of penal interest in this regard in the custom milling policy of those years.

Inadequate system of physical verification and its effects

2.1.16 The paddy stored in the premises of the millers remains in the joint custody of the millers and the Company. Both the parties are responsible for maintaining the quality and quantity of the paddy stored. As per Custom Milling Policy (CMP), physical verifications (PVs) of paddy stored with the millers were required to be conducted on fortnightly basis by the officials of the Company.

Audit scrutiny showed that fortnightly PVs of the paddy/rice lying with the millers had not been conducted by the Company during crop years 2008-12. PVs were being conducted randomly on six monthly basis. However, these were also not conducted with due diligence. During special physical verification of stocks of paddy conducted during March 2012 to July 2012 in 13 rice mills, shortage of 7.21 lakh bags of paddy in 12 rice mills was noticed. But six monthly PVs conducted by the Company during February and March 2012 in respect of eight rice mills had not shown any shortage and in respect of four rice mills PVs were not conducted. The loss on account of special PV shortages worked out to ₹ 35.04 crore. However, no action was initiated for shortages against the defaulting officers/officials.

During 2012-13, the Company has started conducting PVs on fortnightly basis. In test check of records in selected district offices for the crop year 2012-13 it has, however, been observed that the Company had conducted only 47.4 per cent fortnightly PVs.

2.1.17 Audit scrutiny showed that 1.95 lakh MT of paddy of crop years 2008-09 to 2011-12 was stored with 54 millers in Patiala, Ludhiana, Gurdaspur and Sangrur districts as per details given in *Annexure-5*. The millers short delivered/misappropriated 0.62 lakh MT of rice valued at ₹ 148.63 crore during above crop years. The total amount recoverable from the millers on account of short delivered/misappropriated rice, cost of gunnies and other recoveries (after adjustment of amount deposited by millers and milling charges payable to them) worked out to ₹ 149.94 crore.

The Company failed to conduct PVs of paddy stocks on fortnightly basis in accordance with the Custom Milling Policy. While FIRs were lodged in 9 cases¹⁰, in 45 cases involving misappropriation of 0.43 lakh MT rice valuing ₹ 104.34 crore, no FIRs were filed.

The Company did not ensure timely milling of paddy and delivery of rice to FCI. No action was taken against officials for shortages noticed. Management

¹⁰ Sl. No. 1, 2, 9, 17, 20, 24, 26, 29 and 31 of *Annexure-5*

admitted the facts and stated (September 2013) that fortnightly PVs could not be conducted due to paucity of staff. Action against defaulter millers and delinquent officials/officers is being initiated.

Arbitration cases

2.1.18 As per the terms of the agreements with the millers, all disputes were to be referred to the sole arbitrator i.e. Managing Director of the Company or any other person appointed by him. Award of the arbitrator of the Company would be final and binding on both the parties. The Company, however, has not fixed any time limit for deciding these cases at the first stage of arbitration. As on 31 March 2013, the Company was pursuing 780 arbitration cases involving ₹ 565.53 crore, on account of shortage of paddy/short delivery of rice by millers since 1992-93, out of which 61 arbitration cases involving ₹ 222.24 crore pertains to the period 2008-09 to 2011-12.

Management stated (October 2013) that pending arbitration cases are being pursued by the Company for the recovery of amount from millers.

Delivery of rice to FCI

Delayed raising of sale bills of rice

2.1.19 Custom Milling Policy stated that it will be the responsibility of the miller to supply “Acceptance Note”, weight check memo and all other relevant documents to the concerned agency within seven days of delivery of rice for claiming payments from FCI, failing which the release orders for due quantity of paddy shall not be issued. There is no enabling provision in the agreements entered with the millers for recovery of interest in case dispatch documents are not submitted within seven days by the millers. On the other hand, instructions issued (May 1994) by the Company stated that the dispatch documents were required to be submitted to district office within ten days (including above mentioned 7 days) of the delivery of rice for raising of sale bills on FCI, failing which the loss of interest occurred to the Company on account of delayed submission of dispatch documents, will be recovered from Inspector-in-charge and supervisory staff including DM proportionately.

Audit scrutiny of sale bills of rice in respect of five selected district offices for the crop years 2008-09 to 2012-13, showed that the Company had not maintained the records showing the date of submission of dispatch documents by the millers and receipt of dispatch documents in district offices. Resultantly, responsibility for delays by millers or field staff could not be ascertained. The Company raised the sale bills of rice in consolidated form after delays of upto 337 days (after allowing a margin of ten days after the date of delivery of last consignment of rice) in 980 sale bills out of 2,611 sale bills reviewed. Delayed raising of sale bills has resulted in loss of interest amounting to ₹ 1.87 crore for the years 2008-09 to 2012-13. The Company had to bear avoidable extra payment of interest on CC availed on the amount locked up due to delayed raising of bills on FCI. The Company had neither identified reasons for delayed raising of bills nor made good the loss by

recovery from the defaulter officials/ millers. This shows lack of internal control.

Management while admitting the facts stated (September 2013) that system will be streamlined and the cases of delay are being investigated.

Incorrect raising of sale bills

2.1.20 FCI decided (October 2011) that till the receipt of rates of CMR for KMS 2011-12, the payment may be made to state agencies at the rate of 90 *per cent* of the rates of CMR for KMS 2010-11. GOI issued provisional rates of CMR for the KMS 2011-12 on 21 December 2011 and the Company, circulated these rates to its district offices on 30 December 2011. After receipt of rates, the district offices were required to raise bills of rice immediately as per these provisional rates to avoid loss of interest.

It was, however, noticed that district office Patiala, Moga and Ludhiana raised (January 2012 to March 2012) bills at the rate of KMS 2010-11 even after the receipt of rates of KMS 2011-12 i.e. less by ₹ 158.88 per quintal. FCI released (January 2012 to May 2012) 90 *per cent* payment for the rice delivered and withheld 10 *per cent* payment as per instruction. The district offices raised (February 2012 to April 2012) supplementary bills and received (February 2012 to May 2012) payments thereagainst from FCI as per details given below:

Table 2.1.5

(Amount: ₹ in crore)

District Office	Supplementary Bills raised (February 2012 to April 2012)			Amount received from FCI (February 2012 to May 2012)	Amount outstanding
	On account of difference of rates	On account of 10 <i>per cent</i> payment withheld	Total Amount		
Patiala	4.69	5.85	10.54	8.55	1.99
Moga	10.31	13.26	23.57	13.26	10.31
Ludhiana	2.40	2.13	4.53	4.53	Nil
Total	17.40	21.24	38.64	26.34	12.30

Raising of bills at the rates of KMS 2010-11 instead of provisional rates of KMS 2011-12 and delayed/non-release of differential amounts resulted in loss of interest of ₹ 2.00 crore (Patiala ₹ 0.40 crore, Moga ₹ 1.53 crore and Ludhiana ₹ 0.07 crore).

Management while admitting the facts assured (September 2013) that necessary instructions are being issued to the field staff to raise the sale bills correctly and timely.

In addition to the above Districts office Patiala claimed (January 2013) cost of 5,105 MT of rice at ₹ 2,016.20 per quintal instead of ₹ 2,061.32 per quintal resulting in short recovery of cost of rice to the extent of ₹ 24.18 lakh and consequential loss of interest of ₹ 1.23 lakh thereon and District office Moga

has not claimed gunny bags depreciation while claiming cost of 2.40 lakh MT rice delivered to FCI for crop years 2011-12 and 2012-13. This has resulted in non-recovery of ₹ 7.79 crore and consequential loss of interest thereon.

This shows deficiency in the internal control processes.

Management stated (October 2013) that FCI do not accept the bills until and unless these are prepared on net payment basis i.e. after depreciation of gunnies and other deductions etc. Reply of the management is not acceptable as other selected district offices were raising claims at full rate of rice.

Delay in claiming reimbursement of bonus

2.1.21 FCI reimburses the State procurement agencies the MSP, bonus and other incidentals as per the provisional/final rates conveyed by the GOI for each Kharif Marketing Season (KMS). The provisional rates of CMR for the KMS 2009-10¹¹ included incentive bonus of ₹ 74.63 and interest on bonus of ₹ 1.40 per quintal to be made on production of documentary evidence of payment thereof to the farmers.

During scrutiny of five selected district offices of the Company, it was observed that the bills for reimbursement of bonus of ₹ 75.56 crore were raised (April 2010 to December 2011) with delays ranging from 3 to 597 days for crop year 2009-2010 resulting in loss of interest of ₹ 4.56 crore. The management stated (October 2013) that there has been only procedural delay in raising of bills of bonus with FCI. Reply is not acceptable as the procedural delay observed were upto 597 days.

Short reimbursement of Value Added Tax on sale of rice from FCI

2.1.22 Punjab Government increased (April 2011) VAT on wheat and paddy to five *per cent*. But GOI while issuing the provisional rates for CMR in December 2011 and November 2012 provided for the payment of VAT maximum up to four *per cent* of MSP. During scrutiny of records of five selected district offices of the Company, it was observed that these district offices received VAT of ₹ 134.33 crore at the rate of four *per cent* of MSP from FCI instead of ₹ 171.76 crore at the rate of five *per cent* which was actually paid to State tax authorities, resulting in short reimbursement of VAT of ₹ 37.43 crore. The State Government took up (November 2012) this matter with GOI on which decision was awaited (October 2013).

Short reimbursement of cost of gunny bags

2.1.23 As per the prevailing custom milling policy/agreements entered into with the millers, the outturn ratio¹² is 67 *per cent* for raw rice. Paddy and rice are being filled in 50 kg bags. Paddy being lighter in weight and larger in volume than rice, only 35 kg paddy can be filled in a bag as against 50 kg of

¹¹ Bonus was not declared by GOI for KMS 2010-11 to 2012-13

¹² Outturn ratio: ratio that the resultant rice bears to the paddy.

rice. Resultantly, 46.9¹³ per cent gunny bags are delivered to FCI along with the rice and remaining 53.1 per cent gunny bags were with the millers for which 60 per cent (in the form of depreciation) is recoverable from the millers and 40 per cent is recoverable from FCI.

Audit noticed that for the crop years 2008-13, GOI fixed the rates of raw rice including element of depreciation on bags which represented 40 per cent of those bags which were delivered (46.9 per cent) to FCI and not those which remained (53.1 per cent) with the millers. Inclusion of depreciation in the rates of rice on less quantity of gunny bags resulted in short reimbursement of ₹ 35.04 crore during 2008-13. The State Government on behalf of the procurement agencies in the State had taken up the matter with GOI in June 2012 and July 2013 on which decision was awaited (October 2013).

While admitting the facts management stated (October 2013) that matter has been taken up with the GOI/State Government.

Excess use of gunny bags

2.1.24 The rates fixed by GOI for a quintal of rice included the cost of two gunny bags of 50 kg each. Accordingly, the Company was getting cost of two gunny bags for each quintal of rice delivered to FCI. Test check of records showed that in two district offices (Ludhiana and Ferozepur) the millers used 271.29 lakh bags for delivery of 13.51 lakh MT of rice during 2008-13 as against the required quantity of 270.25 lakh bags. Thus, the millers used 1.04 lakh gunny bags valuing ₹ 34.42 lakh in excess of requirement. The Company neither analysed the reason for excess usage of gunny bags nor recovered its cost from the millers. It resulted in financial loss of ₹ 34.42 lakh to the Company.

Management stated (October 2013) that the cost of excess gunny bags used by the millers at the time of delivery of rice to FCI is recovered/debited to millers' account. Reply is not acceptable as in Ludhiana and Ferozepur district offices, the millers account have been finalised without including the effect of excess gunny bags used.

Non-claiming of interest on the cost of gunny bags

2.1.25 While fixing the rates of CMR for the Kharif Marketing Seasons (KMS) 2010-11, 2011-12 and 2012-13, GOI allowed the cost of gunny bags at the rate of ₹ 39.07, ₹ 42.11 and ₹ 35.43 respectively. Actual landed cost of bag was more (₹ 39.67, ₹ 43.73 and ₹ 37.37) than the rates approved by GOI. While including interest on amount invested in procurement of paddy in the rates of CMR, the GOI, however, did not include the interest element on the amount invested by procuring agencies in the procurement of gunny bags utilised upto the delivery of rice to FCI which was also an element of cost and remained locked up. Since the average stock holding period of paddy as per delivery schedule given to the millers was 3.25 months for 2010-11, 5.30 months for 2011-12, 2.85 months for 2012-13, non-inclusion of interest

¹³ $35 \times (67/100) \times (1/50)$

element on the cost of gunny bags in the rates of CMR resulted in loss of ₹ 35.29 crore to the Company.

While admitting the facts management stated (October 2013) that the matter for inclusion of interest on gunnies in incidental charges has been taken up with the GOI/FCI at the level of State Government.

Non-claiming of interest on delayed payments from FCI

2.1.26 In terms of instructions issued (December 1970) by FCI and reiterated by GOI from time to time, payments for the rice supplied were to be made by FCI within 24 hours of presentation of the sale bills. F&SD also conveyed (December 2001) instructions of the GOI under which FCI was liable to pay interest at bank rate in case of delay in release of payment beyond the prescribed period.

Scrutiny of records of five selected district offices of the Company showed that the district offices received payments of sale bills from FCI after delay ranging from 1 to 331 days resulting in loss of interest of ₹ 8.10 crore for the crop years 2008-13 for which no claim was raised on FCI. It was further observed that district office Moga (2011-13) and Patiala (2012-13) has not maintained record for receipt of payments in respect of these crop years due to which interest loss could not be worked out in audit.

Management stated (September 2013) that bills for interest on delayed payments were raised with FCI at district office level but FCI straightway rejected the interest claims on the ground that there are no instructions for payment of interest on delayed payments. Managing Director assured to take up the matter at his level.

Delayed raising of supplementary bill

2.1.27 Scrutiny of records of district office Gurdaspur showed that the district office raised (July 2010 to April 2011) supplementary bills against FCI for withheld amount of ₹ 14.27 crore from the sale bills of rice for the crop year 2008-09 and 2009-2010 on account of cost of gunny bags and statutory charges after a delay of 22 to 501 days resulting into loss of interest amounting to ₹ 1.11 crore. Reason for the delayed raising of bills had not been investigated by the Management.

Management stated (October 2013) that responsibility for delayed raising of bills is being investigated.

Deductions made by FCI from sale bills of rice

2.1.28 Scrutiny of records of four district offices (Moga, Ludhiana, Gurdaspur and Sangrur) for the crop years 2008-12 showed that FCI had deducted amount of ₹ 17.84 crore from sale bills of rice (₹ 12.14 crore on account of recovery of wheat, gunny depreciation, quality cut, audit recovery, differential amount etc. and ₹ 5.70 crore without assigning any reason). The Company has

not initiated any action to recover these amounts from FCI/millers. Records regarding payments for the crop year 2012-13 were not maintained.

Management stated (October 2013) that action to recover the deducted amount has been initiated at district level.

Payments on account of beyond the rejection limit rice

2.1.29 (i) FCI issued (April 2011) a recovery notice to District Manager, PUNSUP, Moga requesting to deposit ₹ 15.02 crore against rejection of rice beyond limit (BRL) supplied by rice mills during 2004-05, pertaining to five centres of district office. FCI deducted (May 2012) ₹ 15.02 crore on this account from sale bill of rice (₹ 12.38 crore) and wheat (₹ 2.64 crore). However, FCI prepared revised claim for recovery amounting to ₹ 12.51 crore from millers. Out of this, an amount of ₹ 2.78 crore were recovered by the Company from defaulter millers and the balance is still to be recovered. A supplementary bill for the excess recovery of ₹ 2.51 crore (₹ 15.02 - ₹ 12.51) made by FCI was raised (October 2012) on FCI, the payment of which is still awaited (March 2013). This has resulted in non-recovery of ₹ 12.24 crore (₹ 9.73 crore from the millers and ₹ 2.51 crore from FCI) and consequential loss of interest thereon to the Company.

ii) Records maintained at two district offices i.e. Ludhiana and Mansa showed 2,966 MT rice delivered by 17 rice millers were not conforming to the specifications. Out of this stock, 87 MT rice was delivered against levy share by district office Ludhiana. FCI directed the millers to replace balance stock of 2,879 MT rice (Ludhiana: 681 MT and Mansa: 2,198 MT). But, the millers did not come forward to replace the stock. The district offices did not pursue the matter vigorously and failed to recover an amount of ₹ 5.29 crore from defaulter millers. This has resulted in non-recovery of ₹ 5.29 crore and consequential loss of interest thereon to the Company.

Management stated (September 2013) that notices have been issued to the rice millers for depositing the amount on account of rice not found conforming to the specifications.

Non-recovery from the millers

2.1.30 Review of the record of five selected district offices has showed that the district offices have not recovered an amount of ₹ 5.39 crore for the crop years 2008-09 to 2011-12 from 121 millers though their accounts have been finalised. Further, it was noticed that the Company has not fixed any time limit for the finalisation of millers accounts after the expiry of extended period of delivery of rice. The district offices Ludhiana and Patiala has not finalised 117¹⁴ miller accounts for the crop year 2008-09 to 2010-11 and for 2011-12 all accounts (420 number) are yet to be finalised by four¹⁵ districts though the extended delivery period of rice for the crop years 2008-09 to 2011-12 has since been expired on 31 July 2010, 15 July 2011, 30 June 2012 and 31

¹⁴ Ludhiana: 82 accounts for 2008-11 and Patiala: 35 accounts for 2010-11

¹⁵ Patiala, Ludhiana, Gurdaspur and Moga

December 2012 respectively. Non recovery of ₹ 5.39 crore, for the crop years 2008-09 to 2011-12, resulted into loss of interest of ₹ 0.82 crore to the Company.

Management stated (September 2013) that legal notices have been issued to millers and lists of defaulted millers has been sent to the concerned District Food & Supply Controllers for not allotting these rice millers for milling of paddy of KMS 2013-14. Management also assured to fix time limit for finalisation of millers' accounts after the expiry of extended period of delivery of rice.

Internal Control and Internal Audit

Internal Control

2.1.31 Internal control is a tool for efficient and effective management of the Company. The Company has not updated its Accounting Manual since 1980-81. The internal control system in Company in relation to the activities covered in the performance audit was found to be deficient because it lacked a reliable mechanism to ensure:

- Milling of paddy and delivery of rice by the millers to FCI within the stipulated period;
- Timely raising of sale bills and recovery thereof from FCI;
- Maintenance of consolidated records to show quantity of rice delivered within the stipulated period, extended period or thereafter;
- Timely physical verification of paddy stocks;
- Timely raising of differential claims;
- Raising of interest claims for delayed payments received from FCI;
- Timely finalisation of millers accounts;
- Preparation of activity wise working results; and
- Rendition of information to the Management regarding raising of sale bills against date wise rice delivered, raising of guarantee fees claims, and pending arbitration cases.

Internal Audit

2.1.32 The State Government had emphasised in July 1977 the need for a properly conceived and effectively implemented system of internal audit as it was an essential aid for effective financial management of public enterprises. However, it was noticed in Audit that there was no internal audit system in the Company. In the absence thereof, deficiencies in the activities of procurement, storage and custom milling of paddy were not being brought to the notice of Board of Directors (BOD).

Management stated (September 2013) that it is in the process of strengthening MIS system and internal control system. Internal audit system is also being introduced.

Conclusion

The performance of the Company with regard to procurement and custom milling of paddy was sub-optimal. The Company could not utilise CC limit availed for this purpose effectively, efficiently and economically as it failed to get the paddy milled and rice delivered to FCI within the stipulated period. The Company took weighted average period from 18 months in 2008-09 to 7 months for 2012-13 against permissible weighted average period of two months for delivery of rice. Consequently, it had to bear huge expenses of interest, custody and maintenance charges. Company has not fixed any time limit for deciding trade disputes in first stage of arbitration. It was pursuing 780 number of arbitration cases involving ₹ 565.53 crores, some of them pending since 1992-93. The Company failed to recover transportation charges from the millers and also from FCI as per Scheme. Physical verification of paddy stocks was not conducted at regular intervals to ensure the quantity and quality. Its failure to submit the dispatch documents, prepare the sale bills and lodge the claims with FCI within the stipulated period showed an ineffective internal control system. There was no internal audit system in the Company.

Recommendations

We recommend that:

- the Company in consultation with the State Government and FCI evolve a mechanism to ensure that the paddy gets milled and rice delivered by the millers to FCI within the stipulated period;
- the Company ensures physical verification of paddy stocks at regular intervals;
- the Company considers fixing fix time limit for deciding trade disputes in first stage of arbitration; and
- the Company may set up internal audit system in the Company at the earliest.

The matter was reported to the Government (September 2013), their replies were awaited (November 2013).

Punjab State Power Corporation Limited

2.2 Fuel management in power generating stations

Executive Summary

Punjab State Power Corporation Limited (Company) operates three coal based thermal power stations Guru Gobind Singh Super Thermal Plant (GGSSTP) at Roopnagar (1260 MW), Guru Hargobind Thermal Plant (GHTP) at Lehra Mohabbat (920 MW) and Guru Nanak Dev Thermal Plant (GNDTP) at Bathinda (450 MW).

Fuel cost varied from 75 to 85 per cent of total generation cost in different plants during 2008-13. Against linkage of 679.61 lakh MT, the Company could secure receipt of 609.34 lakh MT of coal during 2008-13. Due to poor linkage materialisation, the Company had to draw excess coal supplies over and above the ACQ from other sources and had to pay (August 2010) performance incentive of ₹ 9.14 crore on account thereof and failed to recover compensation of ₹ 115.44 crore for short delivery of coal.

(Paragraphs 2.2.7, 2.2.8.1 and 2.2.8.2)

The Company entered into contracts with washeries to get beneficiated coal. In respect of the washeries, the Company failed to recover commitment charges (₹ 13.19 crore), settle the issue of statutory levies (₹ 19.51 crore) and address the deficiency in contracts with Washeries (₹ 2.02 crore).

(Paragraphs 2.2.9.1, 2.2.9.2 and 2.2.9.4)

Inadequacy of unloading infrastructure/ facilities at the three thermal power stations resulted in avoidable payment of demurrage charges of ₹ 56.75 crore during 2008-13. No effective action was taken to recover underloading and overloading charges of ₹ 68.98 crore.

(Paragraphs 2.2.10.2 and 2.2.10.4)

Coal supply agreements were deficient regarding quality assurance - there was no provision for consideration of grade slippage at the unloading end. The actual consumption of coal was higher than the norms prescribed by PSERC. The excess consumption was valued at ₹ 426.60 crore.

(Paragraphs 2.2.11 and 2.2.12)

Deficient financial management led to non-realisation of claims (₹ 43.41 crore) and release of injudicious advances to suppliers and service providers (₹ 1.25 crore).

(Paragraphs 2.2.14.1 and 2.2.14.2)

Internal control system was found deficient – imbalances in materialisation of coal linkages; non recovery of compensation claims/ sizing/ commitment charges/ debtors etc. were noticed.

(Paragraph 2.2.15.1)

Introduction

2.2.1 Fuel management assumes importance in financial terms as it constitutes major component of the cost of the power generated. Hence, minimisation of the transit losses and consumption of coal/fuel oil as per the norms are the key drivers for effective fuel management.

As part of the power sector reforms, the Punjab State Electricity Board was unbundled with effect from 16 April 2010 into two distinct companies, the Punjab State Power Corporation Limited and the Punjab State Transmission Corporation Limited. The power generation activities of the erstwhile Board were transferred to Punjab State Power Corporation Limited (Company). As on 31 March 2013, the Company had installed capacity of 2,630 MW comprising of three coal based thermal power stations (TPSs) viz. Guru Gobind Singh Super Thermal Plant (GGSSTP) at Roopnagar (1,260 MW capacity), Guru Hargobind Thermal Plant (GHTP) at Lehra Mohabbat (920 MW capacity) and Guru Nanak Dev Thermal Plant (GNDTP) at Bathinda (450 MW capacity) in the State.

The three thermal Power Stations had incurred an expenditure of ₹ 17,175.10 crore (Coal ₹ 16,953.71 crore and oil ₹ 221.39 crore) towards fuel cost representing 81.07 per cent of total cost of generation of power (₹ 21,185.29 crore) during 2008-09 to 2012-13.

Organisational set up

2.2.2 The overall activity of generation of power is vested with Director (Generation) of the Company. The matters relating to procurement and monitoring of coal movement are dealt by Director (Generation). At field level, each thermal power station is headed by a Chief Engineer who functions under the overall control and supervision of Director (Generation) and account for the supply and consumption of fuel.

Audit objectives

2.2.3 The objectives of performance audit were to assess whether:

- planning, procurement and transportation of fuel was done economically, efficiently and effectively *excluding the formation of the joint venture company – M/s. Panem Coal Mines Limited and the contracting and supplies of coal from them;*
- the contracts with the coal liaison agent were awarded/extended timely to ensure and minimise the shortages of coal dispatched to thermal power stations;
- the quantity and quality of fuel received was inspected as per the laid down procedure and deviations were timely and adequately claimed from the supplier coal companies;

- the actual consumption of fuel was within the norms as fixed by Punjab State Electricity Regulatory Commission (PSERC);
- an effective and efficient mechanism for inventory management exists to ensure that inventory of coal and fuel oil was adequate and within prescribed limits;
- an effective and efficient financial management system exists and implemented; and
- internal control and internal audit system is commensurate with the size and activities of the Plant.

Scope of Audit and Methodology

2.2.4 The present Performance audit of "Fuel Management in power generating stations" was conducted between January and June 2013 covering the Company's activities relating to assessment of requirement, procurement excluding the contracting and supplies of coal from joint venture company – M/s. Panem Coal Mines Limited, transportation, storage and efficiency in consumption of fuel, quality assurance and financial management during the period 2008-13. The Performance audit was based on examination of records at the Company's Head Office and all the three thermal power stations of Company.

Audit followed the following mix of methodologies:

- Examination of agenda and minutes of Board of Directors meetings;
- Allotment of contracts/appointment of various agents, achievement of targets/norms fixed;
- Records relating to procurement, receipt and consumption of fuel, plant outage reports, fuel cost reports, coal and fuel efficiency reports; and
- Issue of audit queries and interaction with the Management.

Audit Criteria

2.2.5 Sources of audit criteria are as follows:

- Guidelines issued by the Central Electricity Authority (CEA)/Electricity Act 2003/ PSERC;
- Norms of Consumption of Coal as fixed by PSERC;
- Provisions contained in agreements with coal companies, Railways, transport agencies and other contractors/agents; and
- Norms for holding of inventory of coal and fuel oil.

2.2.6 We explained the audit objectives and criteria to the Company during an entry conference (March 2013) which was attended by the Director (Generation) along with the Chief Engineers of all the three thermal power plants. Subsequently, the audit findings were reported to the Management and the State Government (September 2013) and discussed in exit conference held on 3 December 2013. The Company replied to audit findings (November 2013). The views expressed by Management have been considered while finalising this performance audit report. The audit findings are discussed in the succeeding paragraphs:

Fuel Management

2.2.7 Fuel cost is the major component of the total cost of the power generation. Optimisation of the fuel cost through effective and efficient planning for procurement and consumption is therefore necessary to generate electricity at economical rates. The plant-wise cost of fuel and total generation cost for the period 2008-13 is given below:

Table 2.2.1

(₹ in crore)

Particulars	GGSSTP	GHTP	GNDTP	TOTAL
Cost of Coal	9,304.88	5,503.34	2,145.49	16,953.71
Cost of Oil	87.54	49.54	84.31	221.39
Total fuel cost	9,392.42	5,552.88	2,229.80	17,175.10
Total generation cost	11,034.67	7,176.50	2,974.12	21,185.29
Percentage of fuel cost to generation cost	85	77	75	81

Above table showed that fuel cost varied from 75 to 85 *per cent* of total generation cost in different plants during the period covered under review.

Power generated, fixed and variable cost per unit of kWh of TPSs of the Company during 2008-13 are given below:

Table 2.2.2

Name of Thermal Plant	Description	2008-09	2009-10	2010-11	2011-12	2012-13
GGSSTP	Generation of power (Million units)	9,610.67	10,056.35	9,717.85	9,563.96	9,166.57
	Fixed cost per unit (paisa)	26.86	26.89	29.76	34.78	36.53
	Variable cost per unit (paisa)	175.43	187.63	193.26	202.63	235.68
	Total cost per unit (paisa)	202.29	214.52	223.02	237.41	272.21
GHTP	Generation of power (Million units)	4,441.92	6,042.26	6,833.09	7,621.26	7,215.02
	Fixed cost per unit (paisa)	40.57	34.60	50.88	46.27	58.46
	Variable cost per unit (paisa)	155.34	160.85	171.48	179.43	202.89
	Total cost per unit (paisa)	195.91	195.45	222.36	225.70	261.35

GNDTP	Generation of power (Million units)	2,845.59	2,723.35	1,775.21	1,883.01	1,486.62
	Fixed cost per unit (paisa)	36.38	42.77	84.47	90.31	98.62
	Variable cost per unit (paisa)	190.72	200.90	223.06	228.77	249.50
	Total cost per unit (paisa)	227.10	243.67	307.53	319.08	348.12
Total PSPCL	Generation of power (Million units)	16,898.18	18,821.96	18,326.15	19,068.23	17,868.21
	Fixed cost per unit (paisa)	32.07	31.67	42.94	44.86	50.55
	Variable cost per unit (paisa)	172.73	180.95	188.03	195.94	223.59
	Total cost per unit (paisa)	204.80	212.62	230.97	240.80	274.14

The variable costs for the Company are the cost of coal, cost of oil and other fuel related expenses, cost of water, lubricants, consumables, etc. The variable cost per unit for the Company across the three power plants was varying. It was 175.43 paise per unit in 2008-09 at GGSSTP, 155.34 paise at GHTP and 190.72 paise at GNDTP. It rose to 235.68 paise per unit at GGSSTP, 202.89 paise at GHTP and 249.50 paise at GNDTP in 2012-13. The overall variable cost for the Company rose from 172.73 paise to 223.59 paise during the period 2008-13. The rise was 8 paise per unit for the first four years and was 28 paise in the fifth year. The rise in the variable cost was mainly due to increase in cost of coal. The variable cost per unit was always lowest at GHTP in comparison to the other two plants. There was scope for improvement in this area by effective monitoring of various elements of fuel cost.

Operating parameters i.e. availability factor, plant load factor (PLF) and heat rate in respect of TPSs of the Company during 2008-13 are given below:

Table 2.2.3

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
1	Availability Factor (percentage)¹					
	GNDTP Bathinda	89.20	83.90	58.60	91.53	86.42
	GGSSTP Roopnagar	89.90	92.09	92.70	91.36	92.12
	GHTP Lehra Mohabbat-I	96.90	94.50	90.30	96.55	93.84
	GHTP Lehra Mohabbat-II	92.20	98.28	86.20		
2	Plant Load Factor (percentage)²					
	GNDTP Bathinda	73.80	70.70	46.06	82.21	65.83
	GGSSTP Roopnagar	87.10	91.11	88.04	86.41	83.05
	GHTP Lehra Mohabbat-I	96.00	95.30	86.87	94.31	89.53
	GHTP Lehra Mohabbat-II	90.80	98.03	83.04		

1 Plant availability means the ratio of actual hours of operation of the TPS to the maximum possible hours available during a certain period.

2. Plant Load factor refers to the ratio between the actual generation and the maximum possible generation at installed capacity.

3	Heat rate prescribed by PSERC (kCal /kWh)³					
	GNDTP Bathinda	2,925.00	2,912.50	2,912.50	2,912.50	2,825.00
	GGSTP Roopnagar	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
	GHTP Lehra Mohabbat	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
4	Actual heat rate (kCal /kWh)					
	GNDTP Bathinda	3,152.40	3,055.20	2,963.62	2,914.47	2,810.64
	GGSTP Roopnagar	2,682.00	2,645.00	2,566.00	2,564.00	2,540.00
	GHTP Lehra Mohabbat	2,459.00	2,421.00	2,417.00	2,402.00	2,324.00
5	Excess heat rate (kCal /kWh) (4-3)					
	GNDTP Bathinda	227.40	142.70	51.12	1.97	--
	GGSTP Roopnagar	182	145	66	64	40
	GHTP Lehra Mohabbat	--	--	--	--	--
6	Fuel cost per kWh (paisa)					
	GGSTP	172.38	183.01	190.49	199.83	232.70
	GHTP	150.71	157.45	168.65	176.78	198.53
	GNDTP	184.20	195.82	217.82	225.52	242.85

An inter-comparison between the TPSs of the Company showed that fuel cost per unit of GHTP was lowest whereas fuel cost per kWh of GNDTP was highest followed by GGSTP. Audit observed that fuel cost per unit at GNDTP was higher mainly due to lower plant load factor and excessive heat rate. It was further observed that even after the Renovation and Modernisation (R&M) of Stage-I (Unit-I & Unit-II) of GNDTP, completed in May 2007, the envisaged norms of performance were not realised. Heat rate in case of GGSTP was also in excess of the norms.

Procurement of coal

Coal arrangement

2.2.8 Upto March 2009 the Company was working out its coal requirements on the basis of targets of generation fixed by CEA, maximum possible generation on the basis of PLF of TPSs, overall specific coal consumption (kg/kWh) for the TPSs and past coal consumption trends. The Company conveyed the coal requirement so assessed to CEA for its recommendation on the requirement of coal to Ministry of Coal for consideration in Standing Linkage Committee (SLC) of the Ministry of Energy (MOE), Government of India (GOI) to decide the source and quantity of coal to be supplied to TPSs on quarterly basis. On the basis of linkage source approved by SLC, the erstwhile Punjab State Electricity Board (hereinafter referred to as a Company) entered into Fuel Supply Agreements (FSAs) with subsidiaries of Coal India Limited (CIL) in January 1999. These agreements were valid upto March 2003. After March 2003, no FSAs was renewed due to lack of consensus among coal companies, CEA and power generation utilities on the issues of financial bearing clauses viz. compensation for stones, penalty due to overloading/underloading, payment for coal below grade "G" and payment terms etc. Even though these agreements had expired, but coal was being

3 Heat rate means the heat energy input in kCal required to generate one kWh of electrical energy in a thermal generating station.

supplied upto March 2009 in spirit of these agreements. Consequently, lot of disputes arose during April 2003 to March 2009 which were ultimately settled through a package deal. The practice of coal supplies based upon the quarterly allocation of coal by the SLC was discontinued and with effect from April 2009, coal supply to TPSs of the Company was started on annual contracted quantity (ACQ) basis. Based upon past coal consumption trend of TPSs of the Company, CEA assessed their annual requirement at 13.6 million tonnes. As per coal matrix finalised by CIL in consultation with Ministry of Power (MOP) & Ministry of Coal and CEA, the Company's TPSs had been allocated only 6.6 million tonnes of ACQ from CIL subsidiaries. Remaining seven million tonnes requirement was to be met from captive coal mine of the Company at Pachwara.

The Company executed Coal Supply Agreements⁴ (CSAs) with CIL subsidiaries, M/s. Bharat Coking Coal Limited (BCCL) (August 2009) for ACQ of 10 lakh MT, M/s. South Eastern Coalfields Limited (SECL) (March 2010) for ACQ of 10.05 lakh MT of coal to GGSSTP, Roopnagar and with M/s. Central Coalfields Limited (CCL) (September 2009) for ACQ of 45.95 lakh MT supply of coal to all the three thermal plants (GGSSTP: 21.50 lakh MT, GHTP: 13.50 lakh MT and GNDTP: 10.95 lakh MT). These agreements were effective from April 2009 for 20 years.

Linkage materialisation

2.2.8.1 For optimum materialisation of monthly scheduled quantity (MSQ) from CIL subsidiaries to the TPSs and minimisation of transit losses, the Company had been availing of the services of a liaison agent firm, M/s Karam Chand Thapar & Brothers Limited, New Delhi which was appointed (December 2005) after inviting tenders and entering into formal agreements from time to time. Remuneration was payable for materialisation of linkages of more than 90 *per cent*, while penalty was recoverable for failure to get linkage below 90 *per cent* of the scheduled quantity. The position of source wise coal linkages and actual coal received in respect of TPSs of the Company during the 2008-13 is given in **Annexure 6**. Scrutiny of the **Annexure** showed that receipt of coal was lower than the linkage quantity in all the years (except for GGSSTP in 2009-10 and 2011-12) and percentage of linkage materialisation decreased from 83.44 (2008-09) to 81.08 (2012-13). Against linkage of 679.61 lakh MT, the Company could only secure receipt of 609.34 lakh MT of coal which constituted 89.66 *per cent* of allotted linkage during the period under review. Linkage materialisation ranged between 90.90 to 126.99 *per cent*, 69.15 to 86.89 *per cent* and 48.86 to 91.95 *per cent* in case of GGSSTP, GHTP and GNDTP respectively.

Despite entrusting the work of ensuring adequate linkage of coal to a liaison agent and prescribing incentives for improving materialisation of linkage beyond 90 *per cent*, actual receipt of coal was below the linkage and the Company did not effectively address the lower materialisation of linkage with effective follow up with Railways, Ministry of Coal and liaison agent etc. The

4 Fuel Supply agreements have now been termed as Coal Supply Agreements

Company imposed and recovered penalty of ₹ 2.48 crore on liaison agent during 2008-13 for non-fulfillment of terms of contract.

Management while admitting the facts stated (November 2013) that linkage could not be materialised fully due to law and order problems in mining areas and production constraints with CCL.

The effects of poor linkage materialisation are discussed below:

Non recovery of compensation for short delivery of coal

2.2.8.2 As per clause 3.6 of CSAs, if for a year, the level of delivery by the seller or level of lifting by the purchaser falls below ACQ of the year, the defaulting party was liable to pay compensation as per the following rates:

Table 2.2.4

Level of delivery/ level of lifting of coal in a year	Rate of compensation
Less than 100 <i>per cent</i> but upto 90 <i>per cent</i> of ACQ	Nil
Below 90 <i>per cent</i> but upto 85 <i>per cent</i> of ACQ	10 <i>per cent</i>
Below 85 <i>per cent</i> but upto 80 <i>per cent</i> of ACQ	20 <i>per cent</i>
Below 80 <i>per cent</i> of ACQ	40 <i>per cent</i>

Further as per clause 3.12 of CSAs, if the seller delivers coal to the purchaser in excess of 90 *per cent* of the ACQ in a particular year (of course, with mutual consent) the purchaser shall pay the seller performance incentive at specified rates.

CCL supplied coal less than ACQ and the linkage materialisation ranged between 33.03 and 84.33 *per cent*, 40.99 and 79.17 *per cent* and 18.88 and 97.34 *per cent* in case of GGSSTP, GHTP and GNDTP, respectively during 2009-13. Consequently, an amount of ₹ 103.72 crore became recoverable from CCL by the Company. CCL, however, did not accept the claims for compensation mainly on the ground of non supply of rakes by the Railways. Railways, however, informed that lesser placement of rakes was due to inadequacy of coal stock with CCL at the sidings due to which loading of rakes took more time leading to delay in subsequent placement of rake as such rakes could not be dispatched proportionate to the ACQ. The issue had not yet been resolved so far (October 2013). The Company may consider to approach the Standing Mechanism Committee set up to consider the inter PSU issues/claims early.

During 2010-11 and 2011-12, SECL and BCCL had supplied less quantity of coal than ACQ of the respective year and the linkage materialisation was 65.49 and 40.97 *per cent* (SECL) and 71.14 to 88.78 *per cent* (BCCL). Consequently, an amount of ₹ 11.72 crore was recoverable from SECL and BCCL. However, the Company has not initiated any effective action to recover the compensation from SECL and BCCL on account of short linkage materialisation.

Audit observed that due to poor linkage materialisation by CCL, GGSSTP had to draw excess coal supplies over and above the ACQ from BCCL during

2009-10 and had to pay (August 2010) performance incentive of ₹ 9.14 crore on account thereof.

Management while admitting the fact stated (November 2013) that the matter has been taken up with CIL subsidiaries through reconciliation statement and a Committee of Chief Engineers of TPSs, Financial Advisor and OSD/Coal Management has been constituted by the Company to resolve the outstanding disputed issues. Further developments were awaited.

Loss due to non execution of agreement

2.2.8.3 The Company executed (January 1999) Fuel Supply Agreements (FSAs) valid upto March 2003 with CCL (Subsidiary of CIL) for supply of coal to TPSs of the Company. As per clause 3.2.0 (Quality) of FSAs, no lumpy coal i.e. oversized coal falling within 200-250 mm was to be supplied. However, the Company had not executed any agreement with coal companies from April 2003 to March 2009.

Audit noticed that GNDTP received the raw coal of size more than 200-250 mm during the year 2008-09 against which GNDTP had paid sizing charges of ₹ 1.11 crore to CCL. In the absence of any FSA, GNDTP could not recover these sizing charges from CCL.

Management while admitting the facts stated (November 2013) that due to non availability of FSA, the sizing charges claims had to be withdrawn in the comprehensive package deal in a bargain to get the claims of stone and penalty on overloading settled from CCL. However, fact remained that the Company could not recover sizing charges of ₹ 1.11 crore in absence of any fuel supply agreement.

Procurement of beneficiated (washed) coal

2.2.9 The process of washing raw coal of inferior quality at washery in order to remove coal dust, stones and shells and cutting the coal into proper size is called beneficiation.

As per the guidelines (September 1997) of the Ministry of Environment and Forest (MOEF), GOI, the TPSs which were situated at distance of more than 1,000 Kms from supply sources (i.e. Pit Heads), it was mandatory for them to use coal with ash contents less than 34 per cent.

In case of coal received from CIL sources with ash content more than 34 per cent, the Company decided to get the coal washed and entered into contacts with washeries to get the beneficiated (washed) coal. For E, F and G grade coal with ash content more than 34 per cent supplied by CCL from their coal mines of North Karanpura area in Jharkhand, the Company entered (August 2002) into a contract with M/s. Monnet Daniels Coal Washerries Private Limited (Monnet) for setting up a washery of capacity of 3.5 million tons per annum on Build-Own-Operate basis. The Company also placed work orders (December 2004, March 2008 and March 2011) on M/s. Aryan Coal Beneficiations Private Limited (Aryan) for beneficiation (washing) of 'F'

grade raw coal with ash content more than 34 *per cent* supplied by SECL from their Dipika/Gevera coal mines of Korba coalfields. These work orders were initially for one year, however, extendable upto three years. Irregularities noticed in the agreement/work orders with washeries are discussed in succeeding paragraphs:

Non recovery of commitment charges

2.2.9.1 Monnet started its operations from October 2009. As per CSA, CCL was to supply raw coal to Monnet through road mode on behalf of the Company for beneficiation (washing) thereof. As per agreement with Monnet, it was liable to pay commitment charges to the Company at the rates prescribed in the agreement if they failed to lift/receive/transport raw coal from CCL or load the beneficiated coal at least upto 80 *per cent* of the monthly scheduled quantity (MSQ)/annual contracted quantity (ACQ) .

Audit noticed that Monnet started lifting the raw coal from October 2009, however, it failed to lift the quantity as per MSQ/ACQ as materialisation of ACQ ranged between 57 to 65 *per cent* during the years 2009-12 and an amount of ₹ 34.79 crore become recoverable on account of commitment charges, shortages etc. as on March 2012. However after considering a sum of ₹ 21.60 crore payable to M/s Monnet on account of beneficiation charges net amount recoverable worked out to ₹ 13.19 crore as detailed below:

Table 2.2.5

(₹ in crore)

Year	Beneficiation charges payable	Amount recoverable on account of commitment charges, shortages etc.	Net amount recoverable
2009-10	1.48	4.00	2.52
2010-11	9.81	16.83	7.02
2011-12	10.31	13.96	3.65
TOTAL	21.60	34.79	13.19

The Company had not initiated any action to recover accumulated amount of ₹ 13.19 crore from Monnet so far (October 2013). The Company has not made any payment towards beneficiation charges since start of the washery because the charges payable were less than amount recoverable. The Company replied (October/November 2013) that due to non conductance of Performance Guarantee (PG) Test of the washery, final decision on the payments/recoveries including commitment charges could not taken so far and the amount was not shown as recoverable in the accounts. These would be worked out and recoveries affected only after the conductance of PG Test. The fact remains that due to failure of the Company to conduct PG Test, ₹ 13.19 crore could not be recovered from Monnet so far (October 2013).

Levy of value added tax instead of central sales tax on sale of coal

2.2.9.2 As per agreement, the Company was to make available the raw coal from CCL to Monnet, who was responsible for lifting of raw coal and loading the beneficiated coal into railway wagons for supply to Company's TPSs. Coal

bills were being raised by CCL on Company because the Company was the purchaser of coal and not Monnet (the washery).

When the sale of coal was an interstate transaction, central sales tax (CST) was payable. CCL was, however charging value added tax (VAT) on coal supplied to Monnet for beneficiation on plea that since the washery rejects from Monnet remained in Jharkhand, sale of coal could not be considered as inter state transaction and hence VAT was payable. Consequently, the Company had to bear additional burden of ₹ 19.51 crore on account of payment of VAT instead of CST during 2009-13 as detailed below:

Table 2.2.6

(₹ in crore)

Year	Quantity of coal lifted by Monnet (Lakh MT)	Total cost of coal including VAT	Rate of VAT (per cent)	VAT paid	CST due at the rate of 2 per cent	Excess payment of VAT
2009-10	6.36	62.64	4	2.41	1.21	1.20
2010-11	20.77	214.16	4	8.24	4.12	4.12
1 April 2011 to 15 May 2011	1.90	20.59	4	0.79	0.40	0.39
16 May 2011 to 31 March 2012	20.98	243.11	5	11.58	4.63	6.95
2012-13	21.54	239.54	5	11.41	4.56	6.85
Total						19.51

It was noticed that as per Environmental clearance requirements (October 2008), Monnet was to use washery rejects for consumption in its thermal power plant at Raigarh in Chhattisgarh. However, the Committees constituted (October 2012 and July 2013) by the Company during their visit to coal washery observed (October 2012 and August 2013) that rejects were being collected in bunker. Ministry of Coal, GOI allowed (October 2013) Monnet to dispose off the rejects from their washery as per the conditions for Environmental clearance. From the above it could be inferred that Monnet could not dispose off the rejects pending permission from MOC. As the washed coal was transferred to the Company and washery rejects were not disposed off within Jharkhand State and were to be used for consumption in thermal power plant of Monnet at Raigarh in Chhattisgarh, the whole process was an interstate transaction. Hence CST should have been charged instead of VAT. However, the issue has not been resolved so far (October 2013).

Management replied (November 2013) that sincere efforts have been made in this regard. The Company had taken up the matter with Commissioner of Commercial Taxes, Jharkhand, and Ranchi to seek an authoritative clarification in this regard. In spite of repeated requests in March, August and November 2011, however, no reply was received. The plea of the Company was not convincing as the Company was not following up the matter since November 2011. In view of huge financial implications involved, the Company may like to follow up the matter with Commercial Tax Department Jharkhand for a final decision in this regard through Government of Punjab.

Defective agreement

2.2.9.3 As per work order placed (March 2008) on M/s Aryan (washery) having coal beneficiation plant at Dipika of Korba coalfields, the beneficiation charges were payable at the rate of ₹ 128 per MT which were firm for first year of the work order. In case of extension in the period of work order after one year, the beneficiation charges were to be revised on annual basis according to all India Wholesale and Consumer Price Index prevailing during the month of January of that year. Ministry of Coal, GOI allowed (January 2000) the washery for disposal of rejects from its coal beneficiation plant. As per Work Order, a rebate (credit) for rejects from the washery at the rate of ₹ 15/- per MT of raw coal was to be obtained from the washery by the Company.

The Company extended (February 2009) the period of work order for one year i.e. from 25 February 2009 to 24 February 2010 at beneficiation charges of ₹ 135.68 per MT and subsequently (February 2010) for another one year i.e. from 25 February 2010 to 24 February 2011 at beneficiation charges of ₹ 151.96 per MT.

Audit observed that though Company at the time of extension of Work Order, increased the rates of beneficiation charges but did not consider the desirability to increase the rates of credit for washery rejects even when the rates of F grade coal supplied to the washery for beneficiation increased by more than 10.5 *per cent* in 2009-10 as compared to the rates in 2008-09 i.e. at the time of allotment of work order. The Company, though, taking notice of the aberration carried out remedial action in the contracts entered into after March 2011.

Avoidable financial loss

2.2.9.4 As per clause 8.2.2 (Sizing/ crushing charges) of CSA entered into with SECL, if the coal was crushed by mechanical means for limiting the top size to 250 mm or any other lower size by SECL, Company was to pay sizing/crushing charges as applicable and notified by CIL from time to time. As per the price notification (October 2009) of CIL, sizing charges were payable at the rate of ₹ 39, ₹ 61 and ₹ 77 per tonne for the coal sized upto 200-250 mm, 100 mm and 50 mm, respectively.

M/s Aryan, the washery was to lift the raw coal by road mode from SECL of the size varying from 100 mm to 250 mm as per the availability of coal at the mine. The washery was to size the coal to 50 mm and wash/beneficiate the coal irrespective of the size of raw coal lifted from SECL at fixed rate of beneficiation charges.

It was noticed that SECL was supplying the raw coal of size 250 mm to the washery and charging the sizing charges of ₹ 39 per MT. However, due to the change in technology from August 2011, SECL started producing and supplying the raw coal of size 100 mm to the washery. For this supply of coal, SECL was charging sizing charges at the rate of ₹ 61 per MT i.e. ₹ 22 more than the sizing charges of coal sized 250 mm. SECL supplied 9.20 lakh MT

of raw coal (100 mm size) to washery during the period from August 2011 to March 2013.

Audit observed that the Company, however, did not explore the desirability of issuing an amendment in the work order placed on the washery for reduction in beneficiation charges in proportion to the size of the raw coal lifted from SECL which resulted into avoidable financial loss of ₹ 2.02 crore and extended undue benefit to washery due to extra sizing charges paid to SECL on account of lifting of 100 mm sized coal.

Management assured in exit conference that audit recommendations will be factored into the new tender which will be applicable from February 2014.

Transportation of fuel

2.2.10 The coal from different collieries of coal companies is transported through railway wagons. The rate of freight is determined by the Railways. Freight is a major component of cost of coal to the Company. The transportation of coal through Railways includes the following risks:

- transit losses/shortages due to pilferages and theft which is direct loss to the Company as neither coal company nor Railways reimburse the transit loss.
- incidence of overloading charges, under-loading charges and blockage of funds due to incidence of claims on this account.
- payment of demurrage if the wagons are not unloaded within prescribed time limit.

Plant wise and year wise percentage of freight to total cost of coal and total cost of generation is given in *Annexure 7*. Scrutiny of the *Annexure* showed that the percentage of freight cost to total coal cost ranged between 51.70 and 76.60 *per cent* during the period under review. Further, the percentage of freight cost to total cost of generation ranged between 37.82 and 59.38 *per cent*.

Transit loss of coal

2.2.10.1 Transit loss of coal represents difference between the billed quantity and actual quantity of coal received. Coal is transported by Railways at Company's risk and neither the coal companies nor the Railways reimburse the transit loss. Therefore, strict control on the transit loss is essential.

PSERC, while approving Tariff order for the years 2008-09 to 2011-12, allowed transit loss of coal at 2 *per cent* for all the three thermal stations of the Company after accepting its contention that its thermal stations are located far away from the coal mines. The PSERC capped the transit loss at 1.5 *per cent* for the year 2012-13.

Audit observed that overall transit losses were within the norms prescribed by PSERC. However, in case of coal supply from SECL at GGSSTP, transit losses were more than the PSERC norms and ranged between 2.64 and 9.56 *per cent* during 2008-12 resulting into loss of 58,504.21 MT of coal costing ₹ 14.99 crore. GGSSTP did not analyse the reasons for the higher transit losses in the case of supply from SECL and initiate any remedial measures.

Management stated (November 2013) that by the concerted efforts of GGSSTP, SECL has stopped supplying coal from collieries having higher transit shortages and now the transit loss in respect of SECL has reduced to 1.05 *per cent* during 2012-13. However, the fact remained that the Company suffered loss of ₹ 14.99 crore due to excessive transit losses during 2008-12.

Payment of demurrage charges to Railways

2.2.10.2 Railways allowed a free time of seven hours from December 2005 onwards for unloading of coal rakes. If the rake is detained beyond free time, Railways levy demurrage charges and can waive these on appeal of the Company. CEA observed (October 2008) that unloading facilities at three TPSs were inadequate. PSERC in its Fuel Audit report of Company's Thermal Generating Stations pointed out (August 2012) that in all the three TPSs wagon positioning equipment (inhaul-outhaul beetle chargers or side arm chargers) were either not present or in non-working condition and the shunter was used for the same and observed that the only solution for reduction of demurrages was to improve unloading infrastructure. PSERC had also observed that the design of wagon tippers may be reviewed for upgradation to present day tippers.

Audit noticed that during the year 2008-09 to 2012-13, there was delay in clearing of coal rakes within the free time by the thermal plants of Company which resulted in payment of demurrage charges of ₹ 56.75 crore though it has exhibited a marked declining trend as detailed below:

Table 2.2.7

(₹ in crore)

Year	Demurrage charges levied by Railways	Demurrage charges waived	Demurrage paid	Percentage of demurrage charges waived
2008-09	23.06	1.38	21.68	5.99
2009-10	25.35	1.29	24.06	5.09
2010-11	6.43	1.16	5.27	18.04
2011-12	4.43	0.89	3.54	20.09
2012-13	2.55	0.35	2.20	13.73
TOTAL	61.82	5.07	56.75	8.20

Management admitted (November 2013) and informed that during fuel audit conducted at GGSSTP by Central Power Research Institute (CPRI), suggestions had been made to improve unloading infrastructure and a committee has been constituted to study these suggestions and action will be taken on techno economically feasible suggestions. At GHTP, side arm charger of wagon tippler has been made functional and the demurrage has reduced considerably. In case of GNDTP, case studies for R&M of coal

handling plant have been conducted from time to time but no concrete solution has emerged.

Non review of clause regarding penalty on account of overloading charges

2.2.10.3 As per Article 3.6 of the agreement entered into by the Company with Monnet, the contractor was responsible for transportation and loading of the beneficiated coal into railway wagons and ensuring the weights within the permissible limits of Indian Railways. Penalties on account of overloading of rakes of coal were to be shared between the Company and Monnet in the ratio of 50:50.

Monnet started supplying the beneficiated coal to Company with effect from October 2009. An amount of ₹ 2.58 crore was recoverable from Monnet on account of penalty on overloading of railway wagons consigned to Company's TPSs during the period October 2009 to March 2012. As per terms and conditions of the agreement, the Company had to bear the burden of penalty to the extent of ₹1.29 crore. PSERC in its Report on Fuel Audit of Thermal Generating Stations of the Company had recommended (August 2012) to review the clause so as to bring penalty on overloading fully into the scope of Monnet, however, the Company has not initiated any action in this regard (October 2013).

Management replied (November 2013) that since CIL subsidiaries were sharing penalty on account of overloading on 50:50 basis with washeries, the same provision was quoted by M/s Monnet and there was no provision in the agreement for review of this clause.

The reply of the Management is not acceptable as loading of coal was entirely in the scope of washery and the overloading charges should have been borne by the washery.

Non- recovery of underloading charges

2.2.10.4 As per clause 10.2 of the CSAs, idle freight for underloading below the prescribed carrying capacity was to be borne by the seller. As per Clause 10.3, idle freight from under loading of wagons was to be adjusted in the bills. The position of underloading charges recoverable from various coal companies by the TPSs during the period covered under review is given below:

Table 2.2.8

Year	Name of Plant	Name of coal company	Claim lodged		Claim accepted (₹ in crore)	Balance recoverable (₹ in crore)
			Quantity (MT)	Amount (₹ in crore)		
2008-09	GGSSSTP	BCCL	74,137.26	9.50	-	9.50
		CCL	15,554.18	1.91	-	1.91
		SECL	30,052.49	3.62	-	3.62
	Total		1,19,743.93	15.03		15.03
	GHTP	CCL	-	0.19	0.19	-
	GNDTP	CCL	0	0	0	0
	G.Total		1,19,743.93	15.22	0.19	15.03
2009-10	GGSSSTP	BCCL	86,323.59	11.56	-	11.56
		CCL	19,073.32	2.53	-	2.53
		SECL	20,675.52	2.54	-	2.54
	Total		1,26,072.43	16.63		16.63
	GHTP	CCL	14,758.44	2.13	-	2.13
	GNDTP	CCL	27,088.17	1.91	-	1.91
	G.Total		1,67,919.04	20.67		20.67
2010-11	GGSSSTP	BCCL	28,044.31	3.78	-	3.78
		CCL	19,344.95	2.59	-	2.59
		SECL	14,806.05	1.86	-	1.86
	Total		62,195.31	8.23		8.23
	GHTP	CCL	9,328.90	1.34	-	1.34
	GNDTP	CCL	9,856.38	0.99	-	0.99
	G.Total		81,380.59	10.56		10.56
2011-12	GGSSSTP	BCCL	40,114.40	5.93	-	5.93
		CCL	11,103.74	1.59	-	1.59
		SECL	7,564.99	1.04	-	1.04
	Total		58,783.13	8.56		8.56
	GHTP	CCL	3,787.16	0.60	-	0.60
	GNDTP	CCL	5,675.32	0.45	-	0.45
	G.Total		68,245.61	9.61		9.61
2012-13	GGSSSTP	BCCL	42,181.19	8.11	-	8.11
		CCL	8,371.57	1.63	-	1.63
		SECL	5,964.82	1.07	-	1.07
	Total		56,517.58	10.81		10.81
	GHTP	CCL	2,864.37	0.58	-	0.58
	GNDTP	CCL	3,356.85	0.43	-	0.43
	G.Total		6,2738.80	11.82		11.82
GRAND TOTAL			5,00,027.97	67.88	0.19	67.69

The coal companies disputed the claims of underloading charges of coal of ₹ 67.69 crore paid by all the TPSs. The coal companies stated that acceptability of claims on underloading was subject to verification and confirmation.

Management replied (November 2013) that the matter has been taken up with CIL subsidiaries during reconciliation meetings and a Committee of Chief Engineers of TPSs, Financial Advisor and OSD/Coal Management has been constituted by the Company to resolve the outstanding disputed issues. Further developments were awaited (November 2013).

Quality Assurance

Slippage in grade of coal at unloading end

2.2.11 Terms and conditions of CSAs entered into between the Company and subsidiaries of CIL provided joint sampling at the loading end. Clause 11 of the CSAs stipulated that the seller shall raise source-wise bills for the coal supplied to the purchaser on declared Grade basis and the seller was to give credit note on account of Grade slippage to the extent of difference in the base price of declared grade and analysed grade of coal. Thus, the grade slippage could be claimed by the Company only when there was difference in the declared grade of the colliery and the grade declared by joint sampling at the loading end. Company appointed (March 2010) M/s Coal Inspection Service Dhanbad for joint sampling and analysis of grade of coal at loading end so that the payment of coal could be made as per grade of coal.

It was, however, observed that there was no system of joint sampling of coal at unloading end as there was no provision for the same in the CSAs. Sampling and analysis of coal received from various coal companies was not being done at GGSSTP and GNDTP. However, GHTP started sampling of coal with effect from December 2012. 21 instances of slippage in grade of lower grade coal received at GHTP were noticed by Audit during the period from December 2012 to April 2013 involving financial implications of ₹ 2.65 crore. However, in the absence of the enabling clause for claiming financial damages for grade slippage, the Company could not raise claims.

Thus, in order to secure the financial interests of the Company, system for giving consideration to grade slippage if any, at the unloading end also needs to be put in place. The Company may also consider installing automatic samplers at all the TPSs of the Company and to insist upon the amendment of CSAs with CIL subsidiaries. The Company should consider the desirability to raise this issue in 'FSA Implementation Monitoring Committee for power sector' set up for resolving disputes arising out of CSAs between power utilities and coal companies for incorporating an amendment in the CSAs in this regard.

Management stated (November 2013) that under the new Coal Distribution Policy, the draft of existing CSAs with CIL subsidiaries, including clause of quality was finalised by Ministry Of Coal, CEA and NTPC. The power utilities were forced to accept the CSAs with CIL subsidiaries on similar pattern. Efforts are being made through CEA to impress upon CIL to accept unloading end results. With effect from April 2013, the monthly reports of grade slippage are being sent to Ministry of Power which is pursuing the matter with Ministry of Coal. Further developments were awaited (October 2013).

Consumption of coal

Excess consumption of coal

2.2.12 PSERC allowed fuel cost in their tariff orders on the basis of specific oil consumption, calorific value of oil, calorific value of coal and heat rate.

During the scrutiny of records of GGSSTP, GHTP and GNDTP, it was observed that consumption of oil was within norms prescribed by PSERC. Though consumption of coal at GHTP was within the norms prescribed by PSERC, it was, however, in excess of the norms at GGSSTP and GNDTP as detailed below:

Table 2.2.9

Sl. No.	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13	Total
1	Unit generated (Mus)						
	GNDTP	2,845.59	2,723.35	1,775.21	1,883.01	1,486.62	10,713.78
	GGSSTP	9,610.67	10,056.35	9,717.85	9,563.96	9,166.57	48,115.40
	Total	16,898.18	18,821.96	18,326.15	19,068.23	17,868.21	90,982.73
2	Coal consumption per unit as allowed by PSERC (kg/kWh)						
	GGSSTP	0.624	0.633	0.635	0.637	0.603	0.627
	GNDTP	0.688	0.712	0.728	0.726	0.693	0.708
3	Coal required as per PSERC norms (MT) (1 x 2 x 1,000)						
	GNDTP	19,57,766	19,39,025	12,92,353	13,67,065	10,30,228	75,86,437
	GGSSTP	59,97,058	63,65,670	61,70,835	60,92,243	55,27,442	3,01,53,248
	Total	79,54,824	83,04,695	74,63,188	74,59,308	65,57,670	3,77,39,685
4	Coal consumed (MT)						
	GNDTP	21,01,362	20,14,417	13,34,045	13,88,942	10,28,496	78,67,262
	GGSSTP	63,90,772	66,88,917	64,08,051	61,97,873	57,29,310	3,14,14,923
	Total	84,92,134	87,03,334	77,42,096	75,86,815	67,57,806	3,92,82,185
5	Excess consumption (MT) (4-3)						
	GNDTP	1,43,596	75,392	41,692	21,877	-	2,82,557
	GGSSTP	3,93,714	3,23,247	2,37,216	1,05,630	2,01,868	12,61,675
	Total	5,37,310	3,98,639	2,78,908	1,27,507	2,01,868	15,44,232
6	Rate per MT (₹)						
	GNDTP	2,414.50	2,588.00	2,722.00	2,891.00	3,370.00	-
	GGSSTP	2,462.00	2,762.00	2,752.00	2,998.00	3,546.44	-
7	Value of excess coal (₹ in crore) (5 x 6)						
	GNDTP	34.67	19.51	11.35	6.32	-	71.85
	GGSSTP	96.93	89.28	65.28	31.67	71.59	354.75
	Total	131.60	108.79	76.63	37.99	71.59	426.60

Above table showed that excess consumption of coal was 15.44 lakh MT costing ₹ 426.60 crore. The excess consumption of coal was mainly due to higher station heat rate and the lower gross calorific value (GCV) of coal used in the power plants. Out of the total excess consumption of 15.44 lakh MT, 14.83 lakh MT valuing ₹ 399.99 crore was on account of higher station heat rate.

Committee on Public Undertakings while discussing (March 2013) performance of the generation activity of the Company included in the Report of the Comptroller and Auditor General of India (Commercial), Government of Punjab, for the year ended 31 March 2010 also impressed (March 2013) upon the Company to improve the quality of coal received and reduce its consumption. Though the Company has made some improvements in station heat rate of its TPSs, yet much efforts need to be made for further improvements in station heat rate and to improve the quality of the coal received to reduce its consumption at least to the normative levels.

Inventory Management

2.2.13 Inventory management is the process whereby the investment in materials and stocks is regulated within predetermined limits set in accordance with the inventory policy established by the management. We observed that inventory assessment, planning, control etc. of coal and fuel oil stock was not adequate and effective. Inadequate inventory management system for coal caused coal stock levels falling below super critical/critical levels on several occasions in 2008-09 and 2009-10 and also abnormal high stock levels of coal were observed from 2010-11 onwards as discussed in succeeding paragraphs:

Coal stock levels

2.2.13.1 As a part of inventory management, CEA had prescribed coal stock levels at various TPSs of the Company: for less than 4 days as super critical level, for 4 to 7 days as critical level and 25 to 30 days as safe level. We noticed that inventory level of coal stock of TPSs of the Company was fluctuating as tabulated below:

Table 2.2.10

Year	Name of Thermal Plant	Coal stock level (in days)		
		Super critical level	Critical level	More than safe level
2008-09	GGSSSTP, Roopnagar	106	60	0
	GNDTP, Bathinda	49	122	0
	GHTP, Lehra Mohabbat	8	155	0
2009-10	GGSSSTP, Roopnagar	2	156	0
	GNDTP, Bathinda	11	83	0
	GHTP, Lehra Mohabbat	4	61	0
2010-11	GGSSSTP, Roopnagar	0	0	214
	GNDTP, Bathinda	0	0	301
	GHTP, Lehra Mohabbat	0	0	65
2011-12	GGSSSTP, Roopnagar	0	0	293
	GNDTP, Bathinda	0	0	206
	GHTP, Lehra Mohabbat	0	0	41
2012-13	GGSSSTP, Roopnagar	0	0	51
	GNDTP, Bathinda	0	0	131
	GHTP, Lehra Mohabbat	0	0	21

It was observed that during 2008-10 inventory level of coal had fallen below super critical level for 2 to 106 days at all the three TPSs for which no reasons were available on record. Safe stock level for 21 to 301 days were observed during 2010-13. Audit observed that the excess coal stock piled up due to excessive coal supplies, less consumption of coal due to reduced demand of electricity and non regulating/rescheduling of coal supplies during shutdowns for annual overhauling/ renovation and modernisation of GGSSSTP and GNDTP which has impact on financials of the Company pointing to need for a better inventory management.

Abnormally high level of coal stocks also resulted in space constraint causing difficulties in operation and maintenance of Coal Handling Plant equipments especially stackers and conveyors. The Company too had observed (November 2010) that the Company was paying fuel cost of about ₹ 10 crore per day and optimum fuel stock of 15-20 days requirement, it would result in less drawl of

working capital loan by about ₹ 150-200 crore with consequent saving in interest cost.

Management replied (November 2013) that it is not always possible to maintain coal stocks at particular level as uniform rate of dispatch cannot be ensured in case of CIL coal supplies and the operational constraints of Railways. Audit, however, observed that since the level of coal inventory was in excess of safe level on 21 to 301 occasions during 2010-13.

Fuel Oil stock levels

2.2.13.2 The Company procures Light Diesel Oil (LDO) and Heavy Furnace Oil (HFO) from Oil Supply Companies viz. Hindustan Petroleum Corporation Limited, Bharat Petroleum Corporation Limited and Indian Oil Corporation Limited for utilisation in their TPSs located at Bathinda, Lehra Mohhabat and Roopnagar. Oil supply Companies raise the bills at the prevailing rates of oil at the time of delivery. Company had neither fixed the periodicity in months' consumption nor even fixed minimum, maximum and re-ordering levels based on the requirements of the plants. Taking into account the lead period of one month and inventory holding requirement of one month, the stock holding should not have been for more than two months. The position of opening stock, receipt, consumption and closing stock of LDO and HFO during the year 2008-09 to 2012-13 is given in ***Annexure 8***.

Audit noticed that in GGSSTP Roopnagar, inventory holding of LDO and HFO oil ranged between 13.37 and 134.92 months and 1.02 and 14.67 months consumption and the Plant was holding excess inventory of ₹ 16.81 crore and ₹ 20.39 crore, respectively of these oils during 2008-13. In GHTP, Lehra Mohhabat, inventory holding of LDO and HFO oil ranged between 3.62 and 9.46 months and 7.47 and 22.38 months consumption and the Plant was holding excess inventory of ₹ 4.21 crore and ₹ 28.15 crore during 2008-13. In GNDTP Bathinda, inventory holding of LDO and HFO oil ranged between 2.34 and 16.91 months and 0.95 to 12.13 months of consumption, respectively. There was excess inventory of these oil to the tune of ₹ 13.77 crore and ₹ 18.39 crore during the year 2008-13. Thus, Company was holding excess inventory of LDO and HFO oil which led to blockade of funds of ₹ 101.72 crore and loss of interest of ₹ 10.17 crore calculated at minimum borrowing rate of 10 *per cent* per annum.

Management replied (November 2013) that consumption of any particular year cannot be taken as a reliable base for working out inventory. Closing stock of a year will also depend upon month of receipt of oil, which is received in full rake load. Sufficient oil stock levels have to be maintained taking into account the dead stock of oil tanks which is technically not possible to be used.

Reply of the Company is not convincing as the Company should have fixed the minimum and maximum stock level of oil to avoid the blockage of funds and there is urgent need to have control over inventory holdings of these oils.

Financial Management

2.2.14 Effective financial management ensures smooth cash flow for optimising the performance of all functions of an organisation. The systems and procedures should be so organised that there are no delays in realisations of funds as well as no delay in payments which attracts penalty.

2.2.14.1 Deficiencies in financial management with reference to fuel management as noticed in audit are briefed in succeeding paragraphs:

(a) **Claims in respect of stones-** Clause 4.6 (Oversized Coal/Stones) of CSAs executed between the Company and subsidiaries of Coal India Limited provided that compensation for oversized stones shall be payable by the Seller to the Purchaser on the basis of jointly assessed signed statement or as intimated by the Purchaser to the Seller. During 2008-09 to 2012-13, GNDTP, GHTP and GGSSTP had received 1.65 lakh MT stones with coal at three TPSs. Against its total cost of ₹ 43.68 crore, the claims of ₹ 6.93 crore were raised by all the TPSs, claims of ₹ 0.59 crore only were accepted by coal companies leaving claims of ₹ 6.34 crore as unaccepted/disputed. The Coal Companies rejected the claims on the ground that the Company had not lodged any claim of stone from other sources except CIL. The Company clarified that no stone above 100 mm were received from sources other than CIL. The claims of ₹ 36.75 crore were not even lodged by TPSs with the coal companies.

(b) **Claims in respect of freight on stones-** During 2008-09 to 2012-13, the GNDTP Bathinda had received 3,138.72 MT stones with coal for which it had paid the freight of ₹ 0.47 crore. On review of the claims of freight on stone, it was noticed that CCL had accepted the claim of only ₹ 0.15 crore for the year 2008-09 and had not accepted (February 2012) the claim/ given any credit of ₹ 0.32 crore for the period 2009-10 to 2012-13 on the ground that this claim was not in the scope of CSA which was not justified in view of the detailed provision and procedure in clause 4.6 and 9.0 of CSAs.

Management replied (November 2013) that a Committee consisting of Chief Engineers of TPSs, Financial Advisor and OSD/Coal Management has been constituted by the Company to resolve the outstanding disputed issues with subsidiaries of CIL. The matter was being pursued with the coal companies for settlement of the issues during reconciliation meetings. Further developments were awaited (November 2013).

Irregular release of payment to consultant for railway matters

2.2.14.2 As per the Railways rules, 15 *per cent* surcharge was leviable on the total freight of coal transported, when the freight was paid at destination. Since it was not possible to pay the freight at loading points of coal by the Company, it agreed (1992) to an 'Advance Deposit Scheme' with the Railways wherein the Board was required to maintain a deposit amount equivalent to the value of one month's freight, which worked out to ₹ 83.00 crore. The freight of coal was to be deducted from this deposit and was to be recouped within 10 days basis failing which surcharge at the rate of 15 *per cent* was to be levied. Due

to its financial crunch, the Board failed to maintain the minimum deposit during August 1998, August 2000 and September 2000. Consequently, the Railways levied surcharge of ₹ 24.92 crore. Due to cascading effect, the amount of surcharge continued to swell and increased to ₹ 194.77 crore (October 2000).

The Company engaged (March 2001) a consultant, M/s Narayan Consultancy, Baroda (Consultant) to get the surcharge waived off by the Railways at the service charge of 3.5 per cent of the surcharge amount expected to be reduced by the Railways. As per the terms and conditions of the contract, no advance payment was to be made to the consultant. However, the Company released advance payments of ₹ 25 lakh in March 2006 and ₹ 50 lakh in March 2008 on the plea of keeping the interest of consultant alive in the case. The payments were released with the stipulation that if the case was lost, it would not be recoverable by the Company and treated as expenditure. This issue was reported in para 3.14 of the Report of the Comptroller and Auditor General of India (Commercial), Government of Punjab for the year ending 31 March 2009 and asserted that the appointment of the consultant was injudicious and the Company was not justified in releasing any payments to the consultant pending resolution of the disputed amount/part of the amount in its favour.

Audit observed that the Company not only continued with the decision of taking the services of consultant but also paid two advance payments of ₹ 25 lakh each in July 2012 and March 2013 with the similar stipulation that if the case was lost, it would not be recoverable by the Company and treated as expenditure. The dispute remained unsolved so far (June 2013).

Management replied (November 2013) that in view of prolonged litigation with the Railways the decision of the Company was very much in order as Railways had already reduced their demand. The association of the consultant was absolutely necessary as they were well conversant with the railway rules and were defending the case for last 11 years. The reply of the Company was not convincing as in accordance with the terms and conditions of the contract, no advance payment was to be made to the consultant.

Internal Control and Internal Audit

Internal Control

2.2.15.1 Internal control is a process and a tool designed for providing reasonable assurance for efficiency of operations, reliability of financial reporting and compliance with applicable laws and statutes which is designed to ensure effective functioning as well as effectiveness of the internal control system and detection of errors and frauds.

We observed that internal control system of the Company was deficient particularly in areas of:

- balanced materialisation of linkage from subsidiaries of CIL;
- recovery of compensation claims/sizing/commitment charges;

- settlement of disputes regarding statutory levies;
- execution of agreements with service providers;
- monitoring of transit losses of coal and payment of demurrage charges;
- monitoring of slippage in grade of coal;
- efficiency in operation to reduce excess consumption of coal;
- management of inventory of coal/fuel oil; and
- recoveries of dues from debtors etc.

Internal Audit

2.2.15.2 In the erstwhile Board, there was a separate internal audit wing headed by Chief Auditor. After unbundling of the Board in April 2010 there was no change in the internal audit arrangement in the Company. We observed that since the unbundling of the Board, the internal audit of the thermal plants to cover the aspect of Fuel Management separately had not been conducted so far. As per PSERC directives dated February 2012 and February 2013, the Company was required to conduct Fuel Audit at its TPSs and report the progress made to PSERC every quarter, with regard to the implementation of these directions. However, the Company has not initiated any action in this regard so far (October 2013).

Conclusion

The performance of the Company with regard to fuel management system was sub-optimal. The Company failed to secure balanced coal linkage materialisation from CIL subsidiaries and to recover compensation on account of short delivery of coal. Execution of agreements with service providers was deficient and avoidable payment of charges to suppliers/service providers was being made. The Company failed to seek authoritative clarifications in regard to levy of statutory levies, CST/ VAT etc. Unloading infrastructure was inadequate/ deficient at all the TPSs causing payment of demurrage charges to Railways. Coal supply agreements with subsidiaries of CIL were deficient regarding quality assurance as there was no provision for consideration of grade slippage at the unloading end. Actual consumption of coal was higher than the norms prescribed by PSERC. Inadequate inventory management system for coal and fuel oil caused coal stock levels falling below super critical/critical levels on several occasions and also caused abnormal high stock levels of coal and fuel oil stocks on a number of occasions. No separate internal audit of fuel management of thermal plants was conducted.

Recommendations

The Company needs to:

- **make efforts for improvement in station heat rate and to improve the quality of coal received to reduce its consumption at least to the normative levels;**
- **impress upon Coal companies to give adequate coal linkage as per FSA, incorporate enabling clause for considering grade slippage at unloading end and approaching the FSA Implementation monitoring committee for early settlement of disputes/ claims;**
- **execute agreements with service providers with due diligence to safeguard its financial interest;**
- **seek authoritative clarifications in the levy of statutory duties at the earliest;**
- **evolve an effective inventory management system for coal and fuel oil stock assessment to maintain optimal stocks;**
- **conduct internal audit of fuel activity of power plants.**

The matter was reported to the Government (September 2013), the reply was awaited (November 2013).

2.3 Information Technology Audit of "e-Procurement system" implemented by Punjab Information and Communication Technology Corporation Limited

Executive Summary

Punjab Information and Communication Technology Corporation Limited (Punjab Infotech) implemented 'e-Procurement system' in the state. The application software 'Tender Wizard' was implemented for various user departments/ organisations on Application Service Provider model.

'e-Procurement system' has been implemented in 36 out of 45 departments in the State. Four out of nine modules have not been implemented even after elapse of more than two years of contract. Non implementation of the full software affected the transparency and efficacy of procurement and optimal benefits could not be achieved.

(Paragraphs 2.3.6.1 and 2.3.6.2)

Punjab Infotech assigned the work of e-Procurement project to M/s ITI Ltd without inviting any open competitive bids in contravention of the guidelines of Central Vigilance Commission (CVC). The departure from the standard practice of inviting competitive bids deprived the Punjab Infotech from getting competitive rates.

(Paragraph 2.3.7.1)

Input and Access Controls in system were weak, thereby, affecting the accuracy and completeness of data.

(Paragraphs 2.3.8.1 and 2.3.9)

Lack of Business Continuity/ Disaster Recovery Plan resulted in non availability of parallel database at a location other than the primary server location to ensure uninterrupted availability of the system.

(Paragraphs 2.3.10.3)

Introduction

2.3.1 Electronic Procurement (e-Procurement) is the process wherein the tendering activity is carried out online using the internet and associated technologies. e-Procurement provides transparency, monitoring and control of procurement process.

Punjab Information and Communication Technology Corporation Limited (Punjab Infotech) entered (July 2010) into an agreement with M/s ITI Ltd, for implementation of e-Procurement system in the State. As per agreement, the role of Punjab Infotech was to ensure coordination, and provide necessary support for system study and design implementation of e-Procurement for user departments of the State through a Company/ Department designated nodal officer. The application software namely Tender Wizard was implemented (September 2010) for various user departments/ organisations on Application Service Provider¹ model. It further entered into (November 2010) another agreement with Sify Technologies Limited (Sify) to procure and provide Public Key Infrastructure (PKI) based security for all its users for authentication, integrity, non-repudiation² and confidentiality. Sify issued and managed Digital Signature Certificates (DSC) to the end-users of Departments/ Organisations. The vendors were required to obtain the DSCs from any of the Certifying Authority for on-line transactions of tendering business. Punjab Infotech also entered (October 2010) into an agreement with HDFC Bank Limited and Axis Bank (January 2011) for obtaining the services of e-Payment gateway as part of e-Procurement system for collection of all type of fees by user departments through internet payment gateway.

Objectives of Audit

2.3.2 Audit objectives were:

- To evaluate the effectiveness of e-Procurement system;
- To analyse the data for completeness, integrity, reliability and accuracy; and
- To evaluate the security controls built into the system.

Scope of Audit

2.3.3 The present IT Audit review covers the e-procurement data of six departments³ and two companies⁴ for the period from September 2010 to September 2012.

¹ The Government organisation wishing to do e-tendering controls all the core tendering activities of its organisation carried out on the portal, but the ownership and control of the portal infrastructure is with the Service Provider.

² Non-repudiation refers to a state of affairs where the purported maker of a statement will not be able to successfully challenge the validity of the statement or contract.

³ Bathinda Development Authority (BDA), Director General School Education (DGSE), Director of Sports (DoS), Director Research and Medical Education (DRME), Department of Local Government (16 Nagar Panchayats), Department of Industries & Commerce (State Geologist).

⁴ Punjab Information and Communication Technology Corporation Ltd and Punjab Agro Foodgrains Corporation Limited (PAFCL).

Audit Methodology

2.3.4 We explained audit objectives to the representatives of two companies and six departments during an entry conference (January 2013). Further scrutiny of records of 612 cost opened tenders including 58 auctions related to selected units was carried out by interaction with the auditee personnel and data analysis with reference to audit criteria. Audit findings were reported to the Government of Punjab. Reply received from the two companies have been considered while finalising the audit findings. The reply from Government of Punjab was, however, awaited. Audit findings were discussed with the management of Punjab Infotech in an exit conference (December 2013).

Audit Criteria

2.3.5 The audit criteria adopted for assessing the achievement of the audit objectives were derived from the following sources;

- Agreements entered by Punjab Infotech with service providers;
- Guidelines on e-Procurement by Central Vigilance Commission (CVC)/State Government;
- e-Procurement guidelines issued (August, 2011) by Standardisation Testing and Quality Certification (STQC) Directorate, Department of Information Technology, Ministry of Communication and Information Technology, Government of India; and
- Competition Act, 2002 as amended.

The audit findings are discussed in succeeding paragraphs:

Meeting of business objectives

Non implementation of the modules of e-Procurement

2.3.6.1 The modules of Supplier Registration, e-Tendering, Catalogue Management, e-Payments and Management Information System (MIS) reports were to be implemented in Phase-I, whereas modules of Contract Management, e-Auction, Indent Management, SMS Gateway were to be implemented in Phase-II within 21 weeks of signing agreement with M/s. ITI Limited.

Audit observed that only five of nine modules were implemented. Four modules i.e. Indent Management, Catalogue Management, Contract Management and SMS Gateway were not got deployed by Punjab Infotech, resultantly, the benefits like the workflow automation for handling the flow of documents during the tender preparation process in case of Indent Management, access to easier rate contract information with Catalogue Management, the processes involved in between issuance of work order and completion of the work handled in Contract Management and finally benefits of SMS module for intimation of the status of tender to all the vendors could not be availed.

During exit conference Punjab Infotech informed that all nine modules have now been deployed.

Delayed implementation of e-Procurement system

2.3.6.2 The Empowered Committee and Steering Committee chaired by the Chief Secretary, Punjab monitored the implementation of the e-Procurement system. The agreement entered between Punjab Infotech and M/s ITI Ltd provides that M/s ITI Ltd will implement the entire system in a phased manner i.e. six⁵ departments were to be covered in Phase-I within 60 days and the remaining departments/Boards/Corporations within 120 days of the entering of the agreement. The Steering Committee fixed (January 2011) the threshold value of ₹ five lakh for e-Procurement.

Audit noticed that out of 45 departments only 36 departments have implemented e-procurement solution so far (November 2013) though the scheduled time for the same had already elapsed in November 2010. Audit also noticed that no empirical study to justify the cost vis-a-vis benefits was conducted by Punjab Infotech. The information on reduction of procurement cost in 30 units of various departments indicating savings ranging between one and 33 percent of the estimated cost of ₹ 1,678.11 crore in respect of 4,448 processed tenders was subjective and was not based on any scientific methodology.

Further non implementation of the e-Procurement system in other departments deprived them of the benefits of transparency and efficiency in procurement.

The management explained that e-Tendering has been implemented in 36 out of 45 departments. However, there were technical bottlenecks, such as server down time etc affecting its acceptance/ reliability. Further, the threshold value was not followed by Local Government department.

Audit observed that Punjab Infotech despite being the owner of the e-Procurement system did not improve its efficacy to make it reliable. In case of any exception to the threshold value such cases were not brought to the notice of the Steering Committee.

Non entering of tender award detail

2.3.6.3 Once a tender is opened, department can award the tender to the qualified lowest quoted vendor by clicking on a specified icon. Similarly, the e-Procurement system has the facility to take backup of opened /awarded tenders by department user after completion of tender related activities performed on a particular tender.

An analysis of database showed that in all 612 cost opened and processed tenders, award detail of tenders were not available in the database as the functionality of award of tender was not included in the role format supplied by Punjab Infotech to user departments resulting in incompleteness of the data as well as affecting transparency of procurement system. Similarly, the backup of all the 612 cost opened and processed tenders was also not taken as the role format supplied by Punjab Infotech did not include the activity of backup.

In exit conference it was intimated that initially the primary focus was on the implementation of e-Tendering. However, adequate training was being

⁵ Department of Industries & Commerce, Power, Urban Development, Water Supply & Sanitation, Department of Health and Department of Education.

imparted to officers/ officials of user departments to make use of the features like tender award detail and archival of tenders.

Requisitioning of hard copies of technical bids

2.3.6.4 e-Procurement intends to eliminate the human intervention in tendering process and avoids hard copies of the same. Director Research and Medical Education (DRME), had requisitioned the hard copies of technical bids and in seven out of eight tenders the technical bids were even accepted in 'unsealed covers'. During exit conference Punjab Infotech assured to issue the circular to the user departments to stop practice of receiving the unsealed hard copies of technical bids.

Non evaluation of tenders through e-Procurement system

2.3.6.5 The e-Procurement system is designed to evaluate the bids for generation of comparative statement. Further the pre-bid meeting can also be held on-line through the system, however, all pre-bid meetings were held, manually. An analysis of log table showed that 505 out of 554 cost opened tenders (excluding 58 auctions) representing 91 percent were not evaluated by using the e-Procurement system. Audit observed that though the system provides comparative statement of technical bids, yet technical evaluation, due to subjectivity of the matter, was carried out manually. It was further observed that owing to inadequate training of users of departments, the templates for uploading of cost bids were neither standardised nor designed appropriately to generate evaluation sheets, automatically. Thus non enforcement of evaluation of the tenders through e-Procurement system defeated the objective to automate the entire tendering process.

During exit conference, the Management stated that henceforth the department users have to make use of the HTML template in place of the excel sheet. Further, it was assured that the said HTML template would be made available to user departments by January, 2014 for automated evaluation of the bids/comparative statement.

Partner & Service issues

Arbitrary allotment of work

2.3.7.1 Punjab Infotech assigned the work of e-Procurement project to M/s ITI Ltd without inviting open competitive bids in contravention to the guidelines of the CVC.

Punjab Infotech while accepting the facts stated (July 2012) that CVC guidelines referred to were not available with them. During exit conference, the Managing Director, Punjab Infotech stated that Empowered Committee instructed Punjab Infotech to enter into an agreement with M/s ITI Ltd. which is a Central PSU providing e-Procurement solutions, so the clarification regarding allotment of work to M/s ITI Ltd without tendering will be sought from the CVC through State Government.

The reply was not acceptable as the said guidelines of CVC were circulated (June 2010) by the Finance Department to all the Financial Commissioners/ Principal Secretaries/ Secretaries of the State Government. The departure from the standard practice of inviting competitive bids for implementation of

e-Procurement system deprived Punjab Infotech from getting competitive rates.

Non provision of penalty clause

2.3.7.2 M/s ITI Ltd was to pay 15 *per cent* of all receipts⁶ to Punjab Infotech within a period of seven days of receipt on back to back basis, without any penal clause for delayed payment.

An analysis of transactions (tender processing fee and registration fee of vendor) related to May 2012 showed that there was no proper mechanism such as generation of reports through Service Dashboard to monitor the receipt of share of Punjab Infotech and there was delay ranging between 83 and 112 days (after allowing margin of 10 days) in receipt of ₹ 3.51 lakh related to May 2012. It was intimated in exit conference that by issue of an addendum the requisite penal clause would be inserted in the agreement. It was also stated that all the due payments after verification from a Chartered Accountant have been received from M/s ITI Ltd.

Application issues

Lack of input controls

2.3.8.1 Input controls are designed into the system to ensure the authorisation, accuracy and completeness of data input to, processing by and output from computer applications. During analysis of the 612 cost opened tenders following deficiencies in input controls were noticed:

- In the 'date of opening of the cost' field, year was entered as a hypothetical figure (9998 or 9999) in 12 cases;
- The period of validity of quotation is very important in a tender. In 295 cases it was noticed that the period of validity of quotation was mentioned as zero or null;
- An analysis of log table showed that in 8,338 cases remote IP field was "blank" or "null" and in 416 cases user ID field was "blank";
- In 355 cases, vendors had digitally signed and uploaded the bids but the certificate expiry date was blank and in 46 cases relating to State Geologist the digital certificate user and digital certificate issuer name was blank.

During exit conference, the management of Punjab Infotech stated that necessary instructions will be issued to the departments to stop the practice of using '9999' in the cost open date field. Regarding non-capturing of remote IP of e-Payment and related activities and Certificate expiry date, it was informed the same is being captured in the system from September, 2013 and June, 2013 respectively.

The reply was not acceptable as the tendering process has to be finalised in a time bound manner in accordance with the CVC guidelines. The system was non compliant to the applicable CVC guidelines and vulnerable to misuse. It

⁶ Yearly Registration Fee and Tender Processing Fee.

was due to lack of input controls, incorrect and invalid data resided in the database. The lack of validation checks led to non capture of crucial data.

Non inclusion of digital signature certificate expiry clause

2.3.8.2 There should also be a clause in the tender document stating that tender will not be considered for evaluation if the digital signature certificate has expired (except for verification). Audit, however, observed that the above clause was not mentioned in tender notice documents issued by six departments and two Companies.

In exit conference it was intimated that instructions to include the above clause in NIT would be issued to all the user departments.

Multiple bid

2.3.8.3 The STQC guidelines provided that after having submitted the 'original' bid for each bid-part, a bidder has a right to submit: 'Modification' bid and 'Substitution' bid for all his bid-submissions. The e-Tendering system must effectively cater to all these possibilities without compromising security and transparency in any manner at any stage, for any bid part (such as Pre-qualification, Technical, and Financial). The system was designed to have both the options either to allow or disallow these rights to the bidders.

Data analysis showed that in 534 out of 554 tenders uploaded on e-Procurement website, the above said business rule of modification or substitution of bid was not available as default to the bidders.

During exit conference Punjab Infotech intimated that multiple bid option has been made mandatory in the system from March, 2013.

Allotment of work on a single tender basis

2.3.8.4 Audit noticed that 159 tenders were awarded on single tender basis without any detailed justification. The e-procurement system did not have a mandatory provision for embedding detailed justification for selecting of single tender.

The management admitted that acceptance of single tender in the first instance is acceptable only with detailed justification. It was further stated that instructions in this regard would be issued to user departments.

Opening of financial bids contrary to the established procedure

2.3.8.5 Financial bids need to be opened only after confirmation of receipt of required fees (Tender/RFP Fee, Processing Fee & EMD). If the required fees is not received then the bid is to be disqualified.

In the case of award of tenders for construction of approach road to Phase-IV&V, Bathinda, BDA, in the month of December, 2010, EMD of two bidders was not authorised at the time of technical opening of bid and the work was allotted to one of the bidders. Audit observed that EMD in the system could be verified even after opening of the cost bids. Thus, the system was deficient as it allowed opening of cost bid without authentication of receipt of the EMD.

During exit conference, the Managing Director, Punjab Infotech while admitting the lapse, stated that discrepancies in the system have been rectified now.

Uploading of blank bid sheet

2.3.8.6 The fields of the cost bid sheets required that bidder should quote the rates in percentage of figures with respect to estimates. There were three options in the bid sheet viz; percentage below, percentage above and at par. In the first two options numeric values could only be entered and in the third option, the value at par was to be filled by the vendor in characters, if the vendor quoted at par.

An analysis of file folder of database and manual records of a tender relating to Nagar Panchayat, Naya Gaon showed that bid sheet uploaded by a vendor was blank. The vendor in this case did not enter the data in any of the columns and the buyer i.e. Nagar Panchayat, Naya Gaon considered the option as 'at par' in contravention to the terms and conditions of the bid sheet/ tender. This shows inadequate validation checks in the system.

The management stated that hence-forth the department users have to make use of the HTML template in place of the excel sheet. Further, it was assured that the said HTML template would be made available to user departments by January, 2014 by incorporating the requisite check of not accepting blank bid sheets.

Access controls

Segregation of duties

2.3.9.1 Multi Level authorisation for opening of prequalification bids, technical and commercial bids should be defined and mapped in the system at the time of creation of tender so that at least three members of the Committee can open technical and commercial bids as per the applicable rules to the BDA, DRME, DGSE, DoS and 16 Nagar Panchayats. Each of the members of the Committee could exercise its power by using Digital Signature Certificate and the role of each authorised member of the Committee should be mapped into the e-Procurement system.

In the case of BDA, DRME, DGSE, DoS and 16 Nagar Panchayats, it was observed that single users opened technical/cost bids or both in these departments in violation of applicable rules.

The management stated in exit conference that mandatory instructions for having three officers in Purchase Committee would be reiterated by issuance of instructions to the user departments.

Unauthorised Access

2.3.9.2 The STQC guidelines as well as the IT Act 2000 provided that any holder of a Digital Signature, is responsible for protecting the corresponding private key should not re-assign/ abdicate their roles and responsibilities to a few tech-savvy technicians or the personnel of the service-provider of the e-Tendering system. Some cases of unauthorised access alongwith risks involved have been illustrated below:

- Data analysis showed that in 38 tenders, the tender date was modified by officials of the service provider and the matter was reported to the three departments and two companies. Data analysis of Punjab Infotech further showed that though the closing time for acceptance of bids for developing Technical Education Policy in Punjab was 01:00 PM of 3 June 2011, the tender time was modified by the officials of service provider without approval of competent authority for extension. The bid of one bidder uploaded at 16:33 hrs on 03 June 2011 was selected and work allotted.

Punjab Infotech stated (March 2013) that it will communicate these STQC guidelines to all on board user departments and assured to issue necessary instructions to user departments in this regard. It was further assured that an authorised person will be nominated as an overall coordinator and representative in case of Punjab Infotech.

- In respect of BDA, closing date for submission of an e-Tender was 10 February 2011 at 3:00 P.M. One of the bidders submitted the EMD and performed different activities till 10 February 2011 at 20:56:36. The last date for submission of bid was changed, unauthorisedly, from 10 February 2011 to 11 February 2011 in the system but manual compensatory control to ensure approval of the competent authority for corrigendum was not found on the record. Further no dialogue box was available in the system to record the approval of competent authority in case of any modification in tender.

Thus non segregation of duties, weak access controls and absence of logs rendered the system vulnerable to unauthorised modifications. During exit conference, the Managing Director, Punjab Infotech stated that during initial phases, the officials of the service provider made changes on the request of the user departments and further stated that hence-forth only the authorised officer of the concerned department would be able to carry out changes and the officials of the Service Provider have been instructed not to interfere in the tendering activities of the departments. For audit trail of the changed data, it was stated that it has already been incorporated in the system since October 2012.

Security issues

Third party audit

2.3.10. 1 The agreement provided that State Government shall conduct third party audit of the system with prior intimation to M/s ITI Ltd, through approved GOI agency, as and when required, at the cost of State Government. Further, guidelines issued (September 2009) by CVC on implementation of e-Tendering solutions recommended that implemented solution be audited by a competent third party at-least once in a year to mitigate vulnerabilities. Audit, however, observed that no such third party audit was got conducted by Punjab Infotech.

The management informed that M/s Netmagic Solutions Pvt. Ltd, CERT-In empanelled IT Auditor has been conducting the third party security audit for the past three and half months.

Allotment of role/ activity and absence of audit trail

2.3.10.2 As per the STQC guidelines, there should be one authorised person as an overall coordinator and representative of that organisation in the e-Tendering system, with powers to delegate different roles such as tender creator, tender authoriser, fee authorisation, issue of corrigendum, evaluation sheet generation and disqualification of bids, etc; to different users from time to time, and all such role changes must be audit trailed in the application. The credentials of this overall coordinator must be verified. The guidelines further provides that there should be a provision for having separate authorised user at the corporate level of each buyer organisation, i.e. external to its tendering departments who can access the application level audit trail reports. However, other users of the organisation should not have access to these reports.

Audit noticed that activity of 'Dept Admin' was performed by officials of the service provider in all the companies and departments selected for IT Audit. Audit observed that there was no separate audit trail in the application for recording of changes in the roles made from time to time. Audit further observed that no officer was authorised for monitoring the other audit trail reports to check deviation in access trends of users as the functionality, though available in the system, was not included in role format supplied by Punjab Infotech to strengthen the monitoring by user departments.

The management informed that now the activity of 'Dept Admin' is being performed by the officers of the concerned user departments. Punjab Infotech further stated that letter to the departments in this regards has been issued.

Business Continuity/ Disaster Recovery Plan

2.3.10.3 The agreement with M/s ITI Ltd provides that M/s ITI Ltd shall maintain a parallel dedicated database at a different location other than the primary server location so that data can be kept safe and stored in case of any disaster at primary location to ensure uninterrupted availability of e-Procurement services to the State.

It was observed that no parallel dedicated database at a different location other than the primary server location existed. The management stated that right from the beginning of the project the Disaster Recovery site should have been there and instructed the representative of M/s ITI Ltd to ensure that disaster recovery site be set up by December 2013.

Conclusion

The implementation of e-Procurement system by the State Government since September 2010 has been a step forward towards automation of the process of obtaining and processing tenders/ auction bids. e-Procurement system has been implemented in 36 out of 45 departments of the Government of Punjab. Non implementation of all modules hampered the activity of the e-Procurement system by the end user departments. Weak input and access controls adversely affected the reliability of the system.

In the absence of a proper Business Continuity Plan, parallel database at a different location other than the primary server location was not maintained thereby making the system susceptible to high risk in the event of a disaster.

Recommendations

- All the modules may be fully deployed and the migration to e-Procurement system by all the departments of Government of Punjab should be ensured;
- Input and Access Controls should be strengthened to enhance the reliability and utility of the e-Procurement system;
- The Business Continuity Plan may be drawn and implemented to obviate the high risk of loss of database in the event of natural or manmade disasters.