Chapter II

Performance reviews relating to Government Companies

West Bengal Power Development Corporation Limited

2.1 Performance audit on fuel management of Bandel and Santaldih thermal power stations

Highlights

Bandel Thermal Power Station (BTPS) had an installed capacity of 530 MW, derated to 450 MW while Santaldih Thermal Power Station (STPS) had an installed capacity of 480 MW. BTPS sustained loss aggregating Rs. 17.02 crore due to ill planned procurement of coal at higher cost. There was loss of generation owing to failure to arrange ground stock of coal during 2003-08.

(Paragraphs 2.1.1, 2.1.8 & 2.1.9)

BTPS and STPS failed to achieve the norms of heat rate fixed by West Bengal Electricity Regulatory Commission due to poor thermal efficiency, unburnt combustible in ash, frequent desynchronisation of units *etc.* This resulted in excess consumption of 13.76 lakh MT of coal valued at Rs. 257.50 crore.

(Paragraph 2.1.12)

Due to ineffective follow up and non-preferring of claims with coal companies and Railways, amendment of contract in favour of liaison agents, non-inclusion of enabling provision in the agreement towards transit shortage *etc.*, the Company sustained losses aggregating Rs. 71.59 crore.

(Paragraphs 2.1.23 to 2.1.32, 2.1.36 to 2.1.38)

Absence of periodical maintenance and overhauling of coal handling equipment led to generation loss of 76.73 MU during 2003-07.

(Paragraph 2.1.39)

Introduction

2.1.1 West Bengal Power Development Corporation Limited (Company) operates four Thermal Power Stations (TPS) at Kolaghat (KTPS), Bakreswar (BKTPP), Bandel (BTPS) and Santaldih (STPS) with an initial aggregate installed capacity of 2,900 MW. BTPS had an initial installed capacity of 530 MW, which was de-rated (December 2006) to 450 MW (4 Units X 60 MW and 1 Unit X 210 MW). STPS runs four units of 120 MW each. Both these TPS were commissioned under the control of the erstwhile West Bengal State Electricity Board between 1965 and 1983 in the districts of Hooghly (BTPS) and Purulia (STPS). Subsequently, both the TPS were transferred to the Company with effect from 1 April 2001.

BTPS and STPS utilise coal as the primary fuel procured from Eastern Coalfields Limited (ECL), Mahanadi Coalfields Limited (MCL), Bharat Coking Coal Limited (BCCL) and Bengal Emta Coal Mines Limited (BECML). Oil being secondary fuel is used to light up the boiler and impart stability to coal flame. Light Diesel Oil (LDO) and High Speed Diesel Oil (HSD) are procured from Indian Oil Corporation (IOC). During 2003-08, BTPS & STPS incurred Rs. 2,252.28 crore (coal: Rs. 2,097.68 crore, oil: Rs. 154.60 crore) towards fuel cost representing 74 to 80 *per cent* of the total generation cost during the same period.

General Manager (GM) heads the operations of the TPS and is assisted by the Deputy General Manager (Operation & Maintenance) and the Deputy General Manager (Fuel) at Head Quarters, Kolkata. The GM reports to the Executive Director (Operation) at Kolkata who exercises overall supervision over the operation of the TPS.

A review on purchase and consumption of fuel in BTPS and STPS was included in the Report of the Comptroller and Auditor General of India for the year ended 31 March 1998 (Commercial), Government of West Bengal. The Committee on Public Undertakings had not selected the review for discussion. Poor thermal efficiency, consumption of coal in excess of norms, delay in lodging claims and ineffective follow up with coal companies for settlement of claims, high incidence of demurrage were highlighted in the review. The deficiencies still persisted, as discussed in this review.

Scope of Audit

2.1.2 The performance audit, conducted during March to June 2008, covers the activities relating to purchase, transportation, storage and consumption of fuel for five years from 2003-04 to 2007-08 at BTPS and STPS. The audit findings are based on test check of records at the Company's Head Quarters at Kolkata and at BTPS and STPS.

Audit Objectives

2.1.3 The performance audit of fuel management was carried out to assess whether:

- the fuel cost had been recovered entirely through the tariff mechanism;
- actual consumption of coal and oil was in line with the norms fixed by West Bengal Electricity Regulatory Commission (WBERC) and the thermal efficiency achieved as per the design parameters;
- the Company identified the specifications of coal required for optimum performance of the TPS based on design requirements of the boilers and norms laid down by WBERC;
- the quality and quantity requirement of coal was monitored efficiently;
- an effective mechanism was in place to oversee the performance of liaison agents in regard to linkage materialisation, reduction of transit shortage and was efficiently followed;
- an effective mechanism was in place to reconcile and monitor the claims in regard to the fuel related losses with the Railways and coal companies and followed efficiently; and
- energy audit was undertaken effectively and recommendations for reducing the heat losses implemented.

Audit Criteria

2.1.4 The performance audit with regard to fuel management by the BTPS and STPS was assessed against the:

- targeted generation and assessment of coal requirement;
- allocation of coal quantities by the Standing Linkage Committee (SLC);
- agreement with coal and oil companies as well as with liaison agents;
- norms of consumption of coal and oil fixed by WBERC;
- norms of achievable heat rate for the TPS fixed by WBERC;
- norms fixed by WBERC for auxiliary consumption;
- fuel related guidelines of WBERC; and
- monthly and annual power generation reports.

Audit methodology

2.1.5 Audit adopted a mix of the following methodologies for achieving the audit objectives keeping in view the audit criteria:

- examination of agenda and minutes of the Board of Directors' meetings;
- scrutiny of fuel related guidelines of WBERC;
- scrutiny of records relating to linkage committee, procurement, receipt and consumption of fuel, plant outages reports, fuel cost reports, coal and fuel efficiency reports;
- examination of agreements with the liaison agents for linkage materialisation and monitoring of loading of coal;
- scrutiny of agreements with coal suppliers, oil companies and the Railways, weighment details, power generation reports; and
- interaction with the management and issue of audit queries.

Audit findings

2.1.6 Audit findings were reported to the Company and the Government in July 2008 and discussed (4 September 2008) in the meeting of the Audit Review Committee for Public Sector Enterprises (ARCPSE) which was attended by the Managing Director of the Company and the Additional Chief Secretary, Power Department, Government of West Bengal. The views expressed by them have been considered while finalising the performance review.

The performance of BTPS and STPS was deficient in the areas of linkage materialisation, procurement and unloading of coal, recovery of fuel cost due to failure to achieve the guaranteed thermal efficiency, normative fuel consumption and auxiliary consumption, sampling mechanism, monitoring the performance of liaison agents as well as fuel related claims with coal companies and the railways.

Procurement of coal

2.1.7 BTPS and STPS work out the quarterly requirement on the basis of generation targets fixed by West Bengal Electricity Regulatory Commission (WBERC). Based on quarterly requirement, the Central Electricity Authority (CEA) recommends the same to the Standing Linkage Committee (SLC) of the Ministry of Energy, Government of India which allots coal from different collieries of ECL, MCL, BCCL and BECML. The erstwhile WBSEB had a

three-year coal supply agreement (June 1984) with Coal India Limited which expired in May 1987. Thereafter, the Company had not entered into any agreement with coal companies except with BECML (May 1997).

Loss of generation due to poor linkage materialisation

2.1.8 The year-wise targeted generation, actual generation, requirement of coal as per the targeted generation vis-à-vis linkage allotment and actual receipt of coal for 2003-08 are as shown below.

	Power stations	Targeted Generation	Actual Generation	Coal required for Targeted Generation	Linkage quantity	Actual receipt	Excess/short receipt of coal with reference to requirement
		(MU)	(MU)	(In lakh MT)			
2003-04	BTPS	2,089	1,691	14.01	15.90.	10.18	(-) 3.83
	STPS	1,500	1,213	11.79	12.90	9.66	(-) 2.13
2004-05	BTPS	1,798	2,151	11.51	16.05	13.33	(+) 1.82
	STPS	1,261	1,339	9.47	10.35	11.28	(+) 1.81
2005-06	BTPS	1,798	2,158	10.52	16.80	13.52	(+) 3.00
	STPS	1,261	1,223	9.32	10.65	8.98	(-) 0.34
2006-07	BTPS	2,089	1,545	12.54	12.75	10.22	(-) 2.32
	STPS	1,290	1,475	9.09	13.50	10.60	(+) 1.51
2007-08	BTPS	2,238	2,194	13.90	18.75	13.27	(-) 0.63
	STPS	1,434	1,566	9.25	23.70	13.70	(+) 4.45
Total		**16,758**	**16,555**	**111.40**	**151.35**	**114.74**	

It would be seen from the table above that the Company submitted its projection for coal requirement on a higher side to the linkage committee in all the five-years so as to ensure sufficient coal supply to meet the budgeted generation. Though the actual receipt of coal (114.74 lakh MT) fell short of the linkage quantity by 36.61 lakh MT, the same was adequate to meet the targeted generation.

STPS sustained loss of generation of 415.24 MU due to non- synchronisation of receipt of coal with its requirement.

Despite this, STPS shut down the units for 3,166.50 hours (132 days) during the four years except 2005-06 and also operated them under partial load for 969 hours (2005-08). This arose from the Management's failure to synchronise the receipt of coal with the daily requirement against the allotment resulting in depletion of ground stock on particular days. Consequently, STPS suffered loss of power generation of 415.24 MU. As analysed in audit, poor release of wagons by STPS, longer detention time for unloading of rakes and consequent restrictions imposed by the Railways on movement of coal rakes from Eastern Railways sources to STPS were mainly attributable to the depletion of ground stock at STPS. Though the Railways brought this deficiency to the notice of the STPS periodically, no effective steps were taken to improve the unloading performance.

In case of BTPS, the receipt of coal fell short of requirement in 2003-04 and 2006-07 and the actual generation was also less than that of the target. However, it did not assess the shut down hours on account of shortage of coal. Consequently, the generation loss could not be quantified in Audit.

While accepting the facts the Management stated (September 2008) in ARCPSE meeting that though the performance of the material handling system was responsible for depletion of ground stock, it had no plan to modernise the same as the closing of these old TPS by 2010-11 was under consideration. The reply did not, however, indicate the action taken to ensure the availability of sufficient ground stock for uninterrupted generation.

Extra expenditure due to ill-planned procurement

2.1.9 BTPS met 25 *per cent* of its yearly total requirement of coal from BECML during 2005-06. Due to sudden shut down (May 2006) of Unit V, the BTPS decided (19 June 2006) to stop the entire purchase from BECML on the ground that the Units I to IV could not accommodate BECML coal comfortably like that of ECL coal and consumption of coal from BECML was more as compared to ECL because of grade difference.

During 2006-07, BTPS generated 1,545.412 MU power by utilising 10.63 lakh MT[1] of coal and 5,318 KL of oil. To achieve the station heat rate of 3,039 Kcal/Kwh fixed by WBERC, total heat required to generate 1,545.412 MU power was 46.97 lakh Mkcal. But the total heat consumed was 52.44 lakh Mkcal[2]. So, there was excess consumption of heat by 5.47 lakh Mkcal which was equivalent to 1.12 lakh MT of coal[3] valued at Rs. 23.40 crore.

The average GCV (Kcal/ Kwh) of BECML and ECL was 4,200 and 4,995 respectively. So one kg of BECML and ECL coal could generate 1.38 Kwh and 1.64 Kwh of power respectively at the station heat rate of 3,039 Kcal/Kwh. Had the authority of BTPS maintained the existing purchase policy, the Company should have procured 2.66 lakh MT of BECML coal instead of 67,726 MT. Therefore, by utilising the balance quantity of 1.98 lakh MT (2.66 lakh MT minus 0.68 lakh MT) valued at Rs. 17.72 crore[4], the Company could have generated 273.24 MU power. Thus, in order to generate the same quantity of power, ECL coal of 1.67 lakh MT valued at Rs. 34.74 crore[5] was required. As a result, the Company incurred an extra expenditure of Rs. 17.02 crore (Rs. 34.74 crore-Rs. 17.72 crore) on procurement of coal.

Even after procurement of coal at a higher cost of Rs. 17.02 crore the expected benefit for better generation was not achieved.

The Management stated (June 2006/ September 2008) that the Units I to IV could not accommodate the BECML coal comfortably and so coal was procured from ECL at a higher cost to meet the targeted generation. The reply did not, however, address the facts that (i) prior to stopping of purchase from BECML, coal both from ECL and BECML was simultaneously used to boilers, (ii) the average generation was better at 2,000 MU in 2003-06 as compared to 1,545.412 MU in 2006-07, and (iii) average heat rate was better at 3,048 Kcal/Kwh in 2003-06 as against 3,393 Kcal/Kwh during 2006-07. Thus, even after using the coal of ECL entirely the generation did not improve

[1] ECL: 9.95 lakh MT, BECML: 0.68 lakh MT.
[2] Generated from oil (49,638 Mkcal) and coal (51.94 lakh Mkcal).
[3] At the weighted average of gross calorific value (GCV) of coal of 4,887 Kcal/ Kwh.
[4] At the rate of Rs. 895 per MT.
[5] At the rate of Rs. 2,080 per MT.

and fell short of the target by 544 MU. Ultimately, to meet the requirement for 2007-08 the BTPS procured coal both from BECML and ECL.

Thus, even after incurring extra expenditure of Rs. 17.02 crore on procurement of coal, the desired benefit of better generation and heat value was not achieved.

Under recovery of fuel cost

The Company was unable to recover fuel cost aggregating Rs. 241.99 crore during 2003-08.

2.1.10 WBERC allows fuel costs as per the normative parameters fixed by it. Subsequently, on receipt of Fuel Cost Adjustment (FCA) claim from the Company, WBERC allows the same as per normative parameters and/or on actual basis, whichever is lower, during the adjustment period. Fuel Cost Adjustment claims were settled for the years from 2003-04 to 2006-07 so far (September 2008). It was observed that actual fuel cost of BTPS and STPS aggregating Rs. 2,252.28 crore fell below the cost of Rs. 2,010.29 crore allowed by WBERC during 2003-08 as detailed in the table below.

Sl. No.	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08
1.	Generation (MU)	2,904	3,490	3,381	3,020	3,760
2.	Actual fuel cost (Rupees in crore)					
	Coal	342.40	426.62	424.13	407.40	497.13
	Oil	19.22	24.70	29.81	33.24	47.63
3.	**Total fuel cost** (Rupees in crore)	**361.62**	**451.32**	**453.94**	**440.64**	**544.76**
4.	Fuel cost recovered through tariff (Rupees in crore)	323.19	424.03	409.05	386.53	467.49[6]
5.	Under recovery of fuel cost (Rupees in crore)	38.43 (11)	27.29 (6)	44.89 (10)	54.11 (12)	77.27 (14)

(Figures in bracket represent percentage of fuel cost underrecovered)

It would be seen from the table above that the under recovery of fuel cost increased from 11 *per cent* in 2003-04 to 14 *per cent* in 2007-08 aggregating Rs. 241.99 crore during 2003-08. As analysed in audit, the under recovery of fuel cost was mainly attributable to:

- Poor thermal efficiency (**Paragraphs 2.1.11 – 2.1.12**)
- High incidence of coal consumption (**Paragraphs 2.1.13 – 2.1.19)**
- Consumption of oil in excess of norms (**Paragraph 2.1.20**)
- Financial losses in fuel management (**Paragraphs 2.1.22 – 2.1.38**)

[6] Provisional.

Poor thermal efficiency and high incidence of heat rate

2.1.11 Performance of a TPS is finally determined by the heat rate[7]. It measures the thermal efficiency of a plant *i.e.* efficiency of conversion of thermal energy to electrical energy. Thermal efficiency is the aggregate of boiler and turbine efficiencies. The thermal efficiency of 34.88 *per cent* for Units I to IV and 35.03 *per cent* for Unit V of BTPS and 33.85 *per cent* for STPS was guaranteed by the manufacturer. However, all the units of BTPS and STPS failed to achieve the guaranteed thermal efficiency during the five years ending March 2008 **(Annexure 11)**. Reasons for poor thermal efficiency were absence of high pressure heater, lower intake of air for combustion leading to higher unburnt fuel, low fineness of coal *etc.* which were controllable by improving boiler and turbine control settings and improving the fineness of coal. This translated into higher consumption of fuel.

2.1.12 Light diesel oil (LDO) and coal are the two fuels required for running a thermal plant. While LDO is required for lighting up, coal feeding is needed on stabilisation. After stabilisation, occasional LDO firing is required if the coal supply is reduced due to poor quality, coal mill outages, jamming of coal mills, presence of excess moisture in coal *etc.*

Poor thermal efficiency led to excess consumption of 13.76 lakh MT of coal valued at Rs. 257.50 crore.

It would be seen from **Annexure 12** that both BTPS and STPS failed to achieve the norms of heat rate fixed by WBERC during 2003-08. This led to excess consumption of 13.76 lakh MT of coal[8] valued at Rs. 257.50 crore[9] during the same period due to poor thermal efficiency, unburnt combustible in ash, frequent desynchronisation of units arising from leakages in super heaters, economiser and condenser tube and air infiltrations in boiler exit, economiser outlet, Air Pre Heater inlet and Electrostatic Precipitator inlet and outlet. These constraints could have been mostly avoided by following effective maintenance schedule.

While accepting the facts the Management stated (September 2008) that high heat rate arose from poor quality of coal and aging of plant. The reply did not address the fact that after considering these constraints, WBERC fixed the norms which the Company failed to achieve. Further, the reply was silent as to why the Company did not devise any plan to modernise the condition of units to minimise high heat rate.

High incidence of consumption of coal

2.1.13 Against the norms fixed by WBERC for consumption of coal to the tune of 0.571 to 0.630 kg (BTPS) and 0.588 to 0.645 kg (STPS) per Kwh, the consumption of coal was in excess to the extent of 12.67 lakh MT (BTPS: 4.46 lakh MT, STPS: 8.21 lakh MT) valuing Rs. 240.94 crore during 2003-08 as detailed in **Annexure 13**. As analysed by audit, poor quality of coal, receipt of stones and shales with coal, use of coal without proper sampling,

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[7] Heat rate (Kcal/Kwh) is the rate of consumption of heat (Kcal) per unit of generation.
[8] BTPS: 4.23 lakh MT, STPS: 9.53 lakh MT.
[9] BTPS: Rs. 85.49 crore, STPS: Rs. 172.01 crore.

unburnt coal due to low fineness *etc.* were attributable to excess consumption of coal, as discussed in the succeeding paragraphs.

Quality of coal - Grade slippage

The Company did not determine the effect of inferior grade coal on generation.

2.1.14 Each thermal power station is designed for using particular grade of coal. The required calorific value of coal as per the boiler design was 4,445 to 4,500 Kcal/kg (BTPS) and 4,450 Kcal/kg (STPS). Against this, the Company received average calorific value of coal ranging from 4,872 to 5,041 Kcal/kg (BTPS) and 4,923 to 5,255 Kcal/kg (STPS) as per their records during 2003-08. Audit observed that in reality out of total coal received (114.74 lakh MT) by BTPS and STPS during 2003-08, 32.33 lakh MT (28 *per cent*) was of inferior grade. The poor quality of coal had an adverse effect on generation and consumption of coal. But the management did not maintain any records for loss of generation due to inferior grade of coal. Consequently, the loss of generation for grade slippage and its impact on recovery of cost could not be identified in audit.

While accepting the facts, the Management stated (September 2008) in the ARCPSE meeting that no such records regarding loss of generation due to poor quality of coal were being maintained by them and assured to maintain the same from the next year onwards. The reply did not, however, indicate the constraints due to which the impact of poor quality of coal on generation, which had an adverse effect on recovery of cost, was not documented.

Sampling for grade/ quality

2.1.15 Undertaking of sampling is a critical control mechanism to decide the actual grade and quality of coal supplied for effecting payment to coal companies. During 2003-04 sampling of ECL and BCCL coal was conducted by ECL and BCCL at the loading point and by the Company at the unloading point. In May 2005 the Company engaged the third party sampling agent,[10] Geo Chem Laboratories Pvt. Limited (GCL), for conducting sampling at the loading and unloading ends with effect from 1 May 2005 and 1 June 2005 respectively.

Ineffective sampling and analysis

2.1.16 Sampling was required to be conducted as per provisions of ISI 1350 (Part-I of 1984) which GCL did not comply as detailed below:

Prescribed procedure	Procedure followed
As per related provision of ISI 1350 (Pt – I) 1984, total wagons are to be divided into sub lots and 25 *percent* from sub lots are to be selected for sampling.	Sample from 25 *per cent* wagons from total wagons was selected for testing without dividing into sub lots.
Samples are to be collected at one point from each selected wagon, the point for collection of samples will be either at the	Records regarding selection of samples, collection *etc.* were not communicated to BTPS.

[10] Through joint tender committee of CIL and the Company.

Prescribed procedure	Procedure followed
centre or either side of the wagon *etc*.	
Analysis reports are to be submitted within seven days from the date of drawal of samples.	GCL delayed the submission of analysis reports in 12 out of 28 months.

Payment to coal companies and grade slippage claims were released/ settled without reliable sampling analysis.

It was observed that despite GCL's failure to carry out the sampling in line with the prescribed procedure the Company neither monitored their sampling nor did it attempt to verify the grade at its own laboratory. Only in August and September 2006, BTPS analysed coal received from Chitra colliery at its departmental laboratory and found wide differences in useful heat value (UHV) between the grade analysed by GCL and that by the in house laboratory. The same procedure was not, however, carried out even periodically as followed in Bakreswar Thermal Power Plants to determine the actual grade slippage. Consequently, payment to coal companies and the settlement of grade slippage claims during 2005-07 without reliable sampling analysis can not be ruled out. Ultimately, the Company terminated the contract in July 2007 and the joint sampling by CIL and the Company at the loading end was introduced (July 2007).

The Management accepted (September 2008) the facts. But the reply was silent as to why the Company failed to carry out the grade analysis at its own laboratory periodically and its impact on generation.

Thus, sampling proved to be deficient which had an adverse effect on generation and recovery of cost.

Stones and shales

2.1.17 For unloading of coal both the TPS used wagon tipplers and track hoppers. Oversize stone which could not pass through the gratings of track hoppers were picked up manually and stacked separately. Further, stones below 200-250 mm size were picked up by the stone pickers from the conveyer belt. Even then some quantity of stones passing through conveyer belt and after grinding the same along with coal were fed to the boiler, as intimated by the Management (September 2008) during ARCPSE meeting. The presence of stones had an adverse effect on generation and consumption of coal. But neither of the TPS generated coal status reports to ascertain the quantity of stones/ shales received along with coal and its impact on generation. Consequently, the loss of generation and excess consumption of coal could not be identified in audit.

High incidence of unburnt coal

2.1.18 Pulverised coal fed into the furnace may not burn completely due to either lack of adequate oxygen or lack of thorough mixing and improper sizing of coal particles after pulverisation. The partial combustion leads to unburnt combustible coal and ash occurs due to excessive infiltration of air which overloads the ID Fans resulting in lack of sufficient air for thorough mixing of coal in the furnace and low fineness of coal.

Excessive unburnt carbon in fly and bottom ash resulted in excess consumption of coal of Rs. 31.92 crore during 2003-08.

2.1.19 As per the design manual of BTPS, the percentage of unburnt carbon in fly and bottom ash for Units I to IV (60 MW each) was fixed at 0.30, while the same for Unit V (210 MW) was two *per cent*. The design manual of STPS was not, however, available. It was observed that the company did not review the norms for unburnt coal even after completion of 25 to 45 years of running the TPS. However, different PSUs[11] fixed the norm of 0.58 to one *per cent* (fly ash) and five to 6.50 *per cent* (bottom ash) for unburnt coal. Audit scrutiny of reports on bottom ash and fly ash revealed **(Annexure 14)** that even after considering maximum limit of two *per cent* both for fly and bottom ash the excess unbunt carbon ranged between 1.4 to 4.6 *per cent* (fly ash) and 3.6 to 6.6 *per cent* (bottom ash) at BTPS and 4.50 to 5.78 *per cent* (fly ash) and 9.03 to 14.88 *per cent* (bottom ash) at STPS**.** The equivalent coal cost of the excess unburnt carbon in fly and bottom ash during 2003-08 stood at Rs. 31.92 crore. However, the Company did not devise any mechanism to avoid the excess expenditure on coal cost.

While accepting the facts the Management stated (September 2008) that the recommendations of the energy audit are under implementation to reduce the unburnt coal. The reply was, however, silent as to why no action was taken to address this prolonged deficiency.

Excess Oil consumption

2.1.20 WBERC fixed the norm for secondary fuel consumption for TPS. Against the norm for consumption at 4.5 ml/Kwh in STPS for 2007-08 the actual consumption was much higher at 8.22 ml/Kwh, resulting in excess consumption of 5,826.35 KL of oil valued at Rs. 14.06 crore.

As per the Monthly Station Performance Reports, excess consumption was attributable to furnace disturbance, frequent tripping of units due to improper maintenance and coal shortage. However, the reasons were not segregated so as to ascertain the quantum of excess consumption for each factor. These factors being controllable could have been taken care of by devising proper maintenance and operational mechanism.

While accepting the facts the Management stated (September 2008) that necessary efforts had been taken to reduce the oil consumption. The fact, however, remains that oil consumption exceeded the norms.

Excess auxiliary consumption

2.1.21 Against the norm of 10.74 to 11.50 *per cent* fixed by WBERC the actual auxiliary power consumption of both the TPS ranged between 10.70 to 16.01 *per cent* during 2003-08 resulting in excess auxiliary consumption of 2.48 lakh MT (BTPS: 0.66 lakh, STPS: 1.82 lakh MT) of coal valued at Rs. 45.94 crore **(Annexure 15)**.

[11] Raichur Thermal Power Station under Karnataka Power Corporation Limited has fixed a norm of one and five *per cent* combustible in fly and bottom ash and National Thermal Power Corporation Ltd. fixed a norm of 0.58 to 6.50 *per cent* in fly and bottom ash for unburnt coal.

Both BTPS and STPS failed to achieve the norms for auxiliary consumption leading to excess consumption of coal of 2.48 lakh MT valued at Rs. 45.94 crore.

The excessive power consumption by station auxiliaries was attributed (February/ March 2007) by the Energy Auditor to power loss in Induced Draft (ID) fans due to infiltration of air/ gas, non installation of energy efficient lamps and electronic ballast and reflector instead of 40 watt conventional lamps with copper choke. Despite these prolonged deficiencies, the Management did not take corrective action to reduce the excess consumption.

While accepting facts, the Management stated (September 2008) that old high capacity motors installed in the auxiliary units consumed excess power but the same could not be replaced as the closing of both the TPS was under consideration. The fact, however, remains that due to poor maintenance programme both the units continued to consume coal in excess of norm.

Financial losses in fuel management

2.1.22 The Company sustained losses of Rs. 71.59 crore due to settlement of claims arbitrarily by ECL/BCCL in absence of agreement, rejection of claims beyond the contractual terms by BECML, failure to lodge claims, avoidable payment of demurrage, loss of generation due to poor performance of coal handling equipment and failure to enforce penal provision on liaison agents, as discussed in the succeeding paragraphs.

Non-reimbursement of claims

Claims on grade slippage

2.1.23 Grade of coal received from collieries was not always of the specified grade required by the thermal stations and was either inferior or ungraded coal. During 2003-08, BTPS and STPS received coal from different coal companies which was inferior or below grade to that of billed grade (Paragraph 2.1.14). Against claims towards grade slippage (ECL) aggregating Rs. 51.02 crore[12] during April 2003 to December 2007, ECL accepted the claims aggregating Rs. 45.31 crore[13] and rejected the claims of Rs. 4.78 crore arbitrarily, while Rs. 0.93 crore rejected due to the Company's failure to produce the sampling result. Further, ECL was yet to accept Rs. 6.47 crore[14] since 2004-05 on account of proportionate cess, sales tax and value added tax on grade slippage quantity already admitted by ECL. It was decided (June 2007) in the meeting between the Company and ECL that the issue would be settled in the next reconciliation meeting. However, the meeting was yet to be convened (September 2008) to settle the claim. The Company did not also pursue with ECL for expeditious settlement of this claim. Further claims for the period from January to March 2008 amounting to Rs. 3.21 crore were yet to be settled (September 2008).

While accepting the facts, the Management stated (September 2008) that the royalty and cess claims on grade slippage would be settled shortly.

[12] BTPS: Rs. 34.39 crore, STPS: Rs. 16.63 crore.
[13] BTPS: Rs. 29.69 crore, STPS: Rs. 15.62 crore.
[14] BTPS: Rs. 4.05 crore, STPS: Rs. 2.42 crore.

Unjustified rejection of grade slippage claims by BECML

2.1.24 As per the agreement (May 1997) with BECML, the joint sampling would be conducted at the power stations to determine the actual grade of coal for payment to BECML. In case of dispute, sampling analysis would be referred to CFRI[15], Dhanbad whose result would be binding on the parties.

Rejection of claims by BECML contrary to the provision of the agreement led to loss of Rs. 9.76 crore.

It was observed that no representative of BECML attended the joint sampling since the beginning of the contract. Sampling conducted by the BTPS representative was not objected by BECML. But BECML disputed the sampling results on the plea of lack of uniformity in the method of sampling in different TPS and had raised the bills at the price of higher grade coal ('C'). The sampling at BTPS during June 2007 to March 2008 showed that inferior quality ('D' to 'G' grade) was actually supplied by the BECML. Against the Company's claim of Rs. 17.30 crore towards grade slippage, Rs. 8.65 crore was accepted (May 2008) arbitrarily by BECML on 50:50 basis. Similarly, STPS claim of Rs. 2.23 crore (2003-06) was settled at Rs. 1.11 crore on same basis.

The Management stated (September 2008) that due to ambiguity in the claim amount in the different TPS of the company for the supply of coal from same source, the settlement on 50:50 basis was agreed to and no undue benefit was given to BECML. The reply was contrary to the provisions of the agreement which required the Company to refer the disputed samples to CFRI for independent analysis and thus, the forgoing of claim of Rs. 9.76 crore lacked justification.

Non-submission of claim towards stone/ shale

2.1.25 In terms of the decision (December 1986) of the Government of India, Ministry of Energy, coal companies were to reimburse the cost of coal equivalent to stone and shales content in the coal received along with the transportation charge. As per the reports of the Civil Department, STPS disposed of 53,221 MT (2003-08) stones/ shales received along with the supplies of coal from ECL. But it did not raise any claim on ECL for reimbursement of cost of coal equivalent to stones and proportionate transportation charges. This led to forgoing of claim of Rs. 9.89 crore. In the ARCPSE meeting the Management assured (September 2008) to raise the claims in future. The reply itself indicated lack of monitoring over the raising of claims.

STPS did not lodge claims for 53,221 MT stones/ shales supplied along with coal valued at Rs. 9.89 crore.

2.1.26 BTPS started raising claims from January 2005. Out of the total claims of Rs. 9.71 crore (2005-07) for 41,103 MT of stone, ECL accepted (June 2007) an amount of Rs. 72 lakh arbitrarily while no reason was advanced for rejecting balance claim of Rs. 8.99 crore. The Management did not pursue with ECL, rather it agreed to forego Rs. 8.99 crore. The claim of Rs. 1.76 crore (6,702 MT) for 2007-08 was yet to be finalised (September 2008).

[15] Central Fuel Research Institute.

Rejection of claims towards stones/ shales beyond the contractual terms

2.1.27 The agreement (May 1997) with BECML provided that it was liable to reimburse the proportionate cost of coal as well as transportation charges in case of supply of stones and shales along with coal. Against BTPS total claim of Rs. 99.29 lakh (2005-06) for supply of 7,955 MT of stone, BECML accepted (March 2006) the claim of Rs. 7.89 lakh on the pretext that the BTPS had received coal from different collieries simultaneously and it was difficult to ascertain the actual amount of stone supplied by each colliery. Though BTPS had already determined the total quantity of stones/ shales, acceptance of claim at Rs. 7.89 lakh only was tantamount to undue benefit to BECML resulting in loss of Rs. 91.40 lakh. Further claims of Rs. 99.73 lakh relating to 2006-08 towards 6,684 MT of stone were yet to be settled (September 2008) for which no reasons were on record.

The Management stated (September 2008) that the coal companies could not be penalised both for grade slippage and stone because grade slippage was due to presence of stone only. The reply was contrary to the provisions of the agreement.

Non-submission of claims for oversize of coal

2.1.28 The agreement (May 1984) between the erstwhile WBSEB and CIL that existed till May 1987 provided for payment of coal breaking charges at the rate of rupee one per tonne for the quantity of oversize coal (*i.e.* more than 250 mm in size). The correspondences exchanged between the TPS and the ECL/ BCCL indicated that coal companies supplied 20 to 40 *per cent* oversize coal in each rake during 2003-08. But the Company did not assess the total quantity of oversize coal supplied. The Company incurred Rs. 3.73 crore during 2003-08 towards breaking charges of oversize coal. However, no claim was lodged for which no reason was recorded.

The Management stated (September 2008) that there was no system of measuring oversize coal and hence no claim could be raised. The reply was, however, silent as to why the Company failed to measure the quantity of oversize coal. In the ARCPSE meeting the Management, however, assured (September 2008) to maintain the quantity of oversize coal supplied for claiming coal breaking charges.

Transit Shortage

2.1.29 WBERC fixed the norm of transit shortage between four (2003-06) and 1.5 (2006-07) *per cent*, while no norm was fixed for 2007-08. However, the actual shortages were in excess of the norm ranging between 1.30 (2004-05) and 7.21 (2007-08) *per cent* in BTPS and 4.19 (2006-07) and 20.20 (2004-05) *per cent* in STPS. But none of TPS investigated the reasons for taking timely corrective action.

The Management stated (September 2008) that the shortage of coal was negligible as compared to the total supply. The fact, however, remains that the Company failed to adhere to the norms fixed by the WBERC.

Failure to lodge the transit shortage claim by BTPS led to forgoing of claim of Rs. 4.57 crore.

In the absence of any agreement with ECL and BCCL the claims on shortage were to be settled on negotiation. Accordingly, against the STPS claim of Rs. 6.78 crore towards transit shortages during 2003-07, ECL accepted 50 *per cent* of the claim (Rs. 3.39 crore) on lump sum basis. However, no claim was lodged for shortage of 24,515 MT of coal valuing Rs. 4.51 crore during 2007-08. Similarly, BTPS did not lodge any claim during 2003-08 for shortage of 47,970 MT coal valued at Rs. 9.15 crore. Even on the basis of settlement of STPS claim, BTPS had forgone Rs. 4.57 crore. In the ARCPSE meeting the Management assured (September 2008) to introduce the system of lodging claim on shortage of coal in BTPS also. However, the Management did not indicate the reasons for failure to lodge claims.

Unjustified rejection of transit shortage claims by BECML

2.1.30 As per the agreement (May 1997) with BECML, actual weight at power station was to be considered for payment. During 2003-06 BTPS received 7,712 MT coal short and accordingly submitted shortage claim of Rs. 1.40 crore. BECML, however, accepted 50 *per cent* of the claim on the plea that shortage had occurred due to non-functioning of weighbridge properly at BTPS. The BTPS management accepted the amount without investigating whether the weighbridge was really not in order. It was noticed in audit that the weighbridge at BTPS functioned properly and regularly during 2003-06 and all the wagons were weighed at the power station and weight recorded in the coal register. Thus, the acceptance of Rs. 70 lakh lacked justification, leading to forgoing the claim for Rs. 70 lakh. The shortage claim of Rs. 24.18 lakh for 2,131.52 MT for 2006-08 was yet to be settled (September 2008).

Performance of liaison agent

Failure to ensure loading of coal without stones

The Company sustained loss of Rs. 13.71 crore due to its failure to get reimbursement from the agent for loading of 70,430 MT stones.

2.1.31 The Company engaged (February and December 2003) West Bengal Mineral Development and Trading Corporation Limited (WBMDTC), a Government Company as its liaison agent for STPS and BTPS for monitoring and ensuring the loading of coal free from stones, reduction of transit shortage *etc.* on payment of Rs. 8.50 per MT (STPS), Rs. 9.90 to Rs. 10.40 per MT (BTPS). The Company terminated (September 2006) the contract. It paid Rs. 5.29 crore[16] to WBMDTC during April 2003 to September 2006.

The Company received 70,430 MT[17] of stones along with coal supplied from ECL leading to loss of coal valued at Rs. 13.71 crore[18]. The Company neither called for reasons from WBMDTC for its failure to ensure loading of coal free

[16] BTPS: Rs. 3.38 crore, STPS: Rs. 1.91 crore.
[17] BTPS: 31,180 MT, STPS: 39,250 MT.
[18] BTPS: Rs. 6.61 crore, STPS: Rs. 7.10 crore.

from stones nor did it impose any penalty in the absence of enabling provision in the agreement.

Undue advantage to the liaison agent

Transit shortages of Rs. 10.56 crore were not recovered from the agent.

2.1.32 The Company engaged (February/December 2003) West Bengal Mineral Development and Trading Corporation Limited (agent) for supervision of loading at despatch end and escorting of coal rakes from the collieries of ECL to BTPS and STPS. As per the agreement (March 2004), WBMDTC was liable to pay the damages proportionately if the differences between the R/R weight and measured weight at plant site exceeded one *per cent*. The shortage was to be calculated on cumulative basis for first two months only and thereafter on monthly basis. The Company, however, amended (May 2005) the condition of realisation of damage to the benefit of the agent that one percent shortage would be arrived at after considering the overall shortage for the entire contract period.

It was noticed that in 15 out of 42 months (April 2003 – September 2006) at BTPS the shortage (39,963 MT) exceeded one *per cent* by 27,155 MT, while in eight months the shortage (2,130 MT) was within the limit of one *per cent*. In the balance 19 months, 17,219 MT was received in excess. Similarly, in 16 out of 34 months (December 2003 – September 2006) at STPS the shortage (39,689 MT) exceeded one *per cent* by 29,338 MT, while in three months the shortage (1,316 MT) was within the limit of one *per cent*. In the balance four months 6,498 MT was received in excess. The details of excess/short receipt in respect of balance 11 months could not be quantified in audit due to non-availability of R/R weight and actual weight.

While determining the quantity of admissible shortage, the aggregate quantity of coal transported during the entire contract period was considered instead of ascertaining shortage on month to month basis. Consequently, both the TPS did not recover shortages of 56,493 MT (BTPS: 27,155 MT, STPS: 29,338 MT) valuing Rs. 10.56 crore from WBMDTC and thereby extended undue benefit to the agent.

The Management stated (August 2008) that had the short receipt of coal been realised monthly from the agent they could not have survived and their prayer was accommodated by calculating the total loss in percentage for the entire contract period. Further, the actual shortage was reduced to the level of 1.5 *per cent*. The reply itself indicated that the Company extended undue benefit to WBMDTC at the cost of its financial interest.

Appointment of liaison agents for linkage materialisation

2.1.33 With a view to improve the linkage materialisation, the Company engaged (April 2007) two agents for coal supplies from ECL/ BCCL to BTPS

and STPS for a period of six months, to be extended for another two years, on the following terms and conditions:

Power Station	Name of the liaison agent/ Name of coal company	Terms of payment for linkage materialisation (per MT)	Penalty for shortfall in materialisation below 85 *per cent* (per MT)
BTPS	Naresh Kumar & Co./ ECL	Upto 85 *per cent* - Nil 85 to 90 *per cent*-Rs. 5.90 90 to 100 *per cent*-Rs. 6.55 Above 100 *per cent*-Rs. 6.55	Below 80 *per cent*-Rs. 3.27 80 to 85 *per cent*- 65 paise
STPS	Karamchand Thapar & Bros. (Coal Sales) Ltd./ ECL and BCCL	Upto 85 *per cent*-Nil 85 to 90 *per cent*- Rs. 4.16 90 to 100 *per cent*-Rs. 4.36 above 100 *per cent*-Rs. 4.36	Below 80 *per cent*-Rs. 2.19 80 to 85 *per cent*- 44 paise

It was observed that:

- Against linkage allotment of 12.25 lakh MT (BTPS) and 14.30 lakh MT (STPS) during May 2007 to March 2008, the actual materialisation was 77 *per cent* in BTPS and 59 *per cen*t (ECL) and 107 *per cent* (BCCL) in STPS. The same, however, ranged between 61 to 80 *per cent* (BTPS) and 71 to 89 *per cent* (ECL) and 96 to 105 *per cent* (BCCL) in STPS prior to engagement of the agents. Thus, engagement of the agent did not result in any perceptible improvement in linkage materialisation. Further, though the actual materialisation increased from 96 to 105 *per cent* in STPS in case of BCCL coal during 2003-07, the fixation of threshold limit on a lower side to 85 *per cent* in the agreement lacked justification.

- Materialisation was even below 80 *per cent* in four to eight months[19], while 85 to 100 *per cent* was achieved in one to three months[20] in BTPS and STPS. The agents, however, achieved more than 100 *per cent* in one month (BTPS) and six months (STPS).

- Though materialisation was below 85 *per cent* in four months, the Company paid Rs. 16.10 lakh to the agent beyond the contractual terms besides penalty of Rs. 8.71 lakh remaining unrecovered despite receipt of coal between 80 to 85 *per cent*.

Even after expenditure of Rs. 1.28 crore on liaison agents the intended benefits were not achieved.

The Management stated (September 2008) that the handling agents failed to achieve 85 *per cent* materialisation because they had no control over the coal suppliers and prior to engagement of the handling agent, the Company had never achieved 85 *per cent* materialisation. The reply was factually incorrect because **(i)** prior to engagement of the agents, the Company was aware that the supply of coal was controlled by the coal suppliers and the agents had no official role in this, **(ii)** the materialisation effected up to 2006-07 by the TPS was better than that made by the handling agent during 2007-08. In the

[19] Eight months (BTPS), four months (BCCL), eight months (ECL) in STPS.
[20] Two months (BTPS), one month (BCCL), three months (ECL) in STPS.

ARCPSE meeting the Management assured (September 2008) to look into the matter to overcome the situation.

Thus, even after expenditure of Rs. 1.28 crore on the liaison agents the intended benefits of improving the linkage materialisation were not achieved.

Loading of wagons to the optimum capacity

2.1.34 The tariff charged by the Railways is fixed and paid according to the carrying capacity of the wagons even it is under-loaded. For over-loaded wagons, railways charge for the actual load and also levy a penalty if wagons are loaded beyond two MT of their carrying capacity. Under the agreement, the liaison agents were responsible to ensure the loading of wagons to their full carrying capacity.

Over-loading penalty of Rs. 3.48 crore was not recovered from the agent.

BCCL agreed (August 2006) to bear 50 *per cent* of both over-loading and under-loading charges, while ECL met only the under-loading charges. Due to failure of the liaison agent, BTPS and STPS incurred Rs. 3.48 crore[21] towards over loading penalty for ECL supplies during 2003-08. In the absence of enabling provision in the agreements, the Company failed to recover any amount towards over loading penalty from the liaison agents.

The Management stated (September 2008) that all coal companies had since agreed to share both under loading and over loading charges on 50:50 basis. However, the reply was silent as to why the Company failed to include any provision of recovery of over loading penalty from the agents in the agreement.

Demurrage

2.1.35 BTPS is equipped with three wagon tipplers with a total capacity of unloading 100 wagons of coal per day, while STPS is equipped with two such tipplers with a total unloading capacity of 70 wagons per day. Railways allow the TPS free time of five to seven hours per rake for unloading. If rakes are detained beyond free time, demurrage is payable to railways.

The Company paid Rs. 17.81 crore (BTPS: Rs. 11.39 crore, STPS: Rs. 6.42 crore) towards demurrage during the five years upto 2007-08. Some of the cases of demurrage are discussed below:

The Company paid avoidable demurrage of Rs. 3.06 crore.

2.1.36 Against the capacity to unload 100 wagons (BTPS) and 70 wagons (STPS) per day, BTPS unloaded 48 to 62 wagons and STPS unloaded 34 to 58 wagons per day during 2003-08 mainly due to non-availability of wagon tipplers, shortage of man power, 'chute found damaged' as per the unloading register. However, due to non-availability of log books of wagon tipplers, the actual working hours, maintenance period *etc*. could not be examined in audit. The Railway Authority observed that the wagon tipplers were unfit for unloading wagons due to lack of proper maintenance and requested (February 2006) the BTPS authority to follow the maintenance schedule of

[21] BTPS: Rs. 3.21 crore, STPS: Rs. 27 lakh.

Research Design and Standards Organisation (RDSO) and Railway Board's guidelines. However, there was nothing on record to indicate that the BTPS authority had acted on the direction. Thus, delay in unloading wagons due to avoidable reasons led to payment of demurrage of Rs. 1.20 crore.

2.1.37 During 2003-04 to 2006-07, the Company paid Rs. 1.63 crore[22] to Railways only due to non-clearance of rakes on 'first come first serve' basis. This could have been avoided had the earlier rake been released first instead of subsequent rakes. Unplanned release of rakes thus resulted in avoidable payment of demurrage of Rs. 1.63 crore.

2.1.38 A rake containing 55 wagons with E.C. No. 3185 was received at BTPS on 23 December 2005 from Bankola Colliery, scheduled to be delivered to Tamil Nadu Electricity Board. Though BTPS usually unloaded the unconnected wagons, it detained the wagons of this rake for 171 hours and the wagons were ultimately released on 30 December 2005. This avoidable delay resulted in avoidable payment of demurrage of Rs. 23.26 lakh.

The Management stated (September 2008) that unloading was getting delayed due to non-functioning of the old material handling equipment and in the ARCPSE meeting (September 2008) they further added that no plan for modernisation of the material handling system was devised as the closing of both BTPS and STPS by 2010-11 was under contemplation. The reply was, however, silent as to why the Management failed to follow the maintenance schedule of the equipment and corrective action taken to reduce the incidence of demurrage, despite the direction from the Railways.

Maintenance of coal handling equipment

Poor maintenance of coal handling equipment led to generation loss of 76.73 MU.

2.1.39 Coal handling plant (CHP) and Coal Mill (CM) are two major ancillary units which ensure delivery of coal to boilers. Proper fuel management requires preparation of documented maintenance manual and pre-determined maintenance schedule for preventive maintenance and annual maintenance for optimum utilisation of fuel. It was observed in audit that the Company had not developed any documented maintenance policy incorporating its own inspection schedules and associated procedures. No major overhauling of CHP was undertaken in any of the TPS and only piecemeal maintenance was done departmentally and through contractors during 2003-08. This was also the case in coal mills. Consequently, different units of BTPS and STPS were shut down for 950.34 hours or operated under partial load during 2003-07 due to problem in operation of CM with consequent loss of generation of 76.73 MU.

[22] BTPS: Rs. 40 lakh, STPS: Rs. 1.23 crore.

Energy Audit

2.1.40 In compliance of Energy Conservation Act 2001, energy audit was taken up (August 2006) at BTPS (Unit IV and common areas) and STPS (Unit I and Unit IV) at a cost of Rs. 14.70 lakh to identify the reasons for heat losses. Indian Institute of Social Welfare and Business Management and ConZerv Systems Private Limited, the Energy Auditors submitted (February/ March 2007) their reports with recommendations **(Annexure 16)**. On implementation of the recommendations at an estimated cost of Rs. 90 lakh both the TPS were expected to earn an annual financial benefit of Rs. 9.68 crore *per annum*. However, the Company was yet to chalk out any plan to effect the recommendation (August 2008) for which no reason was recorded.

Implementation of recommendations of Energy Audit was slow.

The Management stated (September 2008) that the implementation of the recommendations was under progress.

Internal Control

2.1.41 Internal control system is an essential pre-requisite for effective and efficient management of an organisation. The following deficiencies were noticed in the control system:

- The Company did not devise a mechanism to closely monitor and pursue the fuel related claims.
- No material manual defining the maximum stock/ dead stock of coal had been prescribed so that generation did not suffer due to shortage of coal.
- No system was devised to ascertain weight of coal actually consumed in operation and hence the coal consumption per unit of generation varied from month to month. As a result, there were wide differences between the book stock and survey stock.
- The Company did not closely monitor whether the power generated was commensurate with the quantity of fuel consumed as per the norms of WBERC, though the entire fuel cost was never allowed by WBERC.
- No monitoring mechanism was introduced to oversee the performance of agents in regard to loading of coal as per the linkage allotment as well as loading of coal free from stones/ shales.
- No mechanism was introduced to ensure that the sampling was conducted as per the prescribed procedure.

Internal audit

2.1.42 The Company did not have any internal audit wing of its own. It engaged firms of Chartered Accountant for conducting internal audit for the routine work such as preparation of trial balance, bank reconciliation statement, checking of bank and cash transaction, physical verification of cash and stores. Corrective action taken by the Management on the Internal Audit Reports was not documented. The BoD did not also review the Reports to assess shortcomings noticed in internal audit and action taken notes thereon. Thus, the Internal audit was not effective as an important control element.

While accepting the facts the Management stated (September 2008) that in view of inadequate internal audit system the Board had since decided to separate internal audit cell to carry out audit on regular basis.

Conclusion

BTPS and STPS failed to recover six to 14 *per cent* of the fuel cost during 2003-08 due to low thermal efficiency coupled with consumption of high heat rate, high incidence of coal consumption, generation of excessive unburnt coal and consumption of oil in excess of norms. These arose from ageing of the plants, supply of inferior quality of coal, lack of maintenance programme. Both these thermal stations also sustained losses in fuel management due to delayed/ non-submission of claims with the Railways and coal companies, rejection of claims arbitrarily by the coal companies/ Railways in absence of agreement, ineffective follow-up of claims, avoidable payment of demurrage and loss of generation due to poor performance of material handling equipment. The Company failed to enforce penal provision on the liaison agents. Further, despite huge heat losses both the units were yet to implement the recommendations of energy audit seriously.

Recommendations

The Company needs to-

- **enter into long term contract with coal companies;**
- **enhance thermal and fuel efficiencies with improved technology, and better maintenance programme;**
- **introduce the effective control mechanism to oversee the performance of liaison agents with regard to lifting of coal as per the linkage allotment as well as loading of wagons as per the optimum capacity to avoid penalty;**

- **closely monitor the transit losses as well as fuel related losses and submit and pursue the claims with the coal companies and agents effectively;**
- **oversee that the power generated is commensurate with the quantity of fuel consumed as per the norms of WBERC; and**
- **implement the recommendation of the energy audit expeditiously to avoid high incidence of heat losses.**

The matter was reported to the Government (June 2008); their reply was awaited (September 2008).

West Bengal Infrastructure Development Finance Corporation Limited

2.2 Performance audit on financing activities

Highlights

The Company's capital adequacy ratio was below the RBI's norm and non-banking financial companies' average. It maintained a high proportion of funds in liquid assets leading to interest loss of Rs. 8.14 crore.

(Paragraphs 2.2.8 & 2.2.20)

Abnormal delays in conversion of amounts lying in Deposit Account into State Government loans and sanction of loans below cost of borrowings led to loss of Rs. 248.74 crore. The Company had not claimed Rs. 15.47 crore from the State Government as upfront fees and fees for reduction of interest rates on loans from HUDCO.

(Paragraphs 2.2.16 & 2.2.17)

Failure of the Company to analyse the market rates before fixing the interest rates on bonds led to additional burden of Rs. 368.33 crore.

(Paragraph 2.2.12)

The Company sustained losses of Rs. 205.81 crore due to investments below cost of funds, non-realisation of dues, waiver of interest *etc*.

(Paragraph 2.2.21)

Even after funding of Rs. 4,904.27 crore for infrastructure project, no monitoring mechanism existed to ensure end-use of funds disbursed.

(Paragraph 2.2.24)

Introduction

2.2.1 West Bengal Infrastructure Development Finance Corporation Limited (Company), a registered deposit-accepting non-banking financial company, was incorporated (May 1997) as a wholly owned Government Company to create all types of infrastructure facilities required for agricultural and industrial growth as well as to provide credit facilities under specific schemes or projects.

At present the Company functions as a special purpose vehicle (SPV) of the State Government. It raises funds from the market to meet the requirement of the annual State Plans with the approval of the Planning Commission. It also extends loans to Government undertakings, urban local bodies as well as to private companies.

The management of the Company is vested in a Board of Directors (BoD), consisting of a part-time Chairman, a whole time Managing Director (MD), and nine directors, all of whom were nominated by the State Government as on 31 March 2008. The Chairman has general responsibility for financial and executive administration as well as full control over the administration and business of the Company. The MD is the Chief Executive and is subject to the superintendence, control and direction of the Chairman. MD is assisted in the day to day operations by Financial Advisor-cum-Chief Accounts Officer, Company Secretary-cum-Internal Auditor, Consultant (Credit), Chief Consultant Engineer and Consultant Engineer (Electrical).

2.2.2 The Company finalised its annual accounts up to 2005-06 and prepared provisional accounts for the year 2006-07. The management attributed (September 2008) delay in completion of accounts to changes in accounting policies, entry into new operational areas and non-reconciliation of borrowing from banks and financial institutions with pass-through loans to State Government.

The working results of the Company from 2002-03 to 2006-07 are given in **Annexure 17**. It is evident from the Annexure that the Company sustained loss after tax of Rs. 61.39 crore in 2002-04, while it earned aggregate profit after tax of Rs. 773.70 crore in the remaining three years. It did not declare dividend in any of these years in order to improve the capital adequacy ratio, as discussed in paragraph 2.2.8.

Scope of Audit

2.2.3 The present performance review, conducted during February to May 2008, covers the performance of the Company with regard to its financing activities during 2003-04 to 2007-08. The audit findings are based on test check of records at the Company's administrative office at Kolkata.

Audit Objectives

2.2.4 The performance review was carried out to ascertain whether:

- short term and long range strategic plans were prepared keeping in view the goal for efficient development of infrastructure projects;
- annual targets were devised in conformity with the strategic plan for funding the identified infrastructure projects;

- an efficient mechanism of assessing the requirement of borrowed funds was in place and followed effectively;
- the borrowed funds were effectively deployed and the interest spread efficiently maintained;
- an effective system of pre-sanction project appraisal was in place and followed efficiently;
- the system of monitoring recovery and remedial action in case of default was effective;
- an efficient system of asset- liability management (ALM) including risk management mechanism, creation of sinking funds for redemption of bonds as well as fair practice codes were in place and working satisfactorily; and
- an internal control mechanism was in place and operational.

Audit Criteria

2.2.5 The performance of the Company with regard to its financing activities was assessed against:

- the objectives of the Company's formation;
- guidelines and circulars issued by GoI, Reserve Bank of India (RBI) and Securities and Exchanges Board of India (SEBI);
- policies and procedures laid down by the Company;
- trends in the yield from Government securities and corporate bonds rated to offer adequate safety to repay principal and pay interest; and
- best management practices of the industry.

Audit Methodology

2.2.6 Audit adopted a mix of the following methodologies for achieving the audit objectives keeping in view the audit criteria:

- examination of Memorandum and Articles of Association in respect of provisions regarding management, raising of funds, investment of funds;
- review of guidelines issued by GoI, SEBI and RBI;
- scrutiny of Agenda and minutes of the BoD's meetings;

- review of system of raising funds with regard to the requirement, credit rating obtained, prevailing rate of interest in the market, cost of raising funds;
- study of State Government orders, Deposit Account with RBI, investment ledgers *etc*;
- examination of project proposals and evaluation reports, sanctions, disbursement of loans, progress reports on utilisation of funds, loan agreements, review of claims raised for recovery of dues and follow-up mechanism; and
- interaction with the management and issue of audit queries.

Audit Findings

2.2.7 The audit findings were reported (June 2008) to the Management/ Government and discussed (5 September 2008) in the meeting of the Audit Review Committee for Public Sector Enterprises (ARCPSE), where the Government was represented by the Special Secretary, Department of Finance (Budget), Government of West Bengal and the Management was represented by both the Chairman and the Managing Director of the Company. The review was finalised after considering the views of the Management/ Government.

The performance of the Company was found to be deficient in areas of planning and policy making, resource mobilisation, application of funds, sanction and disbursement of loans and internal control system which led to substantial loss, as discussed in succeeding paragraphs. A glossary of technical terms is given at **Annexure 18.**

Analysis of Performance indicators

2.2.8 The performance efficiency of the Company for the five years up to 31 March 2007 was assessed on some performance indicators (**Annexures 17 & 19**) like capital adequacy, quality of earnings and non-performing assets, as discussed in the succeeding paragraphs.

- A higher capital adequacy ratio improves the ability to absorb losses in the event of defaults by borrowers as well as enhances the margin of safety by which lenders are insulated from cascading default. Although the capital adequacy ratio rose from three *per cent* in 2002-03 to ten *per cent* in 2006-07, it was still below RBI's norm of minimum of 12 *per cent* and the non-banking financial companies' average[1] of 21.6 *per cent* (September 2006). This adversely affected

[1] RBI's Annual Report 2006-07.

the Company's credit rating resulting in borrowings at higher cost, as discussed in paragraphs 2.2.11 and 2.2.12.

- Lower interest payout ratio indicates wider spread between interest outgo and interest income. Similarly, lower percentage of profit before tax to total expenditure reflects a lower margin of safety in the event of rising costs and default. During 2002-07, the interest payout ratio and percentage of profit before tax to total expenditure improved from 98 *per cent* to 80 *per cent* and 0.14 *per cent* to 27.71 *per cent* respectively. This improvement was due to change in the basis of accounting of interest income on loans from cash to accrual and accounting for the accrued interest on non-performing loans.

- If the interest or instalment due on a term loan is overdue for a period of six months or more, it is classified as a non- performing asset (NPA)[2]. The percentage of NPA fell from 2.74 *per cent* of total loans as of March 2003 to 0.06 *per cent* as of March 2007, since the State Government converted (March 2007) principal and interest on loans to Government undertakings in default aggregating Rs. 404.27 crore, which were guaranteed by the State Government, into fresh State Government loans.

Notwithstanding the performance indicators above, there was inadequacy of planning, high dependence on borrowed funds, defective project appraisal, lack of end-use monitoring and weak internal control as discussed in succeeding paragraphs.

Planning

Infrastructure projects were financed without formulating any plans.

2.2.9 The indices of States' infrastructure drawn up by the successive Finance Commissions indicated dip from 131.67 (1995[3]) to 111.25 (2002[4]) and further to 84.18 (2005[5]) in the State. Yet, there was no system of the State Government referring projects to the Company for financing. Consequently, the Company faced limitations in formulating any long term strategic plan for development of infrastructure projects in the State and to assess the requirement of investment in order to enable fixing of annual targets. The Company had no mechanism to periodically liaison with the Government and local bodies to obtain details of potential infrastructure projects for financing.

The Company had no lending policy till September 2007. Although 93 to 95 *per cent* of the loan portfolio was extended to the State Government, the Company neither called for nor obtained the details of the infrastructure projects from the State Government. Thus, investment in the infrastructure

[2] RBI master circular DNBS (PD) CC No. 97/03.02.001/ 2007-08 dated 2-7-2007.
[3] Tenth Finance Commission.
[4] Eleventh Finance Commission.
[5] Twelfth Finance Commission.

projects lacked focus and direction required for achievement of objectives of financing.

Resource mobilisation

2.2.10 The Company had raised funds through issue of bonds guaranteed by State Government and term loans from banks as well as pass-through[6] loans from Housing and Urban Development Corporation Limited (HUDCO) and banks, secured against cess levied on commercial fuels by the State Government. The table below indicates the opening balance of borrowings, funds raised/ repaid during 2003-08 and closing balance.

(Amount Rupees in crore)

Sources (Own & pass-through)	Opening balance as on April 2003	Funds raised	Funds repaid	Closing balance as on March 2008
Bonds	5,421.21	4,399.21	3,651.46	6,168.96
Bank loans	1,532.50	7,743.50	8,517.28	758.72
Hudco	895.47	0.00	500.98	394.49
Cess loan	1,495.00	0.00	633.86	861.14
Total	**9,344.18**	**12,142.71**	**13,303.58**	**8,183.31**

It was observed that the Company issued bonds at higher rates of interest (paragraphs 2.2.11 & 2.2.12), delayed retiring of high cost bonds (paragraph 2.2.13) and drew loan from HUDCO in excess of requirement (paragraph 2.2.14) as discussed below.

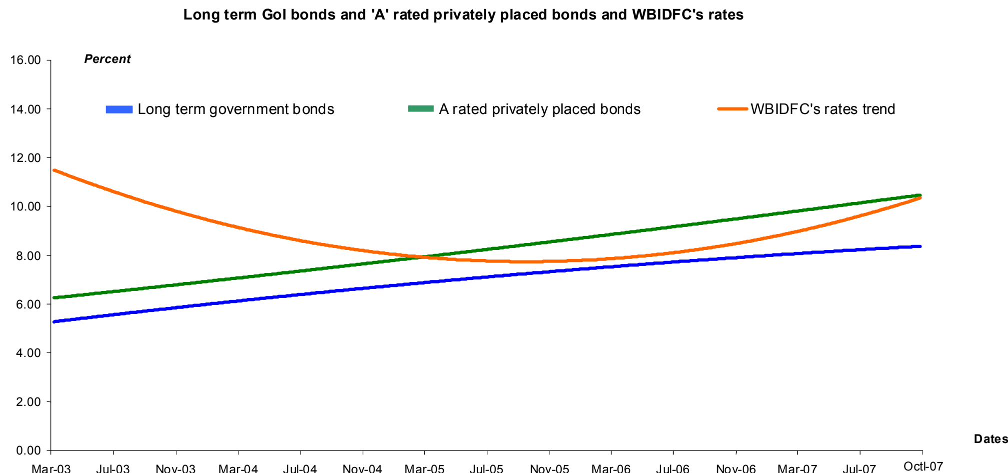
Issue of bonds at higher rates

2.2.11 Between March 2003 and October 2007, the Company mobilised Rs. 5,204.04 crore through private placements[7] of 17 series of 'A (SO)' rated bonds with interest rates of 7.5 to 11.85 *per cent*, guaranteed by the State Government. It was observed that the Company did not devise any mechanism to ascertain the prevailing interest rates in the market for its proposed issue of bonds. It had appointed Arrangers for the issue without inviting any tender to avail the best possible interest rates.

2.2.12 Audit conducted a comparative study of the interest rates on bonds issued by the Company with privately-placed 'A' rated corporate bonds of similar tenure and yield of long term GoI bonds, representing long term risk-free rate of interest that prevailed between March 2003 and October 2007, as given in the chart on the following page :-

[6] Pass through loans are loans obtained from HUDCO and banks which have to be entirely transmitted to the State Government without any benefit accruing to the Company.
[7] A private placement is a direct private offering of securities to a limited number of sophisticated investors. It is the opposite of a public offering.

Chart



(Based on data from RBI, Bombay Stock Exchange and Company's records)

Issue of bonds without analysing the market rates led to net additional interest burden of Rs. 368.33 crore over the tenure of bonds.

It would be seen from the chart that the Company initially issued bonds at higher rates compared to similar rated bonds, which improved subsequently. The Company issued 11 (Rs 2,333.54 crore) out of 17 series of bonds at interest rates varying 8 to 11.85 *per cent*, which were 2.32 to 3.54 *per cent* higher than the prevailing market rates of 5.58 to 8.97 *per cent* leading to additional interest of Rs. 480.10 crore over the tenure of the bonds. In the remaining six series (Rs. 2,870.50 crore), the Company had obtained rates below market rates resulting in interest savings of Rs. 111.77 crore. Thus, failure of the Company to analyse the market rates before fixing the interest rates on bonds issued led to net additional interest burden of Rs. 368.33 crore.

The Management/ Government stated (August 2008/ September 2008) that the higher rates of interest on bonds could be attributed to the limited experience of the investors with the Company in the initial seven to eight years of its existence. The reply indicated that the Company issued bonds at higher rates without market intelligence. Further, it did not elucidate whether financial implications were assessed before issue of bonds at higher rates.

Failure to retire high cost bonds

Inordinate delay in redeeming bonds led to payment of additional interest of Rs. 2.73 crore.

2.2.13 The Company issued bonds (October 1997) of Rs. 99.44 crore carrying interest of 13.5 *per cent* with an option to prematurely redeem them in October 2002. In October 2002, the Company redeemed bonds of Rs. 20.07 crore as interest rates on Company's bonds showed a downward trend. The same fell to 11.63 *per cent* in November 2002. However, the Company redeemed the remaining bonds of Rs. 79.37 crore after a delay of more than two years in April 2005 and continued to pay interest at the higher rate. The reasons for failure to redeem the bonds were not on record. This led to payment of additional interest of Rs. 2.73 crore from November 2002 to April 2005.

Excess drawal of loan from HUDCO

2.2.14 With a view to finance post flood restoration programme in irrigation, roads and bridges and housing sector[8], the State Government obtained (November 1999) approval from GoI under Article 293 of the Constitution to avail loan of Rs. 800 crore from HUDCO through the Company. HUDCO sanctioned (December 1999) a line of credit of Rs. 800 crore to the Company. However, the Company drew (January 2000- March 2004) Rs. 1,075.11 crore from HUDCO at interest rates of 8.75 to 14 *per cent*, for 13 housing projects under Two Million Housing Programme (Rs. 305.42 crore) and 31 infrastructure projects (Rs. 769.69 crore). The reasons for excess drawal of Rs. 275.11 crore were not documented.

Application of funds

2.2.15 The Company disbursed loans to the State Government under Annual State Plans with approval of the Planning Commission and GoI. While disbursing loans to the State Government, the Company did not obtain project details from the State Government and was unable to evaluate detailed project reports. The Company parked funds in the Company's Deposit Account with RBI[9], Kolkata, as and when requisitioned by the State Government. Subsequently, the State Government converted the amount lying in Deposit Account to loans.

The Company also extended loans to Government undertakings/ agencies on the instructions of the State Government and to private parties after sanction by the BoD. In December 2006, the Company reintroduced the project appraisal mechanism that was defunct since August 2000. Against the RBI's ceiling of 25 *per cent* for assistance to each sector, the Company disbursed 40 *per cent* and 33 *per cent* of loans to industrial promotion and chemical sectors till 31 March 2008.

The Company did not however, formulate any lending policy till October 2007. Moreover, it had not documented norms for fixing the rates of interest in respect of Government loans. In respect of loans to other entities, the Company maintained an average spread of 1.5 *per cent*.

The table below indicates the opening balance of loans outstanding, loans disbursed, recovered etc. during 2003-08.

(Amount Rupees in crore)

Category of borrowers	Opening balance as on April 2003	Loans disbursed	Loans recovered	Closing balance as on March 2008
State Government				
Own source loans	4,674.28	4,904.27	5,287.42	4,291.13

[8] Roads sector: Rs. 250 crore, irrigation embankments sector: Rs. 500 crore, permanent flood shelters in calamity prone villages: Rs. 20 crore and rebuilding of houses destroyed by natural calamities: Rs. 30 crore.
[9] Accounted by Pay & Accounts Office, Kolkata.

Category of borrowers	Opening balance as on April 2003	Loans disbursed	Loans recovered	Closing balance as on March 2008
Pass-through loans				
- HUDCO	825.86	-	431.37	394.49
- Cess	-	1,495.00	633.86	861.14
Others				
- Undertakings	319.95	482.65	626.41	176.19
- Local bodies	116.69	-	116.69	-
- Private	-	33.82	0.07	33.75
Total	**5,936.78**	**6,915.74**	**7,095.82**	**5,756.70**

The audit findings regarding utilisation of funds are discussed in the succeeding paragraphs.

Loans to State Government

Abnormal delays in converting the amounts lying in the Deposit Account to loan account led to loss of Rs. 200.44 crore due to differential rate of interest.

2.2.16 The Company disbursed (March 2004 - March 2008) five loans aggregating Rs. 4,904.27 crore to the State Government at interest rates ranging from nine to 10.50 *per cent*. Of this, Rs. 404.27 crore was utilised (March 2007) for converting principal and interest on State Government guaranteed loans to Government undertakings into State Government loans. The balance Rs. 4,500 crore was deposited (February 2002 - March 2008) in the Company's Deposit Account with RBI[10], Kolkata which was converted (March 2004 – March 2008) to loans by the State Government after delay of five to 734 days. The Company had raised money through issue of bonds, loans from banks and deposits from public at an average cost of 9.03[11] *per cent* per annum. Against this interest cost, the State Government paid interest at the rate of six to seven *per cent* on balances lying in deposit account[12]. Thus, parking of funds in the Deposit Account and subsequent delay in their conversion to loan led to loss of Rs. 200.44 crore during February 2002 to March 2008 at the differential rate between the cost of raising funds and interest earned on the deposit account.

The Management/ Government stated (August/ September 2008) that efforts would be made to cut down duration of parking of funds in deposit accounts pending conversion into loans. The reply did not, however, indicate as to why corrective action was not taken earlier to avoid loss of Rs. 200.44 crore.

Further, the Company sanctioned (March 2004) a ten-year plan loan of Rs. 1,500 crore to the State Government at lower rate of interest of 10.5 *per cent* when the cost of raising funds by the Company was 11.34 *per cent*. This led to loss of Rs. 48.30 crore from April 2004 to March 2008.

[10] Accounted by Pay & Accounts Office, Kolkata.
[11] Cost of fund ranged from 11.68 *per cent* to 7.61 *per cent*.
[12] At rates applicable to Ways and Means advances from time to time.

Utilisation of HUDCO loan

In deviation of the terms, loan of Rs. 180.26 crore was diverted resulting in additional interest burden of Rs. 14.60 crore.

2.2.17 Out of the proceeds of loan (Rs 1,075.11 crore) from HUDCO, the Company deposited (January 2000- March 2004) the net receipts of Rs. 1,049.87 crore[13] to the Deposit Account of the Company with RBI. The State Government converted Rs. 868.89 crore into Hudco loan and since June/ December 2000, the Company was realising from the State Government a fixed amount of Rs. 6.95 crore towards principal and Rs. 2.75 crore as interest irrespective of principal amount outstanding under the monthly mandate of Rs. 9.70 crore with RBI. Of the remaining Rs. 180.98 crore[14], the Company released (February 2006) Rs. 79.39 crore as loans[15] to State Government and diverted (June 2000/ June 2006) Rs. 100.87 crore for repayment of term loans/ bonds and investment in term deposit. The balance amount of Rs. 72.25 lakh was still lying in the Deposit Account. This saddled the Company with additional interest burden of Rs. 14.60 crore till March 2008, being the difference between interest on loan from HUDCO and interest earned.

In April 2004, HUDCO intimated that the average interest rates were reduced from 12.60 to 8.19 *per cent* for which the Company paid (January 2000 - March 2004) HUDCO Rs. 17.50 crore towards fees for reduction of interest on gross loan amount of Rs. 1,075.11 crore. However, the Company failed to claim (September 2008) proportionate share (Rs. 14.24 crore[16]) of fees paid from the State Government. Similarly, against the proportionate up-front fees of Rs. 6.99 crore recoverable from the State Government for raising of loan, the Company did not recover Rs. 1.23 crore from the State Government (September 2008).

Thus, failure to reconcile the loan accounts both with the State Government and HUDCO led to additional interest payment of Rs. 14.60 crore and non-recovery of fees of Rs. 15.47 crore.

Shortfall in disbursement of loans to other entities

2.2.18 The Company did not fix annual targets for sanction and disbursement of loans to private parties and Government undertakings. The table below indicates the sanctions and disbursements of loans out of current years'

[13] Gross loan Rs. 1,075.11 crore less upfront fees (front end fees and research and development charges) Rs. 8.59 crore and accumulated interest Rs. 16.65 crore.
[14] Rs. 1049.87 crore – Rs. 868.89 crore.
[15] Loans not treated as HUDCO loan but treated as if the same was sourced from the Company's own resources.
[16] Proportionate fees for gross loan to the Government (Rs. 874.64 crore) is Rs. 14.24 crore.

sanctions for the five years up to 2007-08:

(Amount Rupees in crore)

Particulars	2003-04		2004-05		2005-06		2006-07		2007-08	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Sanctioned	9	69.53	1	192.00	Nil	Nil	3	331.43	5	697.90
Disbursement	8	61.22	2	197.00	2	3.31	2	200.42	3	54.52
Disbursement out of the current year's sanctions	8	61.22 (88)	1	192.00 (100)	Nil	Nil (-)	2	200.42 (60)	2	33.40 (5)

(Figures in bracket indicate percentage of disbursement to total sanction of the year)

It would be seen from the table that-

Exposure of loan portfolio to private sector and Government undertakings was nominal.

- Despite availability of funds, the Company sanctioned loans on a very limited scale to private parties and Government undertakings mainly due to its failure to identify the potential projects and borrowers. Further, the sanctioned amount was not at all availed by the borrowers in as much as Rs. 625 crore, sanctioned (August 2007 - January 2008) for three projects, were not drawn by the borrowers till September 2008. The reasons for non-drawal were not analysed by the Company.

The Management stated (May 2008) that the Company was in touch with the borrowers. However, the fact remains that the borrowers did not turn-up to avail the sanctioned loans so far (September 2008).

- Against RBI guidelines (February 2003) for assistance to specific infrastructure projects[17], the Company disbursed (2003-08) Rs. 405.24 crore for projects[18] which did not meet the criterion.

The BoD decided (July 2006) that while participating in loan programmes for infrastructure projects consortium finance, the Company should participate in of 'AAA/AA' rated[19] companies only. Yet, the Company disbursed loans of Rs. 71.01 crore to companies with lower credit rating for non-infrastructure projects as follows:

- Jai Balaji Industries Limited[20] (JBIL) proposed (August 2006) to obtain term loans of Rs. 133 crore from the Company in consortium with four[21] banks for setting up of their electric arc furnace (non-infrastructure project) to produce alloy steel. Punjab National Bank (PNB), the co-ordinating bank, had rated JBIL as 'BB+'. The BoD sanctioned (February 2007) loan of Rs. 44 crore with a fixed rate of interest of 11 *per cent*, while four banks sanctioned (January-July 2007) aggregating Rs. 89 crore. While all the banks had

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[17] Roads, bridges, highways, ports, airports, water supply, irrigation, telecommunication, industrial parks, power *etc*.

[18] Land acquisition at Singur (Rs. 200 crore), purchase of shares in Haldia Petrochemicals Limited on behalf of the State Government (Rs. 192 crore) and revival of a sick unit (Rs. 13.24 crore).

[19] A credit rating of 'AAA/AA' indicates credit worthiness of either the highest or very good quality with very low or low risk of default by the borrower.

[20] Previously Jai Balaji Sponge Iron Limited.

[21] Punjab National Bank (Rs. 55 crore), IDBI Bank (Rs. 20 crore), Allahabad Bank (Rs. 8 crore) and Bank of Rajasthan (Rs. 6 crore), WBIDFC (Rs. 44 crore).

incorporated a charge for pre-payment of the principal, the Company had not specified any pre-payment charge. Consequently, the Company allowed JBIL to enjoy the benefit of lower interest rate in rising interest rate scenario as well as to opt for pre-payment in case of fall in interest rates. In the event of pre-payment of loan, the Company would incur loss of interest due to absence of enabling provision in the agreement for pre-payment charge. Hence, the Company without protecting its financial interest, disbursed (August 2007-March 2008) Rs. 29.40 crore till March 2008 for a non-infrastructure project and that too to a lower credit rated company.

The Management stated (May 2008) that the BoD had sanctioned loans to JBIL based on project viability and strength of the group. The reply itself indicated the violation of its own decision by the BoD. Further, the Company did not address the fact that in a falling interest rate regime, JBIL would retire high cost loan with the Company by drawing low cost funds from financial institutions with lower rate of interest.

- Similarly, the BoD sanctioned (February 2007) term loan of Rs. 27.01 crore to Durgapur Chemicals Limited (DCL) for a membrane cell project (another non-infrastructure project) to manufacture caustic soda, despite the consortium leader (Allahabad Bank) rating DCL as 'AB-5'. The Company disbursed Rs. 21.12 crore to DCL till 31 March 2008.

The Management/ Government stated (May 2008) that it was a conscious decision to disburse loan to DCL. The reply itself indicated that in deviation of its own policy the BoD sanctioned the loan.

Investment for redemption of bonds

2.2.19 With a view to strengthening the bond repayment mechanism the credit rating agencies and trustees to the bond holders had stipulated (December 2001) that the Company should maintain investments in 'AA' or higher rated instruments of banks or financial institutions and the maturity value of such instruments were to be equal to the face value of the outstanding bonds at the time of their redemption. Against this requirement, the Company created investments in recurring and term deposits with banks aggregating Rs. 1,196.42 crore till March 2008 for redemption of outstanding bonds of Rs. 3,000 crore, issued between April 2005 and October 2007. However, no investment was created for bonds of Rs. 3,168.96 crore, due for redemption between April 2008 and May 2014.

It was observed that investments of Rs. 1,196.42 crore would yield Rs. 2,740.58 crore[22] on maturity between April 2008 and October 2014, while the bonds would have to be redeemed between May 2010 and October 2017. Had the Company invested in specified[23] instruments with tenures corresponding to maturity of the Company's bonds, it could have reduced the

[22] Adjusted for corporate tax at 36.95 *per cent*.
[23] 'AA/AAA' rated instruments of banks and financial institutions.

initial investment by Rs. 671.49 crore and the Company would have ensured tax adjusted earnings of Rs. 40.22 crore annually on investment of Rs. 671.49 crore in similar investment at interest rate of 9.5 *per cent per annum*. In the process, the Company could have avoided mismatch between the dates of maturity of investment and dates of repayment of bonds.

Injudicious investment led to loss of annual earnings of Rs. 40.22 crore.

The Management stated (May 2008) that investments in instruments other than fixed deposits and recurring deposits with banks were not permitted by the credit rating agencies. The reply is factually incorrect as the credit rating agencies had allowed (December 2001) the Company to invest in 'AA or AAA' rated bonds of banks and financial institutions which would have resulted in higher returns. Besides, the Management had neither explored alternative avenues of investment nor approached the credit rating agencies with better investment opportunities to maximise the return.

At the ARCPSE meeting (September 2008), the Management, however, stated that the rating agencies had since been approached with alternate investment options and their feedback was under evaluation.

Cash Management

2.2.20 The liquid ratio decreased from 9.21:1 in 2002-03 to 3.69:1 in 2006-07 which was still above the standard ratio of 1:1 indicating a high level of liquid assets. Although the cash and bank balances showed a downward trend (**Annexure 19**), the Company had still maintained substantial cash balances over this period. The Company did not prepare cash forecast/ budget to assess the quantum of funds not immediately required for investment in term deposits to fetch higher returns.

Failure to invest idle funds led to loss of interest of Rs. 8.14 crore.

It was observed that the requirement of funds of the State Government from the Company substantially decreased from 2003-04 with no funds being drawn by the State Government from November 2004 to September 2007. But the Company kept the idle funds of Rs. 25.43 crore to Rs. 42.14 crore during April 2003 to December 2006 in 20 current accounts without earning interest. Had the Company invested the idle funds in short-term deposits at interest rate varying from 4.92 to 7.50 *per cent* during April 2003 to December 2006, it could have earned interest of Rs. 8.14 crore during the same period.

The Management/ Government stated (August/ September 2008) that cash management had since been done regularly through meetings of the Investment Committee and a liquidity management policy would be put up to the BoD for consideration. The reply did not, however, indicate as to why such action was not initiated earlier to avoid loss of interest.

Recovery of loans

2.2.21 The Company disburses loans after execution of loan agreements and creation of security in favour of the Company by way of a *pari-passu* charge on the borrowers' assets. The Company raised demands on the borrowers for

payment of principal and interest either monthly or quarterly. Further, on default of loans against State Government guarantees, the Company would seek repayment from State Government. The Company had no policy for one time settlement (OTS) or reworking of the terms and conditions/ rescheduling of the loans in the event of default by or sickness of borrowers. The Company partly/ completely waived (October 2004 -August 2006) interest of Rs. 113.70 crore from nine borrowers on case to case basis, which enabled the Company to reduce the amount overdue for six months or more to Rs. 3.96 crore.

The Company sustained losses of Rs. 205.81 crore due to investments below cost of funds, delayed/ non realisation of dues, waiver of interest, failure to invoke State Government Guarantee, disbursement prior to fulfilment of terms of sanction by the borrower and financing of unviable projects, which have been detailed below and in **Annexure 20**.

Loss due to debt restructuring of Haldia Petrochemical Limited

2.2.22 The Company disbursed (June 2000 - September 2000) two bridge loans of Rs. 175 crore to Haldia Petrochemicals Limited (HPL) for completion of infrastructural works at HPL's petro-chemical project at Haldia. The loan, carrying interest of 16 *per cent per annum* was to be repaid within 90 days from drawal. Till December 2001, HPL paid total interest of Rs. 24.14 crore when Rs. 189.95 crore (principal : Rs. 175 crore, interest : Rs. 14.95 crore) was outstanding. Thereafter, HPL stopped payment due to financial crunch.

To facilitate corporate debt restructuring (CDR) of HPL, State Government compelled (February 2002) the Company to convert the entire loan with accrued interest up to 25 February 2002 aggregating Rs. 194.62 crore into redeemable cumulative preference shares of HPL with tenure of seven years and coupon rate of one *per cent*. Yet, HPL effected the conversion only in October 2004 after more than two years. Subsequently, the State Government also compelled (October 2004) the Company to waive interest of Rs. 100.04 crore accruing from 26 February 2002 to 18 October 2004, in lieu of which, HPL was to pay the Company rupees six crore as interest immediately. Although the Company claimed (November 2004) the interest, it failed to pursue its dues on time and realised (September 2006) the amount after 21 months. As a result, the Company suffered further loss of interest of Rs. 42 lakh (at minimum rate of interest on short term deposit at four *per cent per annum*) for 21 months.

Further, the average cost of raising funds during the period of disbursements (June - September 2000) was 12.96 *per cent* per annum. Considering redemption of preference shares in October 2011 and receipt of dividend of Rs. 13.62 crore, interest received of Rs. 30.14 crore and converted accrued interest of Rs. 19.62 crore, the Company incurred loss of Rs. 197.17 crore by disbursing loan to HPL and its subsequent conversion to redeemable preference shares. The Company had not received preference dividend of Rs. 7.78 crore from October 2004 to March 2008. Despite incurring loss of Rs. 197.59 crore, the Company did not take up the matter for compensation with the State Government.

The Management/ Government stated (August/ September 2008) that the question of recompense by the Government would form part of their recommendations for additional contribution of equity and other compensatory measures to be made to the State Government shortly. The reply was, however, silent as to why such action was not initiated earlier to protect its financial interest.

Monitoring

2.2.23 In order to ensure proper use of loans, post disbursement monitoring is a pre-requisite. The Company had no system of post disbursement monitoring to ensure that funds disbursed were used for specific purposes.

Absence of monitoring

Monitoring of infrastructure projects was non-existent.

2.2.24 The Company disbursed loans to the State Government without obtaining the details of infrastructure projects. Neither the State Government nor the Company maintained data base/ progress reports in regard to development of projects out of the Company's funds. Thus, even after disbursement of loans of Rs. 4,904.27 crore to the State Government the effective utilisation of funds was not known to the Company. Thus, monitoring of the loans for infrastructure projects was non-existent.

It was noticed in audit that out of loan of Rs. 1,500 crore sanctioned by the Company in March 2004, the State Government had incurred aggregate expenditure of Rs. 980.68 crore[24] on those items of plan expenditure for which source of funding had not been earmarked by it and diverted the balance amount of Rs. 519.32 crore to meet non-plan expenditure, thereby indicating lax monitoring over utilisation of funds.

While accepting the facts, the Management stated (September 2008) in the ARCPSE meeting that the modalities of the post-disbursement monitoring would be worked out with the State Government. The reply was, however, silent as to why monitoring mechanism was not initiated earlier by the State Government or by the Company even after funding of Rs. 4,904.27 crore on projects.

Similarly, the Company failed to monitor the implementation of projects funded out of loans from HUDCO as follows :

- The scheduled dates of completion of none of the 44 projects were on record. Even after lapse of seven years from disbursement (January 2000) of loans of Rs. 251.82 crore for constructing targeted 19.81 lakh rural dwelling units (RDUs) under Two Million Housing Programme (TMHP), only 11.01 lakh RDUs (56 *per cent*) were completed till March 2008. The construction of 8.79 lakh RDUs was

[24] Excluding non-earmarked plan expenditure of Rs. 54.66 crore on PW (Roads) and Transport.

in progress, while 1,298 RDUs were not taken up for construction. Similarly, against the target of setting up 3.45 lakh urban dwelling units (UDUs) against loans aggregating Rs. 50 crore, only 2.22 lakh UDUs (64 *per cent*) were completed, while 1.23 lakh were in progress. Of the RDUs/ UDUs under construction, neither their percentage of completion nor their expected dates of completion were documented.

Monitoring by both the Company and the State Government was deficient.

- Against average cost[25] of Rs. 31,696 per UDU and Rs. 14,036 per RDU under TMHP, the loans from HUDCO for these projects envisaged average costs of Rs. 1,449 and Rs. 1,271 respectively, thereby casting doubt on the actual construction of these dwelling units at such an abnormally low cost.

- Similarly, against Rs. 769.69 crore drawn for 31 infrastructure projects, utilisation certificates for the period March 2001 to April 2002 in respect of 14 projects (Rs. 339.92 crore) were on record of the Company. The Company did not call for the utilisation certificates for the balance amount of Rs. 429.77 crore, indicating lack of monitoring over the utilisation of funds.

- The Company did not constitute the State Level Monitoring Committee (SLMC) as per the terms of the Hudco loan nor did it monitor end use of the funds. Further, there was nothing on record to indicate that the Company had evaluated the viability of the projects before drawing the loans.

While accepting the observations, the Management/ Government stated (August/ September 2008) that reconciliation of HUDCO loan was undertaken through a firm of Chartered Accountants and their report was under review. The reply was, however, silent with regard to the deficiencies noticed in utilisation of funds and monitoring of projects.

Ficticious utilisation certificate for cess loan

2.2.25 On behalf of the State Government, the Company raised (January 2003 - March 2003) loan of Rs. 1,495 crore from 21 banks for developing transport infrastructure in West Bengal. The Company released (February to April 2003) Rs. 1,458.68 crore to State Government after deducting Rs. 36.32 crore towards initial interest, upfront fees and lead bank fees paid to the lending banks.

It was noticed in audit that as per the agreements (January 2003) with banks, the Company was responsible to obtain records showing utilisation of loan by the State Government and submit the half-yearly progress reports to banks on the transport infrastructure projects. However, the Company, in spite of repeated reminders from bank, did not obtain the progress of expenditure from the State Government.

[25] Based on data available from HUDCO.

Against the actual expenditure of Rs. 474.96 crore, the Company accepted the fictitious utilisation certificate of Rs. 1,405.83 crore from the State Government.

Only in March 2008, the Company obtained Utilisation Certificate (U.C.) from the State Government for expenditure of Rs. 1,405.83 crore, of which Rs. 809.38 crore was stated to have been incurred on transport and P.W. (Roads) during 2003-07. The Company, without verifying the details of infrastructure projects on which such expenditure was incurred, forwarded (April 2008) the U.C. to the bank. It was, however, noticed in audit that the State Government had actually incurred plan expenditure[26] of Rs. 474.96 crore under the heads 'Roads' and 'Transport' during 2003-07 against Rs. 809.38 crore indicated in the U.C. Another amount of Rs. 596.45 crore, included in the revised (2007-08) and budgetary estimates (2008-09) of the State Government for transport and P.W. (Roads), was also shown as expenditure in U.C. It was not clear how the appropriations under revised and budget estimates were shown as expenditure in U.C. and accepted by the Management, thereby casting doubt about the actual expenditure on development of infrastructure projects. The possibility of diverting the funds to meet revenue expenditure cannot be ruled out.

Thus, lax monitoring over the utilisation of funds on transport infrastructure defeated the objectives of drawing these loans.

The Management/ Government stated (August/ September 2008) that while the inadequacy of certificates of utilisation was undeniable, the lending banks had not questioned the contents of the certificates. The reply itself indicated the management's inaction to follow the progress of the projects and not questioning the contents of U.C. by the banks did not absolve the Company from monitoring on-going projects. At the ARCPSE meeting (September 2008) the Management, however, assured to work out the modalities of post disbursement monitoring with the State Government.

Absence of post-disbursement inspection of assisted companies

2.2.26 The Company did not, however, introduce periodical monitoring of assisted companies till January 2007, when it inspected only two out of 17 assisted (2003-08) units. Further, the Company's decision (May 2007) to appoint nominee director on the BoD of the assisted units was not effected so far (September 2008). Thus, the monitoring over the assisted units was deficient.

The Management stated (May 2008) that proper end-use of funds would be monitored through information from borrowers and reports. The reply did not, however, indicate as to why monitoring was not strengthened earlier.

[26] Information furnished by the Finance department, Government of West Bengal.

Unnecessary payment of guarantee commission

The Company, though not required under the Act, paid guarantee commission of Rs. 40 crore to the State Government.

2.2.27 The State Government levies a guarantee commission of 0.5 *per cent* per annum on the outstanding guarantees against loans raised by the Company. The State Government exempted (March 2002) the Company from payment of guarantee fees. Yet, the Company, of its own, paid (July 2007) guarantee commission of Rs. 40 crore to the State Government.

The Management stated (April 2008) that considering sound financial condition in 2004-05, the Company made a one- off payment of guarantee commission to the State Government. The reply was contrary to the provisions of The West Bengal Ceiling on Government Guarantees Act, 2001 which did not require the Company to pay the guarantee commission.

Internal Control

2.2.28 Internal control is essential for effective and efficient management of an organisation. The following deficiencies were noticed in the internal control system of the Company:-

Internal control was ineffective.

- Functional manuals documenting the guidelines and operational systems in respect of accounts, appraisals, disbursements, recoveries, investments, management information systems *etc.* were not drawn up.
- The Company did not introduce the system of reconciling the details of loans given and borrowings by the Company with the loanees/ lenders. Against HUDCO loan, the Company had been realising since June/ December 2000 a fixed amount of Rs. 6.95 crore towards principal and Rs. 2.75 crore as interest from the State Government under the monthly mandate of Rs. 9.70 crore with RBI. Till 31 March 2008, the Company had recovered from the State Government Rs. 1,222.31 crore towards principal (Rs. 394.10 crore) and interest (Rs. 828.21 crore), while the Company repaid Rs. 1,293.88 crore to HUDCO as principal (Rs. 680.62 crore) and interest (Rs. 613.26 crore) during the same period. This led to excess recovery of interest[27] of Rs. 356.24 crore and short recovery of principal[28] of Rs. 159.61 crore from the Government as a result of non-reconciliation.
- The Company had no system of internal audit although it had a Secretary –cum-internal auditor since inception. As a result, there was no systematic approach to evaluate and improve the internal control process.
- The Company constituted an Audit Committee but had not spelt out its scope. The Committee held only six meetings since April 2004, to

[27] Difference of interest recovered of Rs. 828.21 crore from the State Government and proportionate interest paid by the Company to HUDCO of Rs. 471.97 crore.

[28] Difference of principal recovered of Rs. 394.10 crore from the State Government and proportionate principal repaid by the Company to HUDCO of Rs. 553.71 crore.

mainly discuss finalisation of accounts. In one instance, internal control was discussed and on another occasion reconciliation and maintenance of loan accounts were commented upon.

Conclusion

Although the Company was earning profits, there were areas of concern viz. inadequacy of planning, high dependence on borrowed funds, defective project appraisal, lack of end-use monitoring and weak internal control. The Company had not chalked out a strategic plan, annual budgets or even targets to meet its goal of funding infrastructure projects. The Company's capital adequacy was both below RBI and industry norms. The Company issued bonds above the prevailing rates of interest, while granting loans below the cost of borrowing. It sanctioned loans in excess of RBI exposure norms as well as to non-infrastructure projects and to corporates with lower credit ratings. The Company had no documented policy for fixing interest rates on loans to State Government. Even though substantial amount was disbursed for funding infrastructure projects, the Company had no monitoring mechanism. Also, details of the infrastructure projects for which the Company had released loans to State Government were not available. Further, the investments by the Company were inadequate to cover the repayment of bonds.

Recommendations

The Company needs to –

- **prepare plans in consonance with its objectives, fix annual targets for raising of funds, sanction/ disbursement of loans and holding of liquid funds;**
- **sanction new cases of loans keeping in view sectoral exposure norms prescribed by RBI;**
- **maintain details of the infrastructure and other projects constructed with Company's loans;**
- **prescribe and follow a checklist of procedures and systems for sanction, disbursement and recovery of loans along with a policy for fixation interest rates on loans disbursed;**
- **strengthen the monitoring mechanism for ongoing projects and ensure prescribed end-use of funds within the scheduled time frame; and**
- **introduce functional manuals to be followed in various operating areas and operationalise internal audit system.**

Saraswaty Press Limited

2.3 Performance audit on production and marketing performance

Highlights

Performance of Saraswaty Press Limited (Company) with regard to production and marketing activities was found to be sub-optimal. The Company printed 71.19 crore impressions (41 ***per cent*****) against the modest standard printing capacity of 173.18 crore impressions during 2003-08 due to low availability of machine hours, operation of machines at lower speed, poor labour productivity** ***etc*****.**

(Paragraph 2.3.11)

Low running hours of the machines due to high percentage of make-ready hours, idle hours mainly due to absenteeism and break down hours led to loss of production and payment of idle labour charges during 2004-08.

(Paragraphs 2.3.13, 2.3.14 & 2.3.15)

The machines were operated below the standard speed ranging between 15 and 83 ***per cent,*** **resulting in loss of production of 30.88 crore impressions with consequential loss of contribution of Rs. 1.92 crore.**

(Paragraph 2.3.16)

Two machines, installed in March-June 2007 to reduce dependence on sub-contracting, were grossly underutilised, while Rs. 95.81 lakh was spent on sub-contracting printing of 1.20 crore books.

(Paragraph 2.3.17)

Absence of proper internal control over paper consumption led to excess wastage over the norms by nine to 15 ***per cent*** **resulting in avoidable expenditure of Rs. 11.95 crore.**

(Paragraph 2.3.21)

Absence of reliable costing mechanism and documented strategy for sub-contracting resulted in loss of Rs. 5.88 crore due to sub-contracting at higher rate, defective estimates etc.

(Paragraphs 2.3.31, 2.3.32 & 2.3.34 to 2.3.36)

Introduction

2.3.1 Sree Saraswaty Press Limited, a private sector company, was taken over (November 1984) by the State Government under the Sree Saraswaty Press Limited (Acquisition and Transfer of Undertakings) Act 1984, as 'the management had been conducted in a manner highly detrimental to the public interest'. Subsequently, Sree Saraswaty Press (1984) Limited (SSPL) was incorporated (January 1987) as a wholly owned Government Company to take over all the assets and liabilities of the erstwhile Sree Saraswaty Press Limited. SSPL was renamed in the style of Saraswaty Press Limited (Company) with effect from 25 June 1993. The objects of the Company are - photo offset, letter press and flexography printing, process engraving, packing and book binding materials, computer type setting and image processing, security designing and printing *etc*.

The Company has its own printing press at Kolkata with an installed printing capacity of 69.01 crore impressions annually and is entirely dependent on orders from the State Government as well as from Governments of adjacent States namely, Jharkhand, Tripura and Bihar. At present, the Company is engaged with the printing of books and forms[1] (66 *per cent*), confidential works[2] (12 *per cent*) and security jobs[3] (22 *per cent*) in its own factory as well as through outsourcing and marketing the printed products through its own marketing wing and marketing agents.

The management of the Company is vested in a Board of Directors (BoD) consisting of nine directors including the Chairman and the Managing Director (MD). The MD is the Chief Executive of the Company and is assisted by the Production Manager, the Controller of Finance and the Marketing Manager.

The working results of the Company for last five years upto 2007-08 are given below:

Sl. No.	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08
		(Rupees in crore)				
1.	Sales	19.77	24.28	40.08	61.75	50.33
2.	Other income	0.41	0.73	1.65	1.50	1.84
3.	**Total income (1+2)**	**20.18**	**25.01**	**41.73**	**63.25**	**52.17**
4.	**Total expenditure**	**20.08**	**24.54**	**40.00**	**58.34**	**49.16**
5.	**Profit before tax (3-4)**	**0.10**	**0.47**	**1.73**	**4.91**	**3.01**
6.	Prior period adjustment (+)/(-)	(-)0.14	(-)0.06	(+)0.01	-	(-)0.40
7.	Provision for Income Tax	0.09	0.25	0.65	1.84	1.61
8.	**Profit after prior period adjustment and tax (5-6-7)**	**0.15**	**0.28**	**1.07**	**3.07**	**1.80**
9.	**Dividend**	**0.11**	**0.22**	**0.66**	**0.82**	**0.82**

The increase in sales in 2006-07 was mainly on account of printing of ballot papers for Bihar Panchayat Election.

[1] Text books, annual reports, forms and registers including High Court and election papers.
[2] Bonds, stamps, lottery tickets, bank cheques and drafts, sales tax forms.
[3] Examination papers, budget publications, ballot papers, Audit Reports of the Comptroller and Auditor General of India, photo identity cards *etc*.

Scope of Audit

2.3.2 The performance audit, conducted during February to June 2008, covers the production and marketing performance of the Company for the last five years up to 2007-08. The audit findings are based on test check of records at the Company's headquarter, printing press at Belgharia and sales office at Sealdah, all in Kolkata.

Audit Objective

2.3.3 The Performance Audit on the production and the marketing performance of the Company was carried out to assess whether:

- an effective production planning was in place and followed efficiently;
- the production capacity of the press was utilised optimally;
- the consumption of paper and generation of scrap paper followed the norms;
- an efficient mechanism was in place for quality assurance and timely delivery of printed materials;
- modernisation programme of the printing press was devised and implemented efficiently;
- the Company had put in place the guidelines for outsourcing and followed the same;
- system of preparing cost estimates was efficient and effective;
- a well coordinated marketing strategy was devised and was working satisfactory; and
- the system of recovery of dues was effective.

Audit criteria

2.3.4 The performance audit with regard to the production and marketing performance of the Company was assessed against:

- production budget;
- technical audit report (TAR) of the Department of Printing Engineering, Jadavpur University;
- report of the State Productivity Council (SPC);
- Management Audit Report (MAR) of Ernst & Young;

- norms for wastage of papers fixed by the Company;
- production incentive scheme of the Company; and
- sales' budget and targets for collection from debtors.

Audit methodology

2.3.5 Audit adopted a mix of the following methodologies for achieving of audit objectives keeping in view the audit criteria:

- examination of agenda and minutes of the meetings of the Board of Directors (BoD);
- verification of production and sales records;
- study of TAR, MAR and report of the SPC;
- examination of records relating to jobs outsourced, performance of the subcontractors, cost estimates, job cards, details of productivity of machinery and payment of incentive and overtime;
- verification of paper consumption and scrap generation;
- review of customer profile and position of recovery; and
- interaction with the management and issue of audit queries.

Audit findings

2.3.6 The audit findings were reported to the Company and the Government in July 2008 and discussed (5 September 2008) at the meeting of the Audit Review Committee for Public Sector Enterprises (ARCPSE) which was attended by the Managing Director of the Company and the Joint Secretary, Public Enterprises Department, Government of West Bengal. The views expressed by them have been considered while finalising the performance review.

The performance of the Company was found to be deficient in the areas of optimum utilisation of printing capacity, consumption of papers, labour productivity, sub-contracting of jobs, marketing activities and recovery of dues. These deficiencies led to loss of Rs. 25.36 crore during 2003-08 as discussed in succeeding paragraphs.

Production performance

Cost Trends

2.3.7 The table below indicates the cost trends and contribution analysis for last five years upto 2007-08.

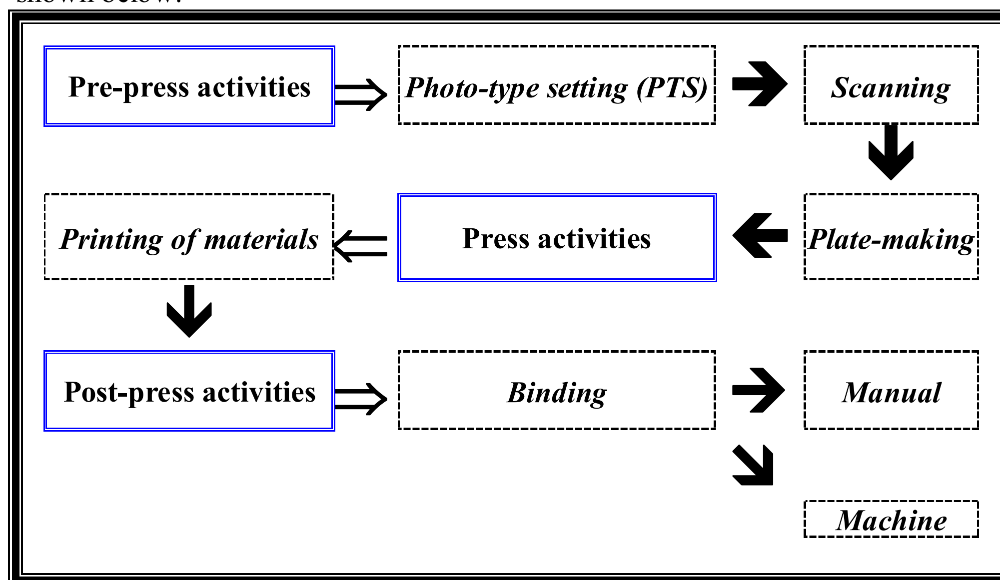
Sl. No.	Particulars	2003-04	2004-05	2005-06	2006-07	2007-08
		(Rupees in crore)				
1	**Sales**	19.77	24.28	40.08	61.75	50.33
2	**Direct expenses**					
	Raw materials	5.82	6.21	20.55	17.94	12.65
	Sub-contracting cost	4.85	8.20	7.75	24.77	19.71
	Power and fuel	0.54	0.53	0.55	0.54	0.56
	Direct overhead	0.42	0.26	0.77	1.96	4.23
	Direct labour	2.72	2.51	2.51	2.54	2.56
3	**Total**	**14.35**	**17.71**	**32.13**	**47.75**	**39.71**
4	**Contribution (1-3)**	**5.42 (27)**	**6.57 (27)**	**7.95 (20)**	**14.00 (23)**	**10.62 (21)**

(Figures in brackets represent percentage of contribution to sales)

It would be seen from the table that the percentage of contribution reduced from 27 *per cent* in 2003-04 to 21 *per cent* in 2007-08. This was mainly due to poor utilisation of capacity, low labour productivity, heavy dependence on outsourcing with low margin *etc*. as discussed in succeeding paragraphs.

Printing process

2.3.8 The printing process involves the three main activities which are shown below:



Production planning

2.3.9 An effective production planning is a pre-requisite to maintain a proper correlation and cohesion amongst pre-press, press and post-press activities to ensure quality printing and timely delivery. The Company prepared yearly sales budget. But it did not chalk out any production plan since 2001-02 corresponding to its sales budget so as to ensure the optimum utilisation of resources and timely completion of jobs. Rather, it planned for executing the jobs as and when received. The production performance was neither periodically reviewed by the Management nor placed before the BoD for corrective action.

The Management stated (August 2008) that the production planning had become difficult due to problem in retrieving and analysing the production and marketing data in the manual operation system and use of Entrepreneur Resource Planning (ERP) was being tried to help better production planning. The reply is not factually correct as the Company preserved computerised daily production details for the press section and by analysing the same the Company should have drawn production plan with reference to sales target. Further, the reply was silent as to reasons for its failure to review the production performance periodically.

The performance of main activities has been discussed in the subsequent paragraphs.

Pre-press department

2.3.10 The pre-press department comprised of four sections[4] and operated daily on three-shift basis. The Company neither set activity-wise standard time nor did it fix standard output norms for evaluation. Further, activity-wise time spent on each job at pre-press stage was not recorded in the job tickets with the details of pending jobs. Consequently, the extent of optimum utilisation of man power in the pre-press activities could not be ascertained in audit.

Deployment of excess manpower led to additional employees' cost of Rs. 1.26 crore during 2003-08.

State Productivity Council, West Bengal[5] recommended (April 1997) a manpower strength for pre-press activities at 44,[6] against which the actual manpower ranged between 95 and 53 during 2003-08. The Management did not, however, take any action to gainfully utilise excess manpower leading to excess financial burden of Rs. 1.26 crore during the same period towards salary.

[4] Artist section (15 nos.), Camera section (2 nos.), Plate making and Photo setting section (10 nos.) and Proof reading section (26 nos.) as on March 2008.
[5] Appointed to evaluate the man power required for different printing activities.
[6] Artist section (18 nos.), Camera section (2 nos.), Plate making and Photo setting section (5 nos.) and Proof reading section (19 nos.).

Press activity

Low utilisation of capacity

The Company achieved 22 to 56 *per cent* of the standard production capacity during 2003-08.

2.3.11 The press section had nine web-offset machines[7] and six sheet-fed offset[8] machines as of March 2008 operated generally on one[9]/two[10]/three[11] shift basis with an annual installed capacity of printing 57.46/ 51.69/ 69.01 crore[12] impressions. The annual standard production capacity was fixed (2001-02) by the Company at 57 to 60 *per cent* of the installed capacity. However, the Company did not fix any production target during 2003-08 with reference to the standard production capacity. It failed to achieve even the modest standard production and the shortfall ranged between 78 and 44 *per cent*, as would be seen from the table below.

Particulars	Y E A R				
	2003-04	2004-05	2005-06	2006-07	2007-08
	(I M P R E S S I O N S I N C R O R E)				
Installed capacity	57.46	57.46	57.46	51.69	69.01
Standard production	34.51	34.51	34.51	30.11	39.54
Actual production	7.76	13.61	17.68	16.97	15.17
Shortfall with reference to standard	26.75 (78)	20.90 (61)	16.83 (49)	13.14 (44)	24.37 (62)

(Figures in brackets represent percentage of shortfall in production to standard production)

The Company had not, however, analysed the reasons for under utilisation of capacity nor did it place the poor performance before the BoD for review and corrective action. The poor utilisation of machines, as analysed in audit, was attributable to low availability of machine hours, operation of machines at lower speed, poor labour productivity as discussed in the succeeding paragraphs.

Low availability of machine run-time[13]

Actual machine run-time fell below the available hours by 61 to 51 *per cent* during 2004-08.

2.3.12 The Technical Audit Report (TAR), Jadavpur University observed (May 2002) that machine run time of the press was as low between 16 and 40 *per cent* due to high incidence of idle hours, make ready time and break down hours as against 45 to 55 *per cent* in private presses. Thereafter, the Company did not take any corrective action to improve the position. Consequently, against available 63,433 to 61,512 working hours *per annum* during 2004-08, the actual machine run time ranged between 23,873 and 29,705 hours representing only 39 to 49 *per cent* of the available working hours, while the position in the private presses further improved to 79 *per cent* during the same period. The reasons for low availability of machine run time

[7] City Line (2 nos.), Zircon (2 nos.), Mark (4 nos.), Taiyo (1 no.).
[8] Heidelburg (1 no.), Shiva (2 nos.), Planeta (2 nos.), Nebiolo (1 no.).
[9] Taiyo, Nebiolo, Planeta, Mark.
[10] Mark, Zircon, Heidelburg.
[11] Zircon, City Line, Mark, Heidelburg.
[12] 57.46 crore impression during 2003-06 , 51.69 crore during 2006-07 and 69.01 crore during 2007-08.
[13] The machine run time is arrived at after deducting time spent for making the machines ready as well as time spent for repair or under breakdown and idle *etc*. from working hours.

are discussed below.

Make Ready (MR) Operation

2.3.13 Whenever a new matter is to be printed by a machine, it needs changing of plates containing the matter, cleaning of roller *etc*. known as Make Ready (MR) operation. TAR fixed (May 2002) the standard time of 0.2326 hour and 0.4024 hour for changing each plate in two each of Zircon and Mark-62 web-offset machines respectively. Subsequently, the Company did not fix any standard time for other 11 machines.

Excess time taken for make ready operation by 73 to 179 *per cent* over the norms led to shortfall of production of 9.24 crore impressions during 2004-08.

During 2004-08, 33 *per cent* of the available machine hours i.e. 84,501 hours were consumed on an average for MR operation. Audit scrutiny of allowable Make Ready Hours (MRH) fixed by TAR vis-à-vis actual MRH relating to Zircon and Mark web-offset machine over a six month period (October to March[14]) for each of the years 2004-08 revealed that these machines took excess time of 73 to 179 *per cent* over the norms as shown in **Annexure 21**. This led to shortfall in production of 9.24 crore impressions during the same period with consequential loss of contribution of Rs. 60.09 lakh due to frequent change of jobs and stoppage of machines during change of shift, accommodation of short urgent jobs[15], absence of training *etc.* Though these factors were mostly controllable, the Company did not take corrective action to reduce the high incidence of MRH.

Breakdown hours

2.3.14 Breakdown of machines causes delayed execution of work and loss of labour hours. TAR fixed a norm for breakdown hours (BDH) at 11 *per cent*. Though the running hours of the machines fell far below the desired level (paragraph 2.3.12), the actual BDH on an average was 15 *per cent* during 2004-08.

Analysis of machine-wise data over a six month period (October to March) for each of the years 2004-08 relating to BDH revealed that the percentage of BDH for six machines were within the norm of 11 *per cent* while in case of nine machines the same exceeded the norm by three to 42 *per cent.*

The Company had not set any scheduled/ preventive maintenance programme to reduce the high incidence of BDH. Further, the Company incurred only 0.54 to 1.31 *per cent* of the total expenditure towards repair and maintenance cost during 2004-08, indicating lack of management's seriousness for upkeep of the machines.

[14] Figures for number of plate changes during October 2005 to December 2005 were not available.

[15] Jobs like printing of High Court cause list which are required to be delivered before commencement of the court session on daily basis, printing of question papers, State budgets, ballot papers *etc*. are printed on urgent basis and are in the nature of short run.

Idle Hours

Idle hours due to avoidable reasons led to payment of idle labour cost and loss of contribution of Rs. 76.82 lakh during February 2007 to March 2008.

2.3.15 Against the TAR's norm of idle hours at 10 to 15 *per cent* of the total running hours, the percentage of idle hours (IDHs) varied between 15 and 20 during 2004-08. The Company did not, however, analyse the reasons for high incidence of IDHs up to January 2007 for taking corrective action. Audit scrutiny of IDHs during February 2007 to March 2008 revealed that out of total 13,213 IDHs, 2,855 hours were lost due to absenteeism, 1,740 hours for want of materials and 8,618 hours for want of jobs respectively, which could have been avoided by better production planning, inventory management, marketing and manpower planning. But the management did not make any effort to this effect, leading to payment of idle labour cost of Rs. 27.88 lakh and loss of production of 7.86 crore impressions with loss of potential contribution of Rs. 48.94 lakh.

Operation of machines at low speed

Operation of machines at lower speed resulted in production loss of 30.88 crore impressions with loss of potential contribution of Rs. 1.92 crore.

2.3.16 Production of printing machines depends on the speed at which impressions can be printed in one hour. In their Management Audit Report (May 2001) Ernst & Young observed that though the standard machine speeds were fixed below the installed capacity, lower and erratic speed of the machines had a 'telling effect on overall capacity utilisation'. They recommended that the machine speed be standardised at levels closer to the licensed capacity and actual performance brought to the notice of the top management.

The Company, however, fixed the standard speed of eight high speed machines below the level of installed capacity. Audit scrutiny of speed of these machines over a six-month period (October – March) during each of the years 2004-08 **(Annexure 22)** revealed that they were operated even below the reduced standard speed by 15 and 83 *per cent*. This led to loss of production of 30.88 crore impressions with consequential loss of potential contribution of Rs. 1.92 crore during 2004-08 in spite of having sufficient orders.

While accepting the facts stated in paragraphs 2.3.10 to 2.3.16, the Management stated (August 2008) that because of its challenging industrial relation (IR) environment no productivity norm could be implemented without the union consent and the make-ready time, machines speed, strictly controlled by the Union, could not be changed unilaterally to maintain workable IR situation and continue with the routine business. The reply itself indicates the ineffectiveness and apathy of the Management to implement the production norms for increasing the production. The reply was also silent as to action taken to combat the challenging IR environment, despite poor production performance.

Modernisation Programme

The two new machines, though installed belatedly, were grossly underutilised leading to printing of books through sub-contractors at an additional cost of Rs. 95.81 lakh.

2.3.17 As of 31 March 2004, the Company had nine machines which were in the printing process for nine to more than 20 years. The Company had not devised any policy for scrapping old machines or introduced effective modernisation programme. With a view to ensuring timely printing and delivery of school text books to Director of School Education, Government of West Bengal and reducing heavy dependence on sub-contractors, the Company decided (May 2004) to purchase two high speed web-off-set printing machines (508 mm and 546 mm). However, due to delay in deliberations between the Management and the union representatives, the Company installed the machines only in March 2007 (546 mm) and June 2007 (508 mm) at a cost of Rs. 4.04 crore with nine operators/ supervisors for each shift, with an aggregate capacity to print 2.61 crore books [16] within March 2008.

Against the order of printing 5.05 crore text books for academic session 2008-09, these two machines printed only 1.41 crore books which fell below their capacity by 46 *per cent*. While these machines were grossly underfed, the Company had incurred additional expenditure of Rs. 95.81 lakh for printing 1.20 crore books through sub-contractors. Further, the Company achieved savings on cut off wastage of Rs. 15.81 lakh only against the anticipated savings of Rs. 32.34 lakh due to underutilisation of machine.

While accepting the facts the Management stated (August 2008) that two more new machines would be added in the production process by the year end which would substantially reduce dependence on sub-contracting. The reply was, however, silent as to reasons for gross underutilisation of two newly installed high speed machines.

Post- press activity

Manual cutting and binding section

2.3.18 The Company had a manual binding section with manpower strength of 33 persons including six supervisors/ clerks. The binding section had the facilities of manual binding of forms, lottery tickets, cheques *etc*. on two shift basis (A & B)[17]. The Company neither set any work norm/ targets for binding nor did it monitor the performance of operators and machines. The job wise outputs were also not documented in the job tickets. Even after expenditure of Rs. 1.40 crore during 2007-08 towards salary cost of the operators, the performance of the section was not reviewed.

Auto binding section

2.3.19 With a view to speeding up the binding of text books the Company installed (February 1992) an imported automatic flow-line binding machine at

[16] Capacity: 152 days x 2 lakh forms/day x 2 nos. machines = 6.08 crore impressions.
Actual impressions printed : 3.28 crore impressions for printing 1.41 crore books.
Books to be printed in terms capacity : (1.41 x 6.08)/3.28 = 2.61 crore books.
[17] 'A' shift : 6 a.m. to 2 p.m. & 'B' shift : 2 p.m. to 10 p.m.

a cost of Rs. 77 lakh with achievable capacity of binding 8,000 books per hour. It would be seen from the **Annexure 23** that though the Company printed 1.33, 1.29 and 1.15 crore books during 2005-08, it fixed targets for binding arbitrarily on the lower side at 45 to 52 *per cent* of the total printed books. Consequently, though the number of books actually bound was more than the targets in 2005-06, the same was far below at 39 *per cent* of the achievable capacity. In other two years, the actual number of books bound did not even achieve the low targets and the same had further declined to 22 and 25 *per cent* of the achievable capacity.

Despite this poor performance, the Company paid Rs. 16.61 lakh to eight operators towards overtime during the same period. The management did not analyse the reasons for such poor binding performance for corrective action. On the other hand, the Company incurred avoidable expenditure of Rs. 34.38 lakh for binding balance 2.15 crore books through private binders.

The Management stated (August 2008) that the target was settled after long negotiation with the union and outsourcing was unavoidable to deliver the books on time. However, the facts remain that the Company failed to achieve even the target fixed by it and dependence on sub-contracting keeping its own binding machines idle lacked justification.

Paper consumption

2.3.20 Consumption of paper constituted 80 *per cent*[18] of the total raw material cost for all jobs. The production planning section opened job tickets mentioning the grade and thickness of paper to be used but did not indicate the quantity of paper required for each job after considering permissible wastage. In this connection, the following points were noticed in audit:

- Actual consumption of paper was not properly recorded either in the stores records or in job tickets.
- Excess paper found after completion of a job was used in another job but was not regularised in store records or in the job tickets. Besides, job numbers were not recorded in store records from indents.
- In case of re-work, the same was not recorded in job tickets or in any other records to ascertain the consumption and wastage.
- In case of jobs executed in its factory as well as by the sub-contractors on its premises, no exercise was carried out to reconcile the issue of paper with the consumption under title-wise jobs allocated to them to ensure effective control over usage of paper.

Wastage of paper in excess of norms

2.3.21 The Company fixed the norms for allowable wastage for jobs printed

[18] As per MAR of Ernst and Young.

on sheet paper at one *per cent* per colour job and three to five *per cent*[19] on reel paper. The Company did not, however, maintain the scrap register to ascertain wastage generated against the norms and take corrective action against the excess wastage.

Absence of proper control on paper consumption led to excess wastage, valued at Rs. 11.95 crore, over the norm.

Mention was made in paragraph 4.15 of the C&AG's Audit Report (Commercial), Government of West Bengal-2003-04 that the Company lost Rs. 88.43 lakh on excessive wastage in respect of 59 jobs. The Management assured (February/ July 2004) to reduce the wastage by introducing on-line control mechanism through the Resource Planning Software Package. However, even after lapse of six years from the date of placing the order the on-line system was yet to be introduced (September 2008).

The Management stated (August 2008) that the Price Waterhouse Coopers could not implement ERP in the first attempt and efforts had since been made to implement ERP through Microsoft. The fact, however, remains that the Company was yet to introduce control mechanism on excess wastage as 3,519 MT paper were consumed in excess over the norm valuing Rs. 11.95 crore during 2004-08 as shown in the table below.

Year	Total paper consumed in press (MT)[20]	Scrap paper sold (MT)	Percentage of scrap	Quantity of excess consumption beyond the norm of four *per cent*	Value (Rs. in crore)
2004-05	5,778	808	14	577	1.78
2005-06	7,817	1,491	19	1,178	4.00
2006-07	9,707	1,248	13	860	3.01
2007-08	7,997	1,224	15	904	3.16
	31,299	**4,771**		**3,519**	**11.95**

It would be seen from above that the percentage of scrap paper generation against consumption varied between 13 to 19 *per cent*, which was excess over the average norm of four *per cent* valuing Rs. 11.95 crore.

2.3.22 Further, the consumption pattern in respect of major jobs was far in excess of the norms by 25 to 81 *per cent* during 2003-08, as detailed in the table below.

Name of work	Quantity (lakh)	Value (Rs in crore)	Actual consumption of paper (MT)	Normative requirement of paper (MT)	Excess (MT)	Percentage of excess consumption over normative
Text books	362.16	19.73	4,412.52	3,532.96	879.56	25
High Court cause list (in pages)	1,092	2.62	222.50	122.70	99.80	81
State lotteries	780	1.01	77.70	55.40	22.30	40
Labels	1,486	0.67	113.30	65.60	47.70	73
TOTAL			**4,826.02**	**3,776.66**	**1,049.36**	**28**

Despite the high incidence of wastage, the Company did not ascertain the

[19] Three *per cent* for single colour job, four *per cent* for bi-colour job and five *per cent* for four colour job.

[20] Includes paper consumed for printing DSE books in its own machines and machines of the private printers inside Company's premises.

reasons to take corrective action to maintain the wastage within the norms.

The Management stated (August 2008) that wastages arose from many factors like damages of paper in transportation, loading, unloading while wastages in printing process were generated due to job specification, paper quality, batch run, printing machines and operators' skill and attitude. The reply did not address the fact that the Management itself fixed the norms after considering all these factors which it failed to adhere to due to deficient internal control.

Labour productivity

2.3.23 Cost of manpower represented 34 *per cent* of the total production cost which requires scientific manpower planning to ensure optimum utilisation. The actual manpower against the norms fixed by the SPC and the labour productivity in respect of seven machines are given in **Annexure 24** and **Annexure 25,** respectively. In absence of manpower norms, the similar analysis could not be undertaken in audit for other eight machines.

The shortfall in productivity per worker ranged between 58 and 85 *per cent.*

It would be seen from Annexures that despite excess manpower in all machines except in one, the actual running hours achieved ranged between 2.64 and 4.48 hours per shift only against the available 7.5 working hours per shift. The same also fell below the achievable working hours of 5.5 to 6.5 hours per shift. Such low running hours per shift was due to excess hours consumed in make-ready operations and high incidence of idle hours and breakdown hours (paragraphs 2.3.13 to 2.3.15). This along with running of machines at low speed had adversely affected the labour productivity per hour per man which varied between 124 and 436 impressions against the achievable norms of 390 to 1,250 **(Annexure 25)**. The shortfall of productivity ranged from 58 to 85 *per cent*. Thus, on one hand the Company had to bear Rs. 59.14 lakh towards excess manpower cost during 2003-08, on the other low labour productivity led to more dependence on outsourcing and delay in delivery of books.

Ineffective incentive scheme

Implementation of incentive scheme had marginal impact on productivity.

2.3.24 Under the production incentive scheme (November 2005), an employee of the printing section was entitled to get incentive between Rs. 10 and Rs. 14 per shift subject to achieving the targeted production per shift per machine. The targets were not, however, set after time and motion study and the same were still lower by 23 *per cent* than the productivity norms fixed by SPC. Further, prior to introduction of the scheme the BoD directed (September 2004) the Management to start the scheme at any level of production, but the productivity norms fixed by SPC should be implemented in due course. However, the Management had not acted on the direction so far (September 2008). The BoD had also not reviewed action taken on its directive issued as far back in September 2004.

Audit observed that after expenditure of Rs. 28.04 lakh towards incentive during November 2005 to March 2008, the actual average monthly production per employee increased marginally from 0.77 lakh to 0.83 lakh impressions which fell short of the standard capacity by 49 to 62 *per cent*.

While accepting the facts the Management stated in the ARCPSE (September 2008) that productivity linked incentive for new two offset machines had since been put up before the BoD for approval. The reply was, however, silent as to why such action was not initiated earlier to make the scheme productive.

High incidence of overtime

2.3.25 Despite excess manpower the Company paid overtime (OT)[21] aggregating Rs. 3.32 crore[22] during 2003-08 representing 12 *per cent* of the total salary cost. This arose from low productivity in running hours, excess time consumed in make ready operation, excessive idle hours due to absenteeism and absence of productivity linked incentive scheme.

Only in January 2007 the Management realised that 25 *per cent* of OT amounting to Rs. 18 lakh *per annum* should be avoided to make the prices competitive. But such realisation did not come into effect which led to lower work quality, very high wastage and accidents due to fatigue, as observed (April 2008) by the Management.

While accepting the facts, the Management stated (August 2008) that even after payment of maximum possible OT the workload could not be completed and delivered on time. The reply itself indicates that payment of OT had no impact on productivity. Further, the reply did not indicate any action taken to curb the OT payment.

Marketing performance

Marketing set-up

2.3.26 The Company had separate marketing wing,[23] headed by the Marketing Manager who was assisted by eight sales executives. Besides, the Company had appointed three marketing agents for securing sales orders from the Governments of three adjacent States as well as from Central PSUs at a commission[24] on a rated scale on sales value to be paid after realisation of dues.

In this connection the following points were noticed in audit:

- Even after lapse of more than 21 years, the Company had not devised any clear and documented marketing strategy nor did it take any business development efforts to exploit the vast market in the private

[21] OT payment paid at twice the existing rate except for print hours for which OT was paid at a single rate.

[22] 45 *per cent* was paid for press section, 15 *per cent* for pre-press section and 16 *per cent* for post press section.

[23] The marketing wing was responsible for collection of order from State Government, preparation of job-wise estimates, issue of job tickets, monitoring of delivery and collection of bills.

[24] 5 *per cent* upto order value of rupees one crore which would be reduced by 0.50 *per cent* on every increase of order value by further rupees one crore.

sector, as envisaged in the MAR of Ernst & Young in December 2001. As a result, it continued to be over dependent on Government orders.

- The Company did not generate database with regard to the total volume of jobs in the market, its market share and pricing of its competitors. Further, in the absence of data on job-wise profitability, the most profitable product-mix was not known to the Management.
- The Company prepared the sales budget during 2003-08, but no target was separately fixed for direct sales through its marketing wing and for the marketing agents.
- The profitability of jobs largely depends on reliable estimates and rates at which jobs were sub-contracted to the sub-contractors by the marketing wing and the agents. Audit noticed that the Company sustained losses due to faulty estimation, award of higher rates to the sub-contractors, as discussed in paragraphs 2.3.34 to 2.3.36.

Sales performance

2.3.27 The details of the budgeted *vis-à-vis* actual sales and direct sales and sales through agents during 2003-08 are given in **Annexure 26**. It would be seen from the Annexure that though the actual sales progressively increased during 2003-08, the same was below the budgeted sales by 15 to 45 *per cent*, thereby indicating lack of initiative. Further, sales through marketing agents were negligible as compared to direct sales during 2003-06 which had improved during 2006-08 due to receipt of order for printing of text books from two State Governments. In the absence of targets, the Company was not in a position to review the performance of the marketing wing as well as the marketing agents indicating the management's apathy to strengthen the marketing performance. As analysed in audit, failure to obtain the orders from the Food and Supplies, Land records and Survey departments of Government of West Bengal as well as from another State Government for printing of text books were the main reasons for the shortfall. However, the Management did not review the reasons for shortfall and take corrective action.

The Management, however, assured (August 2008) to make efforts towards higher marketing through own personnel and marketing agents to obtain business in local markets and other states.

Sub-contracting

Due to low capacity utilisation the Company resorted to sub-contracting which was 65 *per cent* of total cost.

2.3.28 Due to low labour productivity and poor capacity utilisation of the machines as well as to ensure the timely supply of the text books of Director of School Education (DSE) of the State Government and jobs received from the other States, the Company incurred aggregating Rs. 65.28 crore towards sub-contracting cost of printing and binding charges during 2003-08 which accounted for 65 *per cent* of the total cost (excluding cost of raw materials supplied by the Company). In this connection, the following points were noticed in audit.

- The Company did not formulate the sub-contracting policy/ guidelines duly approved by the BoD. No transparent procedure of selecting the sub-contractors and fixing the printing and binding cost payable to them was in place.

- No tenders were invited for sub-contracting the printing of text books of the Director of School Education, Government of West Bengal while limited tenders were invited for sub-contracting in respect of jobs received from other States. The jobs were sub-contracted at rates arbitrarily fixed by the Management without ascertaining market rates. The basis of fixing rates was not even documented.

- Jobs were sub-contracted to the empanelled contractors which were not updated during the last five years.

- The job-wise performance of the sub-contractors and profitability was not periodically reviewed.

- In the absence of availability of job-wise cost, the economics of sub-contracting the jobs could not be ascertained in audit.

While accepting the facts, the Management stated (August 2008) that a management consultant would be engaged to establish the sub-contracting policy. The reply did not, however, indicate the reason as to why such action was not initiated earlier.

Subcontracting of text books printing for Director of School Education

2.3.29 With a view to ensuring timely delivery of books to the students before the commencement of Academic Session in May of each year, the Director of School Education (DSE) of the State Government placed five orders[25] on the Company for printing 28.85 crore text books under 96 titles in five languages for classes I to V for Academic Sessions 2004-09 and distribution to district godowns of DSE within March of each year. Prior to accepting the orders, the Company submitted the estimated cost/ rates which were to be approved by DSE. On the basis of approved rates DSE released advances to the Company in instalments towards the value of the orders. Subsequently, the Company adjusted the advances by raising bills for the books supplied at the approved rates.

2.3.30 The table on the next page indicates the total number of books ordered, books printed by the Company itself and by the sub-contractors/ State PSU/ Zilla Parishads.

[25] As per the order, the Company was to execute jobs on turnkey basis which included the procurement of paper, printing and delivery.

Academic Session	Total No. of books printed	No. of books printed by					
		Company	Private printers				State PSU/ Press of Zilla Parishad
			Inside the Company's premises	Inside the rented premises of the Company	Inside the premises of printers' own press in the State	Inside the premises of printers' own press outside the State	
	Figures in lakh						
2005-06	600.04	132.98	123.51	65.11	161.32	22.25	94.87
2006-07	599.48	129.12	188.51	129.30	84.95	-	67.60
2007-08	641.37	115.41	116.58	162.69	114.95	59.35	72.39
Total	**1,840.89**	**377.51**	**428.60**	**357.10**	**361.22**	**81.60**	**234.86**

In this connection the following points were noticed in audit:

Printing and binding done by sub-contractors in their own workshop

Sub-contracting of jobs at higher rates had resulted in extra expenditure of Rs. 1.29 crore.

2.3.31 During Academic Sessions 2005-06 and 2006-07 the Company had outsourced the jobs to private printers at a consolidated rate for printing and binding of books after keeping an average margin of 15 *per cent* on the rates allowed by DSE to it. For Academic Session 2007-08, the Company divided the rates separately for printing and binding and accordingly the average printing rate per thousand forms was allowed to sub contractors at Rs. 40 per colour page for text and Rs. 80 per colour page for cover, whereas the binding rate was allowed at Rs. 50 per thousand forms. Audit noticed that these rates were higher when compared with the rates of printing and binding charges paid for the text books of the similar size and of same specification in the same or subsequent period for 'X' and 'Y' State Governments. Thus the sub-contracting of jobs without inviting open tender or verifying the market rates led to extra expenditure of Rs. 1.29 crore on printing of 2.51 crore books during Academic Sessions 2005-08.

The Management stated (August 2008) that the rates were not the same because of difference in specification, paper quality of books etc. The reply is factually incorrect as the size, specification and paper quality of books in West Bengal, 'X' and 'Y' states were the same and hence allowing higher rates to sub-contractors for DSE books lacked justification.

Jobs done by sub-contractors inside the Company's premises

Facilities provided free of cost to sub-contractors were neither considered while fixing the rate nor charges recovered.

2.3.32 For printing of DSE text books the Company had been paying to the subcontractors, the printing rate of Rs. 24.90 per colour per side and binding rate of Rs. 22 per thousand forms since the Academic Session 2004-05, which were similar to the rates paid to sub-contractor printing text books for 'X' and 'Y' State Governments in their own premises. While fixing the rates, the Company did not consider the cost of facilities (space, electricity and binding machines etc.) amounting to Rs. 1.93 crore provided to the sub-contractor for DSE books free of cost during Academic Sessions 2005-08 nor did it include the enabling provision in the agreement for recovery of the same. Consequently, the Company sustained loss of Rs. 1.93 crore.

The Management stated (August 2008) that while fixing the rates the Company considered the cost of all facilities.

The reply is factually incorrect because there was nothing on the record to indicate that the rates were finalised after considering the cost of facilities. Rather, the rates allowed to sub-contractors printing books in the Company's premises were similar to rates allowed to sub-contractors printing books for 'X' and 'Y' State Governments in their own premises. This led to excess payment to sub-contractors aggregating Rs. 1.93 crore.

Delivery of DSE books

2.3.33 As per DSE orders, the Company was to complete delivery of text books by February/ March of each Academic Session so that they could be delivered to the students latest by Book Day held in first week of May each year. The Company did not generate master data in regard to title-wise and date-wise books delivered to DSE nor did it maintain the similar data for delivery effected by sub-contractors to them in any of the Academic Sessions except for Academic Session 2007-08.

Twenty eight *per cent* books were delivered belatedly.

Audit, however, compiled the actual delivery dates of 8.31 crore books of the three Academic Sessions 2005-08 based on receipted challans and noticed that 28 *per cent* (5.12 crore) books were delivered after a delay of one to five months thereby depriving the students of getting the books in time, as detailed in the table below:

Academic Session	Total Books delivered (in lakh)	Books delivered late (in lakh)	Range of delay in delivery of books (No. in lakh)			
			Up to 1 month	More than 1 month upto 2 months	More than 2 months upto 3 months	More than 3 months upto 5 months
2005-06	600.04	322.26 (54)	176.66	100.87	37.36	7.37
2006-07	599.48	97.36 (16)	79.55	17.81	-	-
2007-08	641.37	92.55 (14)	45.42	44.50	2.63	-
Total	**1,840.89**	**512.17 (28)**	**301.63**	**163.18**	**39.99**	**7.37**

(Figures in brackets represent percentage of books delivered belatedly to total number of books delivered)

The reasons for delayed delivery were attributable to delay in printing and binding due to low productivity of labour and machinery and poor utilisation of auto binding machine. In absence of actual dates of delivery by the sub contractors, the extent of late delivery by the sub-contractors could not be examined in audit.

The Management stated (August 2008) that 90 *per cent* books were delivered by the Book Day during the last two Academic Sessions (2007-08 and 2008-09), while some books were delayed for non-receipt of print order on schedule and delayed supply of paper. The reply is factually incorrect as the Company failed to deliver 14 *per cent* of the ordered books within the scheduled dates (February/ March) as per DSE orders for Academic Session 2007-08. The details of books belatedly delivered due to non-receipt of print order *etc*., though called for, were not made available to Audit.

Sub-Contracting of jobs received from other States

Loss due to faulty estimates

2.3.34 With a view to securing order through its marketing agents for supply of 17.33 lakh text books (class I to class IV) under 18 titles from the 'X' State Government for Academic Session in 2006-07, the marketing wing prepared estimates (September 2006) at Rs. 2.10 per form of 16 pages. However, the Company quoted (September 2006) below the estimates at Rs. 1.55 and accepted (November 2006) the order at Rs. 1.28 per form of 16 pages. However, the basis of quoting at the reduced rate and acceptance of the order further below the quoted rate was not documented. To execute the order the Company outsourced the entire work to 11 contractors at an aggregate cost of Rs. 1.50 to Rs. 1.66 per form of 16 pages under different titles and the entire quantity was delivered. Against the sales realisation of Rs. 1.27 crore, the Company incurred expenditure of Rs. 1.54 crore, thereby leading to a loss of Rs. 0.27 crore.

Similarly, for supply of 9.26 lakh text books for Academic Session 2007-08 for the same State Government, the Company quoted (July 2007) 95 paise per form of eight pages, against the estimated cost of Rs. 2.10 per form of 16 pages for Academic Session 2006-07. Again the Company accepted (October 2007) the order at 88 paise (multi -colour) and 73 paise (bi-colour) per form of eight pages through the agent. The entire quantity was delivered and as against the sales realisation of Rs. 93.27 lakh, the Company incurred expenditure of Rs. 1.15 crore thereby sustaining a loss of Rs. 0.22 crore.

Thus, acceptance of the orders below the cost estimates resulted in loss of Rs. 49 lakh, which included infructuous expenditure of Rs. 12.97 lakh towards agency commission on unprofitable jobs.

The Management stated (August 2008) that the new job helped the Company to increase sales turnover with positive contribution towards overhead. The reply does not elucidate that whether financial implication had been deliberated upon as the Company sustained loss due to acceptance of rates below the total direct and indirect variable cost.

2.3.35 For supply of blank examination answer books of Universities of 'X', 'A' and 'B' States, for the years 2004-08, the Company secured nine orders through the marketing agents, Firm 'G' at rates negotiated by the agents. However, the detailed break up of the rates and their approval by the Company were not made available to Audit, when called for. The Company, based on limited tenders, sub-contracted eight out of nine orders to the Firm 'T' and another to the Firm 'S'. It was observed that the marketing agent and the two sub-contractors were the same business associates. The table on the next page indicates the details of the jobs and loss incurred by the Company on execution of the jobs.

	Particular	'A' (2004-08)	'X' (2006 & 2008)	'B' (2006 & 2007)
A.	Total number of answer books supplied (in crore)	1.71	0.38	0.27
B.	Rate per book	Rs. 1.78 to Rs. 3.38	75 paise to Rs. 2.90	95 paise to Rs. 3.90
C.	Rate per book at which the total work offloaded	Rs. 1.64 to Rs. 3.05	58 paise to Rs. 2.70	85 paise to Rs. 3.75
D.	Expected total profit (Rupees in lakh)	60.19	11.59	3.57
E.	Loss actually incurred (Rupees in lakh)	30.71	5.99	3.05

Against the expected profit aggregating Rs. 75.35 lakh the Company actually sustained loss of Rs. 39.75 lakh as the agent did not consider the element of cost *viz.* commission payable to the marketing agent, central sales tax, income tax, interest on blocked up fund towards earnest money and security deposit while arriving at the expected profit. Thus, due to failure of the Company to review the estimates prior to acceptance of the order, it had to absorb the loss.

Failure to obtain competitive rates resulted in additional sub-contracting cost of Rs. 76 lakh.

Further, the size, quality of paper and printing instructions were similar for all the orders (except the number of pages varying between eight and 40). However, the rates at which eight printing jobs were awarded on limited tender basis during 2003-07 to the Firm 'T' were found to be higher when compared with the rates offered (December 2007) by the Firm 'S' for orders in respect of printing of answer books for Intermediate Examination 2008 of 'X' State. The Firm 'S' offered rates of Rs. 2.62 for 32 pages, Rs. 2.29 for 28 pages, Rs. 1.87 for 24 pages and 58 paise for eight pages answer books. These were lower by 8.1 *per cent* to 12.3 *per cent* as compared to the rates offered by the Firm 'T' during November 2003 to December 2007.

Thus, management's failure to obtain the competitive market rates led to extra expenditure of Rs. 76.21 lakh on account of higher rates allowed to the Firm 'T'.

The Management stated (August 2008) that the job was done at the lowest cost and no extra expenses were incurred. However, the facts stated above do not bear the contention of the Management.

Loss due to securing orders at lower rate by the marketing agent

Due to quoting of rates below the cost, the Company sustained loss of Rs. 1.41 crore on printing of railway timetables.

2.3.36 The Company secured orders for printing time tables for South Eastern Railways (SER) directly through its own marketing wing, while the same for Eastern Railway (ER) and East Central Railway (ECR) were obtained through the marketing agent – Kaushik Computer Limited against payment of commission at the rate of five *per cent* of the order value plus service tax. However, specifications as to size, paper quality, colour of printing text, cover, maps and binding of time tables for different Railway Authorities were the same.

Audit observed that while the rates for SER time tables were offered on the basis of approved cost estimates based on fixed number of text pages in the Books of each variety, the agent, without the approved cost estimates, quoted

rates for Time Tables of ER and ECR on a lower side. The Company did not also enquire into the reasons for lower rates offered by the agent. Ultimately, Time Tables for ER and ECR were printed as a loss of Rs. 1.29 crore (**Annexure 27**), besides infructuous expenditure of Rs. 12.02 lakh towards agency commission. In the absence of enabling provision in the order placed on the agent, the Company was not even in a position to impose any penalty on the agent for faulty performance.

The Management stated (August 2008) that differential pricing was due to the time tables being of entirely different specifications. The reply is factually incorrect as Time Tables for three Railways were of same specification and hence acceptance of the order by the agent at lower rates lacked justification.

Recovery of dues

Inordinate delays in billing

Billing of the customers was deficient.

2.3.37 The Company availed cash credit facility from United Bank of India, College Street Branch at interest rate of 8.50 to 11.5 *per cent* per annum for financing working capital during 2003-08. The billing period constitutes a part of working capital cycle. The Company did not fix any time period within which sales bills should be raised by the marketing wing after getting the receipted challans from the parties to have a control over the billing.

It was observed that the marketing wing belatedly raised the bills beyond 10 days from the date of obtaining the receipted challans as shown in the table below.

Range of delays (days)	2003-04	2004-05	2005-06	2006-07	2007-08	Total bill amount	Interest on blocked up fund[26]
	(Rupees in lakh)						
1-30	91.93	207.56	-	474.38	93.89	867.76	4.30
31-90	43.62	203.58	123.65	575.32	196.36	1,142.53	15.87
91-180	65.07	21.82	90.24	322.52	215.49	715.14	18.10
181-270	-	15.38	8.40	140.40	51.81	215.99	4.47
271-365	-	0.22	-	49.30	64.97	114.49	3.05
Above one year	0.17	2.75	-	131.29	19.92	154.13	4.84
Total	**200.79**	**451.31**	**222.29**	**1,693.21**	**642.44**	**3,210.04**	**50.63**

It would be seen from the table that due to lack of initiative on the part of marketing wing to raise the bills even after getting the receipted challans, the Company suffered loss of interest of Rs. 50.63 lakh. The Company had no monitoring mechanism to reconcile the position of billing with the dispatch of materials. The Audit committee had expressed their concern on the issue and directed (February 2008) the management to streamline the billing procedure so as to avoid loss of receivables and interest. However, no perceptible improvement was noticed (June 2008).

The Management assured (August 2008) to expedite the billing process.

[26] Interest on blocked up funds calculated @ 8.5 *per cent* per annum on each bill.

Poor recovery drive

2.3.38 The Company sold the printed products mostly to Government Departments/ PSUs. However, it did not frame any credit policy to be extended to different customers. The table below indicates year wise sales value, collection of dues and bad debts written off in the accounts for the last five years ending 2007-08.

Particulars	2003-04	2004-05	2005-06	2006-07	2007-08
	(Rupees in crore)				
Opening balance of sundry debtors	20.27	15.55	14.08	11.40	20.85
Sales	19.77	24.28	40.08	61.76	50.33
Bad debts written off	0.03	0.36	0.35	1.76	0.47
Realisation of dues	24.46	25.39	42.41	50.55	40.64
Closing balance of sundry debtors	15.55	14.08	11.40	20.85	30.07

Recovery of dues was not satisfactory.

It was observed that the debt collection period was 9.44 months and 6.96 months during 2003-04 and 2004-05 respectively due to absence of any target fixed for recovery for the marketing wing as well as for the agents. In November 2005 the Company introduced incentive payment of Rs. 10 per day per employee of the marketing wing subject to collection of debts of Rs. 1.45 crore monthly. It would be seen from the table above that the collection of dues increased in the subsequent two years thereby debt collection period reduced to 4.05 months in 2006-07 which again increased sharply to 7.17 months in 2007-08. However, in the absence of target for the marketing agents separately, the collection performance of the agents could not be examined in audit. On scrutiny of outstanding debts as of 31 March 2008, it was observed that out of the total debts of Rs. 30.07 crore, debts outstanding for more than one year stood at Rs. 19.83 crore (66 *per cent*). Based on the age wise analysis of debts the Company did not prioritise the recovery. Further, the Company did not document the reasons for writing off bad debts amounting to Rs. 2.97 crore in its accounts for the years 2003-08, of which clients had deducted Rs. 1.36 crore towards late delivery charges (Rs. 0.49 crore) and for defective printing (Rs. 0.87 crore).

Costing

Costing mechanism was deficient.

2.3.39 An effective costing mechanism acts as an important tool of an organization to prepare the job wise cost estimates, review their profitability as well as to introduce effective cost control. The following deficiencies were noticed in the costing system:

- No costing manual was prepared.
- Job wise estimates prepared by the marketing wing were not vetted by the costing department.
- Details of jobs received, paper indents for different jobs were occasionally recorded in the job registers.
- Details of actual cost data and machine utilisation were not sent to the

costing department. Hence, the job wise cost and profitability was not compiled for making decision on loss incurring jobs.

- Job tickets containing the details of materials received from the stores were neither sent to the costing section nor kept in the shop floors systematically.

Thus, costing mechanism was deficient as an important control element.

Internal Control

Internal control was ineffective.

2.3.40 Internal control system is an essential pre-requisite for efficient and effective management of an organisation. The following deficiencies were noticed in the internal control system:

- No registers were maintained for placement of orders on printers containing necessary details.
- When paper was issued to printers, no debit notes containing quantity and value of paper were raised on them.
- When printing and binding bills were placed, no quantitative details of opening stock, quantity utilised and balance stock etc. of paper and form were stated.
- No feedback system was introduced for reconciliation of orders placed and quantity received in the purchase section.
- Printer and binder-wise delivery of books were not maintained.
- Papers for in-house printing (own and private printers) were not issued on the basis of normative consumption.
- No back-up data (soft-copy) were available for statement of dispatch challans for books delivered to DSE.
- Bin Card and quantity of purchase of paper booked in the accounts as per invoices was not reconciled.
- No reconciliations were made between books dispatched quantity as per dispatch section and billed quantity for bills raised by marketing section.

Internal Audit

2.3.41 The Company did not have any internal audit of its own. It engaged firms of Chartered Accountants for conducting internal audit of control system, appraisal of adequacy of financial and cost accounting, security and verification of assets and liability, appraisal of reliability of MIS system.

However, efficiency of the Company in regard to sub-contracting and selection of the contractors as well as rates allowed to them and wastage of papers were not covered by the internal audit in depth. There was nothing on the record to indicate that the corrective action was taken by the Management on the Internal Audit Reports. The BoD did not also review the Reports to assess shortcomings noticed in internal audit and action taken notes thereon. Thus the Internal audit was not effective as an important control element.

Conclusion

The performance of the Company with regard to production and marketing activities was found to be sub-optimal due to low level of printing at its own press, low productivity, running of machine at low speed, inept implementation of the modernisation programme, delay in delivery of text books, sub-contracting at higher rates, defective estimates of sub-contracted jobs and dismal performance of marketing wing in regard to raising of bills and recovery of dues. The Company also suffered due to high wastage of paper owing to absence of any control on the receipt and issue of paper.

Recommendations

The Company needs to:

- **devise effective and efficient production planning to ensure optimum utilisation of in-house capacity of the press section and binding section machinery;**
- **introduce a sub-contracting policy detailing the procedure to be followed for sub-contracting the jobs after evaluating the economics of such sub-contracting;**
- **revamp the incentive schemes to ensure increase in productivity and reduce overtime;**
- **strengthen the control mechanism in regard to the maintenance of job tickets, job-wise profitability and utilisation of paper with reference to the norms;**
- **introduce the sales and realisation target for the marketing agents; and**
- **strengthen the monitoring mechanism over the machine performance and sub-contracted jobs**.

The matter was reported (July 2008) to the Government; their reply was awaited (September 2008).