CHAPTER II

Performance review relating to Government companies

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2.1 Performance Audit on the functioning of Madhya Pradesh State Civil Supplies Corporation Limited

Executive Summary

Under Public Distribution System (PDS), Government of India (GOI) was responsible for procurement, storage and bulk allocation of foodgrains to States for distribution and separate allotment under Targeted Public Distribution Schemes (TPDS) and Free Schemes. Food Corporation of India (FCI) was assigned the responsibility of procurement and maintenance of adequate stock for PDS. The State Government was to fix targets of procurement based on the allocation of foodgrains by GOI and was also responsible for distribution of these foodgrains to consumers through a network of Fair Price Shops (FPS). Decentralised Procurement (DCP) was introduced (1999-2000) in the State for procurement and maintenance of stocks at State level in order to provide Minimum Support Price (MSP) to farmers and ensure economy in transportation expenses. The Madhya Pradesh State Civil Supplies Corporation Limited was to work as nodal agency of the State Government by providing logistic support to ensure availability of foodgrains for the schemes. The Memorandum of Understanding executed by the Company with GOI and State Government regulate the procurements and claims for distribution of procured quantity under PDS.

The Performance Audit of the Company was conducted to assess the economy, efficiency and effectiveness in implementation of PDS schemes during the period from 2005-06 to 2009-10.

Financial Management

Sales of the Company increased significantly from ₹ 1,162.47 crore in 2005-06 to ₹ 3,200.96 crore in 2009-10 mainly due to huge procurements. The percentage of profit to sales however, decreased abnormally during 2009-10 (0.61 per cent) as compared to 2005-06 (3.66 per cent) mainly due to increased interest burden on Cash Credit (CC) on account of prolonged inventory holding. Further, the procurement costs which constituted 93 per cent of total expenses during 2009-10 were also met by availing credit through CC. Delays in submission of claims by the Company for reimbursement of expenses and gaps in realisation of incidentals from the State Government/GOI resulted in availing of CC for longer periods thereby causing further increase in the interest burden on the Company. Claims for advance subsidy, provisional subsidy and Mid Day Meal were also submitted with delays against the prescribed period. Delays in submission of audited accounts for DCP delayed the receipt of withheld subsidy of ₹138.33 crore due to delay in finalisation of economic cost. During 2008-09, penal interest (₹ 2.91 crore) was imposed by bank due to default by the Company in maintaining the required stock level against outstanding CC. State Government deducted ₹ 33.51 crore during 2009-10 out of claims for Chief Minister's Annapurna Yojna due to improper submission of claims.

Procurement

Procurement of wheat under DCP was in excess of targets fixed by State Government by 0.72 lakh MT in 2008-09 and 0.64 lakh MT in 2009-10. As a result, stock of 1.19 lakh MT and 1.38 lakh MT remained undistributed

at the end of respective rabi season.

Inadequate quality assurance system

The three Business Consultants (BCs) hired by the company for preparation of training module, imparting training, ensuring analysis of samples at district/regional laboratories, etc. failed in achieving these objectives. As a result the quality assurance system of the company was ineffective. Samples analysis system laid down for procurement of paddy and acceptance of rice from millers was deficient as the samples records for submission of samples to regional and state laboratories were not maintained as prescribed. Deficient quality assurance system resulted in acceptance of low quality paddy of 3,101.72 MT valuing ₹ 3.41 crore and 13,253.78 MT rice valuing ₹ 22.37 crore and distribution of inferior quality rice during 2009-10 in violation of GOI directions for issue of Fair Average Quality (FAQ) rice under PDS. Delay in movement of rice from excess procuring districts to deficit districts despite State Government directions resulted in avoidable lifting of 87,985 MT rice from FCI and holding of rice stock of 29,331 MT as undistributed as on 31 March 2010.

Transportation

Huge variation was prevailing among the rates of districts and no benchmark for assessing reasonability was available. In absence of provision of recovery for shortage at market rate the Company could not recover ₹ 61.58 lakh from transporters for shortages in transportation of sugar during 2009-10 when market price was abnormally higher than rate of recovery. Transportation of foodgrains was made without assessing the requirement of districts under PDS causing extra expenditure of ₹ 2.97 crore on cross transportation during 2008-09 and 2009-10.

Distribution

Distribution under PDS was in excess of the allotment made by Government under Below Poverty Line (BPL), Antodaya Annapurna Yojna (AAY) and Mid Day Meal (MDM) schemes. In MDM, where foodgrains were to be distributed free of cost out of stock lifted from FCI only, distribution was made out of the stocks of other schemes causing loss of ₹1.43 crore during 2008-09. Foodgrains was not distributed under relief for drought affected to Above Poverty Line (APL) consumers due to lack of pursuance in approval of cost sheet within validity period during March 2010 and May 2010.

Storage

Creation of storage capacity was not commensurate to the growth in procurement of foodgrains during 2005-10 causing deterioration in quality due to storage in open. The Company did not fix the norms for allowing normal shortages in storage of stocks with warehousing agencies. As a result, claims for shortages of ₹ 2.81 crore and ₹ 1.21 crore relating to Madhya Pradesh Warehousing and Logistics Corporation and other agencies respectively was pending for recovery.

Conclusion and Recommendations

The Company failed in maintaining effective quality control mechanism in procurement and distribution of foodgrains. The distribution of foodgrains under BPL, AAY and MDM schemes exceeded the allotments in violation of GOI directions. The Company also failed in economically planning the movement of excess stocks to deficit districts. Company had to bear high interest burden on availing cash credits for longer periods due to abnormal delays in submission of audited accounts for DCP claims.

The review contains five recommendations which include evolving structured policy for quality control of foodgrains, strictly adhering to scheme-wise allotment in distribution of stocks and timely movement of stocks as per the approved plan prepared on the basis of actual requirement.

Introduction

2.1.1 The Government of India (GOI) launched Public Distribution System (PDS) scheme to overcome critical food shortage during early phase of independence and to ensure access of food to all. The PDS outreach was extended to all aftermath of green revolution. The Food Corporation of India (FCI) was assigned the responsibility of procurement and maintenance of adequate stock for PDS. The GOI policy has a laudable objective to ensure foodgrains to the common people at affordable price.

Under PDS scheme, GOI is responsible for procurement, storage, transportation (upto the district headquarters) and bulk allocation of foodgrains. The GOI determines the allotment of foodgrains to States for distribution and separate allotment under Targeted Public Distribution Schemes[14] (TPDS) and free schemes[15]. The State Government is responsible for distribution of these foodgrains to consumers through a network of Fair Price Shops (FPS). The State Government fixes the targets of procurement based on the allocation of foodgrains by GOI.

The Madhya Pradesh State Civil Supplies Corporation Limited (Company) was incorporated (April 1974) under the Companies Act, 1956 to work as a nodal agency of the State Government by providing logistic support to ensure availability of foodgrains for the schemes. The Company plans for the availability of foodgrains for PDS. The Decentralised Procurement (DCP)[16] system was introduced (1999-2000) in the State for procurement and maintenance of stock of foodgrains at State level in order to provide Minimum Support Price (MSP) to farmers and ensure economy in transportation expenses. The Company was responsible for procurement of foodgrains for distribution under DCP in lines with targets fixed by the State Government as per allotment made by GOI. Any deficit in the stock available under DCP for distribution against the allotment is met by the Company through lifting of stock from FCI. Under DCP, the foodgrains are distributed at Central Issue Price (CIP)[17] and the losses incurred by the Company on account of price difference are reimbursed by GOI. The Company hires the warehouses for the storage of foodgrains procured and lifted from FCI. For movement of stocks, the Company engages private transporters through tendering process. Memorandum of Understandings (MOU) was executed (November 2000/April 2005) by Company with GOI and State Government for procurement of wheat under DCP. Provisions of MOU regulate the procurements and claims for distribution of procured quantity under PDS.

The management of the Company was vested in a Board of Directors (Board) consisting of 10 directors including Chairman, Vice Chairman and Managing Director (MD). The MD was the chief executive of the Company who was assisted

14. *Above Poverty Line (APL), Below Poverty Line (BPL) and Antodya Annapurna Yojna (AAY).*
15. *Mid Day Meal (MDM) and Sampurna Gramin Rojgar Yojna (SGRY).*
16. *Under DCP, procurement was done at State level and kept with for distribution under PDS against the allotment by GOI.*
17. *Price notified by GOI for distribution of foodgrains under PDS.*

by Executive Director (Finance) and four General Managers in-charge of procurement, transportation, PDS and sugar. There were seven Regional Managers (RM) who report to Company headquarters and monitor the District Managers (DM) posted at district level.

Scope of Audit

2.1.2 The performance of the Company was last reviewed in the Audit Report of the Comptroller and Auditor General of India (Commercial) for the year ended 31 March 2003. The review was discussed by the Committee on Public Undertakings (COPU) in August/September 2006 and their recommendations were awaited (November 2010).

The present performance audit covering implementation of PDS scheme during the period 2005-06 to 2009-10 was conducted during February 2010 to July 2010. Out of seven Regional Offices and 48 District Offices, four[18] RM offices and twelve[19] DM offices were selected for test check on basis of volume of procurement and distribution.

Audit Objectives

2.1.3 Performance audit of the Company was carried out to assess whether;

- prescribed quality standards were maintained in procurement and distribution of foodgrains;
- distribution of foodgrains was made as per the distribution scheme introduced by Government from time to time;
- the movement of stock was carried out economically and efficiently;
- storage and lifting of foodgrains from FCI was economical and efficient;
- claims and re-imbursements were made timely and accurately; and
- effective and efficient internal control and monitoring mechanism existed.

Audit criteria

2.1.4 Criteria laid down in following documents were used for audit analysis;

- Annual plans, budgets, targets fixed for procurement, milling of paddy and time schedule prescribed by GOI/FCI for delivery of resultant rice to FCI;
- Memorandums of Understandings (MOUs) signed with State Government and GOI and scheme guidelines;

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18 *Bhopal, Indore, Satna and Jabalpur.*

19 *Hoshangabad, Harda, Raisen, Indore, Dhar, Khargone, Satna, Katni, Rewa, Jabalpur, Chhindwara and Narsinghpur.*

- financial rules and codal provisions relevant to scheme transactions;
- contractual agreements for transportation and storage and approved plans/guidelines for movement of stock; and
- time prescribed for raising of bills for reimbursement of all related expenses at rates fixed by GOI.

Audit Methodology

2.1.5 Following methodology was adopted for scrutiny of records;

- Scrutiny of the Government policy relating to PDS and procurement;
- examination of agenda and minutes of the Board meetings;
- detailed examination of the records relating to procurement of foodgrains, with reference to procurement policy declared by the Government for Rabi and Kharif seasons;
- analysis of utilisation of storage space reserved for storage of foodgrains procured under DCP and lifted from the base depots of the FCI;
- examination of internal control system and fund management of the Company; and
- interaction with Management and Government and issue of audit queries.

Audit Findings

2.1.6 Before taking up the review, we had explained the audit scope, objectives and methodology to the Company during the entry conference held on 28 January 2010. The audit findings were reported to the Management/Government in July 2010 and discussed in the 'Exit Conference' held on 7 December 2010 wherein Managing Director of the Company, departmental head and Deputy Director (Food) from State Government participated. The views expressed by the representatives of the Company and Government in the Exit conference have been duly considered while finalising the Performance Audit. The audit findings are discussed in succeeding paragraphs.

Financial Position and Working Results

2.1.7 The summarised financial position and working results of Company as per the accounts finalised from 2005-06 to 2009-10 are given in ***Annexure-7.*** Analysis of the figures given in the Annexure revealed the following;

Deterioration in liquidity

2.1.8 Analysis of current assets showed that the company was cash surplus and invested ₹ 80.04 crore in interest earning instruments during 2005-06 which increased to ₹ 168.42 crore in 2006-07 and was at ₹ 139.08 crore in 2007-08. However, the liquidity deteriorated subsequently and the dependence of the Company on CC and short term loans abnormally increased from ₹ 499.38 crore as on 31 March 2009 to ₹ 1,360.30 crore as on 31 March 2010. Dependence on interest bearing instruments was due to huge procurement made during 2008-09 and 2009-10.

Decline in profitability

2.1.9 Sales[20] of Company increased from ₹ 1,162.47 crore in 2005-06 to ₹ 3,200.96 crore in 2009-10. But the percentage of profit before tax to sales decreased from 3.66 *per cent* in 2005-06 and 6.21 *per cent* in 2006-07 to 0.61 *per cent* in 2009-10 due to huge interest burden and increase in storage cost of excess inventory holding of DCP wheat. Prolonged inventory holding led to increase in interest charges on CC from ₹ 8.07 crore in 2005-06 to ₹ 154.43 crore in 2009-10 and storage charges increased from ₹19.33 crore in 2005-06 to ₹ 58.60 crore in 2009-10.

Further, the Company had written back long pending unclaimed margins of retailers and wholesalers to the tune of ₹ 15.60 crore and ₹ 10.61 crore during 2008-09 and 2009-10 respectively. Thus, the profits for these two years would have reduced to that extent but for non-writing back of said unclaimed margins by the Company.

The percentage of return on capital employed declined from 59.52 in 2005-06 to 11.55 in 2009-10.

Financial Management

2.1.10 After commencement (1999-2000) of procurement of wheat under DCP by Company, requirement of funds increased abnormally and the expenses relating to procurement (foodgrains and gunny bags) constituted 95.70 *per cent* in 2005-06 and 93.32 *per cent* in 2009-10 of total expenses. Income includes realisation of CIP from issue of foodgrains out of Company's stock to societies[21] and the incidentals on the foodgrains issued out of FCI lifting. Price difference on foodgrains distributed out of procurement under DCP, were claimed from GOI, while overall loss on DCP operations were reimbursable from State Government. There was always considerable time gap in realisation of incidentals, price difference and loss reimbursement. Following chart shows various components of total income realised and total expenses incurred by Company in 2009-10 (as detailed in ***Annexure-7***):

20 *Includes sales (CIP) and subsidy for price difference*

21 *Lead and link societies are the cooperative societies designated by State Government for the lifting of foodgrains from Company and distribute it to beneficiaries.*

CHART-I COMPONENTS OF INCOME
Total Income: ₹ 3,947.10 crore (2009-10)

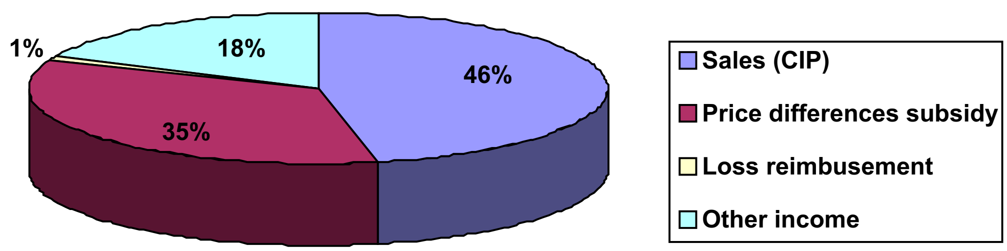
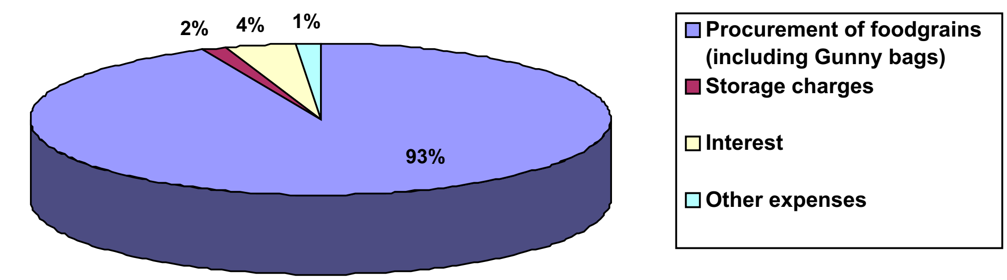


CHART-II COMPONENTS OF EXPENSES
Total Expences: ₹ 3,927.50 crore (2009-10)



Procurement operations of wheat, paddy and coarsegrains are financed through Food Cash Credit sanctioned by Reserve Bank of India (RBI). The amount so borrowed was to be recouped by sale proceeds and subsidy/price difference amount reimbursed by GOI/FCI. Stringent control over use of high interest bearing CC was necessary through accurate and timely claims of incidentals, price difference and loss reimbursement and effective pursuance thereof. We noticed the cases of delays in receipt of subsidy and loss reimbursements as discussed in succeeding paragraphs:

Increasing burden of interest

2.1.11 CC is a high interest bearing financial instrument as compared to other sources of finance. It is evident from ***Annexure-7*** that short term loan and CC balance which were at 'nil' during 2005-06 to 2007-08 had increased sharply to ₹ 499.38 crore during 2008-09 and again to ₹ 1,360.30 crore during 2009-10 mainly because of huge procurements of foodgrains during these two years. Interest rates on CC ranged from 9.10 *per cent* to 13.05 *per cent* on monthly compound basis during 2005-06 to 2009-10. Increased volume of procurement of wheat and inventory holding period resulted in availing of CC in large volume and for a longer period. Hence, interest payment increased from ₹ 8.07 crore in 2005-06 to ₹ 154.43 crore in 2009-10. As per provisional working of DCP for Rabi Marketing Season (RMS) 2008-09, there was interest burden of ₹ 104.83 per quintal against the reimbursement of interest of ₹ 59.92 per quintal leaving a gap of unreimbursed interest of ₹ 44.91 per quintal on account of longer period of stock holding.

The Management stated (December 2010) that cash credit increased as there was increase in procurement of wheat, paddy and coarsegrains during 2008-09 and 2009-10.

Advance and provisional subsidy for DCP wheat

Delay in submission of subsidy claims for DCP wheat caused extra interest burden of ₹ 14.89 crore on cash credit during 2005-10

2.1.12 As per MOU and GOI instructions (March 2006), the Company was entitled to get advance against subsidy based on a quarterly claim to be submitted by the Company in first month of every quarter. Similarly, provisional claims for final subsidy were to be submitted by the third week of next quarter. Final subsidy claims were to be settled after submission of final claims alongwith utilisation certificate and off take quantity for last six months.

Test check revealed that there were delays in submission of claims beyond prescribed period ranging from five to 30 days in case of advance subsidy and four to 22 days in case of provisional subsidy during 2005-06 to 2009-10. Delays in submission of claims were mainly due to delay in furnishing of information by field offices. Delayed submission of subsidy claims had resulted in availing of higher CC for longer periods and payment of interest of ₹14.89 crore.

The Management stated (December 2010) that information is collected from field offices and submitted to State Government before forwarding to GOI. The reply is not valid as the delay in collecting the information was avoidable by advance action and effective follow up with the field offices.

Incorrect valuation of spilled over stock

2.1.13 The MOU prescribed that if there remains any balance stock procured for distribution under TPDS at the end of the year, these spilled over stocks would be valued at the rates applicable for the year and added to the stocks procured during the next year at new rate. Total stock including the spilled over stock would then be valued to form the pooled cost of grains at the beginning of next year. We observed that there was 1.19 lakh MT wheat in 2008-09 and 1.38 lakh MT in 2009-10, which remained undistributed at the end of respective years. Ignoring the provisions of MOU, claims for spilled over stock were submitted based on the economic cost of the respective year to which it belongs for distribution in succeeding year. This led to under valuation of spilled over stock by ₹ 8.46 crore and short levy of the price to that extent.

The Management stated (December 2010) that the MOU provided that claims should be preferred at the rate of the year for which stock relates. The Management reply is beyond the point and not in lines with the provisions of the MOU.

Commencement of DCP operation for paddy without signing MOU

2.1.14 The Company proposed (May 2007) to State Government to commence the procurement of paddy under DCP from 2007-08. Accordingly, the State Government forwarded (June 2007) the proposal to GOI. In response to this, GOI sent (July 2007) format of MOU to sign. The Company suggested (August 2007) certain changes in the terms in MOU which were not accepted by GOI. Meanwhile, the Company commenced (November 2007) procurement under DCP without signing of MOU with State Government and GOI. GOI did not release quarterly subsidy claims of ₹ 259.65 crore in absence of MOU, which was finally signed in June 2010 for Khariff Marketing Season (KMS) 2009-10. However, subsequently GOI also agreed for release of subsidy for 2007-08 and 2008-09. During 2008-09 and 2009-10, the Company availed CC to cope up with the deficit in subsidy and paid interest of ₹ 18.22 crore for which there was no commitment from State Government for reimbursement. The reimbursement of subsidy was still awaited (December 2010).

The Management stated (December 2010) that the GOI released subsidy of ₹ 15.24 crore during 2007-08 and agreed to release remaining subsidy after signing (June 2010) MOU. The reply was, however, silent about the burden of interest for the delay in reimbursement.

Short release of initial subsidy by GOI

There was short release of advance subsidy of ₹ 64.32 crore by GOI due to short claims by the company during 2005-10.

2.1.15 The GOI initially released 95 *per cent* of the admissible subsidy and remaining five *per cent* was to be released after determination of final economic cost on submission of final audited accounts for DCP. Following table comprises details of the procurement made, quantity distributed, total subsidy received and receivable for concerned RMS;

RMS	Procurement in MT	Distribution in MT	Total subsidy receivable (100 *per cent)* (₹ in crore)	Subsidy due for release (95 *per cent)* (₹ in crore)	Subsidy actually released (₹ in crore)	Subsidy to be withheld five *per cent* (₹ in crore)	Short release of subsidy (₹ in crore)
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(4-5)	(8)=(5)-(6)
2005-06	4,69,305.09	4,59,500.47	223.02	211.87	211.79	11.15	0.08
		1,533.00					0
2006-07	0	0	0	0	0	0	0
2007-08	47,125	47,097.13	33.85	32.16	31.98	1.69	0.18
2008-09	15,72,228.12	13,18,885.50	1298.99	1,234.04	1,208.14	64.95	25.90
2009-10	16,63,933.12	16,37,447.79	1433.78	1,362.09	1,323.93	71.69	38.16
Total			**2989.64**	**2,840.16**	**2775.84**	**149.48**	**64.32**

GOI was to release 95 *per cent* of total subsidy in advance without submitting the audited accounts for DCP. Against this, there was short release of subsidy (advance) by ₹ 64.32 crore in five years (2005-10) mainly due to submission of short claims by Company.

Delay in submission of claims for PDS

2.1.16 On issue of DCP stock at CIP, the Company was entitled for price difference in form of initial subsidy. After distribution of stock, the Company submits audited accounts for DCP. Similarly, the Company claims incidentals on foodgrains lifted from FCI for distribution under TPDS and free schemes. Submission of delayed and improper claims led to payments towards interest/ penal interest on CC facility as well as delayed reimbursement of interest by State Government incurred on working capital loan as discussed below.

Delay in submission of claims in DCP

2.1.17 As per MOU audited accounts for DCP was to be submitted not later than six months after the close of the relevant marketing season. The withheld amount of subsidy (i.e. five *per ce*nt of total subsidy receivable) was to be released by the GOI on submission of final audited accounts for DCP. There were delays ranging from nine to 21 months in submission of audited accounts during 2007-08 to 2009-10, which caused corresponding delays in settlement of final subsidy claims by GOI to the tune of ₹138.33 crore. We observed that;

Audited accounts during to 2009-10 were submitted with delays ranging from nine to 21 months causing delay in settlement of final subsidy claims of ₹ 138.33 crore

- Against allotment of 13.85 lakh MT, total procurement of wheat during RMS 2007-08 was 47,097 MT only which was distributed upto January 2009. Delay in movement of wheat resulted in delay in preparation and submission of audited accounts for 2007-08;
- Excess procurement of foodgrains than the target, caused corresponding delay in distribution of stock. The distribution of stock during RMS 2008-09 and 2009-10 continued upto June 2009 and June 2010 respectively. This has correspondingly delayed the finalisation and submission of audited accounts for 2008-09 and 2009-10 to GOI.

The Management stated (December 2010) that during 2007-08, stock was distributed within the procuring districts. Further, as the stock was distributed upto June of the next year during RMS 2008-09 and 2009-10, audited accounts could not be submitted. The reply is not justified as the Company should have timely distributed the stock by proper planning and adhering to the approved dispatch plan.

Mid Day Meal

2.1.18 Under Mid Day Meal (MDM) scheme guidelines (July 2004), the Company was entitled for ₹ 38 per quintal for transportation of the foodgrains of the scheme. It was directed to district offices to submit quarterly claim for incidentals for foodgrains distributed under MDM by 10th day of the succeeding month. The Company delayed submission of bills ranging from nine to 37 days which correspondingly resulted in payment of additional interest of ₹ 61.93 lakh during 2005-06 to 2009-10 on availing of CC facility for longer period.

The Management stated (December 2010) that the claims are submitted after reconciliation of quantity with FCI. The Company needed to effectively follow up with FCI for prompt reconciliation of differences so as to avoid such losses.

Chief Minister Annapurna Yojna

2.1.19 The State Government launched (April 2008) Chief Minister Annapurna Yojna by extending additional subsidy of ₹ 200 per quintal for distribution under BPL scheme. The scheme stipulated submission of monthly claim up to 10th day of the succeeding month. We observed that during 2009-10 there were delays ranging from one to 13 days in submission of monthly claims to the State Government.

With a view to ensure continuity in distribution of foodgrains, State Government directed (February 2009) the Company for advance release of stock to lead/link societies at the month end against the allotments for the succeeding month. While submitting the monthly claims for reimbursement of additional subsidy to state Government, the stock distributed against next month's allotment should be duly reconciled and details clearly mentioned. On submission of claim for month of February 2009, the State Government directed (March 2009) to submit the reconciliation of quantity of allotment and distribution as there was excess distribution than the allotment. It was further directed during 2009-10 that the distribution should be duly reconciled with the allotment. In spite of the repetitive directions for distribution within the quantity of allotment, the Company continued to submit claims of excess distribution made in advance against next month allotment without clearly segregating the two figures and without explaining the reasons thereof. We observed that there was inaction on part of the Company in submission of claims in line with the allotment, hence, State Government deducted ₹ 33.51 crore from claims for the year. Subsequently, the Company submitted (August 2010) audited claims segregating the distribution under current months and next months. Recovery from State Government was still awaited (October 2010). The time gap due to delay in preferring as well as non receipt of claims resulted in avoidable payment of ₹ 1.39 crore during 2009-10 on account of interest on CC.

The Management stated (December 2010) that the distribution was done as per the directions of State Government allowing the lifting against next month allotment in advance. During the exit conference, however, the Deputy Director (Food) of the State Government had assured that the claims of the Company for excess distribution were being considered for reimbursement.

Payment of penal interest

2.1.20 Foodgrains CC sanctioned by RBI was availed from State Bank of India (SBI) after hypothecation of stock of foodgrains to bank. In case of decrease in stock balance against the CC balance, account was treated at default on which two *per cent* penal interest for sixty days and thereafter on total outstanding balance was to be charged till continuance of such default. During December 2008 to March 2009, the physical stock of foodgrains was found less than the CC balance outstanding due to issue of DCP stock under PDS. Accordingly, SBI recovered (December 2008 to March 2009) penal interest of ₹ 2.91 crore from the Company which was not reimbursable by GOI. This had resulted in loss to the Company to the tune of ₹ 2.91 crore.

The Management stated (December 2010) that outstanding balances under CC could not be repaid as release of subsidy was delayed by GOI. The fact, however, remained that Company had to bear the penalty imposed by SBI due to non-release of subsidy by GOI/State Government.

Payment of interest on loan for working capital

2.1.21 The component of interest on pre-procurement expenses did not form part of the economic cost of wheat and paddy for reimbursement by GOI. Company had been facing funds constraints in meeting the working capital requirement due to regular delays in reimbursement of claims of losses by GOI. In view of increase in the procurement activities of the Company, the State Government agreed (March 2009) for reimbursement of the interest on loan borrowed by the Company to meet the working capital requirement for one year i.e. 2009-10. Based on the commitment of the State Government, the Company availed (March 2009) working capital loan of ` 300.00 crore from ICICI Bank and paid interest of ₹ 17.86 crore during 2009-10. Though the Company was submitting (April 2009 to March 2010) claims to State Government regularly every month, the State Government did not reimburse the interest (October 2010) as agreed upon. The Company, however, failed to effectively pursue the matter with the State Government at higher level. Delay in reimbursement of interest amount by State Government compelled the Company to avail CC for which Company paid interest of ₹ 91.60 lakh during 2009-10 out of its own resources.

The Management stated (December 2010) that the recovery was pending due to difference of opinion between Finance Department and Department of Food. The reply, however, highlights Company's failure in taking up the issue at appropriate higher level for settlement of interest claims.

Procurement

2.1.22 Under central pool procurement, the Company procured foodgrains and deposited with FCI. On allotment, stock was lifted from FCI for distribution. While in case of DCP, foodgrains were procured and kept with by Company for distribution. Procurement of wheat under DCP was commenced from 1999-2000 in State to ensure fair price to farmers and avoiding duplication of transportation expenses under central pool procurement. Paddy were procured under central pool upto 2006-07 and under DCP afterwards. Coarsegrains were procured by Company and disposed at auction rate received by FCI. Guidelines relating to standards of quality, weighment and measurement of moisture to be followed during procurement of rabi and khariff seasons[22] were issued by GOI every year. Being a nodal agency of State

22 *Rabi season-March to June, Khariff season-December to March.*

Government, the Company was responsible for procurement of Fair Average Quality (FAQ)[23] foodgrains as per the guidelines. Targets of procurement of wheat, paddy and coarsegrains fixed by State Government vis a vis achievement thereagainst are given below:

Commodity	Year	Target	Achievement	Shortfall (-)/ Excess (+)	
		in lakh MT		in lakh MT	Percentage
Wheat	2005-06	6.05	4.69	(-)1.36	(-)22.48
	2006-07	5.00	0.00	(-)5.00	(-)100.00
	2007-08	2.75	0.47	(-)2.28	(-)82.91
	2008-09	15.00	15.72	*(+)0.72*	*(+)4.80*
	2009-10	16.00	16.64	*(+)0.64*	*(+)4.00*
Paddy	2005-06	0.30	0.34	*(+)0.04*	*(+)13.33*
	2006-07	0.35	0.12	(-)0.23	(-)65.71
	2007-08	0.35	0.09	(-)0.26	(-)74.29
	2008-09	0.60	0.73	*(+)0.13*	*(+)21.67*
	2009-10	1.00	0.78	(-)0.22	(-)22.00
Coarsegrains	2005-06	0.44	0.03	(-)0.41	(-)93.18
	2006-07	0.50	0.00	(-)0.50	(-)100.00
	2007-08	0.30	0.01	(-)0.29	(-)96.67
	2008-09	0.50	0.59	*(+)0.09*	*(+)18.00*
	2009-10	0.60	0.002	(-)0.598	(-)99.67

The percentage of shortfall in achievement of target relating to procurement of wheat ranged from 22.48 to 100 *per cent* during 2005-06 to 2007-08. Similarly, the percentage of shortfall to targets of procurement of paddy was 22 to 74.29 *per cent* during 2006-07, 2007-08 and 2009-10. In respect of procurement of coarsegrains, the percentage of shortfall was 93.18 to 100 *per cent* during five years except 2008-09. Shortfall was attributed to lower yield of crop and higher market price as compared to Minimum Support Price (MSP). In rest of the years targets were achieved. Deficiencies noticed in procurement activity of Company are discussed in succeeding paragraphs.

Excess procurement of wheat

Due to excess procurement of wheat than target during 2008-09 and 2009-10, 1.19 lakh MT and 1.38 lakh MT of wheat stock remained undistributed at the end of respective Rabi season.

2.1.23 The Company was entitled for interest and storage charges for five and half months for wheat procured under DCP. The MOU executed (November 2000/April 2005) between Company, GOI and State Government stipulated that excess procurement against the allotment can be deposited with central pool. There were excess procurement of wheat to the extent of 0.72 lakh MT in 2008-09 and 0.64 lakh MT in 2009-10 procured against the target. Due to the excess procurement, 1.19 lakh MT in 2008-09 and 1.38 lakh MT in 2009-10 remained undistributed even after the end of the respective Rabi season, which was distributed in succeeding year. The extra storage cost involved in holding the excess stock could have been avoided by better planning and timely offering the said stock to central pool. Lack of planning for surrendering excess stock to central pool resulted in payment of interest and storage charges beyond permissible period. Losses on this account could not be

23 *FAQ foodgrains as per the specifications of the GOI notified every year for foreign matter, other foodgrains, broken grains, damaged grains and partly damaged.*

assessed due to non finalisation of DCP accounts for 2008-09 and 2009-10.

The Management stated (December 2010) that the targets were fixed on adhoc basis and it is the responsibility of State Government to accept the entire quantity of wheat offered by the farmers. Hence, excess wheat was procured as per the directions of State Government. The reply is not to the point, as the Company should have minimised the extra storage costs by timely offering the surplus stock to central pool for storage.

Non adherence to Government directions

2.1.24 The GOI guidelines to State Governments for procurement of wheat and paddy under DCP as per the specifications were to be adhered to. The State Government while forwarding GOI directions to Company issued further guidelines/directions for ensuring the desirable qualitative and quantitative specifications of the foodgrains by the Company. Following instances were noticed of Company's failure in complying with these directions:

- The District office of the Company was responsible for measuring moisture contents of foodgrains procured at the time of receipt and issue for which analysis kit including moisture measuring equipment was provided. During 2009-10, the Company operated 1,250 procurement centres for Rabi season 465 centres for Khariff season, 186 issue centres and storage houses of warehousing agencies. Further, the Company also accepted rice from millers after analysis. As against large number of centres as above, the Company was having only 56 moisture measuring equipments during 2009-10. The huge gap in the number of procurement centres and issue centres and the number of available moisture measuring equipment was indicative of Company's failure in ensuring the correct measurement of moisture contents in complying with these directions.

- The cooperative societies designated by State Government procured foodgrains from farmers at the price and incentives notified. These societies were supposed to use electronic weighing equipment to ensure accurate weighment of foodgrains procured from farmers and minimise human intervention. The State Government designated societies at field level performed procurement activity for Company as an agent. The societies involved in procurement did not use electronic weighing equipments for weighment despite displeasure expressed by State Government. This was in contravention to the policy of GOI to minimise human intervention and ensure reliability of the measurement.

The Management stated (December 2010) that societies appointed by State Government are responsible for moisture measurement as they are paid for the job of an agent. The reply was, however, silent on cases of departures from instructions at the level of societies and the action, if any, taken by the Company against the societies who defaulted in fulfilling their obligations/duties.

Inadequate Quality Assurance System

2.1.25 Under central pool procurement, quality control of accepted rice was ensured by FCI. Quality checking of Customed Milled Rice (CMR) accepted in case of procurement under DCP lies with the Company. Three tier quality assurance system at Quality Inspectors (QIs) at district level, Regional Manager level and Head Office level was envisaged in the laid down policy of the Company.

State laboratory

2.1.26 Services of retired personnel of FCI were hired as Business Consultants (BCs) at State level laboratory at head office to prepare training module, impart training, analyse the samples of paddy, wheat, rice and gunny bags received from RM and DM offices. Further, super checks on stack basis were also to be conducted by the three BCs of the Company appointed for the purpose so as to ensure that the lots of paddy and rice accepted by QIs were as per the specification prescribed by GOI. All the three BCs failed to constitute a technical wing by providing appropriate training, formulation of super check programme and compliance thereof, ensure analysis of samples at district/regional laboratory and proper maintenance of records for samples analysed at State laboratory. Due to non achievement of the object, services of all three BCs appointed by the Company (two in 2003 and one in 2007) were terminated (July 2009).

Regional laboratories

Two test checked regional laboratories did not maintain records relating to analysis of samples received from district offices.

2.1.27 Three regional laboratories at Satna, Jabalpur and Gwalior were established (October 2007) to monitor the quality of paddy procured and rice received from millers. The laboratories were provided with required equipment for analysis of samples. It was directed to maintain complete records of samples received and analysed. Despite the directions, records relating to analysis of samples received from districts were not maintained at two laboratories viz. Jabalpur and Satna regional offices as prescribed. In Jabalpur regional laboratory no staff was deployed. Hence, the purpose of establishment of regional laboratories for monitoring the quality of paddy procured and rice accepted by the QIs of districts was defeated.

District laboratories

Training programmes conducted by the company for the Quality Inspectors were inadequate.

2.1.28 Selected personnel from Company's existing staff were designated as QIs and made responsible to ensure procurement of FAQ paddy and acceptance of right quality rice from millers. BC of the Company suggested that analysis of samples is a technical job, hence, appropriate training to QIs was essential on regular basis to ensure proper analysis of samples. However, the Company conducted six short term training programs only for QIs for four to five days during September 2007 to December 2009. It is clear from above that the adequate training was not imparted. Semi trained and unqualified QIs accepted low quality paddy and rice and did not maintain records of samples forcing the Company to distribute inferior quality rice under PDS.

During the Exit conference (December 2010), MD of the Company stated that the Board of Directors approved to hire three experts from FCI. Besides, 100 persons were already sent for necessary training. The reply confirms the facts mentioned in our observations.

Procurement of paddy- Non maintenance of sample test records

2.1.29 In compliance to the GOI directions relating to procurement of paddy, two samples were to be taken out of lot procured by personnel of Company. One sample of 500 gram for quality determination and other 100 gram for moisture determination was to be submitted to DM. In turn, the DM was to submit 25 *per cent* of the sample to RM office for further analysis/test. DM and RM were required to effectively conduct the qualitative analysis of the samples and take appropriate action to prevent irregularities. Test check of records of five[24] out of 17 paddy procuring districts revealed that records of samples submitted by DM to RM offices were not maintained, hence, accuracy of samples was not verifiable.

The Management admitted (December 2010) the fact and stated that necessary directions had been issued to adhere to procedure for record maintenance.

Procurement of non-FAQ paddy

Despite early warning of damaged paddy, Seoni district procured 3,101.72 MT of non-FAQ paddy valuing ₹ 3.41 crore.

2.1.30 In compliance to State Government instructions, the Company directed (October 2009) that godown incharge of Company at the warehouse was responsible to ensure before issue of acceptance note that the paddy procured was of Fair Average Quality (FAQ) standard. The concerned District and Regional Managers were to visit the procurement centres to examine the samples of the paddy to be procured so as to ensure the quality standards. In cases of procurement of inferior quality paddy, disciplinary action was to be initiated against the responsible official. During procurement for KMS 2009-10, the BC analysed the samples and reported (January 2010) that in Seoni district, paddy was damaged in rainy season. Proper analysis of paddy at the time of procurement was recommended and specific marking of gunny bags of non-FAQ paddy, if any, was also suggested. The district office procured (January to March 2010) 70,000 MT paddy against the target of 30,000 MT. In third party analysis it was reported (March 2010) that despite early warning of damaged paddy the district office procured 3,101.72 MT non-FAQ paddy valuing ₹ 3.41 crore. We observed that the system laid down for analysis of paddy procured at district and RM level was not adhered to and monitoring of BC's reports was not ensured at HO level. Negligence at every level resulted in procurement of non-FAQ paddy and receipt of low quality rice.

The Management stated (December 2010) that QIs were not available and there was excess rain, which damaged paddy and this damaged paddy was issued to millers for milling. The reply confirms the Company's lapse in ensuring the quality of paddy before procurement and also the need for adequate training to staff.

Acceptance of Rice

2.1.31 As per the terms of agreement with millers, on depositing the Customed Milled Rice (CMR) by the millers after milling of paddy allotted by the Company, the millers were eligible to deposit equivalent quantity of rice milled out of millers

24 *Satna, Jabalpur, Rewa, Narsinghpur and Katni.*

own paddy (viz. levy of rice) to the Company at the price notified by GOI. The Company directed (February 2008) that samples of all lots of CMR and levy rice accepted by QIs should be sent to DM office for quality test. The DM was responsible to ensure proper analysis of 25 *per cent* of samples covering the lots of all the millers. DM offices were also required to send 25 *per cent* of samples analysed to regional laboratory for further analysis. In addition, every 10th lot accepted by the Company should be get analysed from third party and one copy of test report should be sent to HO and regional laboratory. The stock Below Rejection Limit (BRL) was not to be accepted in any case. Records of sample analysis should be maintained at all levels and analysis report should be submitted to HO. We observed that the system laid down analysis of sample was adhered to at districts level only and no records were maintained for samples of rice analysed at RM and HO level or by third party.

Test check of sample procedure and sample analysis at district, regional and state level revealed the following deficiencies:

In violation of GOI directives, District offices accepted 11,250 MT of inferior quality rice and dispatched for distribution under PDS.

Distribution of inferior quality rice under PDS

2.1.32 Samples of rice out of rakes received from Balaghat to Bhopal and Ujjain were sent to BC for analysis on receipt of quality complaint. Samples of rice received from Bhopal and Ujjain were analysed by BC and reported (March 2010) that the rice was of inferior quality and not fit for human consumption as it contained 41 to 45 *per cent* broken rice as against the permissible limit of 25 *per cent*. Similarly, DM Shahdol reported (April 2010) that two and half rakes received from Balaghat and Bhind were of inferior quality and faced lot of difficulties in issue under PDS. This indicated that 11,250 MT rice valuing ₹ 19.75 crore was accepted by these DM offices without proper quality analysis. Inferior rice was dispatched to other districts for distribution to beneficiaries in violation of the directions of Government for providing fair quality foodgrains to the beneficiaries. Responsibility of the defaulting officials needs to be fixed for acceptance and distribution of inferior quality rice under PDS in violation of the Government directions.

The Management stated (December 2010) that in Bhopal and Ujjain districts, rice was issued after upgradation and as per directions of HO. It was further stated that disciplinary action is being initiated against the responsible officials. The reply was indicative of Company's failure in adhering to the laid down quality standards for procurement and distribution of foodgrains.

Acceptance of damaged/inferior quality rice

2.1.33 In State Warehousing Corporation (SWC) warehouse, 513 MT CMR and levy rice (valuing ₹ 0.90 crore) accepted (January–March 2010) from millers by Gaikhuri Seoni district was lying undistributed (March 2010). As per analysis report of BC, rice was heavily damaged by live worm and was not fit for human consumption. Since, the records prescribed by HO regarding details of lot number and miller's names etc. were not maintained, the Company could not identify the millers responsible for supplying inferior quality rice so as to take action against them.

Similarly, in Seoni district 1,490.78 MT CMR and levy rice valuing ₹ 1.72 crore which was of inferior quality was accepted during 2009-10. During the quality test/inspection by third party, small/big broken grains, organic matters and damaged grains were found beyond the maximum permissible limit. Quality test reports further revealed that almost all the sample analysis test reports of QIs were prepared by estimating the percentage of dehusked grains without using three chemical solutions as prescribed for the purpose.

The Management stated (December 2010) that directions were issued for accepting quality rice and action against defaulting officials is being initiated. The reply confirms our observation.

2.1.34 The Company directed to issue paddy to millers in gunny bags by reversing them after milling of paddy, the millers were required to deposit the milled rice in the same gunny bags by again reversing them. The procedure was adopted to ensure that the delivered rice was milled from the paddy originally delivered to the miller. BC of the Company conducted (12 January 2009) super checks of nine stacks (47 lots) of rice at Katni districts milled out of the paddy supplied by MARKFED[25] and reported that:

- Rice accepted was old and paddy used was three to four year old;
- rice was packed in gunny bags which did not belong to the MARKFED;
- percentage of broken rice was 25 to 30 *per cent* against the prescribed standard of 25 *per cent;*
- dehusked grains ranged from 14 to 16.5 *per cent* against standard of 12 *per cent*; and
- sample procedure was not adhered to at godowns.

On representation (29 January 2009) by local Rice Millers Association demanding for lot wise analysis[26] instead of stack wise[27], 47 sample lots available at HO were re-analysed (February 2009) and 40 out of 47 lots rejected earlier, were accepted. The results of re-analysis raised questions on the entire quality assurance/control system of the Company.

The Management stated (December 2010) that the re-analysis was conducted as per directions of Managing Director. The reply, however, did not speak about inappropriate milling of old paddy and use of gunny bags other than those of the MARKFED as reported in first analysis. Further, reply also did not address the reasons for huge variations in the test/analysis results on quality of foodgrains on two occasions.

25 *In Madhya Pradesh State, there were two State procurement agencies i.e the Company and Marketing Federation (MARKFED) and rice after milling from the paddy procured by MARKFED was also accepted by Company.*

26 *Analysis of the samples drawn from the lot comprising of 270 quintal rice delivered by millers.*

27 *Analysis of the samples drawn from the stacks comprising of several number of rice lots delivered by millers.*

Improper planning for acceptance and movement of rice

2.1.35 Agreements were executed with millers for milling of 73,218 MT paddy procured in KMS 2008-09 against which 48,372 MT rice was received from millers upto November 2009. Besides this 56,492 MT rice was accepted from the millers working for MARKFED also. The Company accepted levy rice of 71,294 MT from the millers as per State Government policy. Against total receipt of 1,76,158 MT, only 98,325 MT was issued upto November 2009 under PDS leaving an undistributed stock of 77,833 MT of rice as on November 2009.

As on 30 November 2009, Gwalior district was holding 26,362 MT rice against annual allotment of 396 MT and Bhind district was holding 21,166 MT rice against nil allotment. Standing Committee appointed by State Government directed (March 2009) to transport excess rice from Gwalior and Bhind to deficit districts. No movement of rice to deficit districts was planned till November 2009 violating the directions of State Government. In view of the deficit of the rice, other districts lifted 87,985 MT rice from FCI during 2009-10 as the rakes for movement of surplus stocks from Gwalior and Bhind districts were dispatched only from December 2009. Thus, as a result of the failure of these two districts in timely movement of 29,331 MT of rice stock valuing ₹ 42.64 crore accepted during KMS 2008-09 was lying in stores as on 31 March 2010. Improper holding of inventory without requirement resulted in avoidable payment of interest of ₹ 2.46 crore against availing of CC limit and storage charges of ₹ 0.52 crore upto 31 March 2010.

2.1.36 Allotment of Rice under BPL and AAY was 890 MT per month for Satna district. As on July 2009, stock availability of DCP rice was equivalent to 11 months requirement due to acceptance of the CMR and levy rice at district itself. In October 2009, the district office transferred the accumulated stock, of 34,022 MT to other districts. Eventhough rice for two months requirement was available and receipt of CMR for KMS 2009-10 also commenced, a rake of 2,619 MT was dispatched (February 2010) from Bhind to Satna resulting in overstocking. Further, in case of wheat it was directed by Company that stock equal to three months PDS requirement should be kept and excess stock was to be transported to deficit districts. Test check of inventory position of rice in selected districts revealed that as on March 2010 four[28] districts were holding inventory more than six months of their requirements during 2009-10.

Purchase of gunny bags

2.1.37 Gunny bags were purchased for storage of wheat and paddy procured under DCP. Requirement of gunny bags was assessed on the basis of the procurement targets fixed for wheat and paddy. Source of supply was Director General of Supplies and Disposals (DGS&D). In emergency, procurement was made from other agencies also.

28 Satna, Katni, Rewa and Narsinghpur.

Incorrect assessment of requirement of gunny bags

2.1.38 An indent was placed (December 2005) with DGS&D for supply of 12,288 bales of gunny bags after considering the available stock for targeted procurement of 4.50 lakh MT wheat for RMS 2006-07. In meeting (6 February 2006) of GOI, concerns were expressed over adverse impact on crop for RMS 2006-07. Despite knowing the fact of adverse impact on crop and price trend, the Company went ahead with placing (20 February 2006) additional indent for supply of 2,976 bales. Advance of ₹ 2.34 crore was deposited (February 2006) with DGS&D for the additional indent. As there was no procurement during March 2006 to June 2006 due to lower yield and higher market price, indent for fourth and fifth rakes scheduled in March was cancelled on 10 April 2006 and 17 April 2006 respectively. Small quantity of 47,000 MT wheat was procured during 2007-08. DGS&D refunded (April 2008) ₹ 2.10 crore and ₹ 20 lakh on 24 February 2009. Hence, placing additional indent ignoring the forecasting of lower yield blocked up funds of Company from February 2006 to February 2009 resulting in loss of interest of ₹ 53.25 lakh.

The Management stated (December 2010) that after issue of the indent for purchase of gunny bales it was not possible to cancel the purchase order. Further, the gunny bags were used in succeeding year. Reply is not tenable as the fact of possible low procurement during 2006-07 was highlighted in GOI meeting (6 February 2006) before placement (20 February 2006) of additional indent for purchase of gunny bales.

Non acceptance of lower price gunny bags

2.1.39 In order to cope up with the huge procurement of wheat during RMS 2008-09, State Government placed (26 April 2008) an order of procurement of 16,000 bales of SBT[29] gunny bags on FCI on account of the Company. The supply was to be completed by 5 May 2008. The Company cancelled (May 2008) the supply of 10,004 SBT bales out of total order of 16,000 bales. The Company denied acceptance of rake received (June 2008) against remaining quantity of 5,996 bales due to inordinate delay in delivery by FCI. In November 2008, FCI again offered for supply of 5,200 bales to the Company at their incurred cost of gunny bales, which worked out to ₹ 12,550 per bale[30]. The offer of FCI was also discussed during the meeting (February 2009) of the representatives of the State Government, FCI, Company and other State procuring agencies held for fixation of procurement targets for RMS 2009-10. However, the Company did not opt for offer and went ahead with fresh purchase from DGS&D at the higher price of ₹ 13,530 per bale as compared to the rate of ₹ 12,550 per bale offered by FCI. We further observed that due to delay in receipt of gunny bags from DGS&D during RMS 2009-10, the Company had to borrow 4,500 bales on loan from FCI after depositing (April 2009) ₹ seven crore. Thus, the

29 Standard- B Twill 500 bags of 50 kg each.
30 Incurred cost of FCI per bale included cost of procurement plus interest and storage charges for eight months from July 2008 to February 2009.

Company suffered avoidable loss of ₹ 50.98 lakh by not accepting offer of FCI for supplying 5,200 bales at lower cost.

The Management stated (December 2010) that the delivery was proposed in June 2008 by FCI and due to problem of storage it was not possible to accept the delivery. The reply was, however, silent on rejecting the subsequent offer (November 2008) of FCI by the Company for supply of 5,200 gunny bales at lower rate than that of DGS&D.

Transportation

2.1.40 The Company devised the system of annual tendering for transportation of foodgrains by inviting tenders in January at district level and finalising it by March at head office level after considering recommendations of RMs, so that new rates are available before commencement of new RMS. The Company finalised rate for Long Route Transportation (LRT)[31] for PDS, procurement as well as Handling and Long Route Transportation (HLRT)[32] of wheat, sugar and gunny bags separately. Following deficiencies were noticed in tendering procedure and finalisation of rates:

Defective tender document

2.1.41 Tender document finalised by Company for transportation of sugar for 2009-10 stipulated recoveries for shortage during transportation from the transporter at penal rate of ₹ 21.50 per kilogram (kg) and on slab basis for sweepage sugar[33]. Market price of sugar increased abnormally from January 2009 and ranged from ₹ 24.75 to ₹ 41.50 per kg during April 2009 to March 2010. Since, the market price was quite higher during this period and recovery was made at lower than prevalent market rate, there was scope for intentional shortages by the transporters. Tender document lacked the option of recovery at market rate in case of abnormal increase in market price. There was shortage/sweepage of sugar in Bhopal (107.23 MT), Katni (30.87 MT), Hoshangabad (37.41 MT), Satna (84.53 MT), Jabalpur (81.22 MT) and Ashoknagar (106.30 MT) during the period from April 2009 to March 2010. Recovery for shortages at lower price than the market price of sugar had resulted in undue benefit of ₹ 61.58 lakh to the private transporters.

The Management stated (December 2010) that there was possibility of higher transportation rates in case of recovery for shortages at higher rates. Reply is not acceptable as recovery of shortages at price lower than the market price opens up the scope for intentional shortages by the transporters.

31 *Long Route Transportation involved lifting of stock from purchase centre or FCI and movement to the destination.*

32 *Handling and Long Route Transportation involved loading or unloading of stock from rake and movement of stock to destination.*

33 *Sugar spoiled during transportation.*

Abnormal variations in rates

2.1.42 The Company adopted the policy of finalising rates of transportation for districts centrally at head office (HO) level through tendering process carried out at district office level. The transportation rates so finalized at HO level were based on the transportation rates for previous years and the rates of the adjoining districts without carrying out any rational study on case to case basis. We observed that the central procurement agencies viz. FCI and CWC, which were involved in similar activities, finalised the transportation rates element-wise for each work involved in the transportation duly taking into account all relevant factors (viz. geographical locations, road conditions of the route, market conditions and availability of transporters/competitors in the region, etc.). The system so provides the benchmark for the entity to assess the reasonability of the rates finalised for the particular location. Thus, the system adopted by the Company for finalising the rates of transportation lacks the comparability of rates across the districts causing huge variation in the rates of different districts as discussed below:

- Lead wise analysis of rates for LRT (PDS) and LRT (Procurement) showed that rates were abnormally high in three leads i.e. local, 0-25 km and 0-50 km in Indore district as compared to other districts of same group cities. The percentage of difference between highest and lowest rates of leads of districts ranged from 57(Itarsi-Hoshangabad) to 1,167 *per cent* (Indore) for LRT (PDS) and 49 (Ujjain) to 355 *per cent* (Indore) in LRT (Procurement) during 2007-08 to 2009-10.

- Rates for HLRT (wheat) were higher in leads of local, 0-25 km, 0-50 km and 0-100 km in Harda district during 2007-08 in comparison to other districts. Similarly, in Khandwa district rates were higher in local, 0-100 and 0-150 leads during 2008-09 and 2009-10 in comparison to other HLRT operating districts. The percentage between highest and lowest rates ranged from 22 (Sagar) to 221 *per cent* (Harda) during these three years.

The Management stated (December 2010) that the rates were differing in different locations due to prevailing factors i.e. geographical location, rate of labour, availability of funds and availability of spare parts. Further, uniform rate was attempted in 2009-10, which was not accepted by transporters. Fact remained that the rates were finalised with abnormal variations without any analysis of the rates with reference to the rates determined by FCI/CWC.

Non adherence to dispatch plan

2.1.43 The Company plans for transportation of excess wheat in advance directly from purchase centres on the basis of procurement targets and the PDS requirement of the concerned districts. Transportation plans were prepared for the year 2008-09 and 2009-10 and it was directed that the plans should be strictly adhered to and deviation, if any, should be intimated to HO. Advance and timely action for implementing the dispatch plan for excess wheat could be cost effective if the surplus stocks were directly transported from the purchase centres to the deficit districts. Transportation plans were formulated and issued for compliance. In the following cases the district offices failed to adhere to the dispatch plans:

2.1.44 As per transportation plan for RMS 2009-10, Harda District was directed (April 2009) to dispatch 45,000 MT out of the wheat procured to Indore and Dhar districts by road. The district office, however, did not transport any stock till May 2009 nor was the HO informed of the fact. HO again directed (May 2009) to transport the undispatched wheat to the two deficit districts by rake. After the direction (May 2009) of HO, district office transported only 10,428 MT wheat to Indore by rake. We observed that the district office did not transfer the balance quantity of stock (34,572 MT) to other districts as per the plan, but shifted the same from purchase centres to warehouses. Later on wheat was transported in October and November 2009 to Indore and Dhar districts. Non adherence to the directions of HO resulted in extra expenditure of ₹ 33.88 lakh on transportation of stock from procurement centers to warehouses.

The Management stated (December 2010) that as per circumstances only 10,428 MT was transported and remaining stock was deposited in local godowns. The reply, however, did not explain the circumstances which led to non- adherence to HO directions.

Extra expenditure on transportation due to non adherence of the directions

2.1.45 The Company directed (February 2008) that during procurement of RMS 2008-09, the districts should store first the stock equal to three months requirements of PDS and excess wheat should be transported to deficit districts directly from procurement centers. In following cases the districts did not adhere to the directions of economy issued by Company:

Uneconomic transportation

2.1.46 In view of higher procurement during RMS 2008-09 against the PDS requirements in Harda district, it was decided to dispatch the wheat procured for Harda district to other districts by transporting directly from procurement centres to rake point. Harda district office had three rake points nearby Harda i.e. Harda, Timarni and Banapura. Thus, the surplus wheat procured by Harda district could have been conveniently transported to other deficit districts from the Harda rake point itself. We observed that wheat was transported from procurement centres of Harda district to Itarsi rake point from where it was dispatched to other districts. Thus, imprudent and unnecessary movement of wheat to Itarsi rake point resulted in extra expenditure of ₹ 30.49 lakh without any justification.

2.1.47 During RMS 2008-09, allotment of wheat in Ujjain districts was lesser as compared to wheat procured under DCP. Transportation of excess wheat to other districts was planned. We observed that the procurement of wheat for Ujjain district was under way and there was procurement of 54,058.60 MT in May 2008 and 5,360 MT in June 2008, which was available for dispatch directly from procurement centres to rake point. However, instead of dispatching the wheat directly from the rake points, three rakes of wheat were dispatched to the deficit districts from the warehouses of Ujjain district resulting in extra expenditure of ₹ 10.37 lakh on transportation.

The Management stated (December 2010) that due to heavy procurement some rakes were loaded from warehouses. The reply was not tenable as Company could have avoided the extra transportation cost by better planning and transporting the wheat from procurement centres.

Faulty transportation planning

2.1.48 The transportation of the excess wheat was planned on the basis of the PDS requirement of the districts. As per the directions issued (February 2008), during procurement of RMS 2008-09, the district offices should transport the stock in excess of the requirement of three months to other districts. Further, in view of huge procurement than the allotment, revised directions were issued (May 2008) impressing upon districts to transport the stock in excess of their nine months requirements to other districts having available storage capacity. Test check of stock account as on 31 August 2008 in respect of movement of surplus wheat for distribution under PDS revealed that there was stock equivalent to the requirement for 14.8 months in Burhanpur, 14.4 months in Khnadwa and 21.2 months in Morena. In this connection, following further observations are made:

- As against the allotment of 26,892 MT, the Morena district procured 24,735.50 MT during 2008-09. In compliance to transportation plan 2008-09 of head office, four rakes (10,159 MT) from Ujjain, one rake (2,473 MT) from Harda, 5,162 MT from Hoshangabad and 5,103 MT from Raisen were dispatched to Morena districts. Morena district later on dispatched 22,171 MT[34] of wheat to other deficit districts. This has resulted in avoidable expenses of ₹ 1.02 crore on railway freight and ₹ 20.69 lakh on HLRT movement.

- There was procurement of 7,397 MT against the allotment of 18,960 MT for 2008-09 for Burhanpur district. The district received 4,802 MT from Harda and 5,291 MT from Khargone. Later on 6,018 MT was transferred to Khandwa. Hence, 4,802 MT from Harda was moved unnecessarily resulted in extra expenditure of ₹ 22.43 lakh.

- Khandwa district procured 26,464 MT against allotment of 31,368 MT during RMS 2008-09. The District further received 12,923 MT from Harda, 6,018 MT from Burhanpur and 6,383 MT from Khargone. Khandwa dispatched 7,783 MT to Satna, 2,634 MT to Sagar and 2,560 MT to Jabalpur. This has resulted in extra cost to the tune of ₹ 58.47 lakh on cross transportation.

The Management stated (December 2010) that transportation was done as per the storage space available. Further, it was not necessary to consume all transported wheat in the district. Reply is not acceptable as the transportation of surplus stock should have been planned giving priority to deficit districts having high distribution targets so as to avoid expenses on cross transportation.

34 *22,171 MT (5,783 MT Bhind, 3,215 MT Tikamgarh, 10,531 MT Bhalaghat and 2,642 MT Jabalpur).*

2.1.49 In compliance to rake movement programme (March 2009), Hoshangabad district dispatched (April 2009) first rake of 2,575.4 MT, second rake of 2,631.6 MT and third rake of 2,631.6 MT to Damoh district. There was procurement of 12,707 MT in April, 15,175 MT in May and 11,743 MT in June 2009 in Damoh. In May 2009 due to storage problem it was directed to transport two rakes each to Indore and Ujjain from Damoh rake point. Improper planning without considering procurement of concerned district resulted in extra expenditure of ₹ 39.20 lakh on railway freight and ₹ 12.90 lakh on HLRT movement.

The Management stated (December 2010) that wheat was transported in anticipation of lower procurement at Damoh, but as there was unexpected procurement, rakes were dispatched to other districts also. The reply is indicative of deficient planning on part of the Company.

Distribution

2.1.50 The Company performed functions of nodal agency for distribution of foodgrains to lead societies[35] as per the allotment by the GOI. Foodgrains procured under DCP should be issued under APL, BPL and AAY only for which the Company was entitled for reimbursement of the price difference between issue price and economic cost notified by GOI. Foodgrains lifted from FCI were issued under TPDS and free schemes. The Company receives incidentals for stock distributed out of FCI lifting. As on 31 March 2010, the Company had 186 issue centres for distribution of foodgrains to 228 lead societies, which in turn distribute to 7,088 link societies[36] reaching to cardholders through 20,311 FPS. Monitoring of allotment, lifting and distribution to actual beneficiaries lies with State Government and Company has no direct involvement in distribution to the ultimate beneficiaries.

Non adherence to the statutory directions

2.1.51 With a view to ensure the specified quality of foodgrains to be distributed under PDS, the GOI issued (2001) quality directions for strict compliance by the distribution agencies. Clause 2.11 of chapter 2 of the guiding directions prescribed drawal of two samples out of the foodgrains/sugar provided to lead societies. Out of the two samples so drawn, while one was to be supplied to the societies at issue centre, the other was to be kept by the issue centre of respective district office for future cross check, if need arise. Test check of selected districts revealed that records of samples drawn from distribution of foodgrains were not maintained, hence, compliance to statutory requirement for drawing samples was doubtful.

The Management stated (December 2010) that directions were issued to districts to comply with the requirement of drawing samples of issue and maintenance of records thereof.

35 *Co-operative societies designated by State Government for lifting foodgrains and to supply to link societies.*

36 *Societies designated to lift foodgrains from the lead societies and distribute to FPS.*

Implementation of PDS

2.1.52 Allotment of foodgrains for various schemes by GOI, lifting from FCI, distribution by Company against allotment, shortage/excess than allotment and the percentage of shortage/excess is presented in ***Annexure-8 & 9.*** Analysis of distribution activity of Company revealed the following:

Non distribution of foodgrains under APL for drought affected areas

2.1.53 Government of India (GOI) allotted (September 2009) 20,639 MT wheat monthly from October 2009 to December 2009 for distribution under drought relief scheme to APL category. State Government did not receive communication for the allotment. On request (December 2009) of State Government, GOI extended (4 February 2010) validity of lifting of allotment upto 11 February 2010, 20 February 2010 and 20 March 2010 for allotments relating to October 2009, November 2009 and December 2009 respectively. Cost sheet for distribution and lifting of wheat for the scheme was belatedly submitted (January 2010) by Company, which was approved on 25 March 2010 by State Government. Since, validity time for lifting of wheat expired foodgrains was not lifted, hence, distribution was not made. GOI again issued (17 March 2010) allotment for April and May 2010 for the same object with validity period of 50 days from the issue of directions i.e. 20 May 2010. The Company submitted (26 April 2010) cost sheet to State Government, which was sanctioned on 8 June 2010 by State Government after expiry of the validity period.

Delayed action for approval of cost sheet by State Government on consecutive two occasions and non pursuance by Company indicated their unwillingness for the implementation of the scheme. This led to non achievement of target of ensuring availability of foodgrains to drought affected people.

The Management stated (December 2010) that foodgrain was not lifted due to delay in approval of cost sheet by State Government and the GOI had been requested (June 2010) to extend the validity period. The reply was not tenable as the Company could not effectively follow up the issue with the State Government on both occasions for prompt approval of cost sheet which led to non achievement of the targets of the scheme of GOI.

Excess distribution than allotment

2.1.54 The GOI made annual as well as monthly allotment of foodgrains to be distributed under various schemes. Accordingly, the Company ensured availability of foodgrains through lifting from FCI or by providing DCP stock. GOI releases subsidy and incidentals as per allotment. As noticed from the figures appearing under ***Annexure 8 and 9,*** in following cases foodgrains was issued in excess of allotment by diverting from other schemes or DCP stock:

Distribution of wheat under BPL in excess of allotment was 28,235.77 MT (2.97 *per cent*) in 2005-06, 5,071.77 MT (0.70 *per cent*) in 2007-08, 1,27,712.41 MT (13.99 *per cent)* in 2008-09 and 58,626.51 MT (5.11 *per cent*) in 2009-10. Similarly, rice was distributed in excess of allotment by 7,961.29 MT (6.68 *per cent*) during 2009-10.

Distribution of wheat under AAY in excess of allotment was 9,444.70 MT (2.08 *per cent)* in 2005-06*,* 1,707.20 MT (0.30 *per cent*) in 2008-09 and 30,006.05 MT (5.36 *per cent*) in 2009-10. Similarly, distribution of rice in excess of allotment was 7,114.42 MT (6.84 *per cent*) during 2009-10.

The Management stated (October 2010) that the distribution under PDS depends on demand of consumer and there was no excess distribution. The reply is not valid as the actual distribution should be made duly taking into account the allotments made by GOI.

Excess distribution under MDM

2.1.55 GOI allots quantity of wheat and rice to be distributed under MDM. Stock for distribution under MDM is issued free of cost by FCI which in turn issued free of cost by Company to societies. Hence, stock for DCP and TPDS which were meant for distribution at CIP should not be issued under MDM. Hence, if the foodgrains were distributed under MDM free of cost of DCP stock, the Company loses entire cost incurred on procurement of the stock distributed. In case the free of cost distribution under MDM is made out of the stock lifted from FCI for other schemes, the Company loses the reimbursement of CIP. The percentage of distribution against allotment under MDM ranged from 84.97 to 101.09 *per cent* in case of wheat and 67.90 to 95.04 *per cent* in case of rice during period of 2005-06 to 2009-10.

Excess distribution of 3,435 MT of stocks than the allotment under MDM resulted in loss of ₹ 1.43 crore during 2008-09.

Analysis of allotment and distribution under MDM of selected districts revealed that seven[37] districts distributed 3,435 MT in excess of allotment of the districts by diverting the stock from other schemes to GOI. Excess distribution than allotment resulted in loss of ₹ 1.43 crore in 2008-09 on account of cost of the stock of other schemes diverted to MDM.

The Management stated (December 2010) that action is being initiated against the defaulting officials. The reply confirms the facts of our observation.

Storage

2.1.56 After assessment of space requirement for storage of foodgrains of PDS and that procured under DCP, warehouses of Madhya Pradesh Warehousing and Logistics Corporation (MPWLC), Central Warehousing Corporation (CWC) and private parties were hired by the Company. The storage capacity available in the State was shared by FCI, State Government agencies and private parties. We

37 *Bhopal, Narsinghpur, Chhindwada, Katni, Hoshangabad, Harda and Jabalpur*

observed that the storage capacity in State which was 11.88 lakh MT in 2005-06, increased by 73 *per cent* to 20.51 lakh MT in 2009-10. As against this, the procurement of wheat increased from 4.69 lakh MT in 2005-06 to 16.64 lakh MT in 2009-10 registering a growth of 255 *per cent*. Thus, increase in the storage capacity was not commensurate with the growth in the procurement of wheat. As the storage facilities were inadequate to accommodate the procurement volume during last three RMS 2008-09 to 2010-11 wheat was kept in open for long time resulting in deterioration in quality of stock. In order to avoid further damage the Company was compelled to hire godowns without proper facilities. Object clause of the Memorandum of Association of Company provided that the Company would develop its own storage facilities. State Government and Company should plan for creation of adequate storage facility to ensure proper and scientific storage of foodgrains.

The Management stated (December 2010) that State Government is considering for the storage expansion as per the procurement.

Shortages of foodgrains

2.1.57 The Company did not fix norms of minimum shortages during storage in warehouses evenafter lapse of 35 years in the business. Minimum shortages as per standards fixed mutually by the Company and the warehousing agencies were allowable and the shortage in excess of the said standards was to be recovered by the Company from warehousing agencies. However, standards for shortages with CWC, MARKFED and other agencies were not on records. Following were observed on storage activity of the Company:

- In meeting (December 2005) with MPWLC, guidelines were finalised for settlement of shortage claims for period from April 2001 to February 2004. Claims were to be settled after consideration of difference in moisture, storage period, condition of stock at the time of deposit and weighment mehod. Claims of ₹ 2.81 crore for the period from 2004-05 to 2008-09 recoverable from MPWLC were pending as MPWLC did not agree to the standards fixed in the meeting of 2005. Besides, recovery of ₹1.01 crore from CWC, ₹ 5.68 lakh from OILFED and ₹ 14.61 lakh from MARKFED are pending from 2001-02 to 2008-09 in absence of any agreement for settlement of the losses on account of shortages. No pursuance of the claims was available in records.

The Management stated (December 2010) that settlement of shortages was done as per mutual agreement with MPWLC, however, MPWLC was not honouring the agreement as approved by State Government. Further, claims were made to CWC and MARKFED. The Company, however, delayed pursuance of the matter with State Government on the assumption that both organisations were Government entities.

- GOI allows one *per cent* driage in paddy procured and stored before milling. Accordingly, it was agreed (December 2005) between the Company and MPWLC that for every decrease of one *per cent* in moisture, the loss in weight should be reckoned as 0.75 *per cent.* Accordingly, the Company made a claim of ₹ 39.86 lakh for shortage of 646.35 MT paddy in Satna district. MPWLC rejected (August 2009) claim, stating that there was storage in Cap[38], storage period of two and half years and difference in weighment method. In view of above claim for every decrease of one *per cent* in moisture, decrease of 0.75 *per cent* in weight was denied. The storage losses of ₹ 39.86 lakh, however, could have been avoided by better planning for milling of paddy duly linked with available storage capacity.

Storage with private warehouses

2.1.58 In view of huge procurement of wheat during RMS 2008-09, State Government permitted (April 2008) the Company to hire private warehouses after following proper procedure of tendering. Further, it was directed that physical verification of stock stored with private warehouses should be conducted by Internal Auditors of the Company on monthly basis. Further, the Company directed (July 2008) for conducting the inspection of warehouses by respective DMs and godown incharges on monthly basis and fortnightly basis respectively. The inspection so conducted should cover the quality, stacking, fugmentation and accounting of stock. Following instance of failure of internal control and losses due to hasty decision of hiring warehouses without security was observed.

Misappropriation of foodgrains

2.1.59 DM, Ujjain hired private warehouses for storage of wheat procured during RMS 2008-09. Out of the wheat stored in a hired warehouse (Kamdhenu), half rake containing 26,900 bags were dispatched (January 2009) to Damoh district. The stock issued from the Kamdhenu was not checked and the inferior quality wheat was transported. Damoh district lodged a complaint regarding receipt of 2,295 bags wheat of lower quality, which was not fit for human consumption. On receipt of this complaint, stock at Kamdhenu warehouse was inspected and it was found that against the stock of 13,937 bags as per the Company records, only 12,460 bags were available out of which 6,464 bags were spoiled. FIR was lodged (February 2009) with police and the Company suffered loss of ₹ 37.13 lakh.

We observed that following internal control measures prescribed were not adhered to which resulted in misappropriation of the stock against which there was no security:

- Physical verification of stock was not done in 15 days by the godown incharges deputed;
- records for inventory for issues was not maintained as prescribed time to time;
- quality of stock was not checked at the time of delivery from warehouse;
- loss/gain and quality certificate for the stock was not obtained every month; and
- monthly inspection was not conducted effectively.

38 *Storage in open by covering with polythene sheets.*

The Management stated (December 2010) that claim was made in consumer forum. The reply was indicative of failure of the internal control mechanism of the Company for ensuring the quantity and quality of stocks stored in private warehouses.

Internal Control

2.1.60 Internal controls contribute to efficient and effective management of any organisation. We noticed the following deficiencies in internal control system in the Company:

- No periodical inspections of field offices and godowns were conducted by the District/ Regional Managers and Head office officers for proper functioning and control of field office in contravention to the laid down directions of the Company;
- functional manual relating to procurement, storage, accounting and audit was not prepared and standing directions were not updated regularly;
- utilisation of space reserved for procurement and PDS by district offices was not reviewed at head office; and
- year wise, region wise as well as head office wise break up of legal cases were not maintained and periodical review of legal cases did not exists.

Conclusion

On the basis of above following is concluded:

- ***the quality control mechanism of the Company was ineffective, resultantly Company failed in ensuring the fair average quality of foodgrains in procurement and its distribution under PDS;***
- ***the distribution of foodgrains exceeded the allotments in BPL, AAY and MDM scheme through diversion of stock of other schemes in violation of GOI directions;***
- ***the Company grossly failed in economically planning the movement of excess stock to deficit districts and its effective implementation causing avoidable expenditure on cross transportation;***
- ***inadequate storage capacity and non adherence to internal control measure for ensuring the quality and maintenance of stock with warehousing agencies resulted in losses to the Company; and***
- ***abnormal delay in submission of audited accounts for DCP blocked up funds of the Company compelling to avail high interest bearing cash credit.***

Recommendations

The Company must:

- ***evolve structured policy for quality control of foodgrains by providing adequate training particularly to the staff involved in procurement of paddy and acceptance of rice;***
- ***distribution of foodgrains strictly as per the scheme-wise allotment by Government and avoid diversion of stock from one scheme to the other;***
- ***planning inter district transportation as per requirement and timely movement adhering to the approved plan;***
- ***creation of adequate storage capacity matching with the procurement of foodgrains and ensuring adherence to the quality standards for storage in private warehouse agencies as per the agreement; and***
- ***timely finalisation of accounts for DCP and submission of claims to GOI along within the prescribed period.***

2.2 Madhya Pradesh Power Generating Company Limited, Jabalpur

Performance Audit on Power Generation activities

Executive Summary

Power is an essential requirement for all facets of life and has been recognised as a basic human need. In Madhya Pradesh, generation upto 31 May 2005 was carried out by the erstwhile Madhya Pradesh State Electricity Board. Consequent to unbundling of the Board into five Companies, the generation of power is carried out by the Madhya Pradesh Power Generating Company Limited (Company).

The performance audit of the Company was conducted to assess economy, efficiency and effectiveness of activities relating to Planning, Project Management, Financial Management, Operational Performance, Renovation and Modernisation, Repairs and Maintenance, Environment issues and Monitoring by top Management during the period 1 April 2005 to 31 March 2010.

Planning and project management

During 2009-10 against the requirement of power of 43,753.15 MU, available power was 35,549.08 MU, whereas the installed capacity was 6,015 MW. There was a growth in demand of 6,675.90 MU during 2005-10, whereas the capacity addition was 1,260 MW. There were delays ranging from nine to 30 months in execution of two thermal power stations completed during the review period resulting in consequential loss of generation.

The Company did not carry out comprehensive R&M of Satpura Thermal Power Station, Sarni during 7th five year plan period and subsequent plan periods which resulted in loss of anticipated generation of 1,659 MU annually. R&M works in Hydel Power stations were not taken up to enhance their efficiency and life span. Delay in award of contract for construction of extension unit 5 at Amarkantak Thermal Power Station led to extra expenditure of ₹ 11.22 crore.

Operational performance

Short receipt of 119.62 lakh MT of coal (15.83 per cent) against the coal linkage fixed/ Annual contract Quantity during 2005-10 resulted in loss of generation of 2,213.47 MU valued at ₹ 379.05 crore. Consumption of coal and fuel oil in excess of MPERC norms resulted in avoidable loss of ₹ 454.76 crore. The Company was not able to achieve the generation target fixed by MPERC in any of the years under review. This resulted in shortfall in generation of 13,883.85 MU against the targets during 2005-10. The PLF of the company ranged from 70.54 to 62.86 per cent in 2005-10 which remained less than national average PLF in the respective years. Scrutiny of overhauling in the test checked thermal station (STPS, Sarni) revealed that outages were noticed within 15 days of overhauling, which indicated that the same was not effective. Auxiliary consumption at STPS, Sarni in excess of MPERC norms resulted in loss of ₹ 42.15 crore.

Financial Management

The Company faced cash deficit during 2007-08 due to delay in recovery of power supply bills, heavy interest commitment on loans and capital expenditure. Delays were noticed under the cash flow mechanism in realisation of dues from MPSEB and MP Power Trading Company Limited. The MPSEB on behalf of the Company failed to repay certain loan instalments in time leading to avoidable expenditure on payment of penal interest of ₹ 14.36 crore. Non settlement of claims with coal company (WCL) for short receipt of coal during April 2006 to November 2006 resulted in blocking of ₹ 10.03 crore. Due to non achievement of performance targets fixed by MPERC in tariff petition led to absorption of financial loss by the Company amounting to ₹ 305.23 crore during 2005-06 and 2006-07.

Environment issues

The Company failed to ensure adherence to air pollution levels enshrined in the statutes. The maximum noise level in STPS, Sarni, ranged from 124 to 127 decibels against the level of 75 decibels prescribed under Noise Pollution (Regulation and Control) Rules. The total suspended solids in water discharge from STPS, Sarni exceeded the standards causing non-repairable damage to the water bodies.

Monitoring by top management

The operational performance and status of on going project are presented to the Board of Directors (BoD) in the meetings held in every quarter. However, certain vital information like absorption of losses based on the true up orders, comparison of performance with MPERC target/norms, analysis of reasons for losses etc were not discussed. Abnormal delay were noticed in implementation of integrated computerised management system approved in December 2005 due to non continuity of the project work because of transfer/retirement of officials involved in the same.

Conclusion and Recommendations

The additions planned in the State Sector were not sufficient to meet the energy requirement in the State. Liquidated damages imposed were inadequate to cover the loss suffered due to delay in implementation of the projects. Short receipt of coal led to loss of generation. The Company could not achieve the targets/norms fixed by MPERC relating to consumption of coal and fuel oil, quantum of generation and auxiliary consumption. PLF of the Company remained less than national average PLF in all the years under review. The Company did not adhere to provisions of various statutes resulting in adverse impact on environment. The review contains eight recommendations, which include formulation plans for adequate capacity addition, incorporating adequate penalty clause in the contract, improving thermal and fuel efficiencies, ensuring adequate prioritisation of its liabilities in Cash Flow Mechanism (CFM) and ensuring adherence to environmental laws etc.

Introduction

2.2.1 Power is an essential requirement for all facets of life and has been recognised as a basic human need. The availability of reliable and quality power at competitive rates is very crucial to sustain growth of all sectors of the economy. The Electricity Act, 2003 provides a framework conducive to development of the Power Sector, promote transparency and competition and protect the interest of the consumers. In compliance with Section 3 of the *ibid* Act, the Government of India (GOI) prepared the National Electricity Policy (NEP) in February 2005 in consultation with the Central Electricity Authority (CEA) for development of the Power Sector based on optimal utilisation of resources like coal, gas, nuclear material, hydro and renewable sources of energy. The Policy *interalia,* aims at, laying guidelines for accelerated development of the Power Sector.

During 2005-06, requirement of electricity in Madhya Pradesh was 37,077.25 Million Units (MU) of which only 32,231.55 MU were available, leaving a shortfall of 4,845.70 MU, which works out to 13.07 *per cent* of the requirement. In the beginning of 2005-06, the total installed power generation capacity in the State of Madhya Pradesh was 4,755 Mega Watt[39] (MW) and effective available capacity during 2005-06 was 3,969 MW[39] against the peak demand of 6,734 MW, leaving deficit of 2,765 MW. In 2009-10 the requirement of electricity mounted up to 43,753.15 MU of which only 35,549.08 MU were available leaving a shortfall of 8,204.07 MU. Total installed power generation capacity as on 31 March 2010 was 6,015 MW[39] and effective available capacity was 4,205 MW[39] against the peak demand of 7,309 MW with deficit of 3,104 MW. Thus there was a growth in energy requirement by 6,675.90 MU during review period, whereas the capacity addition was 1,260 MW.

Generation of power in the State sector is carried out by the Madhya Pradesh Power Generating Company Limited, Jabalpur (Company), which was incorporated on 22 November 2001[40] under the Companies Act, 1956 under the administrative control of the Energy Department of the Government of Madhya Pradesh. Management of the Company is vested with a Board of Directors appointed by the State Government. The day-to-day operations are carried out by the Chairman cum Managing Director, who is the Chief Executive of the Company and assisted by the Executive Directors, Chief Engineers, Superintending Engineers and Executive Engineers. As on 31 March 2010 the Company had three[41] thermal generation stations and ten[42] hydro

39 *Including share from Central Sector.*

40 *The Company started its operation from 1 June 2005 and prepared its first annual financial statement for the year 2005-06.*

41 *Amarkantak Thermal Power Station (ATPS), Chachai (450 MW), Satpura Thermal Power Station (STPS), Sarni (1,142.50 MW) and Sanjay Gandhi Thermal Power Station (SGTPS), Birsinghpur (1,340 MW).*

42 *Gandhisagar (115 MW), Pench (160 MW), Bargi (90 MW), Bansagar-I, Tons (315 MW), Bansagar-II, Silpara (30 MW), Bansagar-III, Devlond (60 MW), Bansagar-IV (20 MW), Madhikheda (60 MW), Birsinghpur (20 MW), Rajghat (45 MW).*

generation Stations with the installed capacity of 2,932.50 MW and 915 MW respectively. The details of installed capacity of the Company and addition/deration during 2005-10 shown in ***Annexure-10.*** The turnover of the Company was ₹ 2,976.54 crore in 2009-2010. It was 11.42 *per cent* of State working PSUs turnover and 1.53 *per cent* of State GDP during that year. It employed 6,055 employees as on 31 March 2010.

Scope and Methodology of Audit

2.2 .2 The present review conducted during February to May 2010 covers the performance of the Company for the period from 2005-06 to 2009-10. The review mainly deals with the aspects of Planning, Project Management, Financial Management, Operational Performance, Environmental Issues and Monitoring by Top Management. The audit examination involved scrutiny of records at the Head Office and one Power Station (STPS, Sarni), out of three Thermal Power Generating Stations thereby covering 29.69 *per cent* of the installed capacity of the Company as on 31 March 2010.

(Satpura Thermal Power Station, Sarni)

The methodology adopted for attaining the audit objectives with reference to audit criteria consisted of explaining audit objectives to top management, scrutiny of records at Head Office and selected unit, analysis of data with reference to audit criteria, comparison with CEA norms and MPERC guidelines and directions as well as scrutiny of Board agenda papers.

Audit Objectives

The objectives of the performance audit were to assess:

2.2.3 Planning and Project Management

- whether capacity addition programme taken up/to be taken up to meet the shortage of power in the Madhya Pradesh is in line with the National Policy of Power for All by 2012;
- whether a plan of action is in place for optimisation of generation from the existing capacity;
- whether the contracts were awarded with due regard to economy and in transparent manner;
- whether the execution of projects were managed economically, effectively and efficiently; and
- whether the Company had taken up the projects under non-conventional sources such as wind, solar, biomass etc and tap generation from captive power sources.

2.2.4 Financial Management

- whether the projections for funding the new projects and up-gradation of existing generating units were realistic including the identification and optimal utilisation for intended purpose;
- whether all claims including energy bills were properly raised and recovered in an efficient manner; and
- the soundness of financial health of the Company.

2.2.5 Operational Performance

- whether the power plants were operated efficiently and preventive maintenance as prescribed was carried out minimising the forced outages;
- whether requirements of each category of fuel worked out realistically, procured economically and utilised efficiently;
- whether the manpower requirement was realistic and its utilisation optimal;
- whether the life extension (renovation and modernisation) programme were ascertained and carried out in an economic, effective and efficient manner; and
- the impact of R&M/LE activity on the operational performance of the Unit.

2.2.6 Environmental Issues

- whether the various types of pollutants (air, water, noise) in power stations were within the prescribed norms and complied with the required statutory requirements; and
- the adequacy of waste management system and its implementation.

2.2.7 Monitoring and Evaluation

- whether adequate MIS existed in the entity to monitor and assess the impact and utilise the feedback for preparation of future schemes.

Audit Criteria

2.2.8 The audit criteria adopted for assessing the achievement of the audit objectives were:

- National Electricity Plan, norms/guidelines of Central Electricity Authority (CEA) and Madhya Pradesh Electricity Regulatory Commission (MPERC) regarding planning and implementation of the projects;
- standard procedures for award of contract with reference to principles of economy, efficiency and effectiveness;
- targets fixed for generation of power;
- parameters fixed for plant availability, Plant Load Factor (PLF) etc;
- comparison with best performers in the regions/all India averages;
- prescribed norms for planned outages; and
- Acts relating to environmental laws.

Financial Position and Working Results

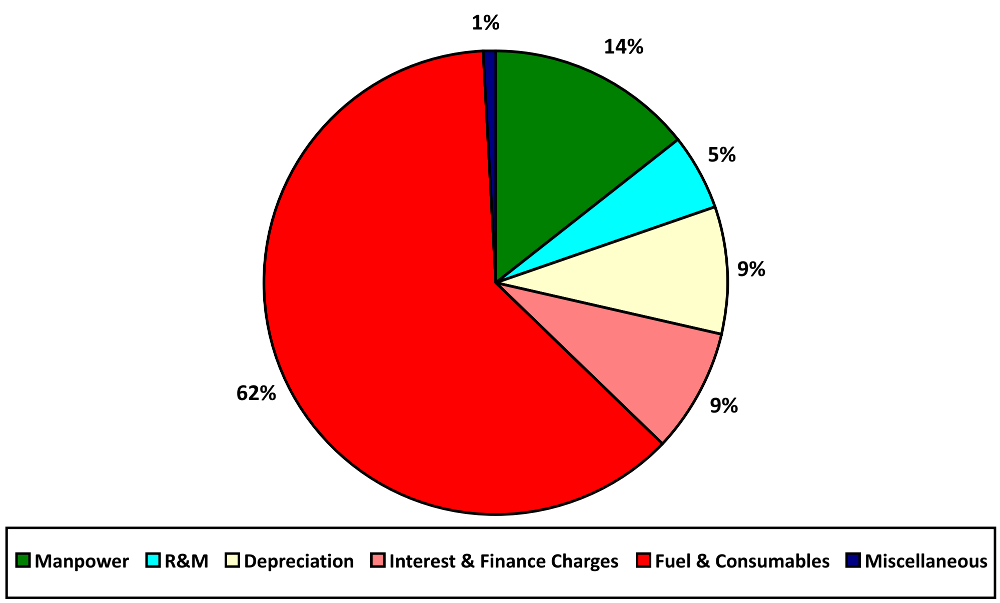
2.2.9 The financial position and the details of working results like cost of generation of electricity, revenue realisation, net surplus/loss and earnings and cost per unit of operation of the Company for the five years ending 31 March 2010 is given in the ***Annexure-11*** and ***Annexure-12*** respectively. An analysis of the financial position revealed the following:

- Secured loans rose during the review period from ₹ 1.24 crore (2006-07) to ₹ 3,140.09 crore (2009-10) while unsecured loans reduced from ₹ 2,588.66 crore (2005-06) to ₹ 216.31 crore (2009-10) mainly due to transfer of LIC and PFC loan from unsecured loan to secured loan during 2007-08 and 2008-09.

- Gross Block of Fixed Assets increased in 2008-09 by ₹ 1,965.24 crore from previous year mainly due to capitalisation (₹ 955 crore) of ATPS extension No. 5 (1 x 210 MW).
- The accumulated losses rose over the review period to ₹ 1,048.25 crore, which indicated deteriorating financial health of the Company.
- The total cost per unit increased from ₹ 1.47 per unit in 2005-06 to ₹ 2.40 per unit in 2009-10 mainly due to increase in manpower cost, fuel consumption and interest & finance charges.
- Since the realisation per unit had not increased in similar ratio, the loss per unit of the Company increased from two paisa per unit in 2005-06 to 44 paisa per unit in 2009-10.

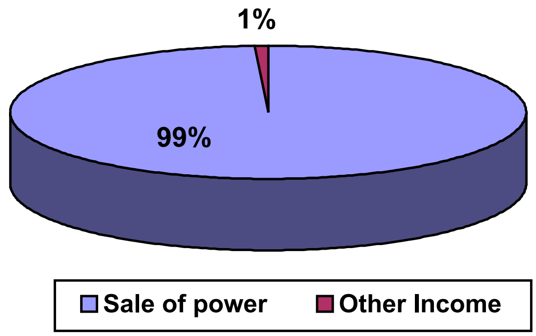
Elements of Cost

2.2.10 Fuel & Consumables, employee cost and depreciation constitute the major elements of costs. The percentage break-up of cost for 2009-10 is given below in the pie chart.



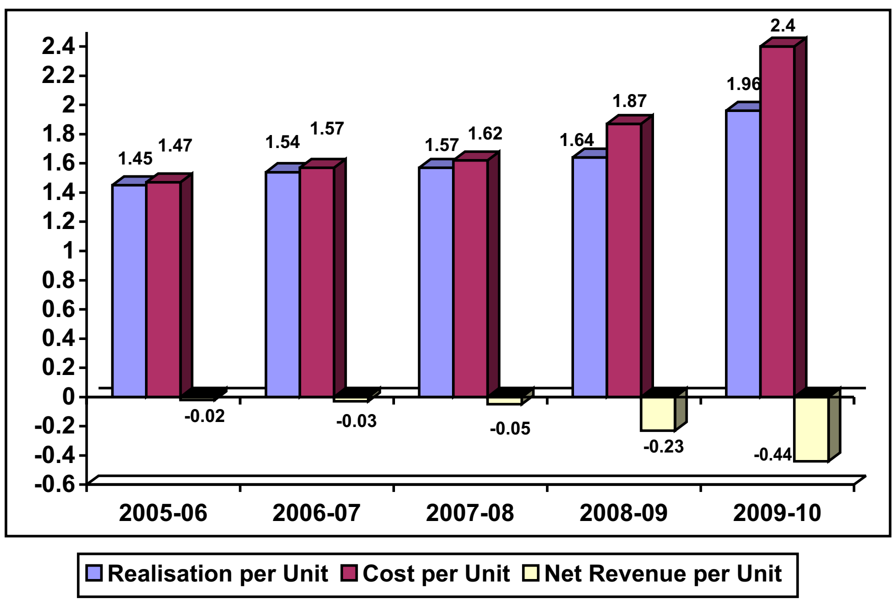
Elements of revenue

2.2.11 Sale of Power constitutes the major elements of revenue. The percentage break-up of revenue for 2009-10 is given below in the pie chart.



Recovery of cost of operations

2.2.12 The Company was not able to recover its cost of operations in any of the year under review period. During last five years ending 2009-10, net revenue showed a negative trend as given in the graph below:



An analysis of trend of cost per unit revealed that the cost has increased abnormally in the year 2008-09 and 2009-10 mainly on account of higher consumption/ cost of fuel, interest and finance charge and employees cost.

Audit Findings

2.2.13 Audit explained the audit objectives to the Company during an 'Entry conference' held on 01 February 2010. Subsequently, audit findings were reported to the Company and the State Government in June 2010 and discussed in an 'Exit conference' held on 29 November 2010 which was attended by Executive Director and other officers of the Company. The Company also replied to audit findings on 16 October 2010 and 29 November 2010. The views expressed by them have been considered while finalising this review. The audit findings are discussed below :

Operational Performance

2.2.14 The operational performance of the Company for the five years ending 2009-10 is given in the ***Annexure-13.*** The operational performance of the Company was evaluated on various operational parameters as described below. It was also seen whether the Company was able to maintain pace in terms of capacity addition with the growing demand for power in the State. Audit findings in this regard are discussed in the subsequent paragraphs. These audit findings show that the losses were controllable and there was scope for improvement in performance.

Planning

2.2.15 National Electricity Policy aims to provide availability of over 1,000 Units of per Capita electricity by 2012. The power availability scenario in the State indicating own generation, peak demand and net deficit was as under:

Year	Generation own (in MW)	Peak Demand (MW)	Average Demand (MW)	Percentage of actual generation to Peak Demand	Percentage of actual generation to Average Demand
2005-06	2516	6734	3679	37.36	68.39
2006-07	2234	7114	3817	31.40	58.53
2007-08	2291	7132	4107	32.12	55.78
2008-09	2453	7593	4053	32.31	60.52
2009-10	2466	7309	4058	33.74	60.77

(Source: Data provided by State Load Dispatch Center (SLDC) of Madhya Pradesh Power Transmission Company Limited, Jabalpur)

It may be seen from the above table that the actual generation was only 31.40 to 37.36 *per cent* of the peak demand. However, the total supply even after import was not sufficient to meet the peak demand, as shown below:

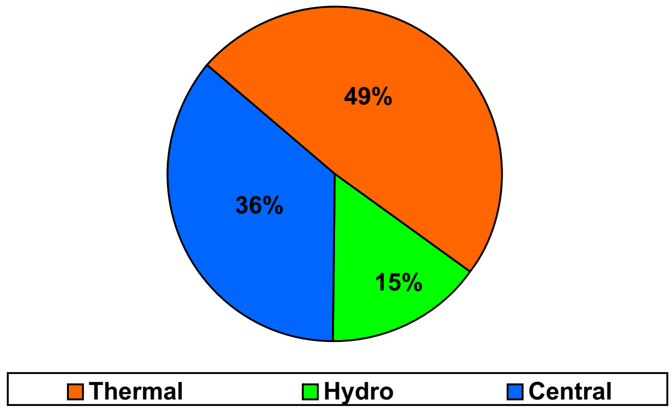
Year	Peak Demand (MW	Peak Demand met (MW)	Sources of meeting peak demand		Peak Deficit	
			Own	Purchase, Import and Others	MW	Percentage
2005-06	6734	5780	2516	3264	954	14.17
2006-07	7114	6109	2234	3875	1005	14.13
2007-08	7132	6501	2291	4210	631	8.85
2008-09	7593	7019	2453	4566	574	7.56
2009-10	7309	6215	2466	3749	1094	14.97

(Source: Data provided by SLDC, Jabalpur)

There remained a shortfall of 574 to 1,094 MW (7.56 *per cent* to 14.97 *per cent* of the peak demand) even after import. Consequently rotational load shedding was forced on the populace.

Capacity Additions

2.2.16 The State had total installed capacity of 4,755 MW at the beginning of 2005-06, which increased to 6,015 MW at the end of 2009-10. The break up of generating capacities, as on 31 March 2010, under thermal, hydro and central is shown in the pie chart below.



To meet the energy generation requirement of 43,753.15 MU (2009-10) in the State, a capacity addition of about 3,340 MW was required during 2005-06 to 2009-10. The projects completed during the review period and 'Projects under Construction' (PUC) along-with 'Committed Projects[43] (CP) earmarked for capacity addition by the Company as on 31 March 2010 are detailed below.

Sector	Thermal	Hydro	Non-conventional Energy	Total
Completed Projects	710[44]	80[45]	--	790
Projects Under Construction	1700[46]	--	--	1700
Committed Projects	7250[47]	--	--	7250
Total	**9660**	**80**	**--**	**9740**

43 National Electricity Plan defines Committed Projects as Projects for which the formal approval to take up the same has been granted by the CEA.

44 ATPS Unit-5 (1x 210 MW) and SGTPS Unit-5 (1x 500 MW).

45 Madikheda-3 Unit 1(20 MW), Unit-2 (20 MW), Unit-3 (20 MW), Bansagar-4 Unit-1(10 MW), Unit-2(10 MW)

46 STPS Unit No 10 and 11 (2x250 MW) and Shri Singaji TPS (2x600 MW).

47 Dada Dhuniwale Khandwa Power Ltd (joint venture of MPPGCL and BHEL) (2x800 MW), Shri Singaji TPS, Khandwa (2x600 MW), Bansagar Thermal Power Project, Shahdol (2x800 MW), Chandia Super TPS, Katni (2x800 MW), ATPS, Unit No 6 (1x250 MW) and New Units at Birsinghpur (2x 500 MW).

It may seen from the above table that the Company had not taken up any projects under non-conventional source of energy such as solar, biomass and tapped generation from captive power sources.

The particulars of capacity additions envisaged, actual additions and energy demand vis-à-vis energy supplied in the State by the Company and Central PSUs during review period, are shown below:

Sr	Description	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Capacity at the beginning of the year including Central sector (MW)	4755	4755	4815	5855	6065
2.	Additions Planned for the year in the State sector (MW)	60[48]	520[49]	210[50]	--	--
3.	Additions planned in the Central Sector (MW)	125[51]	1020[52]	---	---	---
4	Total planned	185	1540	210	---	---
5.	Actual Additions/deletion (MW)	---	60[53]	1040[54]	210[55]	-50[56]
6.	Capacity at the end of the year (MW) (1 + 5)	4755	4815	5855	6065	6015
7.	**Shortfall in capacity addition (MW) (4–5)**	**(-) 185**	**(-) 1480**	**(+) 830**	**(+) 210**	**(-) 50**
8.	Energy demand (MUs)	37077.25	38703.35	41605.74	42624.56	43753.15
9.	a) Energy Generated	11818.10	14998.50	14550.07	15527.90	15099.00
	b) Energy Purchased	20413.45	18436.15	21522.77	19974.74	20450.08
	c) Total	32231.55	33434.65	36072.84	35502.64	35549.08
10	**Shortfall in meeting demand (MUs) (8-9c)**	**4845.70**	**5268.70**	**5532.90**	**7121.92**	**8204.07**

(Source of data – Planning Department of the MP Power Transmission Company Limited and CEA website).

Against capacity addition of 1,935 MW planned during the review period the actual addition was 1,260 MW (65 *per cent* only). The shortfall of 675 MW contributed to steep rise in deficiency in meeting demand for power during the review period which ranged from 4,846 MU to 8,204 MU. The energy demand which was 37,077 MU during 2005-06 rose steeply to 43,753 MU during 2009-10 and consequently energy purchased also increased which ranged from 18,436 MU to 21,523 MU during the review period which indicated high dependence on imported power to meet the demand and need for further capacity addition.

48 *Bansagar – Tons-HEP-PH-IV-2x10 MW and Madhikheda HEP-2x20 MW).*
49 *SGTPS Unit-5 (1x500 MW) and Madkikheda HPS (1x20 MW).*
50 *ATPS Extension Unit-5 (1x210 MW).*
51 *Indira Sagar (125 MW).*
52 *Vindyachal,TPP III (500 MW) & Omkareshwar HEP(520 MW).*
53 *Bansagar Tons HEP (2x10 MW) & Madhikheda HEP (2x20).*
54 *SGTPS Unit 5(1x500 MW), Birsaingpur(1x20 MW), Madhikheda HEP (1x20MW) & Omkareshwar HEP (500 MW).*
55 *ATPS Extension Unit 5 (1x210 MW).*
56 *ATPS Unit 1 and 2 (1x20+1x30) of decommissioned in April 2009.*

Renovation & Modernisation

Optimum Utilisation of existing facilities

2.2.17 As per the National Electricity Policy (February 2005), Renovation and Modernisation for achieving higher efficiency levels was to be pursued vigorously and all existing generation capacity should be brought to minimum acceptable standards. The Government of India was providing financial support for this purpose. The main objective of R&M and LE works is to make the operating units well equipped with latest technology equipment/components/systems with a view to improve their performance in terms of output, reliability and availability to the original design values, reduction in maintenance requirement and enhanced efficiency.

We noticed following deficiencies in R&M activity:

Satpura Thermal Power Station, Sarni

Failure to undertake comprehensive R&M of STPS, Sarni resulted in loss of anticipated generation of 1,659 MU annually.

2.2.18 Though all the nine Units (5x62.5 MW, 1x200 MW and 3x210 MW) of STPS, Sarni, were more than 21 years old as on 1 April 2005, the Company had not taken up comprehensive Renovation & Modernisation of any of these units till the beginning of the review period. Only need based R&M was carried out on all the nine Units and ₹ 159.20 crore was spent from 1992-93 to 2009-10 with loan assistance from PFC. The MPERC directed the Company in the generation tariff order and true-up order for the year 2005-06 to undertake R&M of the thermal plants to improve their performance.

It was observed that the Company prepared a project report in April 2009 only through NTPC for conducting comprehensive R&M of power houses II and III (1x200+3x210 MW) at an estimated cost of ₹ 576 crore against which the PFC sanctioned (April 2010) a loan of ₹ 459.09 crore for financing the project. However, based on the MPERC directions (June 2010), the Company placed an order (September 2010) on NTPC for preparing fresh DPR keeping in view the guidelines issued (October 2009) by CEA for R&M and LE works of TPS. It was observed from the project report (April 2009) that failure of the Company to undertake comprehensive R & M of all the nine units of the thermal station during 7th/8th five year plan period or subsequent plan periods resulted in loss of anticipated generation of 1,659 MU annually and other technical benefits as worked out by NTPC.

The Company stated (May/October 2010) that comprehensive R&M was not carried out since as per CEA plan document need based R&M activity needs to be carried out to give maximum output with reduced forced and partial outages. Further, the MoEF had imposed the condition (February 2009) that 5 units of 62.5 MW of PH-I will be decommissioned within one year of the scheduled commissioning of new extension units 10 and 11 (2x250 MW) in the year 2012. Besides the cost of generation would increase to high level due to heavy capital expenditure involved and MPERC may not allow the same in the tariff.

The reply is not convincing as the plan document of CEA for conducting Renovation and Modernisation works implied that it shall be comprehensive and the guidelines issued (October 2009) by CEA stated that R&M is not a substitute for regular annual or capital maintenance/overhaul which forms a part of Operation and Maintenance (O&M) activity. The power houses suffered huge forced/partial outages during 2005-06 to 2009-10 which resulted in loss of generation even after conducting need based R&M. Further, the MoEF condition of decommissioning of PH-I was imposed only in 2009 though the Units were over 21 years old as on 1 April 2005. Capital expenditure on R&M approved by CEA can be claimed through tariff by filing petition before MPERC along with certified project cost as the Commission itself directed the Company in the year 2005-06 to undertake R&M of the plant to improve its operational performance.

Poor progress in execution of R&M and LEU works in Hydel Power Stations

2.2.19 In order to augment the hydro generation and improve the availability of existing hydro power projects, Government of India has put emphasis on R & M of various existing hydro electric power projects.

The age of hydro stations at Gandhi Sagar (5x23 MW) ranged from 43 to 49 years, Rana Pratap Sagar (4x43 MW) from 40 to 41 years and Jawahar Sagar (3x33 MW) from 36 to 37 years as on 31 March 2010.

While other States were able to reap the benefits of R&M, LE&U schemes by implementing it in the 8th and subsequent plan periods in coordination with Central Electricity Authority, by way of additional generation and extension of life of the hydro station, no such initiative was taken by the Company through an expert consultant to conduct cost benefit analysis. It was only in the 12th plan that 5x23 MW Gandhi Sagar HPS is proposed to be included for R&M and LEU work for implementation.

Project Management

2.2.20 Preparation of an accurate and realistic Draft Project Reports (DPR) after considering feasibility study, considering factors like creation of infrastructure facility, addressing bottlenecks likely to be encountered in various stages of project planning are critical activities in planning stage of the project.

Project management includes timely acquisition of land, effective actions to resolve bottlenecks, obtain necessary clearances from authorities, rehabilitation of displaced families, proper scheduling of various activities etc. For execution of the two ongoing projects i.e.; Shri Singaji TPS (2x600 MW), Khandwa, and Satpura TPS (Units 10 and 11, 2x250 MW), consultant (NTPC) was also appointed (June 2010) for vigorous monitoring. Notwithstanding, time over runs were noticed due to absence of coordinating mechanism throughout the implementation of the projects during review period as discussed in succeeding paragraphs.

During the review period, audit test checked two completed projects (1&2) and two running projects (3&4) as indicated below:-

1. 1x500 MW (Unit-5) at Sanjay Gandhi Thermal Power Station at Birsinghpur
2. 1x210 MW (extension unit-5) Amarkantak Thermal Power Station, Chachai
3. 2x250 MW extension unit no.10 and11 of Satpura Thermal Power Station, Sarni
4. 2x600 MW Shree Singaji Thermal Power Stations, Khandwa.

2.2.21 The table indicates the scheduled and actual dates of completion of the power stations, date of start of transmission, date of commissioning of power stations and the time overrun.

Time overrun

Sr.	Phase-wise name of the Unit	Details	As per contract	Actual time taken	Time overrun (in months)
1.	SGTPS (Unit 5) (1x 500 MW)	Date of completion of unit	26-12-2006	28-08-2008	20
		Date of start of transmission	26-12-2006	01-10-2007	9
		Date of commercial operation/commissioning of unit	26-12-2006	28-08-2008	20
2.	ATPS Extension Unit-5 (1x210 MW).	Date of completion of unit	28-02-2007	15-06-2008	15
		Date of start of transmission	28-02-2007	14-03-2009	24
		Date of commercial operation/commissioning.	28-02-2007	09-09-2009	30
3.	STPS Unit -10&11 (2x250 MW)	Date of completion of unit	Unit 10 – January 2012Unit 11 - March 2012	In progress (November 2010)	---
		Date of start of transmission			---
		Date of commercial operation/commissioning.			---
4.	Shri Singaji TPS, Khandwa (2x600 MW)	Date of completion of unit	Unit I - March 2012 Unit II - July 2012	In progress (November 2010)	---
		Date of start of transmission			---
		Date of commercial operation/commissioning.			---

Delay in construction of 1x500 MW (Unit 5) at Sanjay Gandhi Thermal Power Station at Birsinghpur

2.2.22 Out of 840 MW planned by the Company for capacity addition during the 10th five year plan (2002-07) construction of 1x500 MW (Unit-5) thermal power plant was to be commissioned by February 2007. The Contract was placed (July 2004) on BHEL at a price of ₹1,449.56 crore with due date of completion of the project by 26 December 2006. However the BHEL could not complete the project in time. It was finally put into commercial operation only on 28 August 2008 after a delay of 20 months from the scheduled date of completion of the project. Thus the capacity addition slipped over to 11th five year plan (2007-12). The delays by BHEL were attributed to delay in lifting of ceiling girder and boiler drum for want of imported materials, shortage of structural steel, delay in finalisation of packages such as demineralisation plant, pre-treatment plant, raw water/circulating water system and delay on the part of sub-vendors in execution of coal handling and ash handling plants.

Our scrutiny (March 2010) revealed that: -

Faulty penalty clause in the contract resulted in foregoing of penalty of ₹ 335.77 crore

- Though the Company recovered maximum liquidated damages of ₹ 93.04 crore as per penalty clause from BHEL, the Company suffered loss of generation of 3,899 MU and loss towards recovery of fixed cost of ₹ 152.06 crore[57] for the delay of 570 days in completion of the project. We observed that the LD amount was inadequate to meet the loss towards recovery of fixed cost on account of energy not produced, due to faulty clause in the contract. Though BHEL offered that ₹ 75.23 lakh could be deducted for each day of delay, the Company injudiciously agreed in the contract for levy of maximum penalty of five *per cent* of the contract value resulting in foregoing of penalty amount of ₹ 335.77 crore[58] for the delayed work.

  The Company stated (October 2010) that ceiling limit of five *per cent* was fixed towards LD as per model contract document of CEA. However, the Company failed to safeguard its interest as it suffered huge loss of generation and consequential loss of recovery of fixed cost on delay in execution of the project by BHEL.

- The Company also had to incur expenditure of ₹ 99.43 lakh towards payment of commitment charges to PFC due to non drawal of loan instalments as per the agreed schedule because of delay in completion of the project by BHEL.

Delay in construction of 1x210 MW (extension unit–5) at Amarkantak Thermal Power Station, Chachai

2.2.23 Based on the advice given (August 2002) by the State Government to place order on BHEL after conducting negotiations, the Company placed (December 2004) the turnkey contract for supply, erection and commissioning of 1x210 MW (Unit-5) at Amarkantak TPS at a contract price of ₹ 625 crore with schedule date of completion by February 2007. However the BHEL has put the plant into commercial operation on 9 September 2009 after a delay of 30 months despite certain miscellaneous works relating to boiler, turbine generator, coal handling plant and ash handling plant, effluent treatment plant, boiler lift, etc. were still in progress (September 2010).

57 *(500 MW plant x 80 per cent (PLF) x 24 x 1,000 x 570 days / 10,00,000 = 5,472 MU – 1,573 MU (Infirm power) = 3,899 MU x 10,00,000 x ₹ 0.39) = ₹ 152.06 crore*

58 *570 days x ₹ 75.23 lakh = ₹ 428.81 crore – ₹ 93.04 crore*

Our scrutiny (March 2010) revealed that:

- Even though the administrative approval from the State Government for the project was received in June 2002 and the Government advised (August 2002) the Company to place an order on BHEL after conducting negotiations, there was delay of two years in formation of negotiation committee (September 2004) that led to extra expenditure of ₹ 11.22 crore, as compared to a similar project for which order was placed (December 2003) on BHEL by Andhra Pradesh Power Generation Corporation Ltd, Hyderabad.

  The Company attributed (July/October 2010) the delay in placement of order on BHEL due to non- availability of adequate funds with MPSEB. However, for financing of the project cost, PFC had issued the comfort letter in June 2003 itself and an order could have been placed on BHEL at least by December 2003 to obtain price benefit.

- Though the Company recovered maximum liquidated damages amount of ₹ 45.84 crore as per penalty clause from BHEL, the Company suffered loss of generation of 4,475.52 MU and loss towards recovery of fixed cost of ₹ 139.64 crore[59] for the delay of 888 days in completion of the project.

  The Company stated (October 2010) that the project was delayed for reasons solely attributable to BHEL. However, we are of the opinion that the LD clause of the contract was inadequate to cover the loss suffered by the Company.

Project for construction of 2x600 MW Shahpura Thermal Power Project

2.2.24 Shahpura Thermal Power Company Limited (STPCL), a subsidiary Company of MP Power Trading Company Limited, was incorporated on 5 February 2007 to act as Special Purpose Vehicle for construction of 2x600 MW Shahpura Thermal Power Project. The STPCL was required to carry out preliminary works for selection of developer for construction of the project, arrange for linkage of coal, water availability and obtain clearance from pollution control board before the publication for request for qualification. It was observed that even after a lapse of three years from the formation (February 2007) of the STPCL, it has not ensured the availability of basic requirements for the construction of thermal power station viz. coal linkage from the Ministry of Coal, legal possession of site and environmental clearance. Finally, the STPCL decided (December 2009) to transfer the project to National Hydroelectric Development Corporation (NHDC) subject to the condition that entire power from the project shall be availed by State Government by executing power purchase agreement and the entire expenditure (₹ 2.17 crore) incurred on the

59 *210 MW x 80 per cent x 24 x 1,000 x 888 days / 10,00,000 = 3,580.42 MU x 10,00,000 x ₹ 0.39.*

project shall be reimbursed to the STPCL. Though NHDC conveyed (December 2009) in principle willingness to take over the project, final decision in this regard is still awaited (November 2010). Thus, the imprudent decision to take up a project for construction of the 2x600 MW thermal power plant without ensuring basic requirement of availability of coal linkage, legal ownership of site etc led to blocking up of ₹ 2.17 crore incurred on establishment and consultancy services on the project (September 2010).

The Company stated (March 2010) that it was expected that coal linkage would be provided by the Ministry of Coal and for promoting the project, Request for Qualification (RFQ) was invited (March 2007). After experiencing difficulty in obtaining coal linkage, it was decided to hand over the project to NHDC. The Company further stated (August 2010) that draft MOU for transfer of the project was sent (April 2010) to NHDC for approval but the same was pending for want of approval related to issue of equity contribution by its stakeholders i.e.; NHPC Limited (51 *per cent*) and Government of Madhya Pradesh (49 *per cent*). However, we are of the opinion that the project was promoted without ensuring basic requirement of coal linkage from the Ministry of Coal though the guidelines issued (January 2005) by the Ministry were specific that fuel linkage must be arranged before publication of RFQ to the prospective bidders for the project.

Operational Performance

2.2.25 Operations of the Company are dependent on input efficiency consisting of material and manpower and output efficiency in connection with Plant Load Factor, plant availability, capacity utilisation, outages and auxiliary consumption. These aspects have been discussed below:

Input Efficiency

Procedure for procurement of coal

2.2.26 The Central Electricity Authority (CEA) fixes power generation targets for thermal power stations (TPS) considering capacity of plant, average plant load factor and past performance. The Company works out coal requirement on the basis of targets so fixed and past coal consumption trends. The coal requirement so assessed was conveyed to the Standing Linkage Committee (SLC) of the Ministry of Energy (MOE), Government of India, which decided the source and quantity of coal supply to TPSs on quarterly basis. On the basis of linkage source approved by SLC, the Company enters into Coal Supply Agreement with collieries. However, after introduction of New Coal Distribution Policy of Government of India, SLC regime was discontinued and on 26 November 2009, Fuel Supply Agreement (FSA) was signed by the Company with respective coal companies for a fixed Annual Contracted Quantity (ACQ) for each TPS with effect from 01 April 2009.

The position of coal linkages fixed, coal received and shortfall in generation due to short receipt of coal during the period from 2005-06 to 2009-10 covering all the three TPSs of the Company was as under:

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10[60]	Total
Coal Linkage fixed (lakh MT)	138.75	144.45	156.60	165.90	150.00	755.70
Quantity of coal received (lakh MT)	121.76	117.24	120.26	139.91	136.91	636.08
Short receipt of coal (lakh MT)	16.99	27.21	36.34	25.99	13.09	119.62
Percentage of short receipt of coal (*per cent*)	12.25	18.84	23.21	15.67	8.73	15.83
Shortfall in generation due to coal shortage (MU)	34.30	0.00	39.40	1609.46	530.31	2213.47

Short receipt of coal resulted in shortfall in achievement of generation target in 2005-10 by 2,213.47 MU valued at ₹ 379.05 crore.

It would be seen from the above that the total linkage of coal during the five years fixed by the SLC/ACQ was 755.70 lakh MT for the Company. Against this, only 636.08 lakh MT of coal was received, resulting in short receipt of 119.62 lakh MT (15.83 *per cent*) of coal which contributed in shortfall in achievement of the prescribed generation targets by 2,213.47 MU valued at ₹ 379.05 crore (at the rate of ₹ 1.45 to ₹ 1.96 per unit during above period).

The Company replied (October 2010) that non-materialisation of supply of contracted quantity of coal from the coal companies resulted in shortfall of generation. As regards import of coal, it was stated that due to paucity of fund, the orders for import of 1.5 lakh MT of coal could be placed only in May 2010. We observed that for indigenous coal, the Company was dependent only on Western Coalfields Limited for its requirement of coal. The Company may explore entering into FSA with other Coal companies also for ensuring availability of required quantity of coal.

Consumption of fuel

Consumption of fuel in excess of standards resulted in loss of ₹ 454.76 crore

2.2.27 Optimum utilisation of coal & oil and ensuring its minimum consumption is of paramount importance. The records pertaining to fuel consumption of STPS during 2005-06 to 2009-10 were test checked and it was observed that:

- The actual consumption of coal was generally higher than the norms fixed by MPERC as depicted in ***Annexure-14*** for the years 2005-10. The consumption was abnormally high in case of Power House-I (PH-I) under review period. This has resulted in consumption of coal in excess of norms valuing ₹ 360.07 crore (PH-I- ₹ 219.34 crore, PH-II-₹ 82.03 crore & PH-III ₹ 58.70 crore) in the last five years which was not allowed by MPERC in tariff petition.
- Similarly the actual consumption of oil exceeded the norms fixed by MPERC as per ***Annexure-15***. The consumption was abnormally high in case of PH-I which was 3 to 4 times of the actual consumption of PH-II or PH-III. This has

60 *Annual Contracted Quantity (ACQ).*

resulted in total excess consumption of oil over the norms valuing ₹. 94.69 crore (PH-I ₹ 78.97 crore, PH-II ₹ 19.30 crore and PH-III ₹ (-) 3.58 crore) in the last five years resulting in avoidable loss to the Company.

Such high consumption of fuel was due to lower thermal efficiency and excess station heat rate. We further analysed that abnormally excess consumption of fuel by PH-I was because of its age, outdated system and very small units (5x62.5 MW). The units were commissioned in the year 1965 and are proposed to be decommissioned after completion of works of new units 10 & 11. It was further analysed that in the year 2009-10 the oil consumption across STPS was not only abnormally high as compared to norms but also as compared to its own consumption in the earlier years.

The Company stated (October 2010) that PH-I was more than 40 years old as against normal life of 25 years for a TPS and age factor was the main reason for the higher fuel consumption. It was also stated that the norms prescribed by MPERC was very stringent. The Company has submitted the petition to Electricity Appellate Authority and their decision is awaited (November 2010).

Manpower Management

2.2.28 The details of sanctioned strength, actual manpower and expenditure on salaries of the Company is given below:

Sl. No.	Particulars.	2005-06	2006-07	2007-08	2008-09	2009-10
1	Sanctioned strength	10233	10024	10176	10147	10146
2	Manpower as per the CEA recommendations[61]	5469	5602	5822	5854	6111
3	Actual manpower	6962	6787	6610	6432	6055
4	Expenditure on salaries (₹ in crore)	95.94	176.29	192.85	241.76	518.27
5	Extra expenditure with reference to CEA norms (₹ in crore) [(4/3) x (3–2)]	20.57	30.78	22.99	21.73	---

From the above table, it may be seen that the actual manpower of the Company was less against the sanctioned strength. The Company has also been successful to reduce its manpower gradually from year to year to bring it within the CEA norms.

61 *The norms for manpower for per MW in 10th plan (Hydro 1.79, Thermal 1.76) and 11th plan (Hydro 1.61 and Thermal 1.58).*

Output Efficiency

Shortfall in generation

2.2.29 The targets for generation of power for each year are fixed by the MPERC in the Tariff Order. It was observed that the Company was able to generate a total of 78,420.21 MU of power during 2005-06 to 2009-10 against a target of 92,304.06 MU fixed. This resulted in a net shortfall of 13,883.85 MU as shown in the following table:

Year	Target fixed by MPERC (MU)	Actual (MU) including auxiliary consumption	Shortfall (MU)
2005-06	16873.00	12848.63	4024.37
2006-07	17031.44	16314.01	717.43
2007-08	17159.44	15808.27	1351.17
2008-09	19323.44	16927.00	2396.44
2009-10	21916.74	16522.30	5394.44
Total	**92304.06**	**78420.21**	**13883.85**

The year-wise details of energy to be generated as per design, actual generation, plant load factor (PLF) as per design and actual plant load factor in respect of the thermal power Projects commissioned up to March 2010 are as given in ***Annexure-16***.

The details in the Annexure indicate that:

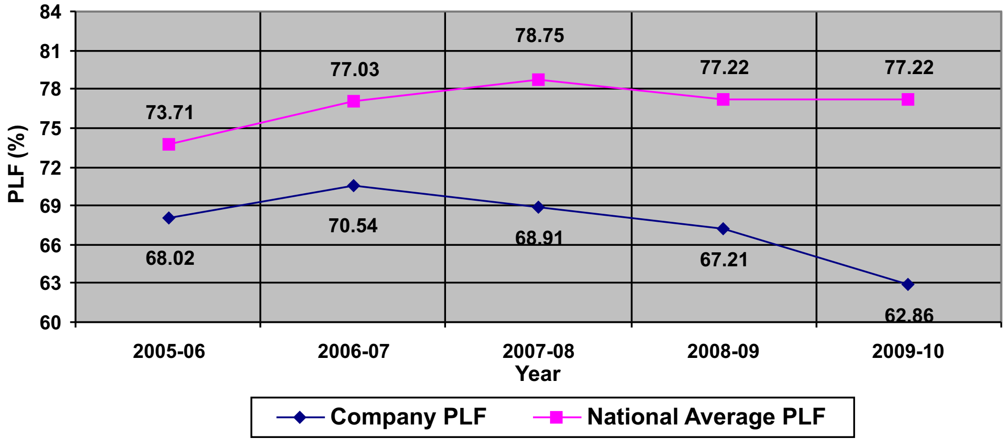
- The actual generation and actual PLF achieved were far below the energy to be generated and PLF as per design during the five years up to 2009-10.
- As against the total targeted generation of 92,304.06 MU of energy during the five years ended 2009-10, the actual generation was 78,420.21 MU leading to the shortfall of 13883.85 MU, which could have been technically produced.
- As the PLF had been designed considering the availability of inputs the loss of generation (total 13,883.85 MU) during the period 2005-06 to 2009-10 indicated that resources and capacity were not being utilised to the optimum level due to design deficiencies, frequent breakdown of units and delay in timely rectification of defects as discussed subsequently.

The Company stated (October 2010) that the shortfall in generation was mainly due to failure/non availability of various equipments, shortage/poor quality of coal etc. This indicated inadequacy on the part of Company in carrying out regular repairs and maintenance, which resulted in frequent failure of equipments.

Low Plant Load Factor (PLF)

2.2.30 Plant load factor (PLF) refers to the ratio between the actual generation and the maximum possible generation at installed capacity. According to norms fixed by Central Electricity Regulatory Commission (CERC), the PLF for thermal power generating stations should be 80 *per cent*, against which the national average were

73.71, 77.03, 78.75 and 77.22 *per cent* for 2005-06 to 2008-09 respectively. Plant Load Factor achieved by the Company for last five years is depicted in line graph below:



(National average figures are available up to the year 2008-09 only which have been adopted in 2009-10 for comparison purpose only)

The details of average realisation vis-à-vis average cost per unit, PLF achieved, average realisation at national PLF, PLF at which average cost would be recovered and the difference of PLF in *per cent* are given in the following table:

Sl.	Description	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Average Realisation (Paise per Unit)	145	154	157	164	196
2.	Average Cost (Paise per Unit)	147	157	162	187	240
3.	Actual PLF (*Per cent*)	68.02	70.54	68.91	67.21	62.86
4.	National PLF[62]	73.71	77.03	78.75	77.22	77.22
5.	Average Realisation at National PLF [1/3*4] (Paise per Unit)	157	168	179	188	241
6.	PLF at which average cost stands recovered (*Per cent*) [2/1 X 3]	68.96	71.91	71.10	76.64	76.97
7.	Difference (*Per cent*) (6 – 3)	0.94	1.37	2.19	9.43	14.11
8.	**Shortfall in generation in MU[63]**	**1074.81**	**1500.96**	**2257.34**	**2521.04**	**3774.42**

62 *National PLF as per CEA Annual Reviews of Performance of Thermal Power Stations. National PLF for 2009-10 was not available. However, PLF for 2008-09 has been considered for comparison purpose only.*

63 *Actual generation x (National PLF- Actual PLF of the Company)/Actual PLF of the Company).*

It could be seen from the above table that the estimated shortfall in generation works out to 11,128.57 MU at the national average PLF in respective years resulting in loss of contribution amounting to ₹ 356.89 crore[64].

2.2.31 Detailed analysis of the operational performance of Satpura Thermal Power Station revealed that there was shortfall in PLF (as compared to national average PLF in the respective years) ranging from 1.49 to 12.65 *per cent* resulting in a total shortfall of 2,209.82 MU generation leading to loss of contribution amounting to ₹71.91 crore in the last 5 years as per ***Annexure-17***.

Plant availability

2.2.32 Plant availability means the ratio of actual hours operated to maximum possible hours available during certain period. As against the CERC norm of 80 *per cent* plant availability during 2004-09 and 85 *per cent* during 2010-14, the average plant availability of thermal power stations ranged between 83.48 to 89.40 *per cent* from 2005-06 to 2009-10 respectively.

The details of total hours available, total hours operated, planned outages, forced outages and overall plant availability in respect of the thermal plants of the Company as a whole are shown below:

Sr.No.	Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
1.	Total hours available	148920	148920	149328	154008	158603
2.	Operated hours	124691	127312	124659	137683	136859
3.	Planned outages (in hours)	9617	10350	12307	6818	16024
4.	Percentage of planned outages (*per cent*)	6.46	6.95	8.24	4.43	10.10
5.	Forced outages (in hours)	14612	11258	12362	9507	5720
6.	Percentage of Forced outages (*per cent*)	9.81	7.56	8.28	6.17	3.61
7.	Plant availability (*per cent*)	83.73	85.49	83.48	89.40	86.29

(Source: Performance parameters of the company)

It may be seen from the above that percentage of planned outages has nearly doubled in 2009-10 as compared to 2005-06.

Auxiliary consumption

2.2.33 Energy consumed by a Power Station itself for running its equipment and common services is called Auxiliary Consumption. MPERC fixes certain norms for auxiliary consumption every year taking into account local conditions. The norms may be different for each Power House.

64 *Shortfall in achievement/Company PLF x actual generation x contribution per unit.*

Our scrutiny of the STPS, Sarni revealed that the actual auxiliary consumption in all the Power Houses exceeded norms in all the years under review except PH-II in the years 2005-06 and 2006-07. The excess auxiliary consumption has resulted in a loss of revenue of ₹ 42.15 crore.

Year-wise and Power House wise details of total generation, norms and actual auxiliary consumption etc. are given in the ***Annexure-18***. It would be seen from the Annexure that:

- Auxiliary consumption in case of PH-I and PH-III is higher as compared to PH-II in all the five years.

- The actual auxiliary consumption is on increasing trend in the last three years for all the three Power Houses. It increased from 9.04 to 10.51 *per cent* (PH-I), 8.80 to 9.59 *per cent* (PH-II) and 9.11 to 10.35 *per cent* (PH-III) during 2007-10.

The Company stated (October 2010) that during the year 2009-10 STPS had faced water crisis owing to low lake level, which resulted in poor performance as well as higher auxiliary consumption. However, the details in the Annexure revealed that higher auxiliary consumption existed during the period 2005-06 to 2008-09 also for which no remedial action was taken to bring it down within the norm.

Repairs & Maintenance

2.2.34 To ensure long term sustainable levels of performance, it is important to adhere to periodic maintenance schedules. The efficiency and availability of equipment is dependent on the adherence to annual maintenance and equipment overhauling schedules. Non adherence to schedule carry a risk of the equipment consuming more coal, fuel oil and a higher risk of forced outages which necessitate undertaking R&M works.

During the review of STPS, Sarni it was seen that each generation unit is required to shut down every year for annual overhauling (AOH) for about 20 to 30 days. Similarly, once in four years, capital overhauling (COH) is required to be done for each unit for about 35 to 45 days. This relates to repairs and maintenance works of turbine, boilers and their parts. These overhauling are part of preventive maintenance, aimed at improving/maintaining performance and to reduce outages. Every year during February/March overhauling schedule is received from the corporate office. However, AOH for two units (1 & 6) in 2005-06, one unit (9) in 2006-07, two units (1& 6) in 2008-09 and two units (4 & 5) in 2009-10 were not done even though schedules for the same were received. Similarly COH for one unit (8) of STPS, Sarni was not done in the year 2007-08.

The delayed maintenance caused continuous deterioration in the condition of machines causing forced outages besides increased consumption of oil, coal and loss of generation of power.

The Company stated (October 2010) that due to pressing power demand in the State annual overhauling of units was deferred from time to time.

Outage within 15 days of AOH/COH

2.2.35 Though the AOH and COH was carried out at STPS, Sarni except those mentioned in previous paragraph, instances of forced outages within 15 days of overhauling were noticed during the review period as shown below:

Year	Unit No.	No. of outages	Hours lost	Generation lost (in MU)
2005-06	4	9	124	14.62
2006-07	8	13	1807	148.52
2007-08	6	7	175	20.27
2008-09	7	18	296	50.04
2009-10	6	15	602	70.24
Total			**3004**	**303.69**

This indicated that the overhauling was not effective, which led to generation loss. With proper planning and execution of the overhauling schedules, the incidences of outages may reduce. The reduction in outages not only generates more electricity/improves PLF but also reduces fuel consumption.

The Company admitted (October 2010) that proper planning and supervision of overhauling work results in better performance of thermal units and the Company will make efforts to reduce the outages in future.

Gandhisagar HPS (5x23 MW)

2.2.36 During capital overhauling of the Unit along with Residual Life Assessment (RLA) studies conducted (June 2005) by Central Power Research Institute, Bangalore, defects were noticed in the Generator in Unit-III i.e; insulation condition of the stator winding and stator core were not healthy, core assembly exhibits large number of imperfections/homogeneities and 30 *per cent* of wedges exhibit slackness and became brittle due to aging.

Due to these defects the Unit was running at restricted load at 18 MW due to rise in stator winding temperature. To rectify the defect, the repair work of the generator of unit was estimated at ₹ 8.38 crore. As Rajasthan Rajya Vidyut Prasaran Nigam Limited (RVPNL) holds 50 *per cent* share in the HPS, it was approached (March 2009) for their consent to bear 50 *per cent* of the cost of repair. But the RVPNL in turn asked (April 2009) the Company (holding 50 *per cent* share) for their consent to bear 50 *per cent* of the cost for conducting R&M of Rana Pratap Sagar (RPS) HPS and Jawahar Sagar (JS) HPS estimated at ₹ 20.70 crore and ₹ 16.55 crore respectively.

As the Company did not give its consent for the proposed R&M of RPS and JS HPS to RVPNL, repair work of Unit of Gandhi Sagar HPS were not carried out so far

(September 2010) resulting in loss of generation of five MW (43.80 MU)[65] per annum.

The Company stated (October 2010) that there was no loss of generation as the water level was below Full Reservoir Level (1,312 ft) and the repair work was not carried out as RVPNL did not convey acceptance for sharing 50 *per cent* of the expenditure. However, it was noticed that though the water level in the reservoir varied from 1,270.42 ft to 1,310.84 ft during 2005-06 to 2009-10, there was generation of 24.37 MU, 93.83 MU, 84.46 MU and 23.16 MU during the years 2005-06 to 2008-09 respectively.

Tons HPS (3 x 105 MW)

2.2.37 Generator Transformer being a critical item in the generating stations, it was necessary to maintain a spare to avoid loss of generation, as in case of its failure it takes a long time to repair it. At Tons HPS, having three generating units of 105 MW each, one three phase Generator Transformer was installed at each generating unit since their commissioning in 1991/1992.

The Generator Transformers of Unit-II and III failed during the period from July 2005 to February 2006 and August 2003 to October 2003 respectively. Since there was no spare Generator available at the HPS for replacement, as a result the Company suffered loss of generation of 521.64 MU for 207 days at Unit-II and 231.84 MU for 92 days at Unit-III.

The Company belatedly noticed (September 2005) the necessity of maintaining a spare Generator Transformer after noticing heavy loss of generation and ordered (August 2006) one spare Generator Transformer from BHEL at a cost of ₹ 5.81 crore.

As per the conditions of contract, the BHEL was to supply the Generator Transformer by 31 March 2007. However the transformer was received at the site only on 13 December 2009 after a delay of more than two years attracting maximum penalty of five *per cent* of contract value i.e. ₹ 0.29 crore which was not recovered from the BHEL.

The Company stated (October 2010) that Generator Transformer being costly equipment, there was no practice to maintain a spare of it in the power station and after noticing the above failures, it was felt to have a spare and the same was procured from BHEL and commissioned (May/June 2010).

2.2.38 Capital Overhauling (COH) and Annual Overhauling (AOH) of HPS

- The Company had not carried out capital overhauling of any of the hydro power stations (except Gandhisagar HPS) during 2005-06 to 2009-10.

65. *5 x 1000 x24 x 365 / 10,00,000 = 43.80 MU.*

The Company stated (October/November 2010) that COH requires longer shut down which was not allowed due to shortage of power in the State and no specific problem was noticed in the units. It was further stated that plants are in healthy conditions. However, we are of the opinion that COH is a preventive maintenance of plant and other capital equipments in the power station to prevent any major break down which may lead to heavy loss of generation. Thus the company should have undertaken COH as per schedule.

- AOH was not done in different HPS as indicated in the ***Annexure-19*** as per schedule resulting in forced outages due to failure of components and there was loss of generation to the extent of 168.95 MU during respective years.

  The Company stated (October/November 2010) that variation in schedule of AOH did not result in any generation loss as the available machines can utilise the stored water for generation and AOH was not taken up due to system constraints. However, the forced outages and consequent generation loss mentioned above were due to failure of equipments, which could have been avoided by timely carrying out AOH.

- In respect of Rajghat, Tons and Bansagar HPS, even after carrying out AOH from May 2006 to July 2009, there were subsequent forced outages within six months ranging from 73 hours to 720 hours due to failure of components resulting in loss of generation of 344.52 MU as shown in ***Annexure–20.*** This indicated that AOH though done was not effective.

Financial Management

2.2.39 Efficient fund management is the need of the hour in any organisation. This also serves as a tool for decision making, for optimum utilisation of available resources and borrowings at favorable terms and at appropriate time.

The power sector companies should, therefore, streamline their systems and procedures to ensure that:

- Funds are not locked up in idle inventory ,
- Outstanding advances are adjusted/recovered promptly,
- Funds are not borrowed in advance of actual need, and
- Swapping high cost debt with low cost debt is availed expeditiously.

The main sources of funds were realisation from sale of power, loans from State Government/Banks/Financial Institutions (FI), etc. These funds were mainly utilised for debt servicing, employee and administrative costs, and system improvement works of capital and revenue nature. Details of sources and utilisation of resources on actual basis of the Company for the years 2005-06 to 2009-10 are given below:

(Amount : ₹ In crore)

S.No	Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
Cash Inflow						
1.	Net Profit/(loss) before tax.	11.19	(30.71)	5.17	(342.80)	(644.08)
2.	Add: adjustments	170.71	482.19	460.39	512.60	858.49
3.	Operating activities	866.84	249.97	163.95	249.66	1278.04
4.	Investing activities	0	0	0	1734.39	278.57
5.	Financing activities	4206.81	780.57	1071.23	434.32	720.61
	Total	**5255.55**	**1482.02**	**1700.74**	**2588.17**	**2491.63**
Cash Outflow						
6.	Operating activities	611.17	45.67	988.49	134.64	796.90
7.	Investing activities	4642.18	813.25	834.26	1965.24	1006.93
8.	Financing activities	0	459.10	0	467.07	648.74
9.	Net increase / decrease in cash and cash equivalent	2.20	164.00	(122.01)	21.22	39.06
	Total	**5255.55**	**1482.02**	**1700.74**	**2588.17**	**2491.63**

Our scrutiny revealed that main reasons for cash deficit in the year 2007-08 was due to delay in recovery of power supply bills, heavy interest commitment on loans and heavy capital expenditure. It was observed that dependence on borrowed funds increased from ₹ 2,588.66 crore in 2005-06 to ₹ 3,140.09 crore in ₹ 2009-10. This entailed interest burden of ₹ 1,395.11 crore during the review period which increased the operating cost of the Company. Therefore, there is an urgent need to optimise internal resource generation by enhancing the PLF to national level and vigorous pursuance of outstanding receivables.

As per unbundling plan, the residual Madhya Pradesh Electricity Board was entrusted with Cash Flow Mechanism (CFM), which was introduced, vide gazette notification (June 2006). Under it, the Board was entrusted with the functions of cash flow management and debt servicing on behalf of six companies (one generation, one transmission, three distribution and one power trading). The main theme of CFM was the centralisation of the cash management functions across all the Companies with the residual Board till the cash deficit in the revenue earnings and expenditure requirements was resolved to the satisfaction of all the Companies or issue of further directives from the State Government. Once the Discoms were in the position to meet all their expenses including power purchase, pooling of the revenue earnings with the Board will not be required and the Government, by an order will terminate CFM. It was observed that though the Company was required to pay/bear interest for its payables for suppliers/coal companies, it was not being allowed interest on its receivables which were mainly due from the Board and MP Power Trading Company as discussed below:

Non realisation of receivable amount from the Board

2.2.40 Huge unrealised amounts are lying under other current assets of the Company as receivable from the Board. The outstanding amount receivable from the

Board, which was ₹ 87.31 crore as on March 2006 increased to ₹ 316.23 crore as on March 2010 as depicted below:

Year	Amount Receivable from Board (₹ in crore)
2005-06	87.31
2006-07	23.94
2007-08	388.19
2008-09	388.19
2009-10	316.23

This led to consequential loss of interest upto the minimum of ₹ 2.87 crore[66] annually.

Loss of interest of ₹1.41 crore due to delay in realisation of sales revenue

2.2.41 Energy bills are raised on the MP Power Trading Company Limited every month on 7th for the preceeding month. The bills are supposed to be paid within one month. Even though the bills are raised on trading company, the payment is being made by the Board under cash flow mechanism. However, it was observed that bill to bill payment is not being made. Payments are being released on Company's requirement for salaries, coal bills etc. as per certain priorities and adjusted against energy bills. Our scrutiny revealed that during the year 2007-08 about 2 months bills were outstanding at the end of every month. While Company was required to pay in advance for its coal purchase bills (being about 80 *per cent* of the generating station expenditure), it is not able to realise its energy bills in time resulting in a loss of interest of ₹ 1.41 crore in that year as show below:

(Amount : ₹ In crore)

Particulars	2007-08
Average monthly realisation	178.28
Average monthly billing	190.02
Average short realisation	11.74
Interest @12 *per cent* per annum for a year	**1.41**

Loss of ₹14.36 crore due to payment of penal interest/ penal charges

Non prioritisation of the Company's liabilities in Cash Flow Mechanism resulted in loss of ₹ 14.36 crore towards penal interest.

2.2.42 During the period 2005-06 to 2009-10 the Board on behalf of the Company could not repay certain loan instalments in time for which the lending agencies levied penal interest/penal charges amounting to ₹ 14.36 crore which may have been avoided if the Company's liabilities were adequately prioritised.

The Company stated (September/October 2010) that due to Cash Flow Mechanism (CFM) the Company was not able to get its full amounts of bills recovered and the CFM was being followed as per State Government notification.

66 ₹ 23.94 crore x 12 per cent per annum = ₹ 2.87 crore

Claims and Dues

Satpura Thermal Power Station

Loss of interest of ₹1.23 crore due to delay/non realisation of claims

2.2.43 During the review of claims it was noticed that there was delay in both lodging claim as well as realisation of claims as per details given below:

(i) Three rakes (having 175 wagons, total weight of 11,604.01 MT coal amounting to ₹ 1.33 crore) were missing one rake each in September, October and November 2008. The claims for above missing rakes were lodged with Railway authorities on 31 January 2009 and are pending for adjustment/realisation from Railways till date (November 2010). Non realisation of claims for missing coal wagons has resulted in blocking up of ₹ 1.33 crore for more than one and half years and consequent loss of interest of ₹ 23.94 lakh.

The Company stated (October 2010) that despite vigorous persuasions, the Railways have not settled the dues and suit will be filed before Railways Claims Tribunal for recovery of dues.

(ii) The claims for stones/shale is required to be raised on monthly basis and supposed to be settled by Western Coalfields Limited (WCL) in the next month. A review of stones/shales claims for the last five years revealed that there are delays in both preferring claims as well as their settlement. Further WCL had not settled claims from April 2007 onwards resulting in delay of more than three years. This has resulted in blocking of funds of ₹ 4.05 crore and consequent loss of interest of ₹ 99.49 lakh in the last three years.

The Company stated (October 2010) that the delays were due to process constraints and settlement of claims with WCL was being pursued.

Blocking of funds due to short receipt of coal

2.2.44 STPS receives coal from various mines of WCL. As per FSA, weight recorded by WCL Weightometer would be treated as the weight of coal for all purposes. In March 2006, the Company also installed and calibrated an advanced Weightometer. When this meter became operational, short measurement was noticed between both the weighing machines. Accordingly the Company reported to WCL regarding the short receipt of coal. The matter was reported to Weights and Measurement Authorities of the State Government, who checked the Weightometer and found that weightometer of WCL was not in order. After this WCL stopped operating their Weightometer and started to accept the weight recorded by the Company's Weightometer from December 2006.

The claim on this account amounting to ₹ 10.03 crore for short receipt of coal of 0.90 lakh MT between April 2006 and November 2006 remained unsettled.

The Company accepted the fact and stated (October 2010) that the matter was referred to Government of MP for further directions and the outcome was awaited.

Tariff Fixation

2.2.45 The Company was required to file the application for approval of Generation Tariff for each year 120 days before the commencement of the respective year or such other date as may be directed by the Madhya Pradesh Electricity Regulatory Commission (MPERC). The MPERC accepts the application filed by the Company with such modifications/conditions as may be deemed just and appropriate and after considering all suggestions and objections from public and other stakeholders, issue an order containing targets for controllable items and the generation tariffs for the year within 120 days of the receipt of the application.

The MPERC sets performance targets for each year of the Control Period for the items or parameters that are deemed to be controllable and which include

a) Station Heat Rate,

b) Availability,

c) Auxiliary Energy Consumption,

d) Secondary Fuel Oil consumption,

e) Operation and Maintenance expenses,

f) Plant Load Factor,

g) Financing Cost which includes cost of debt (interest),

h) Cost of equity (return), and

i) Depreciation.

Any financial loss on account of underperformance on targets for parameters specified in Clause (a) to (e) was not recoverable through tariffs.

The table below shows the due date of filing tariff petition, actual date of filing, date of approval by MPERC.

Year	Due date of filling of Tariff petition	Actual date of Filling	Delays in days	Date of approval of tariff
2005-06	31-07-2005	23-08-2005	23	25-01-2006
2006-07[67]	15-11-2005	16-11-2005	01	07-03-2006
2007-08	---	---	---	---
2008-09	---	---	---	---
2009-10[67]	01-11-2008	30-09-2009	299	03-03-2010

67 Multi year tariff petition.

Non achievement of physical and financial parameters fixed by MPERC led to absorption of financial loss of ₹ 8.19 crore in 2005-06 and ₹ 297.04 crore in 2006-07

From the above table it may be seen that the tariff petition for 2009-10 was filed after a delay of 299 days. It was further observed that the Company absorbed financial loss of ₹ 8.19 crore (claimed ₹ 142.00 crore and allowed ₹ 133.81 crore) and ₹ 297.04 crore (claimed ₹ 2,638.60 crore and allowed ₹ 2,341.56 crore) during the years 2005-06 and 2006-07 respectively being the differential amount of true up petition filed by the Company for the expenses claimed and expenses actually allowed. The true up orders for the financial years 2007-08 to 2009-10 was awaited from MPERC (November 2010).

The financial loss of ₹ 8.19 crore for the year 2005-06 mainly relates to the fixed charges on interest and finance, employee cost and variable charges on oil consumption disallowed by the MPERC in the true up order for the reasons indicated below:

- Company did not prove that loans drawn from PFC, REC, LIC etc were utilised for creation of assets of projects.
- The employee strength per MW was much higher as compared to CEA norms.
- Higher Station Heat Rate (3,198 Kcal/Kwhr) achieved as compared to the norm fixed (2,999 Kcal/Kwhr) by MPERC.
- Failure to carry out required renovation and modernisation works despite approving of funds for it by MPERC.
- Higher specific oil consumption at ATPS, Chachai (8.06 ml/kwh) and STPS, Sarni (3.63 ml/kwh) against norms fixed by MPERC i.e; 7.08 and 2.66 ml/ kwh.

We are of the opinion that these were prima facie controllable by timely corrective action by the Management. Similarly for the year 2006-07, the financial loss of ₹ 297.04 crore mainly related to the following:

- Shortfall in actual availability of plants against MPERC target led to short recovery of fixed charges.
- Though the units were old, the MPERC observed in the true up order that Company did not carry out Renovation and Modernisation of the plants to improve their performance.
- Shortfall in achieving PLF resulted in non- entitlement of incentive.
- Higher Station Heat Rate compared to target set by MPERC.
- Non-execution of Renovation and Modernisation works.
- Disallowance of coal cost relating to prior period.
- Disallowance of R&M expenses relating to prior period.

The Company stated (October 2010) that financial loss suffered (₹ 8.19 crore) during 2005-06 was due to non-achievement of parameters fixed by MPERC and for the loss in respect of the year 2006-07 (₹ 297.04 crore), the Company had filed an appeal before the Electricity Appellate Tribunal and its order was awaited (November 2010).

2.2.46 It was also observed that though Generating Company was required (Clause 1.9 of MPERC Regulation of 2004) to file application with the MPERC at least two months prior to commencement of commercial operation of every new Hydel/Thermal Station, there was delay of 794 days and 294 days in filing tariff petition for Madhikheda HPS Phase III (1x20 MW) and Amarkantak TPS (1x210 MW) respectively.

The Company stated (May/October 2010) that certified final project cost details of the power stations were not provided by the concerned project office in time resulting in delay in filing of tariff petition.

Environment Issues

2.2.47 In order to minimise the adverse impact on the environment, the GOI had enacted various Acts and Statutes. Madhya Pradesh Pollution Control Board (MPPCB) is the regulating agency to ensure compliance with the provisions of these Acts and Statutes in the State. Ministry of Environment and Forests (MoE&F), GOI and Central Pollution Control Board (CPCB) are also vested with powers under various statutes. The Company has an environmental wing at the corporate office.

Our scrutiny relating to compliance with the provisions of various Acts in this regard revealed the following:

Delay in registration of power projects under Clean Development Mechanism

2.2.48 To save the earth from green house gases (GHG) a number of countries including India signed the 'Kyoto Protocol' (Protocol), which was adopted (December 1997) in the Third Conference of Parties to the United Nations Framework Convention of Climate Change (UNFCCC). Article 3 of the Protocol targeted reduction of emission of GHG by five *per cent* in the developed countries. UNFCCC has set the 'standard' level of carbon emission allowed for a particular industry or activity. The extent to which an entity is emitting less carbon (as per standard fixed by UNFCCC), it gets credited for the same. Only those power plants that meet the UNFCCC norms and take up new technologies will be entitled to sell these credits. There are parameters set and detailed audit is done before an entity get the entitlement to sell the credit. The booking of such saving of GHG is called purchase of Certified Emission Reduction (CER), commonly called Carbon Credits. If the developed countries were unable to reduce their own carbon emissions, they could book savings of GHG in developing countries in their account by paying some money to the concerned country. This whole system is named Clean Development Mechanism (CDM).

For sale of CER, registration of the power plant is required as a CDM project with UNFCCC. The power plants that commenced operation on or after 1 January 2000 are eligible for registration by submitting request with the Designated National Authority (DNA). In India the Ministry of Environment and Forest, Government of India is nominated as DNA. However, we observed that the Company did not initiate any action for registration of its new projects commissioned during the review period (Bansagar-IV, Madhikheda, SGTPS Unit-5 and ATPS Unit-5) for registration under CDM. The ongoing projects (which are under construction) also need to be studied as to whether these can be completed as per requirement for registration under CDM.

The Ministry of Power, Government of India had also informed (January 2006) the importance of Clean Development Mechanism and also mentioned that CEA, PFC may be contacted for assistance in preparation for CDM projects. However, it was observed (May 2010) that even after a lapse of four years no progress is made either to ascertain eligibility of its existing/new projects or to register eligible projects, if any.

The Company stated (October 2010) that the projects commissioned after 2000 ie; Sanjay Gandhi TPS, Unit 5 (500 MW) and Amarkantak TPS, Unit 5 (210 MW) were based on sub critical technology and do not qualify for CDM benefits, however, action will be taken to verify their eligibility for registration under CDM. Regarding two ongoing thermal projects ie; Shri. Singaji Thermal Power Project, Khandwa, (2x600 MW) and STPS, Sarni, (2x250 MW, Units 10 & 11) it was stated that these projects do not fall under supercritical projects and CDM benefits may not be able available but action for ascertaining its eligibility for availing CDM would be initiated at appropriate time.

Air Pollution

2.2.49 Coal ash, being a fine particulate matter, is a pollutant under certain conditions when it is airborne and its concentration in a given volume of atmosphere is high. Control of dust levels (Suspended Particulate Matters – SPM) in flue gas is an important responsibility of thermal power stations. Electrostatic Precipitator (ESP) is used to reduce dust concentration in flue gases. Control of dust level is dependant on effective and efficient functioning of ESPs.

2.2.50 As per the Air (Prevention and Control of Pollution) Act, 1981, Particulate Emission from Thermal Power Station should not exceed 150 mg per NM^3. We observed that average emission levels in case of Units 1 to 5 of STPS, Sarni, were 151 to 162 mg per NM^3, which were slightly higher as compared to norms during 2005-10. But in case of Units 6 to 9, the average emission of Particulate Matter in the last five years ranged from 425 to 489 mg per NM^3, which was 183 to 226 *per cent* of the permitted limit.

The main reasons for such high emission were that the Electro Static Precipitators (ESPs) in Units 6 to 9 are very old and not designed to handle such a high level of ash. The Ministry of Environment and Forests (Government of India) while according environmental clearance (February 2009) for setting up the proposed new Units - 10 and 11 had put a condition stating 'the ESPs relating to Unit 6 to 9 shall be renovated so as to ensure Particulate Emission from these Units within 150 mg per NM^3 and a time bound action plan in this regard was to be prepared and submitted within 3 months from the issue of the letter'. It was also stated that in case of the newly proposed units (10 and 11) high efficiency ESPs should be installed to ensure that the Particulate Emission does not exceed 50 mg per NM^3 as per the latest standards.

The Company stated (May 2010) that the scheme for renovation of ESPs of unit 6 to 9 is in pipeline and regarding action already taken it was stated that partial augmentation of ESPs was carried out by BHEL between the years 2003-07 and Ammonia dosing system was installed in these ESPs between the years 2005-07. However, the actual pollution level revealed that there was no improvement even after execution of these works as can be seen from the data given below:

Year	**Unit No.**	**6**	**7**	**8**	**9**
2005-06	Average emission (mg per NM^3)	574	640	601	548
2006-07	---do---	564	740	576	576
2007-08	---do---	604	687	624	611
2008-09	---do---	578	662	566	644
2009-10	---do---	617	582	561	582

The Company stated (October 2010) that further improvement in ESP emission can be achieved by increasing the size of existing ESPs but due to space constraints, installation of additional ESP fields was posing problems and remedial action in this regard is under study by the BHEL.

Ash disposal

2.2.51 Annual generation of fly ash from the TPSs of the Company was around 37.65 lakh MT to 44.11 lakh MT. Ministry of Environment & Forest (MoE&F) issued a notification (September 1999) which provided that every thermal plant should supply fly ash to building material manufacturing units free of cost at least for 10 years for the purpose of manufacturing ash based products such as cement, concrete blocks, bricks, panels or any other material or for construction of roads, embankments, dams, dykes or any other construction activity.

Our scrutiny revealed that during the review period, only 68.78 lakh MT of fly ash was disposed off against generation of total 199.69 lakh MT by the Company. Further as per MoE&F notification (November 2009) every construction agency of Central, State, Local Government, engaged in the construction of buildings within radius of 100 KMs of thermal power plant shall use only fly ash based products for construction. However, among three thermal power stations, the Company is able to dispose off almost entire quantity of fly ash of SGTPS, Birsinghpur because of location of cement factory nearby. Regarding ATPS, Chachai the disposal of ash was 3,000 MT per month against average fly ash generation of about 73,000 MT and for

STPS, Sarni it was replied (October 2010) that an agreement was entered (June 2010) with Dirk India Private Limited for supplying of fly ash (5,000 MT per month).

Noise Pollution

2.2.52 Noise Pollution (Regulation and Control) Rules, 2000 aim to regulate and control noise producing and generating sources with the objective of maintaining ambient air quality. To achieve the above, noise emission from equipment has to be controlled at source, adequate silencing equipment should be provided at various noise sources and a green belt should be developed around the plant area to diffuse noise dispersion. The TPSs are required to record sound levels in all the areas stipulated in the rules referred to above.

Our scrutiny revealed that noise levels recorded by STPS, Sarni, ATPS, Chachai and SGTPS, Birsinghpur during day time in industrial areas for a period of five years up to 2009-10 ranged from 38 db to 127 db against the prescribed level of 75 db. Detailed analysis of actual noise pollution levels of all the three TPSs for the last five years revealed that noise levels of SGTPS, Birsinghpur, were within the limit and it was marginally higher (60 to 86 db) in case of ATPS, Chachai. However, in case of STPS, Sarni, though minimum noise levels were within the norms, the maximum noise levels was very high ranging from 124 db to 127 db. The Company stated (November 2010) that action is being taken to minimise the noise level during AOH of the units.

Water pollution

2.2.53 The waste water of the power plant is the source of water pollution. As per the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the TPSs is required to obtain the consent of MPPCB which *inter alia* contains the conditions and stipulations for water pollution to be complied with by the TPSs.

As per the norms prescribed by MPPCB, Total Suspended Solids (TSS) in effluents from the TPSs should not exceed 100 mg per litre. We noticed that TSS in effluent discharges from STPS, Sarni, exceeded the standards for the years mentioned against them as shown in the table below:

Year	Norms	Actual T.S.S.(mg per litre)	
		Minimum	Maximum
2005-06	100	53	145
2006-07	100	72	137
2007-08	100	80	141
2008-09	100	60	228
2009-10	100	48	240

The main reasons for exceeding TSS standards were absence of sedimentation tanks and lack of space in the ash dam for sedimentation. As both the reasons are controllable, effective and time bound steps could have avoided the non-repairable damage caused to the water bodies.

Monitoring by Top Management

MIS data and monitoring of service parameters

2.2.54 The Company plays an important role in the Madhya Pradesh economy. For such a giant organisation to succeed in operating economically, efficiently and effectively, there should be documented management systems of operations, service standards and targets. Further, there has to be a Management Information System (MIS) to report on achievement of targets and norms. The achievements need to be reviewed to address deficiencies and also to set targets for subsequent years. The targets should generally be such that the achievement of which would make an organisation self-reliant.

Presently MIS relating to operational performance of Generating stations, budget and actual expenditure on Repairs & Maintenance, status of Renovation & Modernisation of Thermal Power Stations and status of power projects under construction are being presented to Board of Directors in the form of status report during the BoD meetings generally held in every quarter. However, following vital information was not available in the status report leading to non - deliberation of the issues.

- Absorption of losses by the Company for each financial year based on true up order of MPERC relating to fixed & variable charges and analysis of the same.
- Status of filing of Tariff petition in respect of Hydel and Thermal Power stations after their commercial operations.
- Loss of Generation in Thermal power stations due to shortage of coal and remedial measures proposed.
- Delay in settlement of claims for stones/shales by the coal suppliers.
- Claims on missing coal wagons on Railways.
- Renovation & Modernisation of Hydel Power Stations.
- Comparison of operational and financial parameters with respect to target fixed or norms laid down by MPERC.
- Analysis on reasons for the loss per unit of power suffered on sale in each financial year during 2005-06 to 2009-10.

The Company replied (October 2010) that on implementation of computerised MIS, the above data would be available on line.

Abnormal delay in implementation of integrated computerised management system

2.2.55 The Board of Directors of the Company approved (December 2005) implementation of computerised MIS software with loan assistance from PFC to enable the Management to be more responsive to market requirement and use of critical information.

The Company approached (March 2007) the PFC for loan assistance of the ₹ 28 crore for the project after a delay of more than one year after the decision of the BoD. Though the PFC sanctioned the loan amount of ₹ 22.40 crore in May 2007, the Company decided to accept it in October 2007 after delay of five months. The tender was issued in April 2010 after delay of more than two years from the date of the decision of the Company to accept the PFC loan. The finalisation of the tender was still in progress (November 2010). Thus, there was an abnormal delay in implementation of the project of integrated computerised MIS, which deprived the management of critical information for decision-making. As the loan agreement with PFC stipulated completion of the project by the end of August 2010 and loan drawal to be completed by February 2011 the utilisation of the loan amount for the project within scheduled time has become doubtful. It was observed that these delays were mainly due to non continuity of the project work which was hampered because of transfer/retirement of officials involved in the project work and lack of initiative to post substitute against these vacancies in time, which were prima facie avoidable.

The Company stated (October 2010) that Telecommunication Consultant India Limited was appointed (January 2010) as a consultant for implementation of MIS project and techno commercial offers of two bidders were opened (August 2010) and the price bids will be opened after receipt of the technical evaluation report from the consultant, which was expected in November 2010. It was stated that the project was scheduled for completion in September 2011 and that the project work was hampered due to retirement of officials involved in it. However, the Company has not taken up the matter with PFC for extension of scheduled completion of the project as per loan agreement (November 2010).

Conclusion

- **Though new projects planned in the state sector were commissioned within the review period, the additions planned were not sufficient to meet the energy requirement in the State.**

- **The liquidated damages imposed as per the contracts with BHEL were inadequate, as the same could not even cover the loss suffered by the Company towards recovery of fixed costs due to delay in implementation of the projects.**

- **The Company suffered loss of generation of 2,213.47 MU during 2005-10 valued at ₹ 379.05 crore in the thermal power stations due to short receipt of coal. Further, consumption of coal and fuel oil in excess of norms fixed by MPERC resulted in loss of ₹ 454.76 crore during 2005-2010.**
- **The PLF of the Company remained less than national average PLF during review period and declined continuously from 70.54 *per cent* (2006-07) to 62.86 *per cent* (2009-10). This adversely affected the operational performance of the Company.**
- **The Company could not achieve the targets set by MPERC in respect of quantum of generation and auxiliary consumption (in respect of STPS, Sarni).**
- **The Company did not adhere to Annual and Capital Overhauling schedules adversely effecting the performance of the Company.**
- **There were delays in realisation of dues on account of sales, claims for stone/shales, missing wagons etc. adversely effecting the financial position of the Company.**
- **On the environment side, the Company did not adhere to the provisions of various statutes and norms as prescribed resulting in adverse impact on the environment.**
- **Monitoring by top management was deficient to the extent of non deliberation of certain vital information like absorption of losses based on the true up orders, comparison of performance with MPERC target/norms, analysis of reasons for losses etc.**

Recommendations

The Company must:

- **formulate plans for adequate capacity addition to meet the energy requirement in the State;**
- **incorporate adequate penalty clause in the contracts to avoid losses on account of delay in completion of projects;**
- **enhance thermal and fuel efficiencies through improved technology to ensure consumption of coal and fuel oil within the norms;**
- **improve operational efficiency on various parameter in order to increase PLF and achieve generation targets fixed by MPERC;**
- **ensure adherence to time schedules for Annual Overhauling, and Capital Overhauling of generating stations;**
- **ensure prioritisation of settlement of its liabilities in the cash flow mechanism besides vigorous persuasions of outstanding claims;**
- **ensure strict adherence to environmental laws thereby minimising the adverse impact on environment; and**
- **ensure adequate monitoring and discussion by top management of reasons for losses and non achievement of target/norms fixed by MPERC.**